

Appendices

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APPENDIX A- FIGURES

A-1. Vicinity Map

A-2. Project Study Area Map

A-3. Nearby STIP Projects Map

A-4. Environmental Features Map

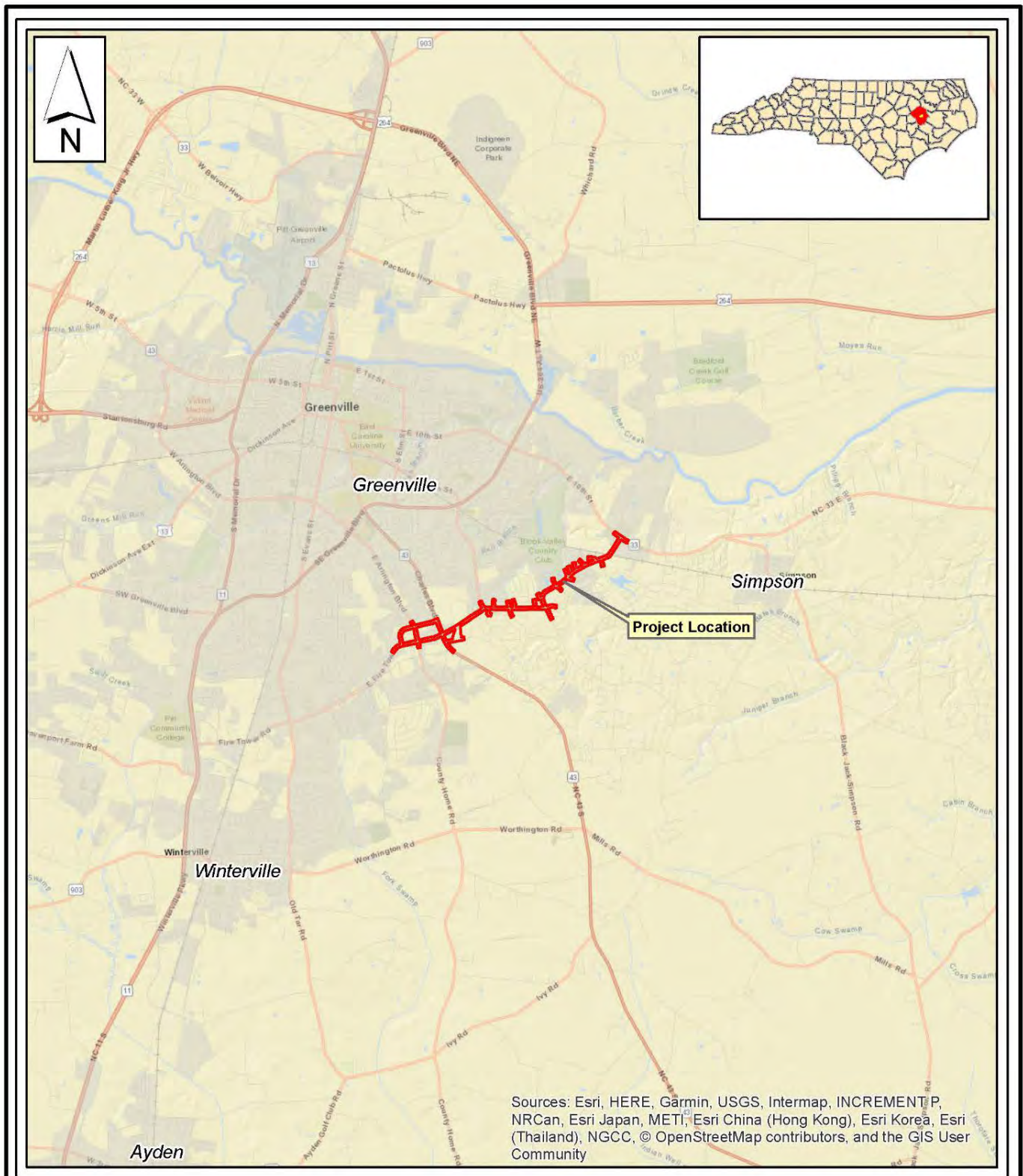
A-5. Terrestrial Communities Map



A-6. Historic Architectural Resources Map

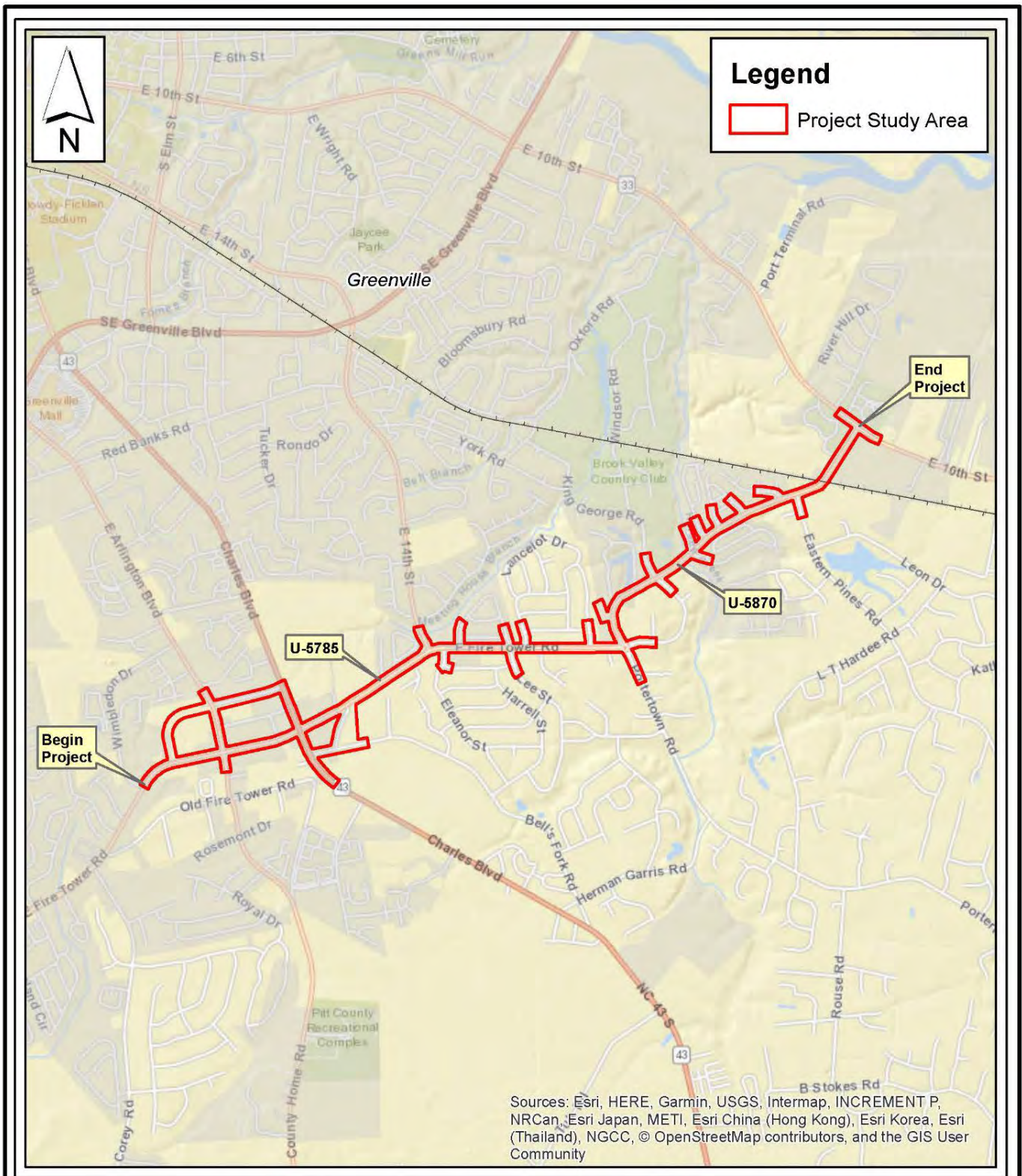
A-7. Community Context Map




A-8. Traffic Noise Map

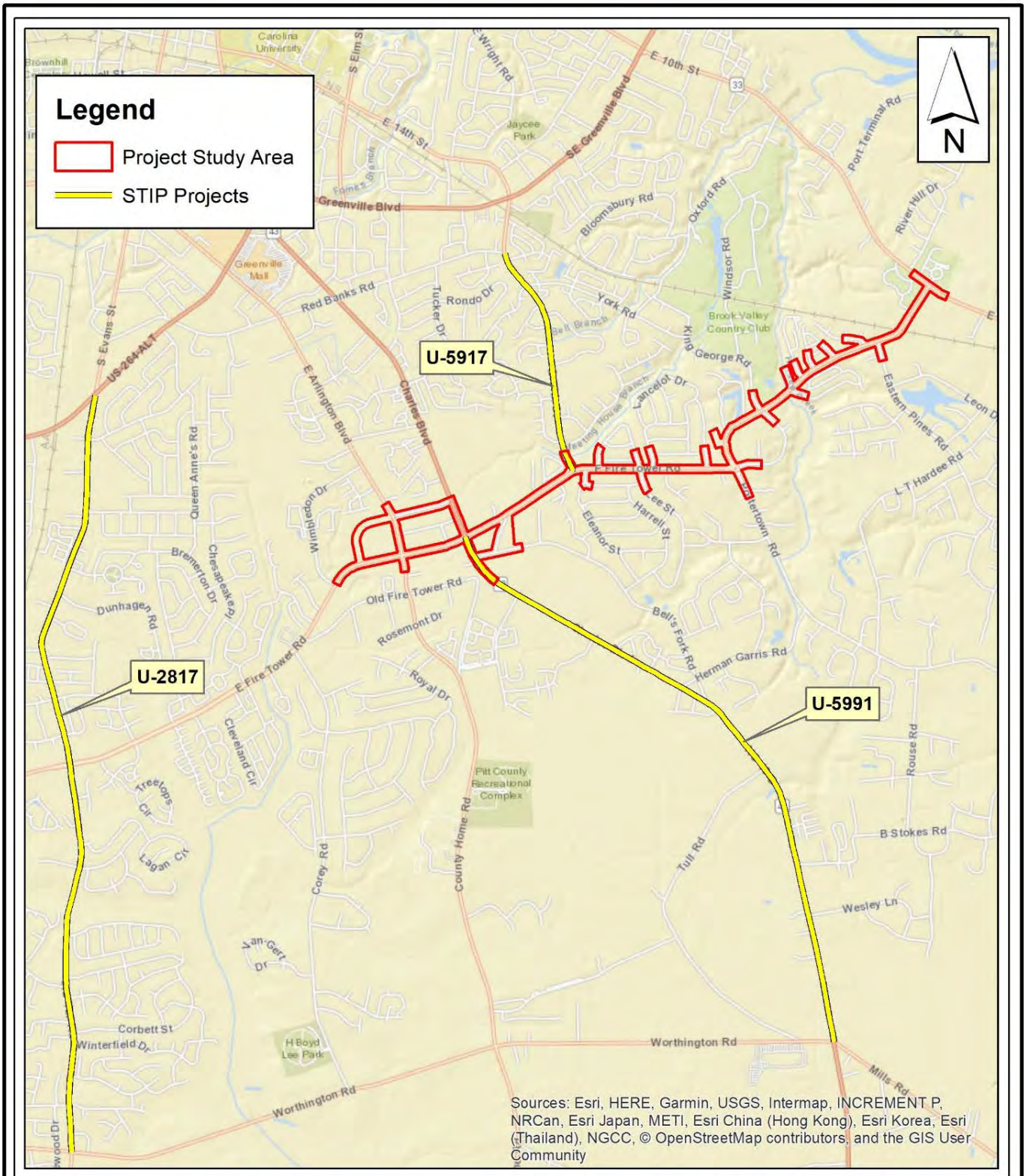
A-9. Hazardous Material Site Map




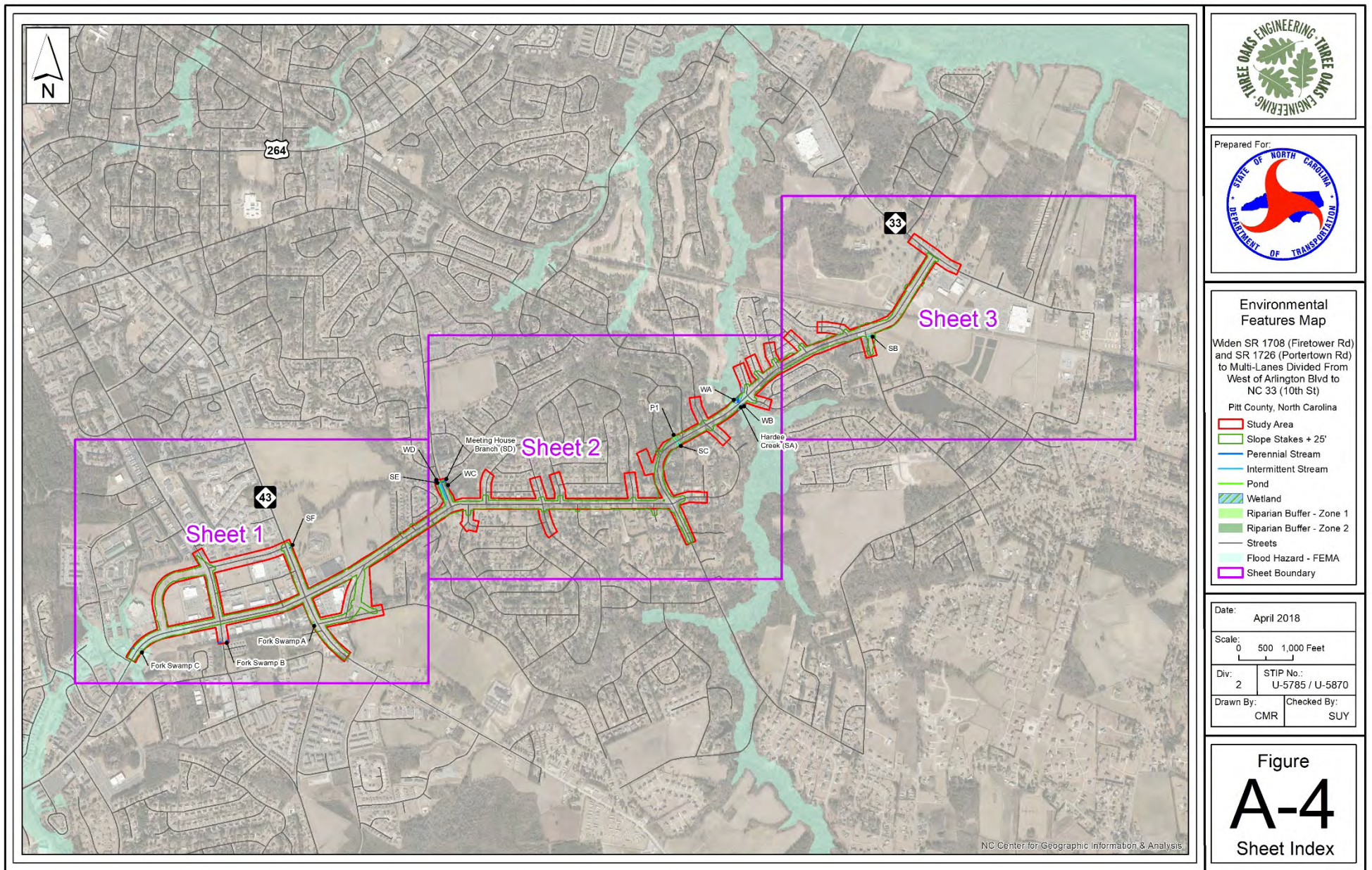
		<p align="center">Vicinity Map</p> <p>Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.</p> <p align="center">Pitt County, North Carolina</p>	<p>Date: April 2018</p>	<p align="center">Figure</p> <p align="center">A-1</p>
			<p>Scale: 0 0.5 1 Miles</p>	
<p>STIP No.: U-5785 / U-5870</p>			<p>Drawn By: CMR</p>	<p>Checked By: SUY</p>

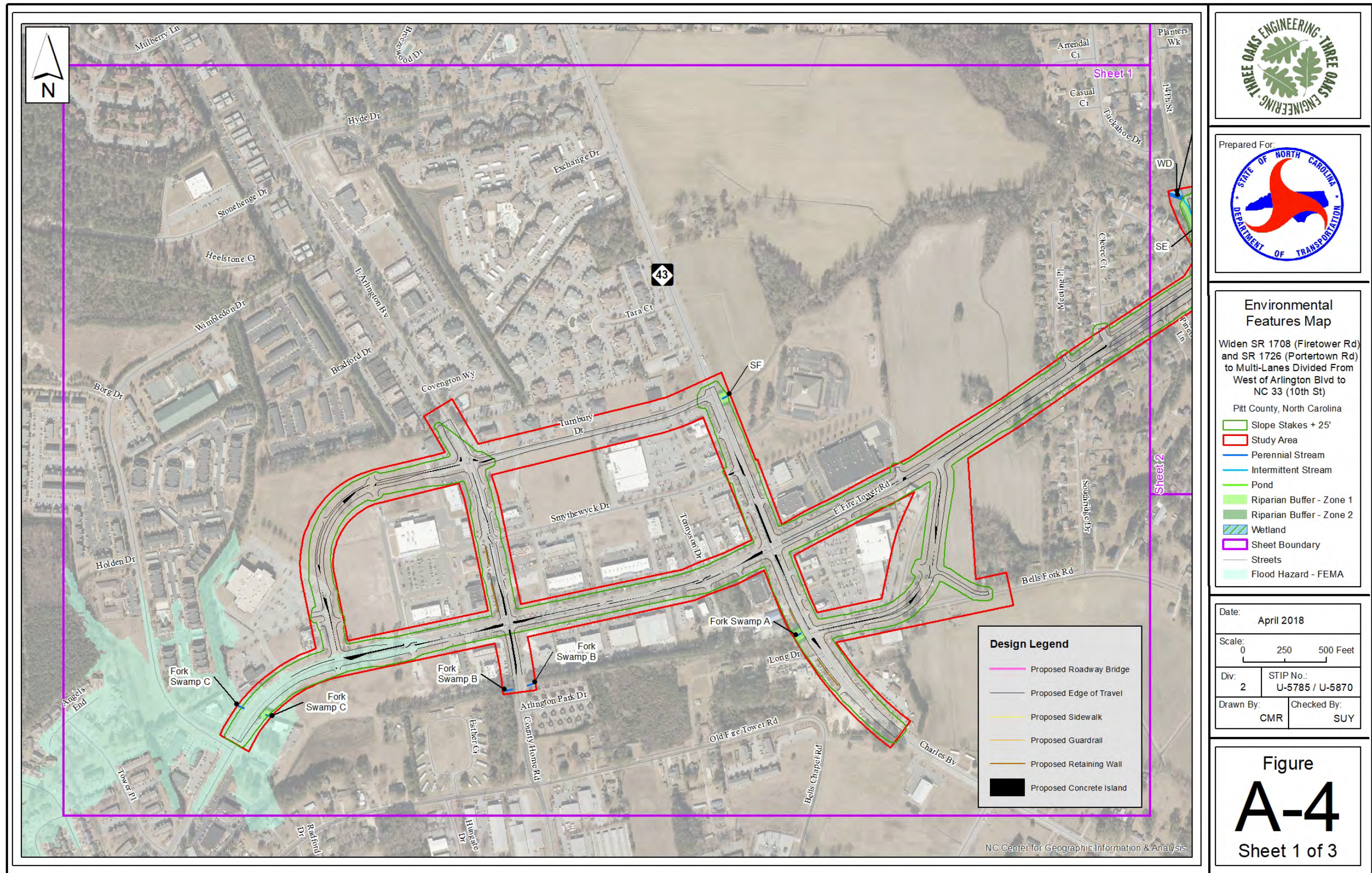


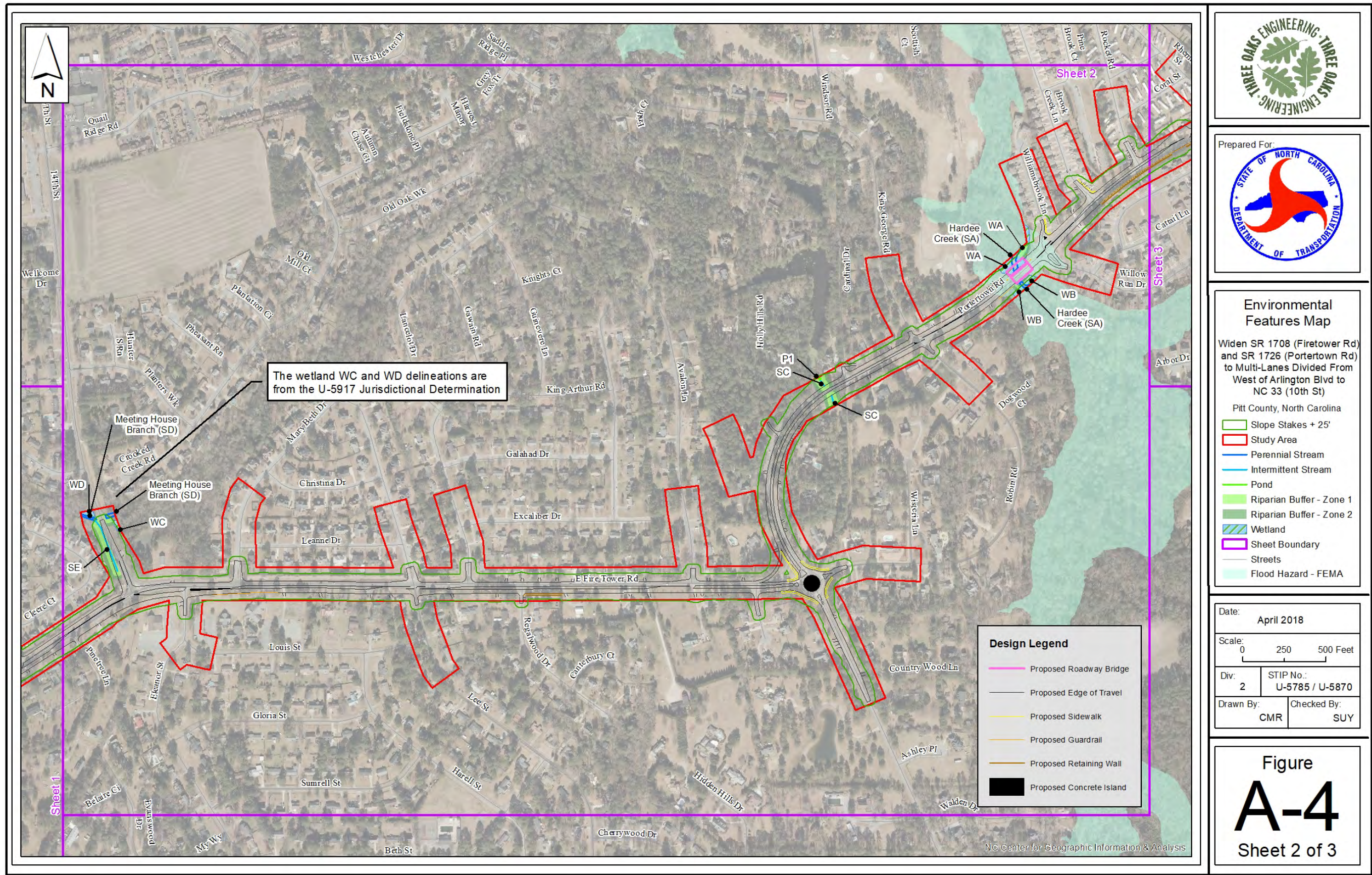
	Prepared For: 	Project Study Area Map Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville. Pitt County, North Carolina	Date: April 2018	Figure A-2
			Scale: 0 750 1,500 Feet 	
			STIP No.: U-5785 / U-5870 Drawn By: CMR Checked By: SUY	

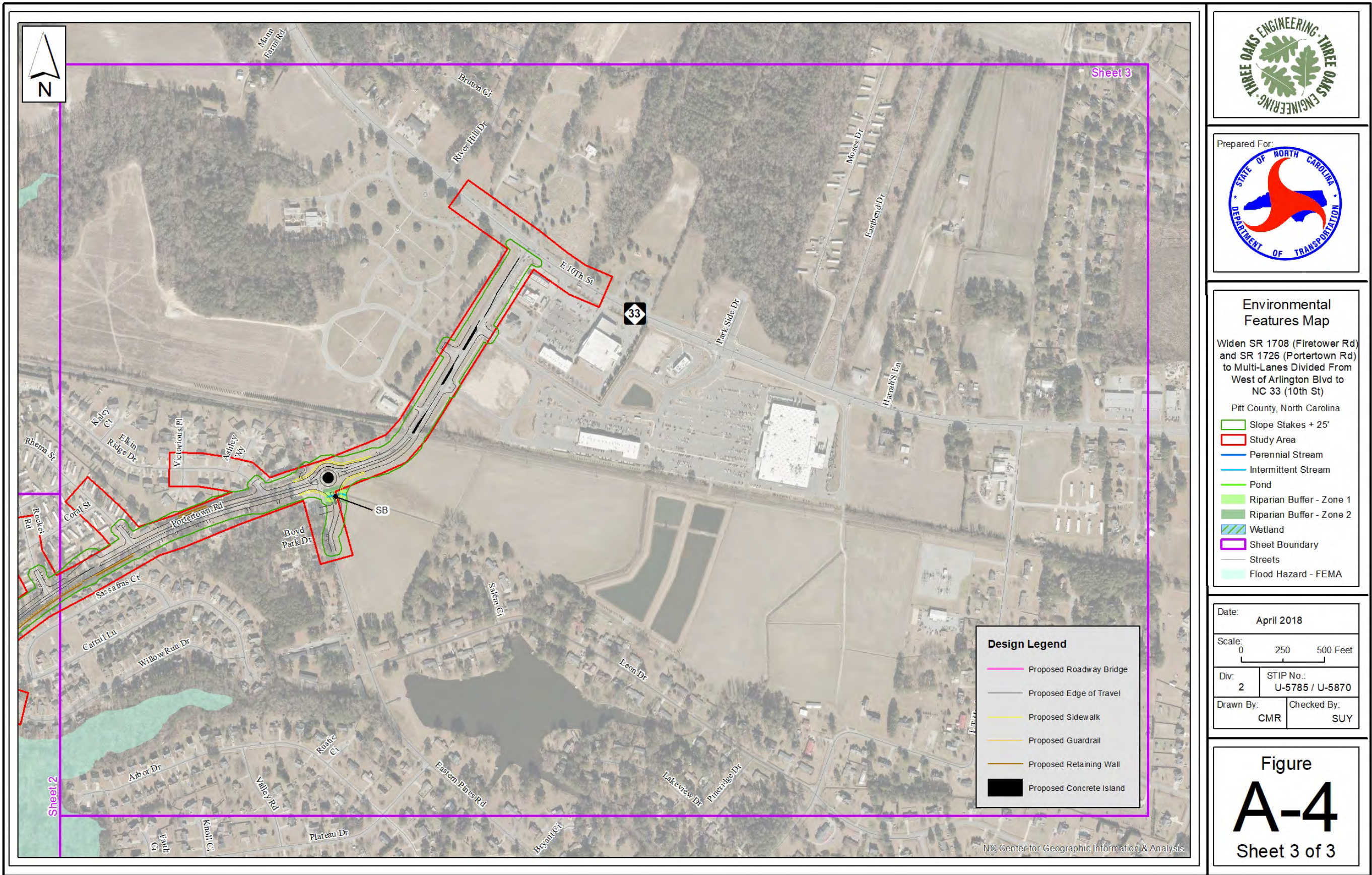


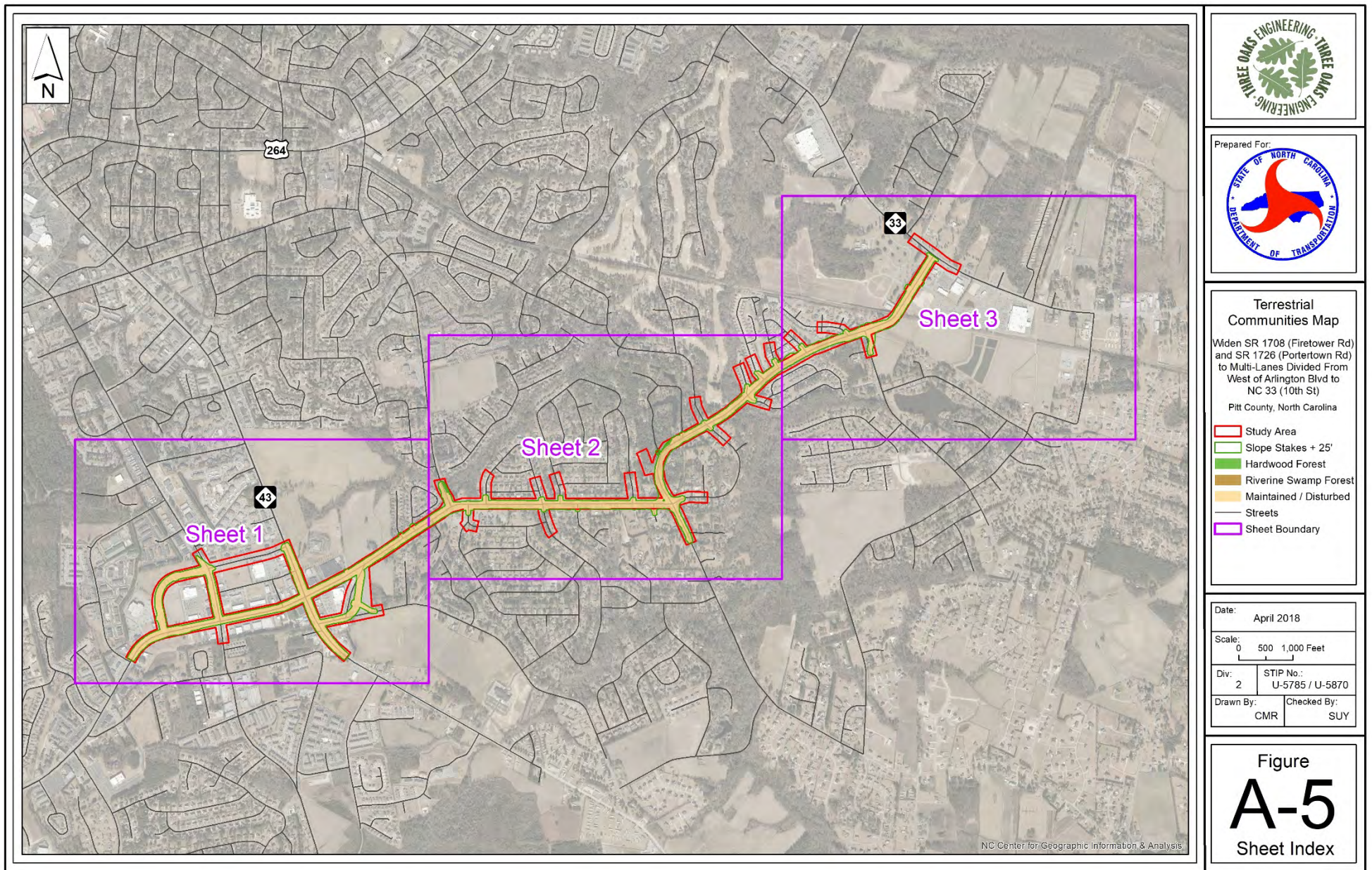
		<p>Nearby STIP Projects Map</p> <p>Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.</p> <p>Pitt County, North Carolina</p>	<p>Date: April 2018</p>	<p>Figure</p> <p>A-3</p>
			<p>Scale: 0 1,000 2,000 Feet</p>	
<p>STIP No.: U-5785 / U-5870</p>			<p>Drawn By: CMR</p>	<p>Checked By: SUY</p>

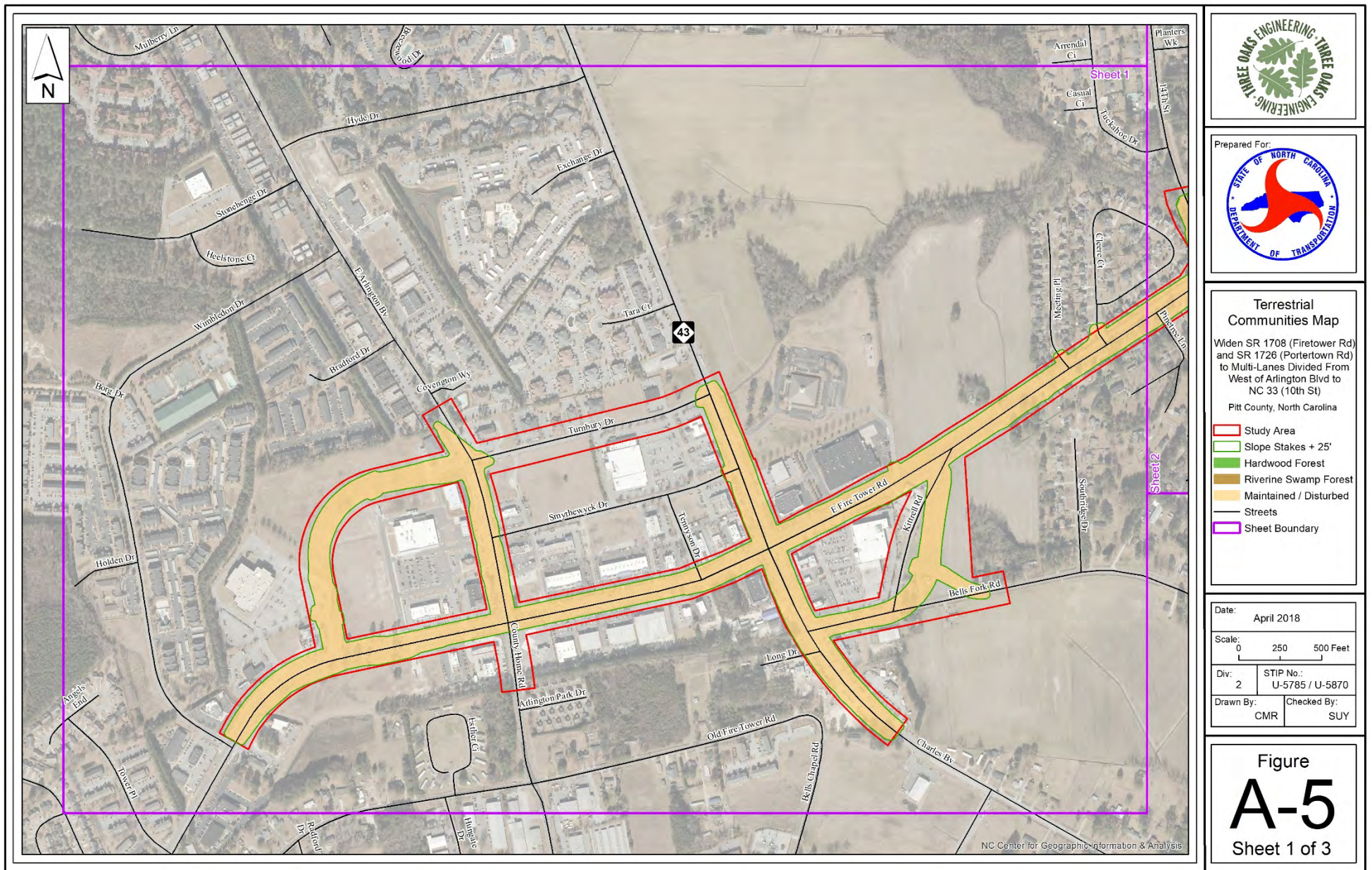


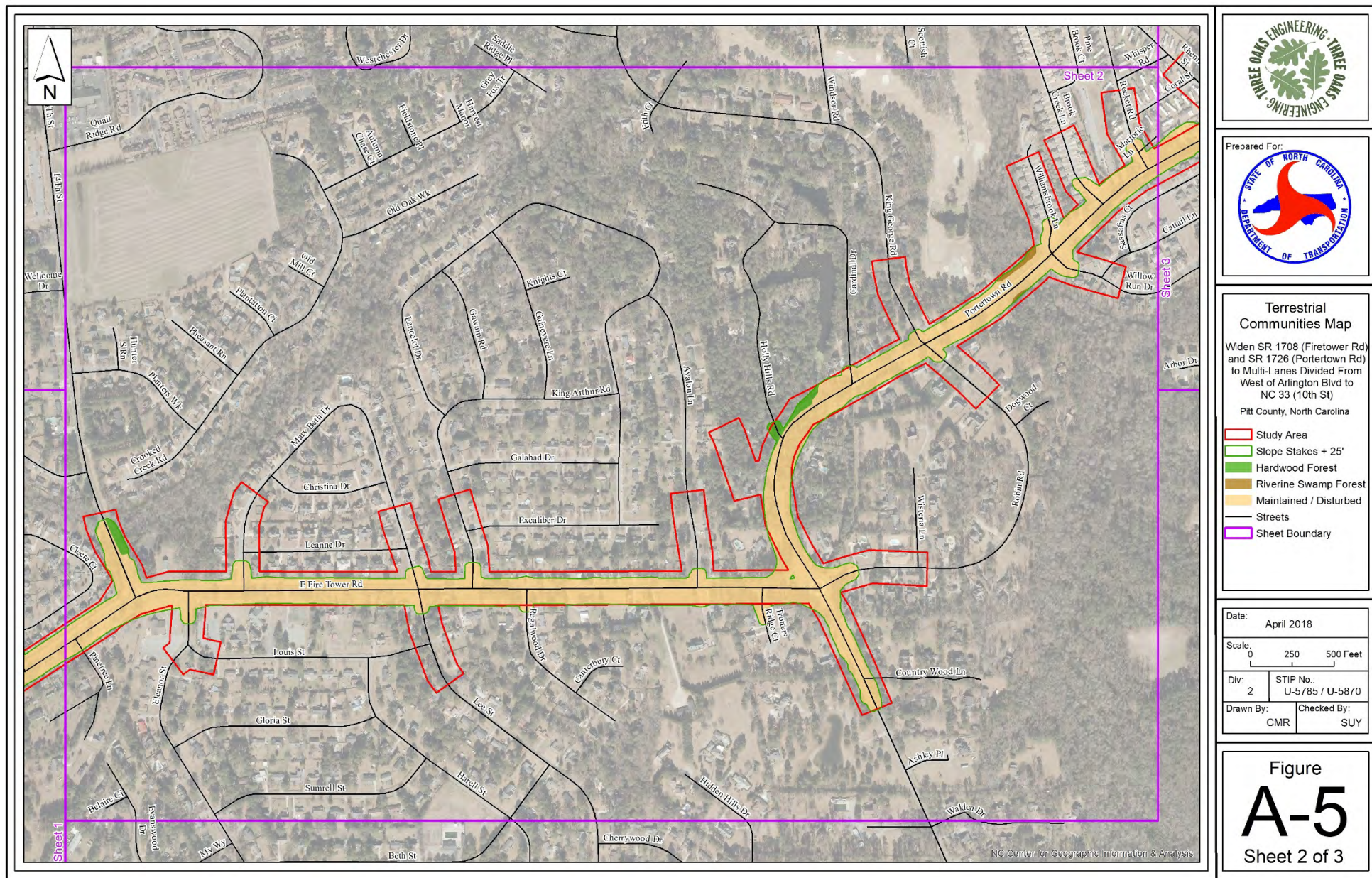


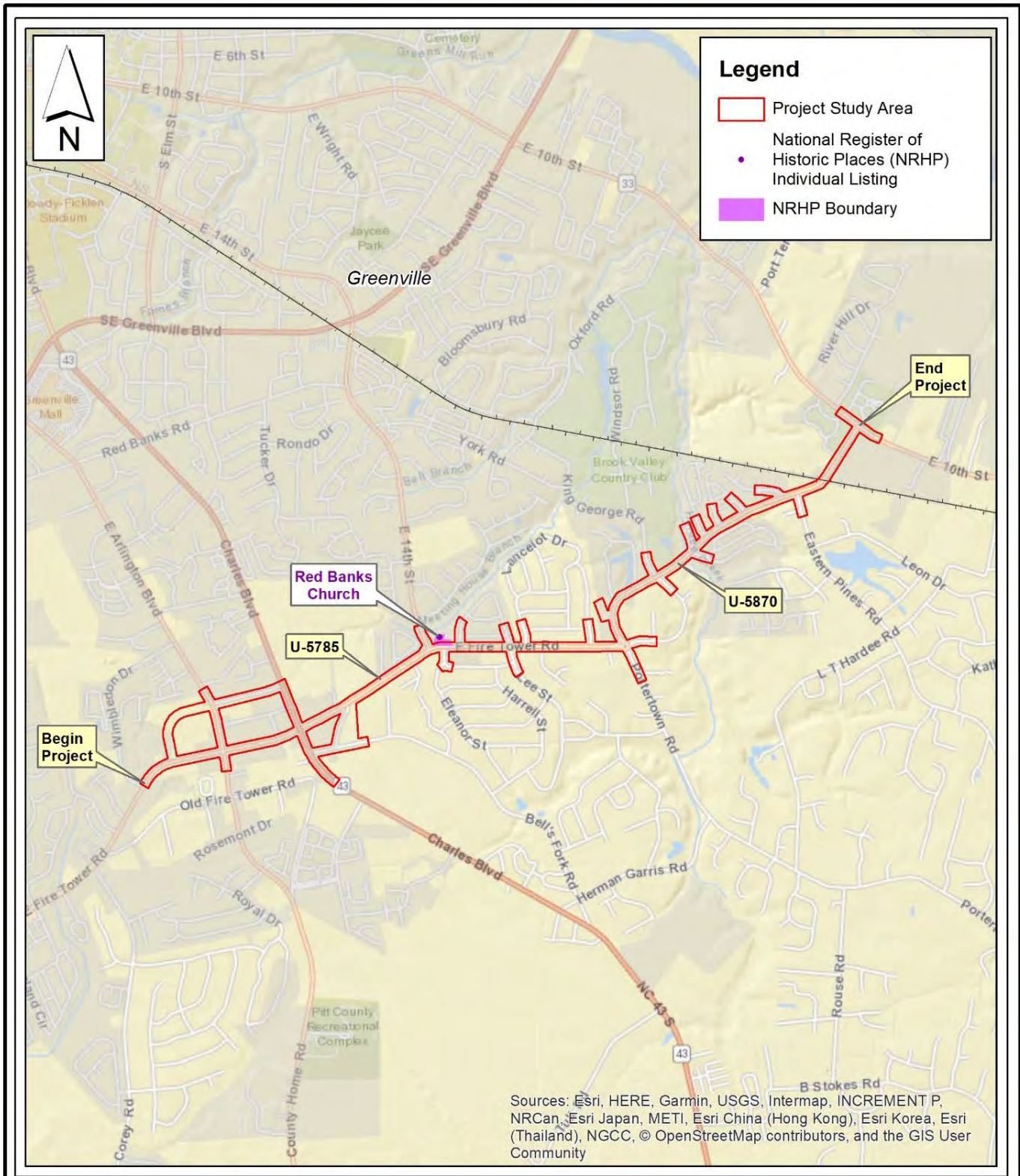




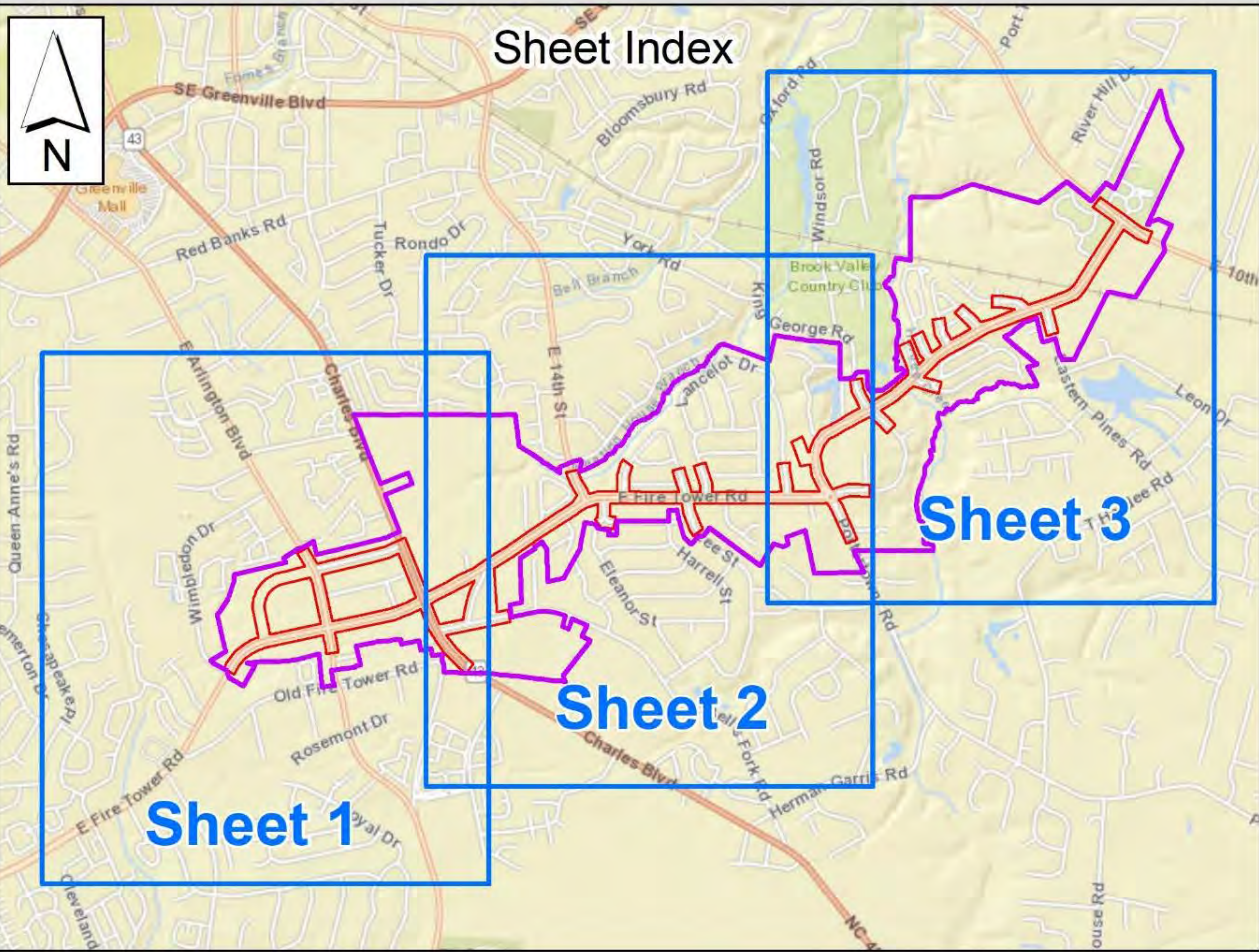








		<p>Historic Architectural Resources Map</p> <p>Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.</p> <p>Pitt County, North Carolina</p>	<p>Date: April 2018</p>	<p>Figure</p> <p>A-6</p>
			<p>Scale: 0 750 1,500 Feet</p>	
		<p>STIP No.: U-5785 / U-5870</p>	<p>Drawn By: CMR</p>	<p>Checked By: SUY</p>



Legend for Sheets

--- STIP Projects	--- Railroads	✙ Church	■ Agriculture Fields
□ Direct Community Impact Area	--- Willow Run Neighborhood Nature Trail	☆ Synagogue	■ Commercial Area
74 US Routes	--- Hurricane Evacuation Routes	✙ Cemetery	--- Streams - NHD
226 NC Routes	--- Military Commuting Routes	Bus Stops	■ Waterbody - NHD
		▲ Bridges	■ Municipal Boundaries
		□ Pitt County Tax Parcels	



Prepared For:



Community Context Map

Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.

Pitt County, North Carolina

Date: April 2018

Scale: N/A

STIP No.: U-5785 / U-5870

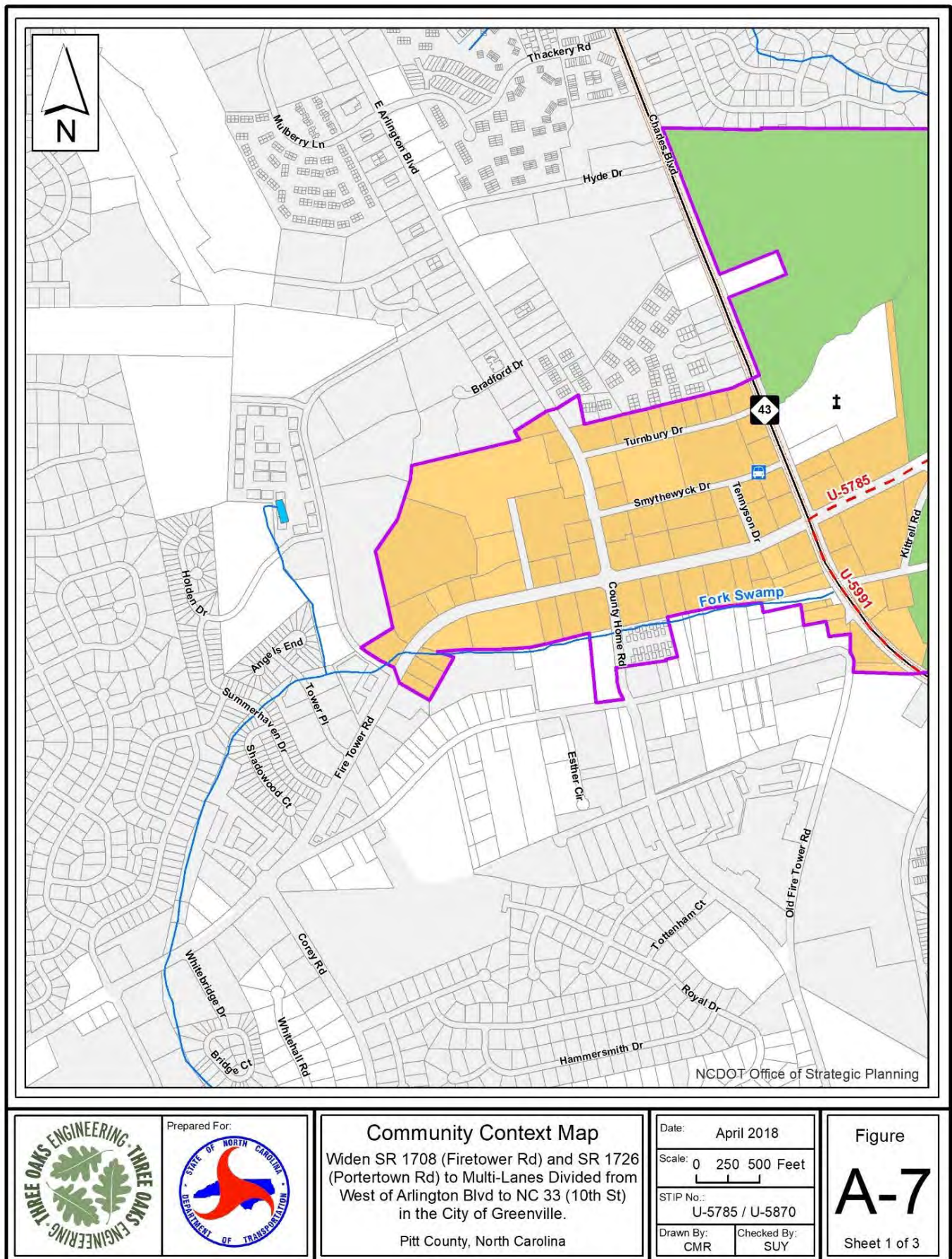
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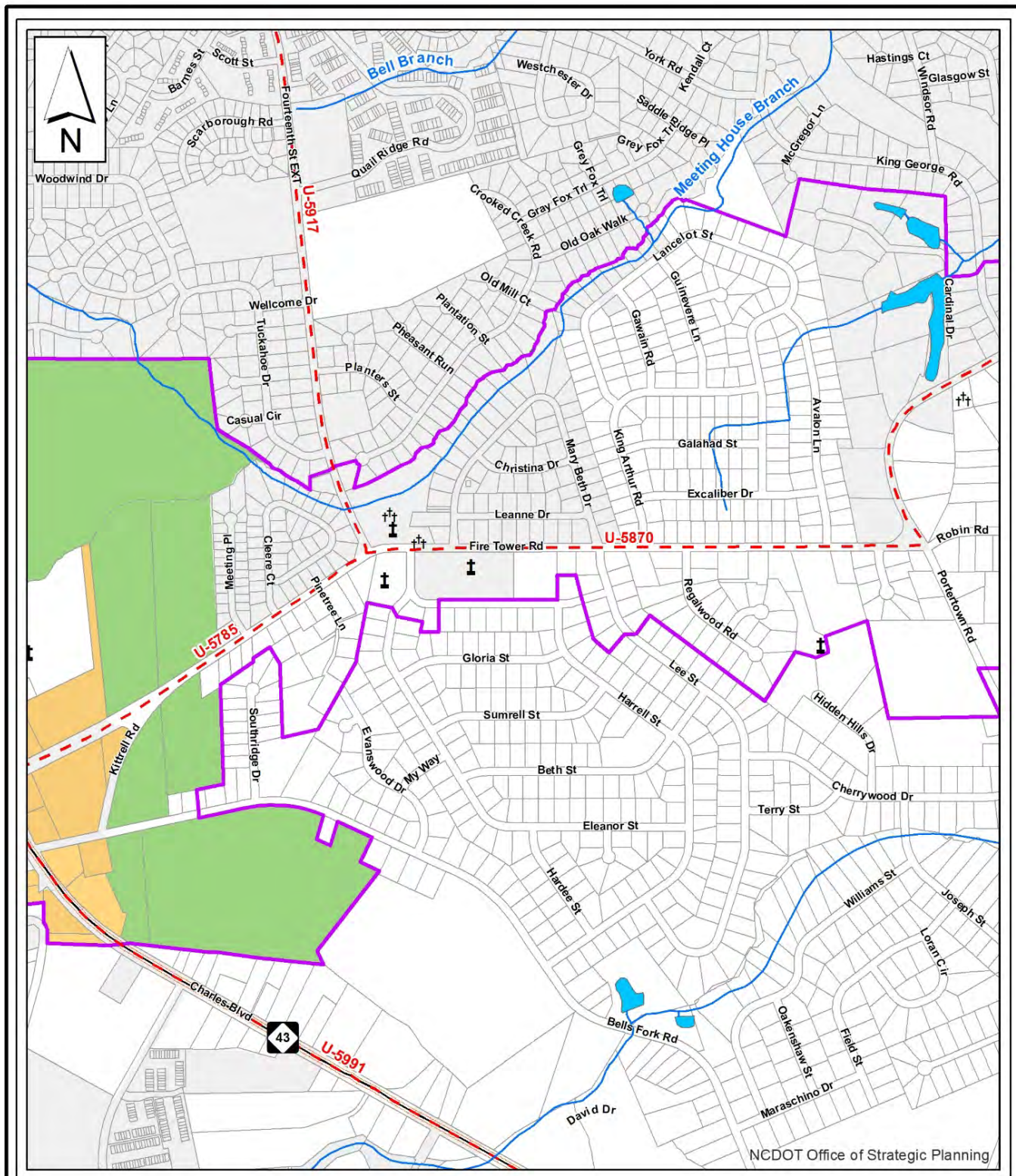
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Figure

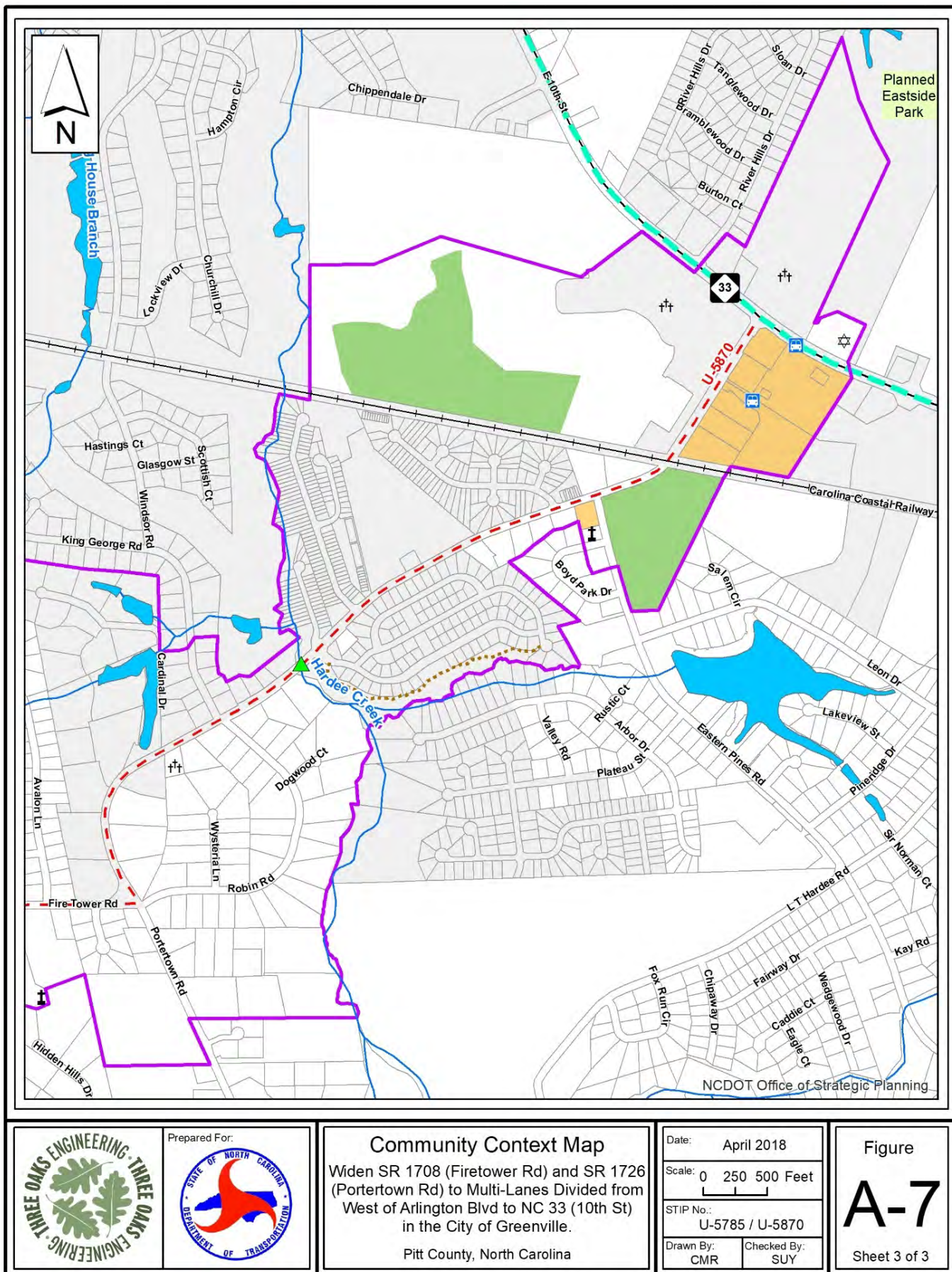
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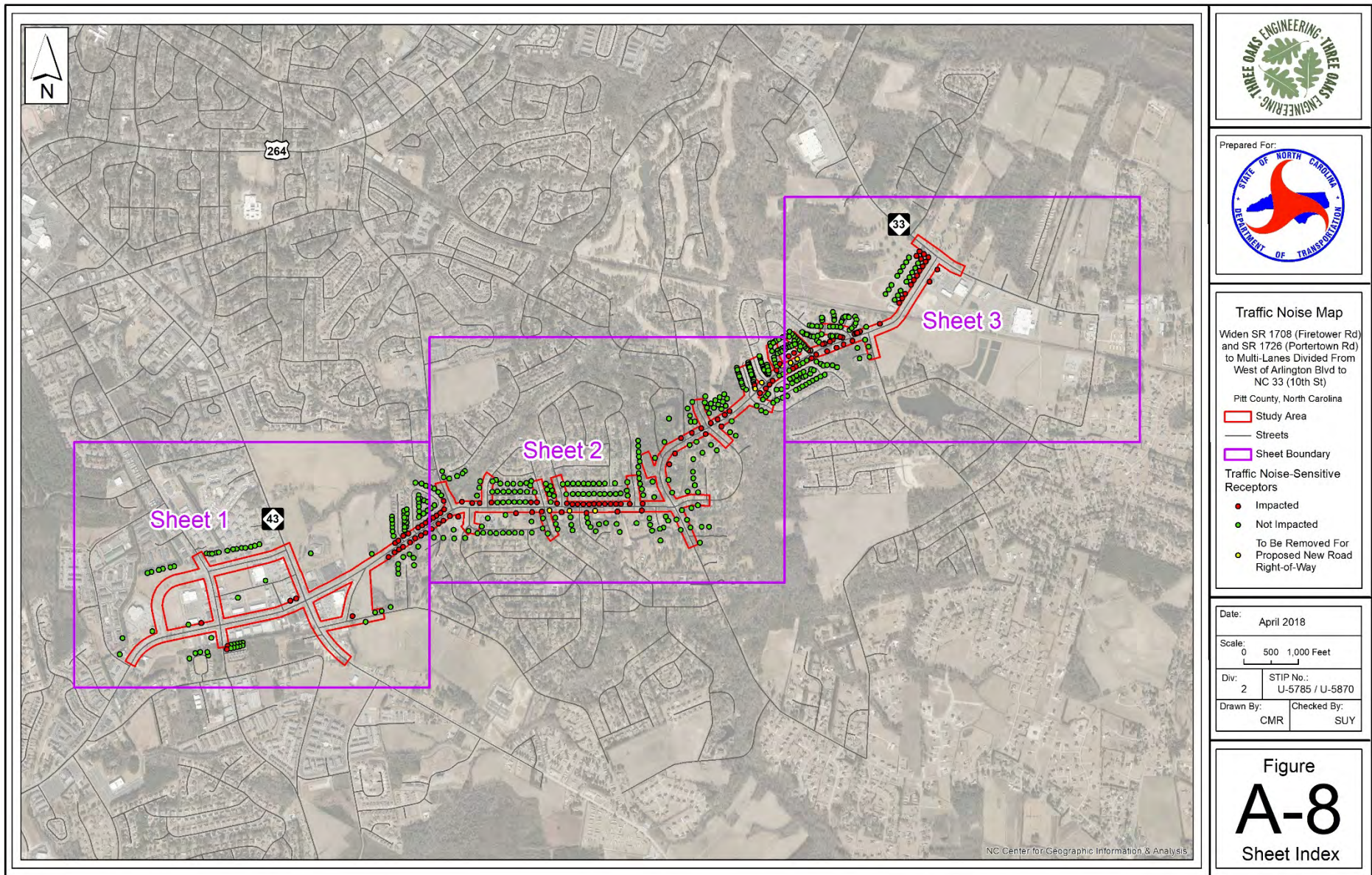
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	<p>Prepared For:</p>	<p>Community Context Map</p> <p>Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.</p> <p>Pitt County, North Carolina</p>	<p>Date: April 2018</p> <p>Scale: 0 250 500 Feet</p> <p>STIP No.: U-5785 / U-5870</p> <p>Drawn By: CMR</p> <p>Checked By: SUY</p>	<p>Figure</p> <p>A-7</p> <p>Sheet 2 of 3</p>
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Prepared For:



Traffic Noise Map

Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided From West of Arlington Blvd to NC 33 (10th St)

Pitt County, North Carolina

Study Area

Streets

Sheet Boundary

Traffic Noise-Sensitive Receptors

- Impacted
- Not Impacted
- To Be Removed For Proposed New Road Right-of-Way

Date: April 2018

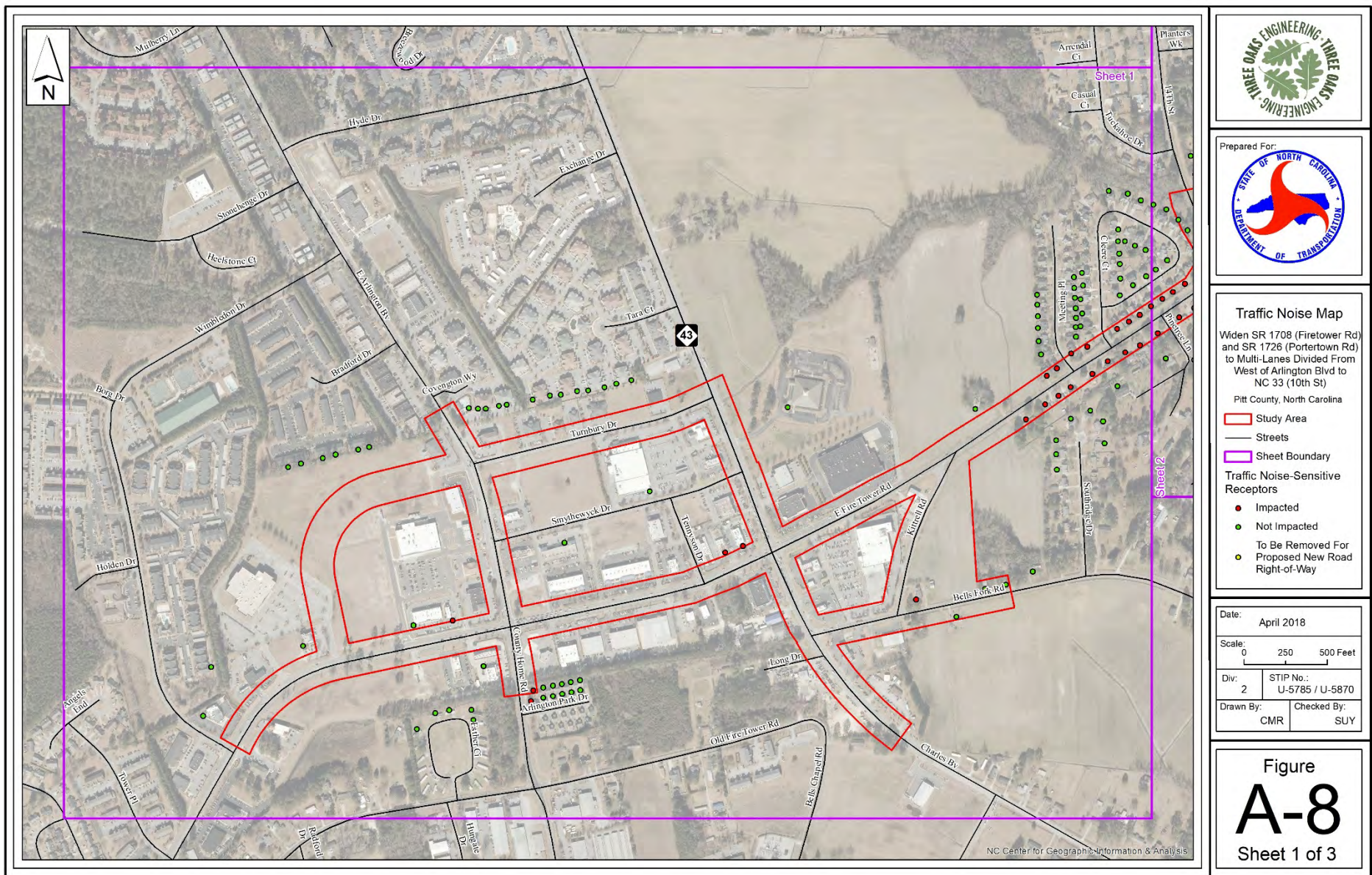
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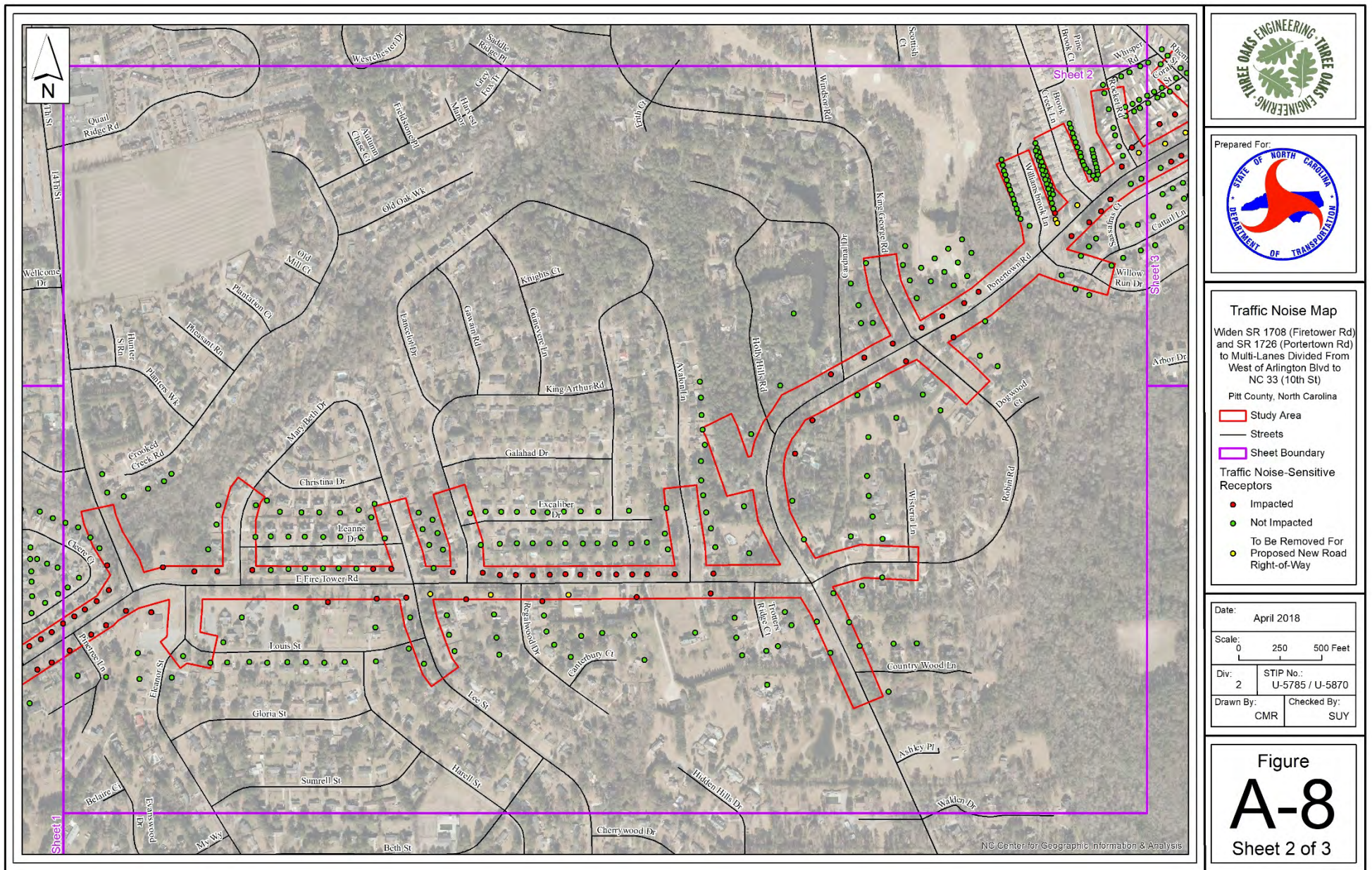
Div: 2	STIP No.: U-5785 / U-5870
Drawn By: CMR	Checked By: SUY

Figure

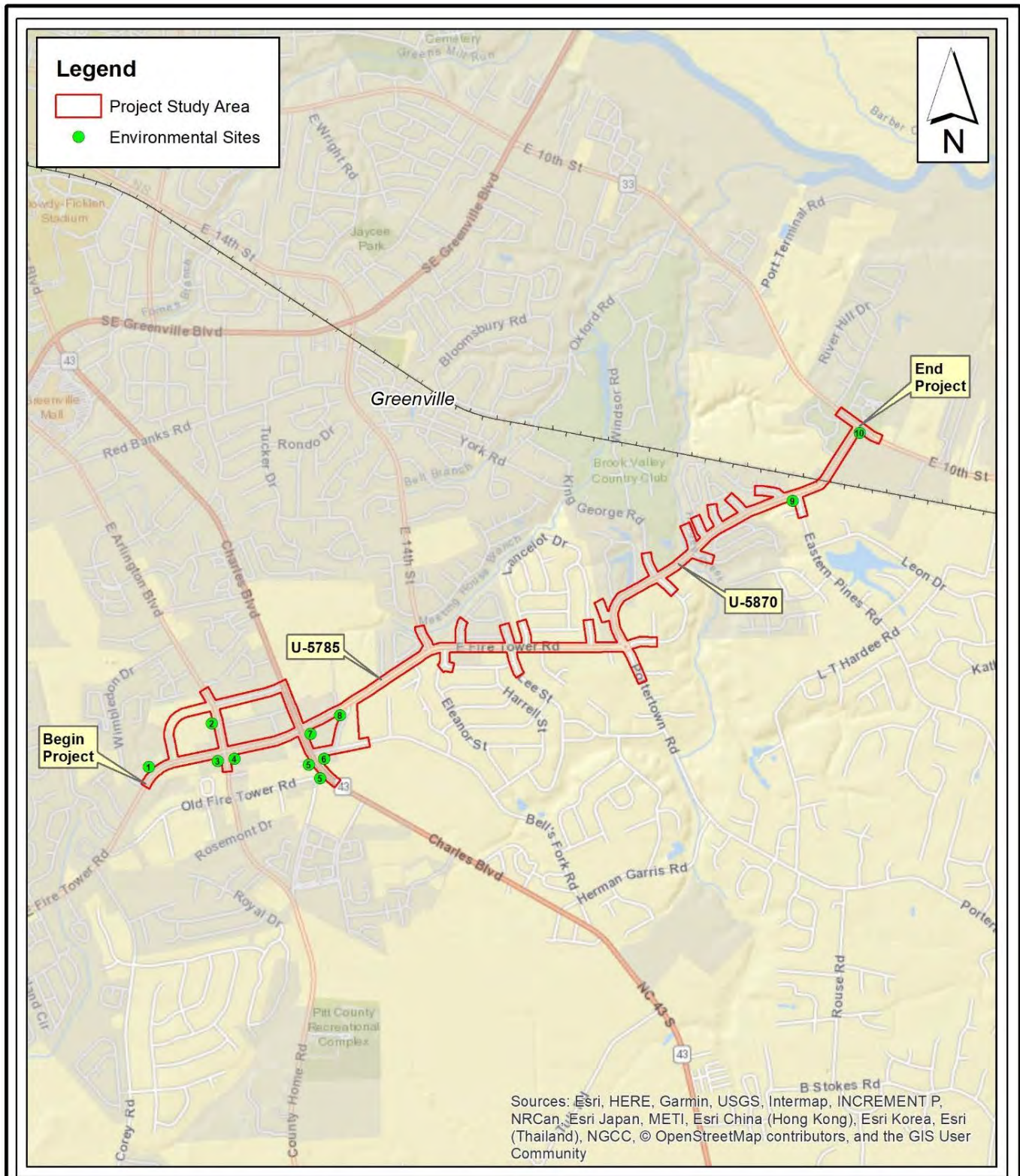
A-8

Sheet Index









	<p>Prepared For:</p>	<p>Hazardous Material Site Map</p> <p>Widen SR 1708 (Firetower Rd) and SR 1726 (Portertown Rd) to Multi-Lanes Divided from West of Arlington Blvd to NC 33 (10th St) in the City of Greenville.</p> <p>Pitt County, North Carolina</p>	<p>Date: April 2018</p> <p>Scale: 0 750 1,500 Feet</p> <p>STIP No.: U-5785 / U-5870</p> <p>Drawn By: CMR</p> <p>Checked By: SUY</p>	<p>Figure</p> <p>A-9</p>
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APPENDIX B- CULTURAL RESOURCES

B-1. Historic Architecture and Landscapes Assessment of Effects Form



HISTORIC ARCHITECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS FORM

Supersedes effects forms dated 22 August 2017 and 5 April 2018

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	U-5785 and U-5870	County:	Pitt
WBS No.:	44357.1.1 and 54046.1.1	Document Type:	
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	
Project Description: Widen SR 1708 (Firetower Road) and SR 1726 (Portertown Road) to multiple lanes from NC 43 (Charles Boulevard) to NC 33 in Greenville (no off-site detour planned).			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 6 January 2016 and yielded one NR, three SS, and no SL, DE, or LD properties in the Area of Potential Effects (APE). The comprehensive county architectural survey (1987-88) and related publication, as well as later investigations, recorded several properties in the APE noted below (Scott Power, *The Historic Architecture of Pitt County, North Carolina*, Greenville: Pitt County Historical Society, 1991, pp. 148, 150, 361). Pitt County current mapping, aerial photography, and tax information identified a mostly developed APE with predominantly residential plus some commercial and church resources (viewed 6 January 2016). Approximately 93% of the resources in the APE date from the late 1960s to the early 2010s and needed no additional investigation. The APE extends 600 feet from either end of the project termini (W- E), 700 feet along designated Y-lines (N and S), and 100 feet to either side of all centerlines (N, S, E, W) to encompass planned construction activities as currently defined (see attached).

The National Register (NR)-listed Red Banks Primitive Baptist Church and Cemetery (PT0049), the previously recorded Patsy Bell House (PT0333), (former) St. James Episcopal Church (PT0331), and John Moore House (PT0330), as well as four cemeteries, and fourteen additional resources dating from 1901 to 1965 were all verified in the field as part of an intensive-level survey of the APE conducted in May of 2016 by MdM Historical Consultants of Durham. MdM and NCDOT Historic Architecture reviewed the survey findings and determined that the June and James Ficklen, Jr. House (PT3312) (160 Holly Hills Road) warranted further evaluation and the Red Banks Primitive Baptist Church and Cemetery (PT0049) should be confirmed in its National Register eligibility; the remaining recorded resources are unexceptional or altered examples of their types. Two of the four cemeteries – the Cherry Cemetery (31PT471**) and the Hardee Cemetery (31PT462**) are represented in the state archaeological survey and are not NR-eligible. The Mills Cemetery (31PT465**), located just north of the railroad on the SE side of SR 1726 (Portertown Road), and the John Moore House (PT0330) (N side of E 10th St., west of Portertown Road) are no longer in evidence on their sites. Constructed in 2010, Bridge No. 219 is not eligible for the National Register as it is not representative of any distinctive engineering or aesthetic type. Based on a technical report prepared by MDM (November 2016), NCDOT recommended that the Ficklen House does not meet the criteria for listing in the National Register, but the Red Banks Primitive Baptist Church and Cemetery retains all the features that justify its NR eligibility, and its boundary should be expanded to include its associated cemetery to the east of the building (31PT0460**). The North Carolina State Historic Preservation Office concurred with the findings in February 2017 (see attached).

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ASSESSMENT OF EFFECTS

Property Name:	Red Banks Primitive Baptist Church and Cemetery	Status:	NR
Survey Site No.:	PT0049 and 31PT460**	PIN:	4696373379
Effects <input type="checkbox"/> No Effect <input checked="" type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect			
<u>Explanation of Effects Determination:</u> No proposed construction will occur within the National Register boundary or otherwise adversely affect any of the component built resources. All construction on Firetower Road shifted to south away from property (outside existing ROW). Construction on East 14 th Street shifted mostly to west – construction easement outside NR boundary. There remains potential for utility relocation and sidewalk installation with the existing ROW on Firetower Road.			
<u>List of Environmental Commitments:</u> 1. All access points to the church property will be preserved. 2. Protective fencing will be in place along the construction easement line prior to and during project construction. Installation of such fencing will occur in a sensitive manner, avoiding direct impacts to any and all grave sites and anomalies. 3. No storage or staging of materials and equipment will occur within the National Register boundary. 4. No traffic signal cabinet will be located within the NR boundary or at the northeast corner of Fire Tower Road and East 14 th Street. 5. If utility relocation necessitates tree-clearing within the NR boundary, additional review will be needed with NCHPO. 6. All marked and unmarked human remains with the ROW will be removed per applicable state statutes (NC GS 65 and NC GS 70) and reinterred at an appropriate site. Further consultation with the NCHPO, the State Archaeologist, and the Office of State Archaeology and coordination with NCDOT-ROW, NCDOT Division 2, and NCDOT's Archaeology and Historic Architecture Groups will be required prior to disinterment.			

SUPPORT DOCUMENTATION

☒ Map(s)
 ☐ Previous Survey Info.
 ☐ Photos
 ☒ Correspondence
 ☐ Design Plans

FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

Vanessa C. Patrick

NCDOT Architectural Historian

Deborah E. Early

22 June 2018

Date

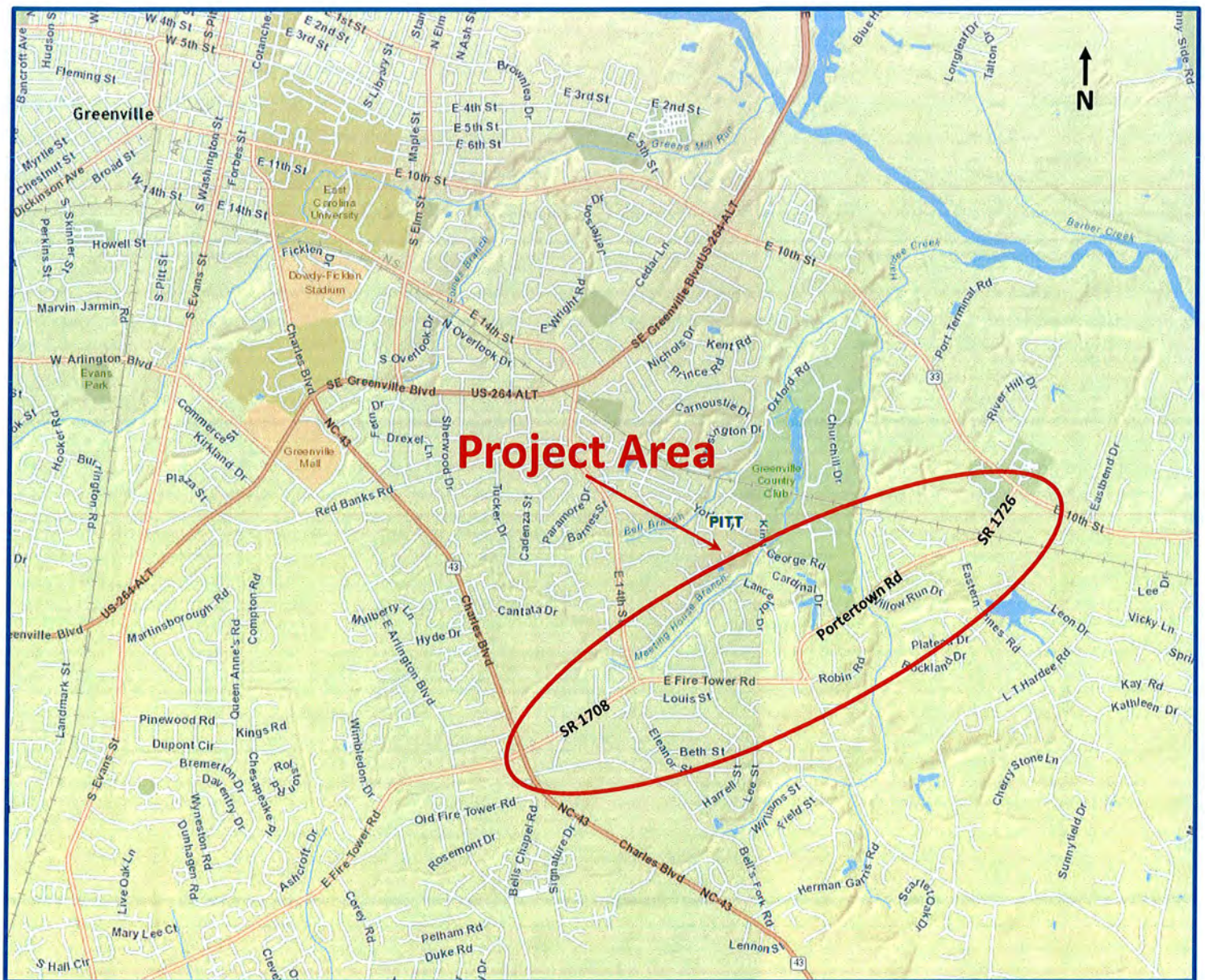
6-26-18

State Historic Preservation Office Representative

Date

Federal Agency Representative

Date



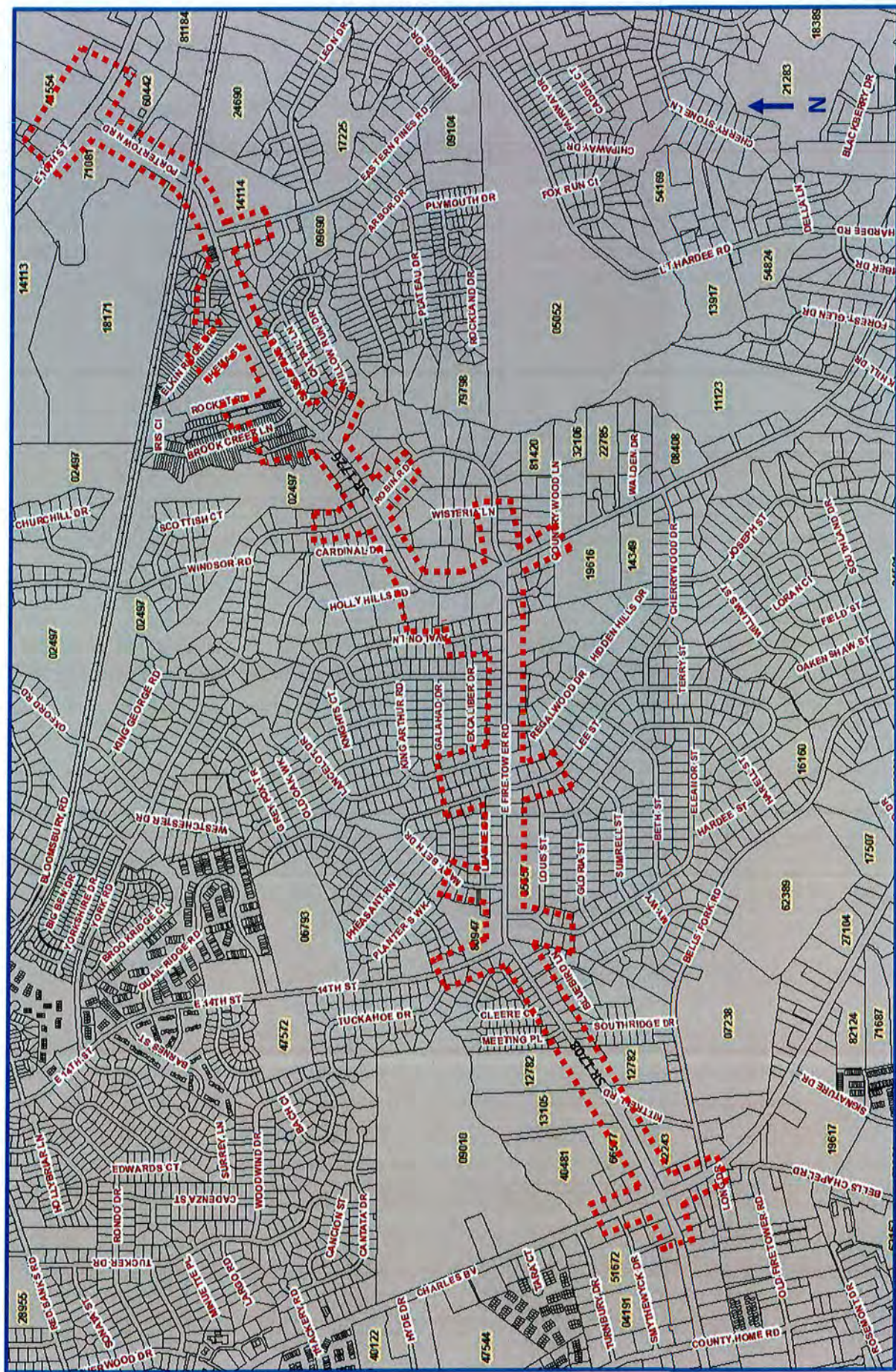
U-5785 and U-5870

Greenville

Pitt County

WBS Nos. 44357.1.1 and 54046.1.1

Base map: HPOWeb, nts



Area of Potential Effects (APE) ■■■■ U-5785 and U-5870 Pitt County

Base map: Pitt County GIS, nts



**National Register Boundary - Red Banks Primitive Baptist Church
and Cemetery (PT0049 – NR)**

#2601 East Fourteenth Street (part of) PIN: 4696373379

U-5785 and U-5870, Greenville, Pitt County

Base map: HPOWeb with ESRI aerial, nts



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

February 23, 2017

MEMORANDUM

TO: Vanessa Patrick
Human Environment Unit
NC Department of Transportation

FROM: Renee Gledhill-Earley *Renee Gledhill-Earley*
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report for Widening of Firetower Road (SR 1708) and Portertown Road (SR1726) from NC 43 to NC 33 in Greenville, PA 15-12-0031, U-5785 and U-5870, Pitt County, ER 17-0223

Thank you for your memorandum of February 2, 2017, transmitting the report for the above-referenced undertaking. We have reviewed the report and concur that the Red Banks Primitive Baptist Church (PT0049) remains eligible for listing in the National Register of Historic Places and that its boundary should be enlarged to include its associated cemetery (31PT0460**) to the east. Thus, the boundary shown on page 19 is appropriate.

We also concur that the Ficklen House (PT3312) is not eligible for listing in the National Register for the reasons outlined in the report.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, mfurr@ncdot.gov



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

Memorandum

To: Renee Gledhill-Earley
Environmental Review Coordinator
North Carolina State Historic Preservation Office

From: Vanessa E. Patrick
Architectural Historian
NCDOT - Historic Architecture

Date: March 1, 2017

Subject: *Historic Structures Survey Report, T.I.P. Nos. U-5785 and U-5870, PA No. 15-12-0031. Widening of SR 1708 (Firetower Road) and SR 1726 (Portertown Road) from NC 43 (Charles Boulevard) to NC 33 in Greenville, Pitt County. ER 17-0223.*

Thank you for your recent comments on the above report. We are pleased that you concur with the continuing National Register eligibility of the Red Banks Primitive Baptist Church (PT0049) and the expansion of its boundary to include the associated cemetery (31PT0460**).

We will consider the church at an upcoming effects consultation. NCDOT engineers are aware of its status and will provide us with more fully developed project plans and other design information when available.

As always, your help is greatly appreciated. Should questions arise, please contact me at vepatrick@ncdot.gov or 919-707-6082.

V.E.P.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
HUMAN ENVIRONMENT SECTION
MSC 1598
RALEIGH, NC 27699-1598

Telephone: (919)-707-6000
Fax: (919)-212-5785
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

APPENDIX C- RELOCATION REPORT

EIS RELOCATION REPORT

**North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM**

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

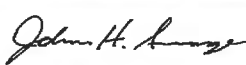

WBS ELEMENT:		44357.1.1 & 54046.1.1		COUNTY	Pitt	Alternate		1	of	1	Alternate
T.I.P. No.:		U-5785 & U-5870									
DESCRIPTION OF PROJECT:		Proposed widening of SR 1708 (E. Fire Tower Rd.) and SR 1726 (Portertown Rd) from West of E. Arlington Blvd. to NC 33 (E. Tenth St.) in Greenville									

ESTIMATED DISPLACED					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	26	5	31	0	0	0	5	4	22
Businesses	1	2	3	0					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS									
Yes	No	Explain all "YES" answers.							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Will special relocation services be necessary?							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Will schools or churches be affected by displacement?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Will business services still be available after project?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Will relocation cause a housing shortage?							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Source for available housing (list).							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Will additional housing programs be needed?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Should Last Resort Housing be considered?							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Are there large, disabled, elderly, etc. families?							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Will public housing be needed for project?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Is public housing available?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is it felt there will be adequate DSS housing housing available during relocation period?							
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13. Will there be a problem of housing within financial means?							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Are suitable business sites available (list source).							
		15. Number months estimated to complete RELOCATION? 12-18							

VALUE OF DWELLING		DSS DWELLING AVAILABLE					
Owners		Tenants		For Sale		For Rent	
0-20M	0	\$ 0-150	5	0-20M	5	\$ 0-150	6
20-40M	0	150-250	0	20-40M	28	150-250	19
40-70M	0	250-400	0	40-70M	69	250-400	28
70-100M	5	400-600	0	70-100M	94	400-600	135
100 UP	21	600 UP		100 UP	550	600 UP	330
TOTAL	26		5		746		518

REMARKS (Respond by number)	
3. There is an ample supply of unaffected businesses.	
4. See EIS Relocation Report Attached	
6. Local Realtors, MLS Service	
8. As required by law	
11. Public Housing (Pitt County)	
12. DSS housing will be made available or built if necessary	
14. Local Realtors, MLS Service	

 Right of Way Agent	3/4/2018 Date	 Relocation Coordinator	3/9/18 Date
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1

[illegible]

APPENDIX D- PROJECT SCOPING

D-1. Project Scoping Information Sheets

D-2. Summary of Scoping Comments

APPENDIX D

D-1. Project Scoping Information Sheets

PROJECT DATA SHEET

Date: 7/3/10
Rev.: 9/24/12

TIP No.: U-5785 and U-5870	County: Pitt
Federal-aid No.: State Funded	WBS No.: 44357.1.1 and 54046.1.1, respectively
NCDOT Division: 2	Scoping Meeting Date: N/A

Project Description:

- Length: U-5785 – 0.6 miles; U-5870 – 2.2 miles
- Termini (US Hwy / SR): Charles Boulevard (NC 43) to Tenth Street (NC 33)
- MPO / RPO: Greenville Urban Area Metropolitan Planning Organization (MPO)
- NEPA / 404 Merger Candidate? ☐ Yes ☒ No ☐ Unknown
- General Description of Project:

Improvements to Fire Tower Road (SR 1708) and Portertown Road (SR 1726) from Charles Boulevard (NC 43) to Tenth Street (NC 33) in Greenville, Pitt County, North Carolina.

Design Data (Existing Conditions):

- Functional Classification: Fire Tower Road: from Charles Boulevard to E. 14th Street – Minor Arterial; from E. 14th Street to Portertown Road – Major Collector Portertown Road: Major Collector
- CTP Designation (Facility Type): N/A
- Type of Access Control: None
- Typical Section: Two lanes with paved shoulders
- Right of Way:
 - Fire Tower Road from Charles Blvd. to 14th Street – 100'
 - Fire Tower Road 14th Street to Portertown Road – 60'
 - Portertown Road from Fire Tower Road to 10th Street – 60'
- Posted Speed: Fire Tower Road – 45 mph;
Portertown Road – 45 mph / 35 mph
- Structure Inventory (bridges, RCBC, Walls, etc):

Bridge crossing along Portertown Road (SR 1726) over Hardee Creek;
culverted crossing along E. 14th Street of Meeting House Branch Creek.

U-5785 and U-5870

- Other TIP Projects in the Area

STIP U-5917 proposes to widen 14th Street (SR 1704) from Red Banks Road to Fire Tower Road (SR 1708). ROW is scheduled for 2020 and construction is scheduled for 2022. The southern terminus for STIP U-5917 is within the study area for STIP U-5785.

STIP U-2817 proposes to widen Evans Street/Old Tar Road (SR 1700) from Greenville Boulevard (264-A) to Worthington Road (SR 1711). ROW is scheduled for 2019 and construction is scheduled for 2021. STIP U-2817 is located approximately two miles to the west, and parallels Charles Road (NC 43), the western terminus of STIP U-5785.

STIP B-5100 proposes to replace bridge 730421 on King George Road over Meeting House Branch, approximately one half mile north of STIP U-5870. King George Road intersects Portertown Road (SR 1726) within the study area for STIP U-5870. The project is currently unfunded.

- Railroad Involvement:

An at-grade crossing of the Carolina Coastal Railway (CLNA) is located on Portertown Road approximately one quarter mile southwest of the eastern project termini. The railroad crossing is a protected crossing that includes flashing light signals with automatic gates. The CLNA is an active short line railroad that serves agricultural facilities and industries in Eastern North Carolina; the railroad includes a connection to Norfolk Southern Railroad in Raleigh, and to CSX Transportation in Greenville.

Long Range Plan History:

The STIP projects are not listed in the Greenville Urban Area Thoroughfare Plan, however, it proposes the widening of Fire Tower Road and Portertown Road within the project study area. The development of the Greenville Comprehensive Transportation Plan (CTP) is currently underway, however, the Highway Map of the CTP has been developed and shows the majority of Fire Tower Road and all of Portertown Road within the study area as "Needs Improvement".

Traffic Data (AADT):

		Fire Tower Road (SR 1708)	Portertown Road (SR 1726)
Current Year	2012	13,000–22,000 vpd	10,000–12,000 vpd
Design Year	N/A	N/A	N/A
Source of Traffic Data:	NCDOT AADT MAP https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=a16c594d660e43428cde01de5736532e		

U-5785 and U-5870

Cost Estimates:

	Construction	Right-of-Way	Utilities	Total
TIP Estimate (dollars)				
U-5785	4,560,000	1,494,000	179,000	6,233,000
U-5870	17,556,000	5,535,000	664,000	23,755,000

Project Schedule:

Environmental Document	2017
Right-of-Way	2017
Let	2019

Initial Scoping Comments:

N/A

APPENDIX D

D-2. Summary of Scoping Comments

Scoping information sheets for the proposed project were provided to the agencies and local officials listed in the table below. Comments were directed to Maria Rogerson, PE, Project Engineer, NCDOT Division 2.

Recipient	Title	Agency	Comments Received
General Hugh Overholt	Board of Transportation Member	NCDOT Division 2	
Ferrell Blount	Board of Transportation At-Large Member	NCDOT Division 2	
James Rhodes, AICP	Director	Pitt County Planning and Development	X
Thomas Wietnauer*	Chief Planner	City of Greenville Planning Division	
Ethan Lenker	Superintendent	Pitt County Schools	
Meredith McLamb	Surfaces & Encroachments Manager	NCDOT - Engineering Coordination & Safety Branch	
Kendra Bridges	Transportation Program Consultant	NCDOT – Division of Bicycle and Pedestrian Transportation	X
Daryl Vreeland, AICP	Transportation Planner	Greenville Urban Area Metropolitan Planning Organization (MPO)	X
D. Scott Elliott, ICMA-CM	County Manager	Pitt County	
Barbara Lipscomb	City Manager	City of Greenville	X
Tom Steffens	Division 2	US Army Corps of Engineers (USACE)	
Gary Jordan	Eastern Region	US Fish and Wildlife Service (USFWS)	X
Ron Lucas	Eastern Engineer	Federal Highway Administration (FHWA)	
Brian Strong	Chief of Planning and Natural Resources	NC Division of Parks & Recreation (NCDPR)	X
Cynthia Van Der Wiele	Region 4	US Environmental Protection Agency (USEPA)	X
Garcy Ward	Washington Regional Office	NC Division of Water Resources (NCDWR)	
Shane Staples	Fisheries Resource Specialist	NC Division of Coastal Management (NCDCM)	X
Travis Wilson	Eastern Region	NC Wildlife Resources Commission (NCWRC)	X

* Comments requested through community impact assessment local outreach.

Summary of Comments Received

- Pitt County Planning** – The department was not aware of any permits or approval required through Pitt County as part of the project.
- NCDOT Division of Bicycle and Pedestrian Transportation** – The Division noted that the project area is an important corridor for bicycle and pedestrian transportation with a number of commercial establishments, churches and other community facilities, as well as medium density residential use. They noted that State Bicycle Route NC 2 (Mountains to Sea) runs on Fire Tower Road from East 14th Street to Portertown Road, and the Bicycle and Pedestrian Master Plan for the Greenville Urban Area MPO includes several bicycle and/or pedestrian improvements within the project corridor:
 - o Recommended sidewalk and new bicycle lanes for the entire length of the project
 - o Planned shared use paths in the area:

- Meetinghouse to Fire Tower will run on Fire Tower from Charles Boulevard to East 14th Street
- 14th Street Trail will cross meet Meetinghouse to Fire Tower at Fire Tower and 14th Street
- Hardee Creek will cross Portertown Road at Robin Road
- Hardee to Bells Fork Extension will cross Portertown Road at Hardee Creek.

Based on the above, the Division recommended that the project include the following accommodations for pedestrians and bicyclists:

- Sidewalks on both sides of the road, minimum 5 foot six inches, with appropriate crossing facilities and signals.
- Bicycle lanes, minimum 4 feet and preferred width 5 feet not including curb and gutter, to accommodate the State Bicycle Route and other bicycle use.

The Division also recommended working with the Greenville Urban Area MPO and City of Greenville to ensure that the designs for the project accommodate the planned shared use path facilities.

- **Greenville MPO** – The MPO recommended updating traffic counts from 2012 to the now available 2014 traffic counts. They also noted that in the “Other TIP Projects in the Area” section of the project scoping sheets, project no. B-5100 was erroneously stated as being unfunded. The project is now funded for FY 2016.
- **City of Greenville** – In response to a separate request for any transit-related recommendations, the City noted that there is a planned transit route along Fire Tower Road, but that it will *not* operate in the area of the current project. The Transit Manager noted that if NCDOT plans to improve Fire Tower Road to the west, he would like to see a bus pull out bay in front of the Salvation Army Thrift Store.
- **USFWS** – The USFWS did not have any specific concerns for the project, but recommended several general conservation measures to avoid or minimize impacts to fish and wildlife resources (e.g., avoiding and minimizing impacts to wetlands, forests, and riparian buffers; mitigation for unavoidable stream and wetland impacts; using existing crossings of streams and wetlands where possible; and implementing best management practices for stream crossings and bridge designs). The USFWS also noted that if NCDOT determines the proposed action may affect a listed species under Section 7(a)(2) of the Endangered Species Act, the Raleigh office should be notified with the determination and survey results. If the project will have no effect on listed species, NCDOT is not required to contact the office for review.
- **NCDPR** – The DPR stated they have no objections to the project.
- **USEPA** – The USEPA requested that the roadway improvements account for major stream, wetland, and Federal Emergency Management Agency (FEMA) flood zone areas along Portertown Road, and should ensure the project has the ability to withstand extreme weather events over the life of the infrastructure. The USEPA also noted that there are high percentages of individuals aged 64 and over, as well as linguistically-isolated concentrations within the immediate project area. The agency recommended that public outreach be mindful of barriers to participation

among these demographic groups and the ability to understand complex information where English is a second language.

- **NCDCM** – DCM did not see any areas where Coastal Area Management Act (CAMA) fisheries would have issues with the project. They recommended the Wildlife Resources Commission be contacted for potential impacts to inland fisheries.
- **NCWRC** – NCWRC noted that the project crosses Hardee Creek, which is a designated anadromous fish spawning area. Therefore, NCWRC recommended an in water work moratorium of February 15th to June 30th for this crossing. In addition, NCWRC noted their general information needs for complete project review, which include:
 - Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species
 - Description of any streams or wetlands affected by the project
 - Cover type maps showing wetland acreages impacted by the project
 - The extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands)
 - Mitigation for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality, as well as quantitative losses
 - A cumulative impact assessment section that analyzes the environmental effects of highway construction and quantifies the contribution of this individual project to environmental degradation
 - A discussion of the probable impacts on natural resources that will result from secondary development facilitated by the improved road access
 - If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.

APPENDIX E- PUBLIC INVOLVEMENT

E-1. Local Officials and Public Meeting Summaries

E-2. Summary of Public Comments and Responses to Comments

APPENDIX E

E-1. Local Officials and Public Meeting Summaries

SUMMARY

Fire Tower Road and Portertown Road Widening STIP Projects U-5870 and U-5785 Local Officials Meeting & Public Meeting

Thursday, September 22, 2016

Pitt County Community Schools and Recreation Building at Alice Keene Park, Greenville, NC

Local Officials Meeting: 10:00 am – 11:00 am

Public Meeting: 4:00 pm – 7:00 pm (open house format)

Attendance

Local Officials Meeting – 18

Public Meeting – 210

Local Officials

A meeting was held for local officials from the City of Greenville, Pitt County, Greenville Urban Area Metropolitan Planning Organization, and Greenville Utilities Commission. Consultant project manager, Dwayne Alligood, introduced the project team and presented an overview of the project. The attendees then watched a slide presentation about the project (the same one shown at the public meeting), viewed the project maps, and were provided the opportunity to ask questions of the project team. Most questions related to potential property impacts and relocations.

Public Meeting

An open-house public meeting was held to provide the public with information about the proposed project to widen Fire Tower Road and Portertown Road in Greenville, NC. The meeting was advertised in the local paper and on the project website (<https://www.ncdot.gov/projects/FireTowerPortertownWidening/>), and postcard announcements were mailed to approximately 1,160 nearby property owners.

A looping slide show presentation provided background information about the need for the project, the proposed design, and the project schedule. Large maps of the proposed project were on display, and NCDOT and consultant staff were on hand to answer questions and listen to input from citizens. Two NCDOT Right of Way staff were also on hand to answer questions about the NCDOT right of way acquisition process. Meeting attendees were invited to provide written comments at the meeting, through mail or email, or online via the NCDOT project website. More than 100 comments were submitted to NCDOT either at the meeting or during the following 30-day public comment period.

Media

A reporter with The Daily Reflector newspaper attended the meeting.

SUMMARY

Fire Tower Road and Portertown Road Widening STIP Projects U-5870 and U-5785 Second Local Officials Meeting & Public Meeting

Monday, July 31, 2017

Pitt County Community Schools and Recreation Building at Alice Keene Park, Greenville, NC

Local Officials Meeting: 10:00 am – 11:30 am

Public Meeting: 4:00 pm – 7:00 pm (open house format)

Attendance

Local Officials Meeting – 6 plus NCDOT staff and the consultant team

Public Meeting – 244

Local Officials

A meeting was held for local officials from the City of Greenville, Pitt County, and the Greenville Urban Area Metropolitan Planning Organization. Bill Kincannon, NCDOT Division 2 Project Development Engineer, introduced the project and the team. Consultant project manager, Dwayne Alligood, then presented an overview of changes that have been made to the project designs based on public input and more detailed data. Justin Carroll with STV explained the proposed new concept of restricting left turns at the Charles Boulevard/Fire Tower Road intersection and Arlington Boulevard/Fire Tower Road intersection and the improvements for the street network surrounding these intersections. The attendees then watched a video presentation of the corridor that showed a visualization of the proposed lane configuration on top of the existing roadway (the visualization was also shown at the public meeting). The attendees were provided the opportunity to ask questions of the project team. Most questions were related to potential impacts on access to businesses, and how traffic patterns would change.

Public Meeting

An open-house public meeting was held to provide the public with information about updated designs for the proposed widening of Fire Tower Road and Portertown Road in Greenville, NC. The updated designs include improvements to the adjacent Charles Boulevard/Fire Tower Road intersection and Arlington Boulevard/Fire Tower Road intersection and the street network surrounding these intersections. The meeting was advertised in the local paper and on the project website (<https://www.ncdot.gov/projects/FireTowerPortertownWidening/>). Postcard announcements were mailed to approximately 1,220 nearby property owners and hand-delivered to approximately 30 affected businesses located adjacent to the Charles Boulevard/Fire Tower Road intersection and Arlington Boulevard/Fire Tower Road intersections where new designs are proposed.

A looping video presentation provided a visualization of the proposed designs laid on top aerial photography showing the existing corridor. Staffed information stations were set up to address noise, traffic, and right-of-way acquisition questions. Large maps of the proposed project were

on display, and NCDOT and consultant staff were on hand to answer questions and listen to input from citizens. Meeting attendees were invited to provide written comments at the meeting, through mail or email, or online via the NCDOT project website. Twenty-nine comments were submitted to NCDOT at the meeting and one comment was provided via email. Additional comments are expected throughout the remainder of the comment period, which extends to September 1, 2017.

Media

Two media sources were in attendance and reported on the meeting:

- The Daily Reflector newspaper
- Local television station Channel 9.

APPENDIX E

E-2. Summary of Comments and Responses to Comments

**Fire Tower Road and Portertown Road Widening
STIP Projects U-5870 and U-5785
Second Public Meeting
Response to Comments Received as of November 2, 2017**

Totals

- 89 comments received
 - 7 comments from 6 businesses
 - 82 comments from local citizens
- More than 200 signatures on form letters
 - 226 Signatures on a form letter coordinated/submitted by Billy Parker of Parker's Barbeque, from owners, employees, and customers of businesses located on or near Turnbury Drive (**see below**); and, 23 signatures on a separate form letter from practitioners and patients of Summers and Johnson Periodontal Partnership, also submitted by Mr. Parker of Parker's Barbeque (**see below**)

Comments by Topic (with many individuals commenting on multiple topics)

- Concern project will create worse traffic and/or safety conditions – 46 comments
- Place of worship impacts, all regarding St. Timothy's Episcopal Church – 39 comments (**see below**)
- Noise questions/concerns – 37 comments
- Requests for design changes – 11 comments
- Residential impacts – 10 comments
- Request for improved access at Bells Fork/Harris Teeter – 9 comments
- Business impacts/access – 7 comments (**see below**)
- Don't want widening or specific improvements, or oppose project altogether – 7 comments
- Concerns about impacts from rerouted traffic (e.g., use of residential streets for U-turns) – 7 comments
- Support project – 7 comments
- Concerns about drainage/flooding – 6 comments (**see below**)
- Sidewalks/bike lanes (support, oppose, or want more details) – 6 comments
- Concerns about speed limit – 6 comments
- Requests for additional turn lanes or U-turn bulbs – 5 comments
- Concerns/requests about landscaping/visual/appearance – 2 comments

Many of these comments were similar to comments received after the September 2016 public meeting. Responses to those comments were presented previously and are appended to this document. The comments and responses below address new concerns and questions raised by the public.

Business-Related Comments

- 1) *Concerns about access, impacts on parking spaces related to permanent easements for the roadway, and concern that the current designs will have a substantial impact on Basil's Restaurant.*

Following the November 2, 2017, public meeting, the project designs were revised to minimize impacts by reducing the lane widths from 12 feet to 11 feet, and reducing the berm width. NCDOT will continue to coordinate with the business owner through the final design phase of the project to explore alternative means of providing property access.

- 2) *Request to see an overlay of the project designs at the location of the Party Makers Greenville/LRC Firetower Investors, LTD business property.*

Following the November 2, 2017, public meeting, the project designs were provided to the business owner. NCDOT will continue to coordinate with the business owner through the final design phase of the project in order to further minimize impacts to the most practicable extent possible.

- 3) *Concerns about the impact on business resulting from the proposed designs that would not allow through movement on Turnbury Drive across Arlington Boulevard (comments received from owners, employees and customers of several businesses located on or near Turnbury Drive, including Parker's Barbecue of Greenville, A.J. McMurphy's Irish Pub, Home Builders, Foss Recycling, Grove Gaming, Young Physical Therapy, Edward Jones Investments, Jackson Builders, Villa Verde, and Summers and Johnson Periodontal Partnership).*

Following the November 2, 2017, public meeting, the project designs were revised to add an eastbound through-lane to the proposed extension of Turnbury Drive on new location. The revised designs will allow traffic traveling eastbound on Turnbury Drive to cross Arlington Boulevard, and thus more directly access the neighboring businesses.

- 4) *Concerned about loss of business for Little Cesar's Pizza, 3700 Charles Boulevard resulting from ROW and permanent easement impacts on parking, and designs that would prevent left turns for northbound Charles Boulevard traffic. If our customers can't access the parking lot from both directions this will have a huge negative effect on our business. Losing access and parking spaces may very well put us out of business. Also, it appears that the designs would allow left turns for southbound Charles Boulevard traffic into the businesses located on east side of Charles Boulevard.*

Following the November 2, 2017, public meeting, the project designs were revised to minimize impacts by reducing the lane widths from 12 feet to 11 feet and reducing the width of the sidewalk berm from 10 feet to 8 feet. NCDOT will continue to coordinate with the business owner through the final design phase of the project in order to further minimize impacts to the most practicable extent possible.

A left turn into the Little Cesar's Pizza and McDonald's driveway for northbound Charles Boulevard traffic cannot be safely accommodated by the project designs due to the close proximity to the Fire Tower Road/Charles Boulevard traffic signal. Vehicles stopped at the traffic signal would queue up beyond the driveway, and with three travel lanes to cross, left turn movements would be unsafe. A left turn crossover for southbound Charles Boulevard into businesses on the east side of Charles Boulevard can be accommodated because the traffic signal at Fire Tower Road will provide gaps in northbound traffic for left turning southbound traffic.

- 5) *Concerned about ROW impacts on ASAP Shoppes, 3701 Charles Boulevard, that will take front row parking for tenants, and result in insufficient parking for the businesses. Support the project if parking could be retained through designs that reduce impacts (e.g. through designs for a narrower median).*

Following the November 2, 2017, public meeting, the project designs were revised to minimize impacts by reducing the lane widths from 12 feet to 11 feet. The existing parking for this property is expected to be retained under the revised designs.

- 6) *Comments pertaining to access impacts to two Sheetz stores: one at Fire Tower Road and County Home Road; one at E. 10th Street and Portertown Road. Appreciates the level of growth and traffic and can see the benefit of the combined project. However, of the designs that limit turning movements for five of six access points between the two stores, the designs at one location present problems. The proposed Right in/Right out on County Home Road will have a drastic negative impact on business, and the route gas tankers will be required to follow presents several difficulties including an unprotected left turn onto E. Fire Tower Road.*

Following the November 2, 2017, public meeting, the median designs were revised to allow full movement for vehicles exiting the Sheetz parking lot, including left turns onto northbound County Home Road.

Drainage/Flooding Questions

- 1) *My house takes on the main water drain. What are you all going to do about all the water that comes in front of my house when it rains hard? It backs up and goes between my house 3161 (Fire Tower Road) and my neighbor's house. It runs out to Camelot.*

The storm water drainage system designed for this project would remove the existing roadway drainage system, including the open ditch on Fire Tower Road in this location. The new roadway drainage system would collect storm water runoff in a closed pipe system that will be routed to the existing outlet point. It is anticipated that the new closed pipe drainage system will alleviate any flooding issues at this location related to storm water runoff from Fire Tower Road.

- 2) *Suggest improvement of the drainage area between the rear of 503, 501 Mary Beth Drive and the rear of the houses that border 501 & 503 in "Camelot". A bad drainage problem exists because of thicket of "gum" trees - Please help and thank you.*

The storm water drainage system designed for this project would remove the existing roadway drainage system, including the open drainage ditch that runs along Fire Tower Road at this location. The new roadway drainage system would collect storm water runoff in a closed pipe system that will be routed to an outlet point to the east, away from these properties. The area between the houses located at 501 and 503 Mary Beth Drive and the neighboring houses on King Arthur Road in the Camelot neighborhood is fairly flat, although generally sloping away from Fire Tower Road. It is anticipated that the new closed pipe drainage system would alleviate any flooding issues at this location related to storm water runoff from Fire Tower Road.

- 3) *503 Mary Beth Drive - I would like to understand the impact to an existing drainage (problem) affecting 6 houses & I would like to prevent further drainage problems.*

Please refer to the response above.

- 4) *Run off from the road will drain into Hardee Creek and create flooding conditions which will make the road impassable during heavy rain. Flood conditions such as experienced recently may also impact residential developments along the low lying areas of the route.*

The project would add less than seven acres of pavement to the drainage area of Hardee Creek at the Portertown Road crossing, which constitutes approximately 0.2% of the 5.3 square mile watershed. It is anticipated that the roadway and drainage system designed for this project would improve existing drainage conditions and would result in a decrease in the frequency and severity of minor flooding.

- 5) *We continue to have concerns about the effect of the construction and the widening on Holly Hills pond. At the open house, the engineers I spoke with indicated they were aware of the pond, but did not anticipate impacts since the area will have curb and gutter. However, the construction will necessarily have impacts on the pond, whether it be from decreased runoff (by virtue of curb and gutter) or increased erosion and runoff (by virtue of construction and grade changes in the area). We would sincerely appreciate your confirming that some greater evaluation of the impacts to the pond will be performed. The pond already is highly susceptible to periods of drought (low water and algal bloom) and heavy rain (flood and overflowing of dam).*

NCDOT is continuing to assess the potential impact of the project on the dam and will coordinate directly with the concerned property owners as information becomes available.

Concerns from St. Timothy's Episcopal Church

- 1) *Noise – concerns regarding the church being treated “the same as a single family residence” for the purpose of the noise study; concerns about noise in the sanctuary; concerns about noise during use of the church’s outdoor space*

The noise study was developed according to NCDOT’s Traffic Noise Policy (October 2016). Following the procedures outlined in the policy and the NCDOT Noise Manual, three “receptor” activity categories were evaluated for potential noise impacts at the church property: a day care center, a place of worship, and a recreation area. Places of worship have a lower threshold for determination of noise impacts than other activity categories, including residential activities. NCDOT is continuing to assess the potential impact of the project on the church and will coordinate directly with St. Timothy as information becomes available.

- 2) *Safety – concerns about the proximity of vehicles to the church buildings and outdoor areas, notably the day care center; requests for a barrier between the church property and roadway*

Following the November 2, 2017, public meeting, the project designs were revised to shift the alignment 10 feet away from the church and include construction of a steel beam guard rail along the front of the St. Timothy Church property.

- 3) *Right of way – concerns about the activities that currently take place in the area required for the widened Fire Tower Road, including the church’s annual fundraiser and scouting events*

Following the November 2, 2017, public meeting, the project designs were revised to minimize impacts by shifting the alignment 10 feet away from the church and reducing the width of proposed right of way to 100 feet (50 feet on each side of Fire Tower Road).

Traffic/Safety Concerns

- 1) *Statements that the project will make traffic worse*

Comment noted. Please refer to the traffic discussion in the Environmental Assessment, anticipated to be completed Spring 2018. Once signed, the document will be available on the project website:

<https://www.ncdot.gov/projects/FireTowerPortertownWidening/> .

- 2) *Statements that the proposed designs at Charles Blvd and Arlington Blvd will exacerbate traffic*

Comment noted. Please refer to the traffic discussion in the forthcoming Environmental Assessment.

- 3) *Statements that the designs result in a less safe roadway*

Comment noted. Please refer to the traffic discussion in the forthcoming Environmental Assessment.

Form Letters Received

Language from Form Letter Regarding Turnbury Drive Through Movement

ATTENTION:

Maria Rogerson, P.E. (NCDOT Division 2)

Bill Kincannon, (NCDOT Chief Engineer)

P.J. Connelly, (Councilman for District involving Turnberry Drive)

Kandi Smith, (Mayor)

This letter is a formal request regarding the proposed Fire Tower quadrant road that will be built between the AMC Fire Tower 12 movie theatre and Walmart. This road will start at a proposed stoplight beside Basil's restaurant and will wrap around the Party Maker's building and stop at Arlington Blvd. facing Turnberry Drive.

I am requesting that the stoplight at this proposed intersection allow traffic to cross over Arlington Blvd, from this proposed quadrant road, on to Turnberry drive. If access is not allowed in crossing over Arlington Blvd. from the quadrant road on to Turnberry Drive, this will cause an extremely negative economic impact on all commerce along Turnberry Drive.

Without this access through the stoplight, employees, customers and business owners will not have any direct route to businesses along Turnberry. The effect on each business would be devastating if the City of Greenville does not allow traffic to crossover Arlington Blvd. on to Turnberry Drive. Without the direct access across Arlington onto Turnberry Drive from the quadrant road, businesses will suffer a loss of customers. The impact of customers not being able to directly access business along Turnberry Drive will result in decreased revenue and ultimately workers being laid off. This would in turn have an exponentially negative impact on potential tax base, land value, and unemployment.

I respectfully ask that the proposed stoplight at this quadrant intersection ALLOW for traffic to move freely from the quadrant road, across Arlington Blvd. onto Turnberry drive. Thank you for your consideration in this matter.

Language from Form Letter Regarding Turnbury Drive Through Movement from Summers and Johnson Periodontal Partnership, 1919 Turnbury Drive

Attention:

Maria Rogerson, P.E. (NCDOT Division 2) Bill Kincannon,(NCDOT Chief Engineer)

P.J. Connelly, (Councilman for District involving Turnbury Dr) Kandi Smith, (Mayor)

This letter is a forma I request regarding the proposed Fire Tower quadrant road that will be built between the AMC Fire Tower Movie Theater and Walmart. This road will start a proposed stoplight beside Basil's restaurant and will wrap around the Party Maker's building and stop at Arlington Blvd. facing Turnbury Dr.

I am requesting that the stoplight at the proposed intersection allow traffic to cross over Arlington Blvd, from the proposed quadrant road on to Turnbury Drive. We anticipate this will cause an extremely negative economic impact for our practice.

A large percent of our patients are elderly and directions to the practice is already a time consuming phone call. We feel directing a patient to take a quadrant then turn in opposite direction of the practice to access Smithwick then to cut through a parking lot of another business to find us will be a challenge for them to understand.

Part of this prime real estate we purchased was because of the easy access to our practice from Two major roads, Arlington and Charles.

We respectfully ask that the proposed stoplight at this quadrant intersection allow traffic to choose to go straight on Turnbury.

Sincerely,

Responses to Comments Following September 2016 Public Meeting

Fire Tower and Portertown Road Widening Project (STIP Projects U-5870 & U-5785) Responses to Comments Received

Introduction

An open-house public meeting was held on Thursday, September 22, 2016, at the Pitt County Community Schools and Recreation Building at Alice Keene Park to provide the public with information about the proposed project to widen Fire Tower Road and Portertown Road in Greenville, NC (STIP Projects U-5870 and U-5785). The meeting was advertised in the local paper and on the project website (<https://www.ncdot.gov/projects/FireTowerPortertownWidening/>), and postcard announcements were mailed to approximately 1,160 nearby property owners. The meeting was attended by 210 members of the public. A local officials meeting held earlier in the day was attended by 18 representatives of the City of Greenville, Pitt County, Greenville Urban Area Metropolitan Planning Organization (MPO), and Greenville Utilities Commission.

A looping slide show presentation provided background information about the need for the project, the proposed design, and the project schedule. Large maps of the proposed project were on display, and NCDOT and consultant staff were on hand to answer questions and listen to input from citizens. Two NCDOT Right of Way staff were also on hand to answer questions about the NCDOT right of way acquisition process. Meeting attendees were invited to provide written comments at the meeting, through mail or email, or online via the NCDOT project website. A total of 117 comments were submitted to NCDOT prior to the meeting, at the meeting, or during the following 30-day public comment period.

Due to the number of comments received, the project team assigned each comment to one or more of 14 general categories (below), and summarized similar comments within each category. Responses to these summarized comments are provided in this document.

- A. Comments Requiring Individual Response and Comments Noted – Page 2
- B. Statements of Opposition to the Project – Page 2
- C. Statements of Support for the Project – Page 2
- D. Need for the Project – Page 2
- E. Project Development Process – Page 4
- F. Draft Designs (including Access Changes & Roundabouts – Page 5
- G. Right of Way & Property Impacts – Page 10
- H. Construction & Detours – Page 13
- I. Traffic / Speed Limit / Safety / Signage – Page 14
- J. Property Values / Neighborhoods / Livability – Page 16
- K. Bicycle & Pedestrian – Page 17

- L. Natural Resources / Flooding – Page 19
- M. Noise, Air Quality, Light – Page 20
- N. Visual Impacts / Landscaping / Neighborhood Entrances – Page 21

Category A – Comments Requiring Individual Response and Comments Noted

These comments included questions/issues about project website, questions about meeting time/location, address corrections, requests for meetings/phone calls, and specific questions about individual property impacts. This category also includes comments forwarded to the project team by someone other than the author. (In all cases, the author submitted their own comment, which was logged separately.) Last, this category includes comments noted without a specific response, such as statements that property owner wants to be compensated for any taking of right of way.

Comments in this category were responded to individually or were noted by the project team.

Category B – Statements of Opposition to the Project

Seventeen comments were received stating specific opposition of the project. Note, this does not include comments about issues/concerns with project impacts that do not state person is opposed to project generally.

Category C – Statements of Support for the Project

Three comments received stating specific support of the project. Note, this does not include comments agreeing that improvements are needed, but disagreeing with the project as it is proposed.

Category D – Need for the Project

1) Why is this project needed? / Why was it prioritized?

The Greenville Urban Area Thoroughfare Plan, adopted by the Greenville Urban Area MPO in December 2004 and the NCDOT Board of Transportation in February 2005 shows that the recommended improvements for Fire Tower Road (SR 1708) and Portertown Road (SR 1726) are for four travel lanes with bicycle and pedestrian accommodations throughout the project study area.

In 2013, the improvements on Fire Tower and Portertown Roads were prioritized by NCDOT using the process defined in the Strategic Transportation Investments (STI) law. STI uses the Strategic Mobility Formula to allocate available transportation funds based on data-driven scoring and local input. The projects ranked above others within NCDOT's Division 2 based 50 percent on data (for congestion, benefit/cost, safety, freight and military, and accessibility/congestion) and 50 percent on rankings by local planning organizations and the Division.

- 2) *Statements agreeing that the project is needed.*

Comments noted.

- 3) *Who will this project benefit? The project benefits people traveling through corridor rather than people living along it.*

This project will benefit all vehicle and bicycle users of Fire Tower Road and Portertown Road within the project corridor. While residents along the corridor will bear the direct impacts of the road widening, they will also experience a less congested roadway and greater mobility.

- 4) *Statement that other projects in Greenville should be a higher priority (e.g., Grimesland Bridge Road repair; sidewalks where pedestrians cross busy streets; bridge over train track on Arlington Boulevard; widen Arlington Boulevard; repaving needs throughout City).*

As noted above, projects U-5870 and U-5785 were prioritized by NCDOT using the data-driven process defined in the state STI law.

Several comments suggested that other transportation needs should be a higher priority than the Fire Tower Road and Portertown Road Widening Project, including several located on City of Greenville streets, such as Arlington Boulevard. Improvements to city-owned streets are funded by the City of Greenville, as opposed to state routes like Fire Tower Road and Portertown Road, which are maintained by NCDOT. NCDOT funds resurfacing of state roads through its three-year Highway Maintenance Improvement Plan (HMIP), which is funded separately from the STI process. Therefore, funding for the U-5870 and U-5785 projects is not drawing funds away from either city or state resurfacing funds. Other STI projects that are currently funded and are in some stage of development are as follows: U-2817 (Evans Street/Old Tar Road Widening from Red Banks Road to Worthington Road), U-5875 (Allen Road from Widening from Statonsburg Road to Greenville Boulevard), and U-5917 (Fourteenth Street Widening from Fire Tower Road to Greenville Boulevard). All of these projects propose widening to four lanes with a median and add bicycle facilities.

For more information on STI, visit

<https://www.ncdot.gov/strategictransportationinvestments/>.

For more information on the City of Greenville's five-year resurfacing plan, visit

<http://www.greenvillenc.gov/government/public-works/street-maintenance>.

For more information on NCDOT's HMIP, visit <https://connect.ncdot.gov/resources/Asset-Management/HMIP-Plans/Pages/HMIP.aspx>.

- 5) *Concern that project is being fast-tracked to support traffic movement from Highway 11 to 10th Street to allow people to bypass Greenville Blvd and get to new developments on 10th Street more quickly. Was this part of the shopping center development deal?*

Projects U-5870 and U-5785 were not prioritized to facilitate traffic reaching new developments, nor are they associated with the development of the new shopping center. Please refer to the

responses above that address the need for the project.

6) *Why not enforce existing speed limits to improve safety instead of building this project?*

The purpose of this project is not only to improve safety, but also to reduce congestion within the project corridor. That goal cannot be accomplished without adding to the capacity of the road.

Category E – Project Development Process

1) *Why were adjacent property owners not consulted prior to the public meeting?*

Property owners located directly along the project corridor were mailed notification letters on December 1, 2015, prior to the initiation of field studies in the project corridor. Also during December 2015, the Greenville Urban Area MPO advertised the acceleration of the schedule for the U-5785 and U-5870 projects in local newspapers, and solicited written comments for a 10-day period beginning on December 21, 2015. No public comments were received regarding the projects.

Prior to the September 2016 public meeting, postcards announcements were sent to owners of all properties accessed via Fire Tower Road and Portertown Road. These announcements were mailed to approximately 1,160 property owners.

2) *Property owner did not receive postcard notice about meeting.*

Current Pitt County tax property records were used to send the postcard notices about the meeting. If you did not receive the mailing, please verify that your address in the county records is current.

3) *Why was bridge over Hardee Creek not replaced with enough width for this project? Why pay twice for improvements to the bridge?*

The existing bridge over Hardee Creek was replaced prior to the funding of projects U-5870 and U-5785; therefore, there were no funds available to construct a wider bridge at that time. It should be noted, however, that the existing bridge will remain in use, carrying two through lanes of traffic and a left turn lane onto Williamsbrook Lane. The new bridge will carry an additional two lanes of traffic. Minor modifications will be made to the existing bridge.

4) *What is the timeline for right of way and construction?*

Right of way is scheduled to begin in late 2017. Construction is scheduled to begin in 2019.

- 5) *My property was accessed without my permission to dig holes for this project.*

NCDOT has contacted all affected property owners to clarify the right of access, respond to concerns regarding backfilling of holes, and advise of future access needs.

Category F – Draft Designs (including Access Changes & Roundabouts)

- 1) *Were any other options/alternatives considered for this project?*

There are significant constraints within the project corridor, including residences and businesses, intersecting streets, a property listed on the National Register of Historic Places, and the existing bridge over Hardee Creek. Due to the large number of constraints, the designs were developed as a single “best fit alternative” with goal of minimizing the number of properties impacted. As part of the minimization effort, the median was reduced from the standard 23-feet to 16-feet.

- 2) *Why is the proposed widening on one side of the existing road and not the other?*

As noted in the response above, the object of the design team was to minimize property impacts within the constraints of the project. In locations where the designs require right of way from one side of the existing road and not the other, it is either because the impacts would be greater on the opposite side of the road or because constraints precluded widening onto the opposite side.

- 3) *Why does the widening take right of way from properties in the jurisdiction of Pitt County, but not properties within the Greenville city limits?*

Jurisdiction was not a factor in developing the designs. Please refer to the responses above regarding the design process.

- 4) *Specific request that NCDOT should move the proposed road to the south and have the State of North Carolina purchase the entire properties from 2350 to 2508 on the south side of Fire Tower Road. Associated request to add additional U-turn bulb to accommodate this.*

This suggestion was reviewed by the project design team and it was determined that shifting the road south in this location would create a skew at the signalized intersection at 14th Street, as well as potentially impact the New Destiny Pentecostal Holiness Church and the historic Red Banks Church. To address the concerns of property owners in this location, right of way has been reduced by 10-feet, where possible, to minimize impacts to the front yards of the 12 properties. The revisions will be presented at the next public meeting.

5) *What is the rationale for a raised median versus a center turn lane?*

Opposition to median; requests for four lanes with no medians/left-turns.

Opposition to median; requests for center turn lane instead.

Opposition to proposed typical section; requests for 3-lane roadway.

Opposition to proposed typical section; requests for median similar to Fire Tower Road west of Charles Blvd.

The U-5870 and U-5785 project designs include a raised 16-ft median to enhance safety in the project corridor. The Federal Highway Administration (FHWA) has identified that medians can provide the following safety benefits:

- They may reduce pedestrian crashes by 46 percent and motor vehicle crashes by up to 39 percent.
- They may decrease delays (by greater than 30 percent) for motorists.
- They allow pedestrians a safe place to stop at the mid-point of the roadway before crossing the remaining distance.
- They enhance the visibility of pedestrian crossings.
- They can reduce the speed of vehicles approaching pedestrian crossings.
- They can be used for access management for vehicles (allowing only right-in/right-out turning movements).
- They provide space for supplemental signage on multi-lane roadways.

Source: http://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_011.cfm.

6) *Can the median width be reduced to minimize impacts? A 16-foot median is too wide. What is width of median on Elm Street between 10th Street and Greenville Boulevard – does not appear to be 16-feet, but seems adequate for traffic control?*

The median proposed for this project has been minimized to the maximum extent possible with the goal of providing safety and congestion benefits. (Refer to the response above for information on the safety benefits of medians.)

Elm Street between 10th Street and Greenville Boulevard has a 14-foot median, two 11-foot lanes, bike lanes, and on street parking. This design does not provide the width needed to include turning lanes within the median. Instead, breaks in the median are provided for turning vehicles and vehicles traveling behind turning traffic must slow down or change lanes. The anticipated traffic volumes along Fire Tower Road and Portertown Road are greater than on Elm Street and the narrower median design would not provide the safety and congestion benefits associated with the 16-foot median design.

7) *Why do the designs include roundabouts and not stop lights? Preference for stop lights.*

Concerns about roundabouts not being safe (especially two-lane roundabouts) and/or people not knowing how to use them.

FHWA has documented the safety benefits provided by roundabouts and notes they are also more efficient, less costly, and more aesthetically appealing than conventional intersection designs. The FHWA Office of Safety identified roundabouts as a Proven Safety Countermeasure because of their ability to substantially reduce the types of crashes that result in injury or loss of life. Roundabouts are designed to improve safety for all users, including pedestrians and bicycles. Most significantly, roundabouts reduce the types of crashes where people are seriously hurt or killed by 78-82% when compared to conventional stop-controlled and signalized intersections, per the AASHTO Highway Safety Manual. Source: <http://safety.fhwa.dot.gov/intersection/innovative/roundabouts/>

Within the project corridor, the existing roundabout at Fire Tower Road and Portertown Road has substantially reduced “target” crashes in comparison to the previous traditional intersection. Target crashes are frontal impact crashes such as left turns, head on, and angle crashes. NCDOT evaluated the period from November 1, 2012 (after the roundabout was constructed) through June 20, 2016, and compared it to the period from December 1, 2008, through July 31, 2012. Although the total number of all crashes at Fire Tower and Portertown Roads did not change at all between the two periods (at 31 crashes each), the number of target crashes dropped from 15 to 1 (a reduction of 93.3 percent). This represents a substantial improvement in overall safety.

Further evidence of the safety benefits of two-lane roundabouts can be found in Lenoir County. NCDOT recently collected crash data at the intersection of King Street, Tiffany Street, and NC 11 (Martin Luther King Jr. Boulevard) in Kinston to evaluate the benefits of a two-lane roundabout that was constructed to replace a traditional intersection. Total crashes for the five year period after the construction of the roundabout (August 2011 to August 2016) dropped to 5 from 8 during the five year period prior to construction (May 2006 to May 2011).

The traffic capacity analysis for the Fire Tower Road and Portertown Road project projected that the roundabouts will function acceptably in the future with future traffic volumes. Although traffic signals may also work at the roundabout locations, it is becoming more common to install roundabouts over traffic signals where they are appropriate because of the safety benefits of roundabouts (as described above). During off-peak hours, roundabouts can substantially reduce travel delay and drivers on side streets do not have to wait to turn out as they would at a signal.

- 8) *Changes in access will inconvenience people living along the project. Distance between left turns is too far.*

Due to high volume of traffic flowing through the project study area, the median and turn lanes have been placed to maximize the safety of travelers using the corridor, enabling them to avoid turning left across bi-directional traffic. The locations of left turns and U-turns were based on traffic counts and maintenance of the interconnectivity of neighborhoods.

The project team recognizes that new travel patterns will cause a change for residents and other users of the Fire Tower and Portertown Roads corridor. With this increase in travel distance will come multiple positive benefits, notably improvements to safety and mobility. Drivers will

experience less time spent queuing while waiting to make turns and experience a less congested roadway.

9) *Removal of left turns will impede emergency responders.*

The proposed changes in access are not anticipated to change emergency response times. Emergency vehicles (e.g., fire/rescue) are designed to be able to traverse the raised median in certain locations because of the way the median will be constructed and the design of their vehicles.

Representatives from EMS and fire/rescue were invited to comment on the project. At this time, they have not indicated any concerns about the potential designs.

10) *Specific requests for left turn (out) or U-turn access:*

- a. *Holly Hill Road* – Due to the sharp turn on Portertown Road just north of Fire Tower Road, there are sight distance and safety concerns with allowing a median opening at Holly Hill Road. In addition, there are fewer numbers of residences along this road, and median openings were placed at cross streets with higher traffic volume.
- b. *Cardinal Drive* – Like Holly Hill Road, Cardinal Drive intersects the project corridor at a location with design concerns related to sight distance and safety. In addition, the number of residences along the road is smaller than other locations where median openings were provided.
- c. *Entrance to Willow Run* – There is insufficient turning traffic out of the entrance to Willow Run to require a left turn out of the intersection. Additionally, left turns are more hazardous than requiring traffic to turn right and use the U-turn bulb to the east.
- d. *Bell's Fork (Harris Teeter)* – Improvements at this location are under evaluation as part of the additional intersection improvements at Charles Boulevard, and will be presented at the next public meeting.
- e. *King George Road / Robin Road* – Lefts are allowed out of King George Road; vehicles on Robin Road can travel in the opposite direction (south/west) to access roundabout; therefore, no edits have been made to the designs.

11) *Requests for additional roundabouts:*

- a. *Lee Street & Fire Tower Road*
- b. *Mary Beth Drive & Fire Tower Road*
- c. *14th Street & Fire Tower Road*
- d. *Bells Fork Road & Charles Blvd*
- e. *Fire Tower Road & Charles Blvd*

The project team assessed the locations above and determined the following:

For Lee Street and Mary Beth Drive, a roundabout is not appropriate because the traffic volume on Fire Tower Road is so high that traffic on the side streets could potentially have

trouble finding an acceptable gap in traffic to pull into the roundabout. This could cause excessive queueing on the side streets, especially Lee Street, which leads into a large neighborhood.

For the remaining three intersections (14th Street and Fire Tower Road; Bells Fork and Charles Boulevard; and Fire Tower Road and Charles Boulevard), the traffic volumes do not support a roundabout. There is too much traffic at these locations for a roundabout to work efficiently at moving vehicles through the intersection; the delay would be longer than a traditional signalized intersection.

12) Do roundabouts accommodate tractor trailers?

Yes, the roundabouts will accommodate tractor trailers.

13) Concerns about waits at roundabout due to unbalanced traffic flow.

The traffic analysis took volumes into consideration and made sure traffic flows smoothly with roundabouts included in the designs.

14) Designs should address elevation offsets at neighborhood entrances.

The designs take the elevation offsets at the entrances into consideration; all grades tie back together.

15) How will NCDOT ensure the new road does not crack and sink due to soil compaction?

Soil samples have been taken along the corridor to evaluate the types of soil and their conditions. This information will be used to design a roadway that will be adequate to carry the vehicular loads on the roadway. Inspection of the work during the contract will be performed to ensure the roadway is built in accordance with the design.

16) Requests related to Bells Fork Shopping Center (Harris Teeter):

- a. Left-in requested from Fire Tower Road*
- b. Widen curb cut to property owned by TPW Commercial Properties*
- c. Full access traffic signal at Kittrell Road & Fire Tower Road*
- d. Realign Kittrell Road to the east to intersect Bells Fork Road further east*
- e. Full access traffic signal at Bells Fork Road and Charles Boulevard*
- f. Maintain existing full access signal at Fire Tower Road and Charles Blvd (do not restrict left turns)*
- g. Maintain existing storm water pond*

The project team is evaluating additional intersection improvements in the vicinity of Charles Boulevard and Fire Tower Road, which includes the area around the Bells Fork Shopping Center. These requests will be evaluated during that assessment and updated designs will be presented

at the next public meeting.

17) Comments/requests related to access at Pinewood Memorial Park:

- a. Opposition to removal of left turn existing the memorial park onto Portertown Road; left turn with access to stop light is safest for access to 10th Street*
- b. Statement that NCDOT blocked access to one of the entrances to the memorial park on Portertown Road without prior notice*
- c. Statement that better access has been given to Walmart*

The designs do not include a left turn out of the memorial park onto Portertown Road because vehicles can turn right onto Portertown Road and travel one-tenth mile west to the roundabout at Eastern Pines Road, where they can turn around and commence traveling east on Portertown Road. In addition, vehicles existing the park have two existing exits onto 10th Street.

NCDOT's removal of the left-in access to the Pinewood Memorial Park property just east of the railroad crossing on Portertown Road was part of a set of intersection improvements at 10th Street and Portertown Road. These improvements were required to address the additional traffic generated by development of the Walmart shopping center. Funding for these improvements was required of Walmart in order to obtain an NCDOT driveway permit and approval of the site plan by the City of Greenville. Information about the site plan and associated improvements were shared with the public several times in 2008 and 2009, both at City Council meetings and in the news media, while Walmart petitioned for its second location in Greenville.

The proposed designs for the widening of Fire Tower Road and Portertown Road provide access based on accommodating traffic in the project corridor. Decisions were based exclusively on traffic operations and safety concerns.

Category G – Right of Way & Property Impacts

- 1) Statements of opposition to loss of property or relocation due to project. The project has property impacts on too many residents.*

The following design changes were made to minimize property impacts and will be presented to at the next public meeting:

- a. Where possible, right of way (ROW) was minimized from 110-ft to 100-ft in order to minimize impacts.
- b. Shift of designs at 14th Street to minimize ROW needed from properties along Cleere Court

- c. Retaining walls have been added at several locations to minimize property impacts (these locations will be presented on the maps at the next meeting)
- 2) *Statements that NCDOT should purchase all properties adjacent to the roads and not leave residents who have frontage losses.*

NCDOT's policy is that the acquisition of property in excess of that required for the necessary right of way, slope, utility easements, and drainage easements should be limited to those situations where the excess area is considered uneconomic to the owner because of the project, or where it is in the best interests of the Department to reach a settlement which includes the acquisition of the excess area.

- 3) *How much notice will be given for businesses to relocate?*

Residential owner-occupants and residential tenants will have a minimum of 90 days written notice to vacate from the date a comparable replacement dwelling has been provided by a ROW Agent, and the offer of relocation benefits has been made. Business owners and tenants will have a minimum of 90 days from the date of notice of eligibility is provided.

- 4) *Will I be compensated for the loss of business due to this project?*

Loss of business, good will, or the interruption of business are considered non-compensable damages by law and are, therefore, not included in the appraisal of real property required for the project.

- 5) *My property is not shown as a relocation, but I am concerned it will not be livable / safe with the road so close to the house.*

NCDOT will negotiate with property owners for the purchase of real property based on fair market value. Where only a part of a tract is to be acquired, the measure of damages is the difference between the fair market value of the entire tract immediately prior to the acquisition and the fair market value of the remainder immediately after the acquisition, with consideration being given to any special or general benefits resulting from the utilization of the part taken for highway purposes.

If a property owner believes their property should be acquired due to undue hardship on account of one or all of the following reasons: health, safety or financial reasons; they may request this of NCDOT in writing with supporting documents that show that remaining on the property poses an undue hardship to the property owner, as compared to other property owners located within the corridor. Merely being located within the corridor is insufficient to qualify for a hardship acquisition. Please contact the NCDOT Division 2 ROW Office for more information about this process at (252) 364-9030.

- 6) *How will NCDOT determine how I will be compensated for impacts to my residential property (including increased flooding risk, lost property value, loss of peace and quiet, loss of mature*

trees)?

See responses above for information on the ROW process. More information can be found at <https://connect.ncdot.gov/business/ROW/Pages/default.aspx>

- 7) *I will not have room to park my vehicles after right of way is taking from my front yard. What will NCDOT do about this?*

See above. Issues related to driveways and parking are handled during ROW and final design.

- 8) *Request for retention wall in area behind Willow Run.*

Retaining walls have been added to the designs beginning on the eastbound (right) side of Portertown Road across from Brook Creek Lane east to across from Rhema Street. This location is behind the Willow Run neighborhood.

- 9) *Specific concerns with impacts to St. Timothy's church. Can coordination with Pitt County Historical Society take place so that designs can shift off of St. Timothy's church? Also, can curves be used to minimize impacts to church? Can median be reduced in this area? When church sanctuary was built in 2003, the church was under the impression proposed ROW for widening road would be at least 30 feet from the sanctuary. Concerns future widening (after this project) will cause relocation of St. Timothy's church.*

In response to concerns from the church, NCDOT has reduced the required ROW by 10-feet in the vicinity of the church. It is not possible to use curves in the roadway designs to shift towards the Pitt County Historical Society property to reduce impacts to the church because the added curves would conflict with the goal of the project to improve safety. In addition, the median has already been reduced to the minimum width possible; any further reduction would remove the capacity to build the required turn lanes.

The project team will work to determine what information was shared with the church regarding the road widening in 2003. In addition, the noise study described in Section J below will address questions related to potential noise impacts to the sanctuary.

- 10) *Specific requests to not impact or move historic farmhouse property owned by Brianna Williams & John Hager.*

Shifting the designs north to protect the property in question would have resulted in multiple relocations on the north side of Fire Tower Road. Therefore, this request will not be accommodated.

If there are buildings and/or other improvements located on land needed for the project, property owners will be given first option to retain these improvements. Property owners may keep the buildings and/or improvements considered as real estate at the appraised retention value and move the buildings and/or improvements on remaining property outside of the

acquisition areas, or they may choose to move the buildings and/or improvements to a site located away from the proposed transportation project.

Category H – Construction & Detours

- 1) *How will residents/businesses be notified about upcoming construction and detour routes?*

Information about construction and detours will be shared through multiple outlets, including local news stations, EMS, schools, and businesses in the project corridor. In addition, project construction updates will be posted on NCDOT's online Traveler Information Management System (TIMS), which provides information on road construction, accidents, weather conditions, and other incidents that may affect travel time. TIMS also provides real-time travel information in major metropolitan areas through live traffic cameras and speed sensors. It can be accessed at: <http://tims.ncdot.gov/tims/default.aspx>

- 2) *How will properties be accessed during construction?*

NCDOT will work with the construction contractor to stage construction to ensure access to both private properties and businesses.

- 3) *What detour routes will be used during construction?*

Detour routes will be determined during the final design stage of the project.

- 4) *Concern residential neighborhood roads will be used as cut-through during construction.*

Detour routes will be clearly signed for traffic to use appropriate roads during construction.

- 5) *Construction will need to be done at separate times at Holly Hill Road and Cardinal Drive because a small wooden bridge connects the two sides of the neighborhood, but emergency vehicles cannot pass over it.*

Comment noted.

Category I – Traffic / Speed Limit / Safety / Signage

- 1) *Traffic along the project does not warrant the proposed designs, especially along the Portertown section. There is no/limited congestion on Portertown Road.*

Part of the traffic analysis included a “future no-build” scenario (for the year 2040), which contains the existing road network with future traffic. The analysis indicates that the entire corridor will be congested and over capacity if the roadway is not widened. Additionally, projected traffic volumes are above the threshold for the capacity of a two lane road.

- 2) *Traffic is only a problem in morning and evening rush hour.*

Without the widening, traffic during peak hours is projected to be very congested and severely over capacity. Roadways are designed to accommodate the period during the day when there is the most traffic (peak hours).

- 3) *Please do not increase speed limit to 45 mph – keep at 35 mph for safety reasons. Have there been studies of the average current speed on the current roads? Vehicles already travel above 35 mph.*

NCDOT is evaluating whether to retain the posted the speed limit along Portertown Road at 35 mph. A decision will be presented at the next public meeting after completion of the analysis.

- 4) *Concerns higher speeds will result in cars running off road into homes. Additional traffic will make roads less safe, instead of more safe.*

The roadway designs account for the predicted speed and volume of traffic within the project corridor in terms of number of lanes, sight distance, curvature, and grade. In addition, the project will add a curb, which will be an obstacle to vehicles running off the road.

- 5) *Concerns U-turns will not be safe due to speeds on the road and/or lack of sight distance.*

The U-turns have been designed to provide adequate sight distance. Multiple studies have shown that making a U-turn is safer than turning left at a traditional unsignalized intersection with bidirectional traffic. There are numerous U-turn locations on 55 mph roadways around North Carolina that operate safely.

- 6) *Concerns about direct driveway access to roads with greater traffic speeds.*

The additional lane added in each direction will allow for easier passage around slower moving vehicles turning into driveways or side streets.

- 7) *The project will increase traffic on King George Road.*

The project is not anticipated to increase traffic on King George Road. The median restrictions

(no left in) may actually reduce traffic on King George Road, especially traffic heading north on Portertown Road to north on King George Road.

8) *Can we just add turn lanes and not additional lanes?*

The predicted traffic volumes on Fire Tower and Portertown Roads indicate the need for two through travel lanes as added by the designs. A single through lane is not adequate to carry the traffic volumes even with the addition of turn lanes.

Part of the traffic analysis included a “future no-build” scenario (for the year 2040), which contains the existing road network with future traffic. The analysis indicates that the entire corridor will be congested and over capacity if the roadway is not widened. Additionally, projected traffic volumes are above the threshold for the capacity of a two lane road.

9) *Are there plans to install a stop light at the entrance to Cherry Oaks north and south?*

No.

10) *Need second turn lane at Fire Tower Road and Arlington Blvd.*

Plans are currently being developed to address traffic at this intersection.

11) *Project will cause a traffic bottleneck at Portertown and 10th Street.*

The Fire Tower Road and Portertown Road project does not include substantial improvements to the intersection of Portertown Road and 10th Street other than adding a second southbound lane coming out of the intersection. The traffic analysis indicated that this intersection will operate unacceptably in the future. Although some alternative intersection ideas were considered, ultimately no changes were recommended because there are several signals to the east and west along 10th Street that impact traffic operations at the intersection. This entire corridor will be studied in the future as a separate project to determine what needs to be done to accommodate future traffic volumes.

12) *Please add signage so trucks know speed limit / passing through residential neighborhood.*

All appropriate signage will be added during the final design stage of the project.

13) *Please add signage or additional education materials explaining how to use roundabouts.*

Pavement markings will show drivers how to approach and use the roundabouts.

14) *Project will increase trucks on road, causing greater safety concerns.*

The project area is primarily residential, so there are few destinations for trucks to go along this corridor. Truck traffic may increase, but it would likely increase whether or not the project is

constructed as other roadways such as Greenville Boulevard become more congested.

- 15) *Need to retain existing yield/island at 14th Street so it won't be difficult to get out of Cherry Oaks North neighborhood.*

The removal of this channelized turn should not affect any traffic coming out of Mary Beth Drive (Cherry Oaks North). It is not possible to keep the channelized turn due to right-of-way constraints.

- 16) *Crashes are caused by rear-ending, not due to left turning vehicles as mentioned in video. Please verify crash information.*

Crash history data comes from police reports. The numbers presented in the video shown at the public meeting have been verified by NCDOT. There are more rear end crashes than left turn crashes, but the percentage of left turn crashes is still substantial.

- 17) *Too much traffic is being directed to Kittrell Road with these designs.*

Plans are currently being developed to address traffic at this intersection. More information will be provided at the next public meeting.

- 18) *Tractor trailers should be prohibited from using the improved road.*

Fire Tower and Portertown Roads are identified on county thoroughfare plan as a major thoroughfare, which allows truck traffic. The project is in keeping with local plans.

Category J – Property Values / Neighborhoods / Livability

- 1) *This project will reduce property values along Fire Tower and Portertown Roads due to the road being closer to homes, noise impacts, and/or visual impacts. No one will buy my house after this project is constructed.*

NCDOT does not compensate property owners for speculative losses, which are considered non-compensable by law. As discussed above in Category G, for land that needs to be acquired for the project, NCDOT will compensate property owners for the purchase of real property based on fair market value. Where it may be relevant, the effect of the introduction of traffic noise from the use of the part taken for highway purposes may be considered in appraising the fair market value of the remainder. Its relevance depends upon highest and best use of the property.

- 2) *Changes in access will isolate neighborhoods.*

It is not anticipated that the proposed changes in access will alter existing origins or destinations of vehicles using the Fire Tower and Portertown Roads corridor. The changes would only change the routing of vehicles. It is expected that the addition of bicycle lanes will encourage

connectivity between neighborhoods in the project corridor.

- 3) *Additional traffic on these roads conflicts with project corridor being a “residential node” in the Greenville Horizon Plan.*

The characterization of the project area as residential in the Greenville Horizon Plan relates to land use recommendations, not traffic volume. The project was developed in coordination with the City of Greenville, via the Greenville Urban Area MPO, which has identified the project area as a major thoroughfare since 2004. The addition of bicycle lanes and curb and gutter design (which facilitates the addition of sidewalks) is in accordance with all local plans.

- 4) *Is the project compatible with land use / zoning plans? What land use / zoning protections will protect the project corridor from changing to commercial? Do not want change similar to Greenville Blvd or Evans Street.*

As noted above, the project is consistent with local plans. Land use and zoning along the project corridor is established by the City of Greenville Planning and Zoning Commission. The City of Greenville Future Land Use Plan Map indicates medium density residential development is planned for most of the project study area, with high-density residential planned near the railroad tracks. Commercial/office institutional development is shown for the parcels surrounding the intersections at both ends of the project.

Any changes to zoning within the project study corridor would require re-zoning approval by the Planning and Zoning Commission and the City Council; both meetings are open to the public for comment.

- 5) *Concerns about additional truck traffic not wanted in residential neighborhoods.*

As noted above, the project area is primarily residential, so there are few destinations for trucks to access along this corridor. Truck traffic may increase, but it would likely increase whether or not the project is constructed as other roadways such as Greenville Boulevard become more congested.

Category K – Bicycle & Pedestrian

- 1) *Requests for sidewalks along the entirety of the project. In particular, it was noted there is pedestrian traffic west of the Walmart on Portertown Road and that sidewalks are needed in that location.*

The construction of sidewalks as part of this project depends on the ability of the City of Greenville and Pitt County to assist with construction and maintenance costs. NCDOT has shared the public feedback about sidewalks with the City and County and will continue this coordination until a decision is made.

- 2) *Where will pedestrians cross the road? Please add pedestrian crosswalks.*

If sidewalks are constructed as part of the project (see above), pedestrian crosswalks will be added as part of the sidewalk improvements.

- 3) *No need for sidewalks once road turns into a freeway.*

Comment noted. NCDOT Complete Streets policy and the Bicycle and Pedestrian Master Plan for the Greenville Urban Area MPO support the addition of sidewalks along this project.

- 4) *No need for sidewalks at cost of impacting adjacent properties.*

Whether or not sidewalks are constructed, the berm is still required to accommodate the curb and gutter drainage system, as well as the potential for utility relocation. The addition of sidewalk would not create additional property impacts from what was shown on the designs at the public meeting.

- 5) *Bicycle lanes are not needed; they will not be used. Remove bicycle lanes to reduce adjacent property impacts.*

Although few cyclists use the existing project corridor due to the lack of bicycle accommodations, the route is considered important for future bicycle use and the addition of bicycle lanes is consistent with local plans. The Bicycle and Pedestrian Master Plan for the Greenville Urban Area MPO recommends the addition of bicycle lanes for the entire length of the project. In addition, the State Bicycle Route NC 2 (Mountains to Sea) runs on Fire Tower Road from East 14th Street to Portertown Road.

- 6) *Bike path doesn't connect to bike facilities at either end of project. Those streets are not safe for bikes.*

The number of bicycle facilities outside the project corridor should increase over time with the implementation of the Greenville Urban Area MPO's Bicycle and Pedestrian Master Plan and the NCDOT Complete Streets policy. In addition, several shared use paths are planned in the project area: Meetinghouse to Fire Tower will run on Fire Tower from Charles Boulevard to East 14th Street, 14th Street Trail will cross meet Meetinghouse to Fire Tower at Fire Tower and 14th Street, Hardee Creek will cross Portertown Road at Robin Road, and Hardee to Bells Fork Extension will cross Portertown Road at Hardee Creek. These planned paths are included in the Bicycle and Pedestrian Master Plan.

- 7) *Why not consider combined bike/pedestrian path to minimize footprint?*

This suggestion would not substantially change the anticipated impacts as a berm would still be needed along both sides of the road to accommodate the curb and gutter drainage system, as well as the potential for utility relocation. Adding a single 10-foot path would increase impacts

on one side of the road.

- 8) *Safety concerns about children getting off school buses needing to cross a four-lane highway.*

School transportation programs will change drop off and pick up patterns to accommodate the improved roadway. Children will not be required to cross a four-lane divided road to board or exit a school bus.

Category L – Natural Resources / Flooding & Drainage

- 1) *The project will damage streams/wetlands and/or wildlife habitat.*

The project is estimated to impact 590 feet of stream and 0.16 acres of wetlands. These impacts were calculated by determining the length of field-delineated jurisdictional stream channel and wetland areas within 25 feet of the project slope-stake line. Efforts will be made to avoid and minimize these impacts during final design. Where impacts are unavoidable, NCDOT will provide compensatory mitigation as part of federal and state permitting requirements. Mitigation will be provided through the North Carolina Division of Mitigation Services (DMS). The US Army Corps of Engineers, NCDOT, and NC Department of Environmental Quality entered into a memorandum of agreement in July 2003 that established procedures for providing compensatory mitigation through DMS (formerly the Ecosystem Enhancement Program) to offset impacts to streams and wetlands from NCDOT projects. The three parties agreed that mitigation for transportation projects should occur before impacts and using a watershed approach. Appropriate compensatory mitigation requirements for wetland and stream impacts from the Fire Tower Road and Portertown Road project will be determined in consultation with the appropriate federal and state environmental resource and regulatory agencies.

Based on field surveys of the project study area, the project is not anticipated to effect endangered or threatened species protected under federal regulations.

- 2) *Additional impervious surface will impact water quality and/or cause/increased flooding.*

Drainage designs will be developed prior to construction that will ensure the project will not result in additional flooding to adjacent properties. Multiple state and federal regulations will provide safeguards for water quality. In addition to Clean Water Act mitigation requirements for stream and wetland impacts (if needed), streamside riparian zones within the study area are protected under provisions of the Tar-Pamlico River Basin Rules administered by the North Carolina Department of Environmental Quality (NCDEQ). These regulations address stormwater requirements within the Tar-Pamlico River basin, including implementation of required stormwater management or treatment. Information about NCDOT's stormwater program can be found online at: <https://www.ncdot.gov/programs/environment/stormwater/>.

During project construction, NCDOT will minimize construction related impacts by implementing erosion and sediment control measures on construction sites to prevent soil movement/loss in

the first place, enhance project aesthetics, reduce complaints, and most importantly, eliminate appreciable damage to off-site receiving channels, property, and natural resources.

- 3) *Existing drainage from Fire Tower Road causes property impacts at 107 Cherrywood Drive. Will project exacerbate this problem?*

This concern will be evaluated during the development of the drainage designs for the project.

- 4) *Concerns about impacts to pond in Holly Hills neighborhood.*

The highway storm drainage system design will include an evaluation of the downstream receiving channel or system to determine its adequacy. This evaluation will address pre and post runoff conditions of stormwater flow, velocity, and depth at the points leaving NCDOT rights-of-way.

- 5) *Request to see 401 Water Quality Certification for project.*

The water quality certification for the project will be completed during the final design stage of the public and made available at NCDOT's permit website:

<https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>

- 6) *Existing roundabout at Fire Tower and Portertown does not drain property.*

This concern will be evaluated during the development of the drainage designs for the project.

- 7) *Concerns about erosion/runoff at Cardinal Drive pond; do not compromise integrity of dirt wall (earthen dam).*

As noted above, the highway storm drainage system design will include an evaluation of the downstream receiving channel or system to determine its adequacy. This evaluation will address pre and post runoff conditions of stormwater flow, velocity, and depth at the points leaving NCDOT rights-of-way.

Category M – Noise & Air Quality

- 1) *Concerns about additional traffic noise for residential properties.*

NCDOT is completing a traffic noise study, which will address these concerns. Results will be presented at the next public meeting.

- 2) *Concerns about traffic noise for sanctuary at St. Timothy's church.*

The noise study currently underway will address these concerns.

- 3) *Concerns additional traffic will cause air quality impacts.*

With continued growth in the regions, additional traffic is anticipated whether or not the proposed improvements are completed. The project is anticipated to reduce traffic congestion and improve mobility, which should provide an overall benefit to air quality.

- 4) *What will noise levels be during construction and after project is constructed?*

The noise study currently underway will address these concerns.

- 5) *Requests for consideration of noise barriers.*

The noise study currently underway will address these concerns.

- 6) *Requests for protection from light impacts.*

Any determination regarding street lights for this project will be made by the City of Greenville. Please contact the City with any concerns regarding street lighting and how it should/should not be incorporated into the project. In addition, any requests for landscaping to shield residences from vehicle lights should be directed to the City.

Category N – Visual Impacts / Landscaping

- 1) *The project will change the current visual environment (residential, large trees, etc.). Requests for landscaping of median and right of way to match current visual environment, including large mature trees.*

Similar to sidewalk inclusion, the addition of landscaping is negotiated with municipalities. The public's requests for landscaping have been communicated to the City of Greenville, who will make the ultimate decision as to whether or not they will pursue an agreement with NCDOT to include landscaping as part of the proposed project improvements.

- 2) *Damage to neighborhood entrances needs to be repaired / enhanced (e.g., requests for landscaping, replacement signs, entrance islands).*

A design revision to the plans presented at the public meeting in September 2016 will provide a replacement entrance island and sign at the Willow Run neighborhood. The design team will look at other entrances and whether other islands can be retained. Any changes will be presented at the next public meeting.

- 3) *Need a privacy wall for Willow Run neighborhood due to loss of buffer space.*

Replacement of any privacy walls impacted by the project will be negotiated with the appropriate property owner(s) during the right of way stage of the project.

APPENDIX F- TRAFFIC NOISE

F-1. Hourly Equivalent Traffic Noise Level Tables

F-2. Noise Wall Analysis

APPENDIX F

F-1. Hourly Equivalent Traffic Noise Level Tables

Table B-1: Hourly Equivalent Traffic Noise Level Table
U-5785 and U-5870 Traffic Noise Report (Kimley-Horn and Associates, 2017)

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
A01	Residential	B	1	2333 E FIRE TOWER RD	68	69	71	3
A02	Residential	B	1	3226 MEETING PL	67	68	71	4
A03	Residential	B	1	3224 MEETING PL	56	57	59	3
A04	Residential	B	1	3222 MEETING PL	52	53	55	3
A05	Residential	B	1	3220 MEETING PL	50	51	53	3
A06	Residential	B	1	3218 MEETING PL	48	49	52	4
A07	Residential	B	1	3216 MEETING PL	47*	48	50	3
A08	Residential	B	1	3214 MEETING PL	47*	47*	49	2
A09	Residential	B	1	3225 MEETING PL	64	65	68	4
A10	Residential	B	1	3223 MEETING PL	55	56	61	6
A11	Residential	B	1	3221 MEETING PL	53	54	58	5
A12	Residential	B	1	3219 MEETING PL	50	51	55	5
A13	Residential	B	1	3217 MEETING PL	48	49	52	4
A14	Residential	B	1	3215 MEETING PL	47*	47*	49	2
A15	Residential	B	1	3213 MEETING PL	47*	47*	48	1
A16	Residential	B	1	3211 MEETING PL	47*	47*	48	1
A17	Residential	B	1	3201 CLEERE CT	65	66	70	5
A18	Residential	B	1	3203 CLEERE CT	51	52	56	5
A19	Residential	B	1	3205 CLEERE CT	47*	48	51	4
A20	Residential	B	1	3101 CLEERE CT	47*	47*	48	1
A21	Residential	B	1	3103 CLEERE CT	47*	47*	47*	0
A22	Residential	B	1	3105 CLEERE CT	47*	47*	47*	0
A23	Residential	B	1	3200 CLEERE CT	67	68	71	4

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
A24	Residential	B	1	3145 CLEERE CT	66	67	71	5
A25	Residential	B	1	3143 CLEERE CT	67	67	72	5
A26	Residential	B	1	3141 CLEERE CT	66	67	71	5
A27	Residential	B	1	3139 CLEERE CT	67	68	72	5
A28	Residential	B	1	3137 CLEERE CT	68	69	72	4
A29	Residential	B	1	3135 CLEERE CT	64	65	70	6
A30	Residential	B	1	3133 CLEERE CT	65	66	67	2
A31	Residential	B	1	3131 CLEERE CT	64	66	67	3
A32	Residential	B	1	3129 CLEERE CT	63	64	65	2
A33	Residential	B	1	3127 CLEERE CT	61	62	63	2
A34	Residential	B	1	3125 CLEERE CT	57	58	59	2
A35	Residential	B	1	3123 CLEERE CT	54	55	56	2
A36	Residential	B	1	3121 CLEERE CT	51	52	53	2
A37	Residential	B	1	3119 CLEERE CT	48	49	50	2
A38	Residential	B	1	3117 CLEERE CT	47*	47*	47	0
A39	Residential	B	1	3100 CLEERE CT	53	54	57	4
A40	Residential	B	1	3126 CLEERE CT	52	53	54	2
A41	Residential	B	1	3124 CLEERE CT	52	53	55	3
A42	Residential	B	1	3122 CLEERE CT	53	54	56	3
A43	Residential	B	1	3120 CLEERE CT	54	55	56	2
A44	Residential	B	1	3118 CLEERE CT	48	49	50	2
A45	Residential	B	1	3116 CLEERE CT	47	48	49	2
A46	Residential	B	1	3114 CLEERE CT	47*	47*	47	0
A47	Residential	B	1	3112 CLEERE CT	47*	47*	47	0
A48	Residential	B	1	3110 CLEERE CT	47*	47*	48	1
A49	Residential	B	1	3108 CLEERE CT	47*	47	49	2

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
A50	Residential	B	1	3104 CLEERE CT	47*	47	49	2
A51	Residential	B	1	3102 CLEERE CT	48	49	51	3
A52	Residential	B	1	2345 E FIRE TOWER RD	63	64	65	2
B01	Residential	B	1	1801 CROOKED CREEK RD	60	62	63	3
B02	Residential	B	1	1800 CROOKED CREEK RD	61	62	63	2
B03	Residential	B	1	1802 CROOKED CREEK RD	56	57	58	2
B04	Residential	B	1	1804 CROOKED CREEK RD	52	53	53	1
B05	Residential	B	1	1806 CROOKED CREEK RD	50	51	51	1
B06	Residential	B	1	1808 CROOKED CREEK RD	49	50	51	2
B07	Historic Church	C	1	2601 E FOURTEENTH ST	66	68	66	0
B08	Cemetery	C	1	2601 E FOURTEENTH ST	68	69	68	0
B09	Residential	B	1	101 MARY BETH DR	65	66	67	2
B10	Residential	B	1	103 MARY BETH DR	56	57	57	1
B11	Residential	B	1	203 MARY BETH DR	51	52	53	2
B12	Residential	B	1	205 MARY BETH DR	48	49	50	2
B13	Residential	B	1	100 MARY BETH DR	64	65	66	2
B14	Residential	B	1	102 LEANNE DR	62	63	63	1
B15	Residential	B	1	104 LEANNE DR	62	63	64	2
B16	Residential	B	1	106 LEANNE DR	61	62	63	2
B17	Residential	B	1	108 LEANNE DR	61	62	64	3
B18	Residential	B	1	110 LEANNE DR	61	62	65	4
B19	Residential	B	1	112 LEANNE DR	63	64	65	2
B20	Residential	B	1	114 LEANNE DR	63	64	66	3
B21	Residential	B	1	116 LEANNE DR	62	63	66	4
B22	Residential	B	1	101 LEANNE DR	53	54	56	3
B23	Residential	B	1	103 LEANNE DR	52	53	54	2

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
B24	Residential	B	1	105 LEANNE DR	50	51	52	2
B25	Residential	B	1	107 LEANNE DR	49	50	51	2
B26	Residential	B	1	109 LEANNE DR	49	50	52	3
B27	Residential	B	1	111 LEANNE DR	50	51	52	2
B28	Residential	B	1	113 LEANNE DR	50	51	52	2
B29	Residential	B	1	115 LEANNE DR	51	52	54	3
B30	Cemetery	C	1	0 CEMETERY RD	49	50	52	3
B31	Residential	B	1	100 CHRISTINA DR	48	49	50	2
B32	Residential	B	1	102 CHRISTINA DR	47*	47	48	1
B33	Residential	B	1	104 CHRISTINA DR	47*	47*	47	0
B34	Residential	B	1	106 CHRISTINA DR	47*	47*	47	0
B35	Residential	B	1	108 CHRISTINA DR	47*	47*	47	0
B36	Residential	B	1	110 CHRISTINA DR	47*	47*	47	0
B37	Residential	B	1	400 MARY BETH DR	47*	47*	47*	0
B38	Residential	B	1	402 MARY BETH DR	47*	47*	48	1
B39	Residential	B	1	503 MARY BETH DR	63	64	65	2
B40	Residential	B	1	501 MARY BETH DR	51	52	55	4
B41	Residential	B	1	407 MARY BETH DR	47	48	51	4
B42	Residential	B	1	405 MARY BETH DR	47*	47*	48	1
C01	Residential	B	1	2350 E FIRE TOWER RD	68	69	70	2
C02	Residential	B	1	2356 E FIRE TOWER RD	69	70	72	3
C03	Residential	B	1	2358 E FIRE TOWER RD	69	69	71	2
C04	Residential	B	1	2360 E FIRE TOWER RD	69	70	72	3
C05	Residential	B	1	2400 E FIRE TOWER RD	68	69	72	4
C06	Residential	B	1	2404 E FIRE TOWER RD	70	71	73	3
C07	Residential	B	1	2406 E FIRE TOWER RD	68	69	71	3

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
C08	Residential	B	1	2408 E FIRE TOWER RD	67	68	70	3
C09	Residential	B	1	3300 PINETREE LN	68	68	71	3
C10	Residential	B	1	3301 PINETREE LN	68	69	72	4
C11	Residential	B	1	2504 E FIRE TOWER RD	68	69	72	4
C12	Residential	B	1	2508 E FIRE TOWER RD	69	70	73	4
C13	Residential	B	1	109 SOUTHRIDGE DR	50	51	54	4
C14	Residential	B	1	111 SOUTHRIDGE DR	52	53	55	3
C15	Residential	B	1	113 SOUTHRIDGE DR	54	55	57	3
C16	Residential	B	1	119 SOUTHRIDGE DR	55	56	58	3
C17	Residential	B	1	110 SOUTHRIDGE DR	54	55	58	4
C18	Residential	B	1	108 SOUTHRIDGE DR	51	52	54	3
C19	Residential	B	1	106 SOUTHRIDGE DR	47	48	50	3
C20	Residential	B	1	2401 A BLUEBIRD LN	55	56	58	3
C21	Residential	B	1	2411 BLUEBIRD LN	55	56	58	3
C22	Residential	B	1	3315 PINETREE LN	54	55	57	3
C23	Place of Worship	C	1	2600 E FIRE TOWER RD	63	64	66	3
C24	Church Administration	C/E	1	2600 ELEANOR ST	54	55	57	3
C25	Residential	B	1	204 ELEANOR ST	49	50	53	4
C26	Day Care Center	C	1	107 LOUIS ST	52	53	56	4
C27	Place of Worship	C	1	107 LOUIS ST	56	57	60	4
C28	Recreation Area	C	1	107 LOUIS ST	60	61	65	5
C29	Residential	B	1	2850 E FIRE TOWER RD	62	63	68	6
C30	Residential	B	1	2860 E FIRE TOWER RD	64	65	70	6
C31	Residential	B	1	100 LEE ST	65	66	71	6
C32	Residential	B	1	101 LEE ST	68	69	ROW Take	

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
C33	Residential	B	1	203 ELEANOR ST	51	52	54	3
C34	Residential	B	1	100 LOUIS ST	54	55	56	2
C35	Residential	B	1	200 LOUIS ST	51	52	54	3
C36	Residential	B	1	202 LOUIS ST	50	51	53	3
C37	Residential	B	1	204 LOUIS ST	49	50	52	3
C38	Residential	B	1	206 LOUIS ST	48	49	51	3
C39	Residential	B	1	208 LOUIS ST	48	49	51	3
C40	Residential	B	1	210 LOUIS ST	48	49	52	4
C41	Residential	B	1	212 LOUIS ST	48	49	51	3
C42	Residential	B	1	214 LOUIS ST	48	49	51	3
C43	Residential	B	1	504 HARELL ST	47	48	50	3
C44	Residential	B	1	103 LOUIS ST	53	54	57	4
C45	Residential	B	1	102 LEE ST	56	57	61	5
C46	Residential	B	1	104 LEE ST	49	51	54	5
C47	Residential	B	1	106 LEE ST	50	51	53	3
C48	Residential	B	1	103 LEE ST	56	57	61	5
C49	Residential	B	1	105 LEE ST	50	51	54	4
C50	Residential	B	1	107 LEE ST	48	49	52	4
D01	Residential	B	1	101 KING ARTHUR RD	67	69	68	1
D02	Residential	B	1	103 KING ARTHUR RD	54	55	57	3
D03	Residential	B	1	201 KING ARTHUR RD	50	51	53	3
D04	Residential	B	1	203 KING ARTHUR RD	48	49	51	3
D05	Residential	B	1	100 KING ARTHUR RD	67	69	68	1
D06	Residential	B	1	3011 E FIRE TOWER RD	70	71	69	-1
D07	Residential	B	1	3021 E FIRE TOWER RD	70	71	69	-1
D08	Residential	B	1	3101 E FIRE TOWER RD	70	71	69	-1

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
D09	Residential	B	1	3111 E FIRE TOWER RD	70	71	69	-1
D10	Residential	B	1	3121 E FIRE TOWER RD	69	70	69	0
D11	Residential	B	1	3131 E FIRE TOWER RD	70	71	69	-1
D12	Residential	B	1	3141 E FIRE TOWER RD	69	70	69	0
D13	Residential	B	1	3151 E FIRE TOWER RD	70	71	69	-1
D14	Residential	B	1	3161 E FIRE TOWER RD	70	71	69	-1
D15	Residential	B	1	3171 E FIRE TOWER RD	70	71	69	-1
D16	Residential	B	1	100 EXCALIBER DR	54	55	57	3
D17	Residential	B	1	102 EXCALIBER DR	53	54	56	3
D18	Residential	B	1	104 EXCALIBER DR	53	54	56	3
D19	Residential	B	1	106 EXCALIBER DR	53	54	56	3
D20	Residential	B	1	108 EXCALIBER DR	53	54	56	3
D21	Residential	B	1	110 EXCALIBER DR	52	53	55	3
D22	Residential	B	1	112 EXCALIBER DR	52	54	55	3
D23	Residential	B	1	114 EXCALIBER DR	53	54	55	2
D24	Residential	B	1	116 EXCALIBER DR	53	54	55	2
D25	Residential	B	1	200 EXCALIBER DR	53	54	56	3
D26	Residential	B	1	202 EXCALIBER DR	53	54	56	3
D27	Residential	B	1	200 KING ARTHUR RD	51	52	54	3
D28	Residential	B	1	103 EXCALIBER DR	49	50	52	3
D29	Residential	B	1	105 EXCALIBER DR	50	51	53	3
D30	Residential	B	1	107 EXCALIBER DR	48	49	51	3
D31	Residential	B	1	109 EXCALIBER DR	47	48	49	2
D32	Residential	B	1	111 EXCALIBER DR	47	48	49	2
D33	Residential	B	1	113 EXCALIBER DR	47	48	49	2
D34	Residential	B	1	115 EXCALIBER DR	47*	48	49	2

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
D35	Residential	B	1	117 EXCALIBER DR	47	48	49	2
D36	Residential	B	1	100 LANCELOT DR	47	48	50	3
D37	Residential	B	1	101 AVALON LN	70	71	70	0
D38	Residential	B	1	103 AVALON LN	54	55	57	3
D39	Residential	B	1	105 AVALON LN	51	52	54	3
D40	Residential	B	1	201 AVALON LN	48	50	51	3
D41	Residential	B	1	100 AVALON LN	69	71	69	0
D42	Residential	B	1	102 AVALON LN	56	59	57	1
D43	Residential	B	1	104 AVALON LN	52	54	55	3
D44	Residential	B	1	106 AVALON LN	50	52	53	3
D45	Residential	B	1	200 AVALON LN	49	51	52	3
D46	Residential	B	1	202 AVALON LN	49	50	52	3
D47	Residential	B	1	204 AVALON LN	49	50	51	2
D48	Residential	B	1	206 AVALON LN	48	49	51	3
D49	Residential	B	1	208 AVALON LN	47	48	51	4
D50	Residential	B	1	210 AVALON LN	47	48	50	3
D51	Residential	B	1	212 AVALON LN	47*	47	50	3
D52	Residential	B	1	214 AVALON LN	47*	47	49	2
E01	Residential	B	1	2962 E FIRE TOWER RD	64	65	70	6
E02	Residential	B	1	100 REGALWOOD DR	66	68	ROW Take	
E03	Residential	B	1	102 REGALWOOD DR	56	57	61	5
E04	Residential	B	1	104 REGALWOOD DR	48	50	53	5
E05	Residential	B	1	106 REGALWOOD DR	47*	47	50	3
E06	Residential	B	1	101 REGALWOOD DR	62	63	68	6
E07	Residential	B	1	103 REGALWOOD DR	55	56	59	4
E08	Residential	B	1	105 REGALWOOD DR	51	52	56	5

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
E09	Residential	B	1	107 REGALWOOD DR	49	51	53	4
E10	Residential	B	1	109 REGALWOOD DR	47	48	51	4
E11	Residential	B	1	103 CANTERBURY CT	51	52	55	4
E12	Residential	B	1	102 CANTERBURY CT	51	52	55	4
E13	Residential	B	1	101 CANTERBURY CT	51	52	55	4
E14	Residential	B	1	100 CANTERBURY CT	49	50	52	3
E15	Residential	B	1	3120 E FIRE TOWER RD	65	66	ROW TAKE	
E16	Residential	B	1	3160 E FIRE TOWER RD	65	66	71	6
E17	Residential	B	1	3180 E FIRE TOWER RD	53	54	57	4
E18	Residential	B	1	3200 E FIRE TOWER RD	66	68	71	5
E19	Residential	B	1	2202 TROTTERS RIDGE CT	56	57	57	1
E20	Residential	B	1	2204 TROTTERS RIDGE CT	50	52	53	3
E21	Residential	B	1	2206 TROTTERS RIDGE CT	49	51	52	3
E22	Residential	B	1	2208 TROTTERS RIDGE CT	50	51	53	3
E23	Residential	B	1	2207 TROTTERS RIDGE CT	50	52	52	2
E24	Residential	B	1	2205 TROTTERS RIDGE CT	55	57	56	1
E25	Residential	B	1	2203 TROTTERS RIDGE CT	59	61	60	1
E26	Residential	B	1	2210 PORTERTOWN RD	63	64	59	-4
E27	Residential	B	1	2220 PORTERTOWN RD	62	63	58	-4
E28	Residential	B	1	2350 PORTERTOWN RD	47*	47	47	0
F01	Residential	B	1	2150 PORTERTOWN RD	60	63	61	1
F02	Residential	B	1	2126 PORTERTOWN RD	56	58	61	5
F03	Residential	B	1	111 HOLLY HILLS RD	58	59	61	3
F04	Residential	B	1	160 HOLLY HILLS RD	55	56	60	5
F05	Residential	B	1	170 HOLLY HILLS RD	47*	47	51	4
F06	Residential	B	1	101 CARDINAL DR	62	64	69	7

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
F07	Residential	B	1	100 CARDINAL DR	63	64	70	7
F08	Residential	B	1	102 CARDINAL DR	50	51	56	6
F09	Residential	B	1	324 KING GEORGE RD	65	66	71	6
F10	Residential	B	1	320 KING GEORGE RD	51	52	57	6
F11	Residential	B	1	318 KING GEORGE RD	47*	47	51	4
F12	Residential	B	1	312 KING GEORGE RD	47*	47*	49	2
F13	Residential	B	1	310 KING GEORGE RD	48	49	51	3
F14	Residential	B	1	323 KING GEORGE RD	65	66	71	6
F15	Residential	B	1	321 KING GEORGE RD	50	52	56	6
F16	Residential	B	1	319 KING GEORGE RD	47	49	52	5
F17	Residential	B	1	317 KING GEORGE RD	47*	47	51	4
F18	Residential	B	1	315 KING GEORGE RD	47*	47	50	3
F19	Residential	B	1	1854 PORTERTOWN RD	65	66	71	6
F20	Residential	B	1	1852 PORTERTOWN RD	65	66	72	7
F21	Residential	B	1	1850 PORTERTOWN RD	65	66	72	7
F22	Golf Course	C	0 ¹	311 Oxford Rd	52	53	56	4
F23	Golf Course	C	0 ¹	311 Oxford Rd	53	54	58	5
F24	Golf Course	C	0 ¹	311 Oxford Rd	50	51	54	4
F25	Golf Course	C	0 ¹	311 Oxford Rd	50	51	55	5
F26	Golf Course	C	0 ¹	311 Oxford Rd	51	52	56	5
F27	Golf Course	C	0 ¹	311 Oxford Rd	52	53	57	5
F28	Golf Course	C	0 ¹	311 Oxford Rd	48	49	53	5
F29	Golf Course	C	0 ¹	311 Oxford Rd	48	49	53	5
F30	Golf Course	C	0 ¹	311 Oxford Rd	49	50	54	5
F31	Golf Course	C	0 ¹	311 Oxford Rd	49	50	54	5
G01	Residential	B	1	3300 COUNTRYWOOD LN	57	58	53	-4

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
G02	Residential	B	1	3301 COUNTRYWOOD LN	61	62	56	-5
G03	Residential	B	1	2211 PORTERTOWN RD	61	62	56	-5
G04	Residential	B	1	3303 COUNTRYWOOD LN	48	50	47*	-1
G05	Residential	B	1	3305 COUNTRYWOOD LN	47*	47	47*	0
G06	Residential	B	1	131 ROBIN RD	62	63	60	-2
G07	Residential	B	1	129 ROBIN RD	54	56	53	-1
G08	Residential	B	1	127 ROBIN RD	51	53	50	-1
G09	Residential	B	1	124 ROBIN RD	50	52	53	3
G10	Residential	B	1	122 ROBIN RD	47	49	49	2
G11	Residential	B	1	3 WISTERIA LN	48	49	50	2
G12	Residential	B	1	4 WISTERIA LN	47	48	50	3
G13	Residential	B	1	5 WISTERIA LN	47	48	51	4
G14	Residential	B	1	6 WISTERIA LN	48	50	53	5
G15	Residential	B	1	7 WISTERIA LN	48	49	53	5
G16	Residential	B	1	2151 PORTERTOWN RD	62	64	63	1
G17	Residential	B	1	2131 PORTERTOWN RD	58	60	63	5
G18	Residential	B	1	2061 PORTERTOWN RD	55	56	65	10
G19	Residential	B	1	2051 PORTERTOWN RD	59	60	67	8
G20	Cemetery	C	1	1951 B PORTERTOWN RD	58	59	64	6
G21	Residential	B	1	1951 PORTERTOWN RD	58	59	63	5
G22	Residential	B	1	100 ROBIN RD	62	63	68	6
G23	Residential	B	1	102 ROBIN RD	47	48	52	5
G24	Residential	B	1	104 ROBIN RD	47*	47*	49	2
G25	Residential	B	1	101 ROBIN RD	62	63	68	6
G26	Residential	B	1	103 ROBIN RD	51	52	55	4
G27	Residential	B	1	105 ROBIN RD	47	48	51	4

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
G28	Residential	B	1	1851 PORTERTOWN RD	61	62	65	4
H01	Residential	B	1	4270 A WILLIAMS BROOK LN	56	58	63	7
H02	Residential	B	1	4270 B WILLIAMS BROOK LN	51	52	58	7
H03	Residential	B	1	4260 A WILLIAMS BROOK LN	49	50	56	7
H04	Residential	B	1	4260 B WILLIAMS BROOK LN	47	48	54	7
H05	Residential	B	1	4250 A WILLIAMS BROOK LN	47*	47	53	6
H06	Residential	B	1	4250 B WILLIAMS BROOK LN	47*	47*	52	5
H07	Residential	B	1	4240 A WILLIAMS BROOK LN	47*	47*	51	4
H08	Residential	B	1	4240 B WILLIAMS BROOK LN	47*	47*	50	3
H09	Residential	B	1	4230 A WILLIAMS BROOK LN	47*	47*	49	2
H10	Residential	B	1	4230 B WILLIAMS BROOK LN	47*	47*	49	2
H11	Residential	B	1	4220 A WILLIAMS BROOK LN	47*	47*	49	2
H12	Residential	B	1	4220 B WILLIAMS BROOK LN	47*	47*	49	2
H13	Residential	B	1	4210 A WILLIAMS BROOK LN	47*	47*	48	1
H14	Residential	B	1	4210 B WILLIAMS BROOK LN	47*	47*	47	0
H15	Residential	B	1	4285 B WILLIAMS BROOK LN	65	66	ROW Take	
H16	Residential	B	1	4285 A WILLIAMS BROOK LN	62	63	ROW Take	
H17	Residential	B	1	4275 B WILLIAMS BROOK LN	58	60	66	8
H18	Residential	B	1	4275 A WILLIAMS BROOK LN	55	57	62	7
H19	Residential	B	1	4265 B WILLIAMS BROOK LN	53	55	59	6
H20	Residential	B	1	4265 A WILLIAMS BROOK LN	52	53	58	6
H21	Residential	B	1	4255 B WILLIAMS BROOK LN	49	50	55	6
H22	Residential	B	1	4255 A WILLIAMS BROOK LN	47	48	52	5
H23	Residential	B	1	4245 B WILLIAMS BROOK LN	47*	47	50	3
H24	Residential	B	1	4245 A WILLIAMS BROOK LN	47*	47*	48	1
H25	Residential	B	1	4235 B WILLIAMS BROOK LN	47*	47*	47*	0

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H26	Residential	B	1	4235 A WILLIAMSBROOK LN	47*	47*	47*	0
H27	Residential	B	1	4225 B WILLIAMSBROOK LN	47*	47*	47*	0
H28	Residential	B	1	4225 A WILLIAMSBROOK LN	47*	47*	47*	0
H29	Residential	B	1	4215 B WILLIAMSBROOK LN	47*	47*	47*	0
H30	Residential	B	1	4215 A WILLIAMSBROOK LN	47*	47*	47*	0
H31	Residential	B	1	1700 PORTERTOWN RD	67	68	ROW Take	
H32	Residential	B	1	4236 A BROOK CREEK LN	50	51	56	6
H33	Residential	B	1	4236 B BROOK CREEK LN	48	49	53	5
H34	Residential	B	1	4232 A BROOK CREEK LN	47*	47	50	3
H35	Residential	B	1	4232 B BROOK CREEK LN	47*	47*	47	0
H36	Residential	B	1	4228 A BROOK CREEK LN	47*	47*	47*	0
H37	Residential	B	1	4228 B BROOK CREEK LN	47*	47*	47*	0
H38	Residential	B	1	4224 A BROOK CREEK LN	47*	47*	47*	0
H39	Residential	B	1	4224 B BROOK CREEK LN	47*	47*	47*	0
H40	Residential	B	1	4220 A BROOK CREEK LN	47*	47*	47*	0
H41	Residential	B	1	4220 B BROOK CREEK LN	47*	47*	47*	0
H42	Residential	B	1	4216 A BROOK CREEK LN	47*	47*	47*	0
H43	Residential	B	1	4216 B BROOK CREEK LN	47*	47*	47*	0
H44	Residential	B	1	4237 B BROOK CREEK LN	60	61	65	5
H45	Residential	B	1	4237 A BROOK CREEK LN	55	56	61	6
H46	Residential	B	1	4233 B BROOK CREEK LN	50	52	56	6
H47	Residential	B	1	4233 A BROOK CREEK LN	48	49	53	5
H48	Residential	B	1	4229 B BROOK CREEK LN	47*	47	51	4
H49	Residential	B	1	4229 A BROOK CREEK LN	47*	47*	49	2
H50	Residential	B	1	4225 B BROOK CREEK LN	47*	47*	48	1
H51	Residential	B	1	4225 A BROOK CREEK LN	47*	47*	47	0

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H52	Residential	B	1	4221 B BROOK CREEK LN	47*	47*	47	0
H53	Residential	B	1	4221 A BROOK CREEK LN	47*	47*	47*	0
H54	Residential	B	1	4217 B BROOK CREEK LN	47*	47*	47*	0
H55	Residential	B	1	4217 A BROOK CREEK LN	47*	47*	47*	0
H56	Residential	B	1	4213 B BROOK CREEK LN	47*	47*	47*	0
H57	Residential	B	1	4213 A BROOK CREEK LN	47*	47*	47*	0
H58	Residential	B	1	1537 C8 PINE BROOK CT	57	58	63	6
H59	Residential	B	1	1537 C7 PINE BROOK CT	52	53	58	6
H60	Residential	B	1	1537 C6 PINE BROOK CT	49	50	55	6
H61	Residential	B	1	1537 C5 PINE BROOK CT	47	48	53	6
H62	Residential	B	1	1537 C4 PINE BROOK CT	47*	47*	51	4
H63	Residential	B	1	1537 C3 PINE BROOK CT	47*	47*	49	2
H64	Residential	B	1	1537 C2 PINE BROOK CT	47*	47*	49	2
H65	Residential	B	1	1537 C1 PINE BROOK CT	47*	47*	48	1
H66	Residential	B	1	1560 PORTERTOWN RD	66	67	72	6
H67	Residential	B	1	1560 PORTERTOWN RD	58	59	65	7
H68	Residential	B	1	1560 PORTERTOWN RD	53	54	60	7
H69	Residential	B	1	1560 PORTERTOWN RD	50	51	56	6
H70	Residential	B	1	1560 PORTERTOWN RD	48	49	55	7
H71	Residential	B	1	1560 PORTERTOWN RD	47	48	52	5
H72	Residential	B	1	1560 PORTERTOWN RD	47*	47*	50	3
H73	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H74	Residential	B	1	1560 PORTERTOWN RD	63	64	ROW Take	
H75	Residential	B	1	1570 PORTERTOWN RD	67	68	ROW Take	
H76	Residential	B	1	1560 PORTERTOWN RD	67	68	ROW Take	
H77	Residential	B	1	1560 PORTERTOWN RD	58	59	66	8

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H78	Residential	B	1	1560 PORTERTOWN RD	52	53	64	12
H79	Residential	B	1	1560 PORTERTOWN RD	52	53	64	12
H80	Residential	B	1	1560 PORTERTOWN RD	54	55	63	9
H81	Residential	B	1	1560 PORTERTOWN RD	47*	47*	52	5
H82	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H83	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H84	Residential	B	1	1560 PORTERTOWN RD	47*	47*	48	1
H85	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H86	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H87	Residential	B	1	1560 PORTERTOWN RD	47*	47*	50	3
H88	Residential	B	1	1560 PORTERTOWN RD	47*	47	50	3
H89	Residential	B	1	1560 PORTERTOWN RD	52	53	58	6
H90	Residential	B	1	1560 PORTERTOWN RD	47*	47*	51	4
H91	Residential	B	1	1560 PORTERTOWN RD	47*	47*	52	5
H92	Residential	B	1	1560 PORTERTOWN RD	47*	47*	50	3
H93	Residential	B	1	1560 PORTERTOWN RD	47*	47*	51	4
H94	Residential	B	1	1560 PORTERTOWN RD	47*	47*	49	2
H95	Residential	B	1	1560 PORTERTOWN RD	47*	47*	50	3
H96	Residential	B	1	1560 PORTERTOWN RD	49	50	53	4
H97	Residential	B	1	1560 PORTERTOWN RD	47*	47*	47	0
H98	Residential	B	1	1560 PORTERTOWN RD	47*	47*	47*	0
H99	Residential	B	1	1560 PORTERTOWN RD	47*	47*	47*	0
H100	Residential	B	1	1560 PORTERTOWN RD	47*	47*	47*	0
H101	Residential	B	1	1560 PORTERTOWN RD	47*	47*	47	0
H102	Residential	B	1	1560 PORTERTOWN RD	47*	47*	48	1
H103	Residential	B	1	1560 PORTERTOWN RD	48	49	52	4

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H104	Residential	B	1	1560 PORTERTOWN RD	62	64	ROW Take	
H105	Residential	B	1	1560 PORTERTOWN RD	61	62	70	9
H106	Residential	B	1	1560 PORTERTOWN RD	57	58	65	8
H107	Residential	B	1	1560 PORTERTOWN RD	54	55	61	7
H108	Residential	B	1	1560 PORTERTOWN RD	52	53	60	8
H109	Residential	B	1	1560 PORTERTOWN RD	51	52	57	6
H110	Residential	B	1	1560 PORTERTOWN RD	50	51	55	5
H111	Residential	B	1	1560 PORTERTOWN RD	49	50	53	4
H112	Residential	B	1	1560 PORTERTOWN RD	49	50	53	4
H113	Residential	B	1	1560 PORTERTOWN RD	48	49	52	4
H114	Residential	B	1	1560 PORTERTOWN RD	48	49	51	3
H115	Residential	B	1	1560 PORTERTOWN RD	47*	48	49	2
H116	Residential	B	1	4104 1A ELKIN RIDGE DR	63	64	71	8
H117	Residential	B	1	4104 B ELKIN RIDGE DR	61	62	69	8
H118	Residential	B	1	4102 2A ELKIN RIDGE DR	57	59	65	8
H119	Residential	B	1	4102 B ELKIN RIDGE DR	56	58	65	9
H120	Residential	B	1	4100 3A ELKIN RIDGE DR	53	54	61	8
H121	Residential	B	1	4100 B ELKIN RIDGE DR	51	52	59	8
H122	Residential	B	1	1503 4A HONOR CI	61	62	69	8
H123	Residential	B	1	1503 B HONOR CI	63	64	72	9
H124	Residential	B	1	1504 5A HONOR CI	63	64	71	8
H125	Residential	B	1	1504 B HONOR CI	62	63	71	9
H126	Residential	B	1	1502 6A HONOR CI	55	57	64	9
H127	Residential	B	1	1502 B HONOR CI	53	54	60	7
H128	Residential	B	1	4010 7A ELKIN RIDGE DR	49	50	55	6
H129	Residential	B	1	4010 B ELKIN RIDGE DR	49	50	56	7

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H130	Residential	B	1	4008 8A ELKIN RIDGE DR	49	50	57	8
H131	Residential	B	1	4008 B ELKIN RIDGE DR	49	50	56	7
H132	Residential	B	1	4006 9A ELKIN RIDGE DR	47	48	54	7
H133	Residential	B	1	4006 B ELKIN RIDGE DR	47*	47	53	6
H134	Residential	B	1	4004 10A ELKIN RIDGE DR	47*	47*	51	4
H135	Residential	B	1	4004 B ELKIN RIDGE DR	47*	47*	50	3
H136	Residential	B	1	4203 G ELKIN RIDGE DR	65	66	69	4
H137	Residential	B	1	4203 F ELKIN RIDGE DR	65	66	69	4
H138	Residential	B	1	4203 E ELKIN RIDGE DR	65	66	69	4
H139	Residential	B	1	4203 D ELKIN RIDGE DR	65	66	69	4
H140	Residential	B	1	4203 C ELKIN RIDGE DR	65	67	69	3
H141	Residential	B	1	4203 B ELKIN RIDGE DR	65	67	69	4
H142	Residential	B	1	4203 A ELKIN RIDGE DR	65	67	69	4
H143	Residential	B	1	1405 B ASHLEY WY	56	57	61	5
H144	Residential	B	1	1405 42A ASHLEY WY	54	55	59	5
H145	Residential	B	1	1403 B ASHLEY WY	52	53	56	4
H146	Residential	B	1	1403 A ASHLEY WY	52	53	56	4
H147	Residential	B	1	1401 B ASHLEY WY	51	52	54	3
H148	Residential	B	1	1401 A ASHLEY WY	49	50	52	3
H149	Residential	B	1	1400 B ASHLEY WY	47*	47*	50	3
H150	Residential	B	1	1400 39A ASHLEY WY	47*	47*	50	3
H151	Residential	B	1	1402 B ASHLEY WY	47*	47	51	4
H152	Residential	B	1	1402 A ASHLEY WY	47*	47	51	4
H153	Residential	B	1	1404 B ASHLEY WY	47	48	52	5
H154	Residential	B	1	1404 37A ASHLEY WY	48	49	52	4
H155	Residential	B	1	4103 B ELKIN RIDGE DR	52	53	57	5

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
H156	Residential	B	1	4103 36A ELKIN RIDGE DR	51	52	55	4
H157	Residential	B	1	4101 B ELKIN RIDGE DR	51	52	55	4
H158	Residential	B	1	4101 35A ELKIN RIDGE DR	51	52	55	4
H159	Residential	B	1	1403 B VICTORIOUS PL	47*	47	50	3
H160	Residential	B	1	1403 A VICTORIOUS PL	47*	47	50	3
H161	Residential	B	1	1401 B VICTORIOUS PL	47*	47*	49	2
H162	Residential	B	1	1401 A VICTORIOUS PL	47*	47*	49	2
H163	Residential	B	1	1404 B VICTORIOUS PL	47*	47*	49	2
H164	Residential	B	1	1404 A VICTORIOUS PL	47*	47*	50	3
H165	Residential	B	1	4005 B ELKIN RIDGE DR	50	51	54	4
H166	Residential	B	1	4005 29A ELKIN RIDGE DR	50	51	54	4
H167	Residential	B	1	4003 B ELKIN RIDGE DR	50	51	53	3
H168	Residential	B	1	4003 28A ELKIN RIDGE DR	49	50	52	3
H169	Residential	B	1	1330 PORTERTOWN RD	62	63	65	3
H170	Residential	B	1	1310 PORTERTOWN RD	64	65	66	2
I01	Residential	B	1	1721 PORTERTOWN RD	65	66	70	5
I02	Residential	B	1	3596 WILLOW RUN DR	57	58	62	5
I03	Residential	B	1	3598 WILLOW RUN DR	49	51	55	6
I04	Residential	B	1	3600 WILLOW RUN DR	47	48	52	5
I05	Residential	B	1	3601 WILLOW RUN DR	47	49	53	6
I06	Residential	B	1	3501 CATTAIL LN	55	56	61	6
I07	Residential	B	1	3503 CATTAIL LN	55	56	59	4
I08	Residential	B	1	1701 SASSAFRAS CT	55	56	60	5
I09	Residential	B	1	1703 SASSAFRAS CT	63	64	68	5
I10	Residential	B	1	1705 SASSAFRAS CT	63	64	66	3
I11	Residential	B	1	1707 SASSAFRAS CT	65	66	66	1

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
I12	Residential	B	1	1711 SASSAFRAS CT	63	64	65	2
I13	Residential	B	1	1713 SASSAFRAS CT	62	64	64	2
I14	Residential	B	1	1717 SASSAFRAS CT	64	65	64	0
I15	Residential	B	1	1719 SASSAFRAS CT	64	65	66	2
I16	Residential	B	1	1721 SASSAFRAS CT	64	65	66	2
I17	Residential	B	1	1723 SASSAFRAS CT	64	65	63	-1
I18	Residential	B	1	1725 SASSAFRAS CT	64	65	64	0
I19	Residential	B	1	1727 SASSAFRAS CT	64	65	65	1
I20	Residential	B	1	1729 SASSAFRAS CT	63	65	68	5
I21	Residential	B	1	1731 SASSAFRAS CT	53	54	58	5
I22	Residential	B	1	1733 SASSAFRAS CT	50	51	54	4
I23	Residential	B	1	1716 SASSAFRAS CT	50	51	55	5
I24	Residential	B	1	1718 SASSAFRAS CT	49	50	54	5
I25	Residential	B	1	1720 SASSAFRAS CT	47	48	52	5
I26	Residential	B	1	1722 SASSAFRAS CT	47	48	52	5
I27	Residential	B	1	1724 SASSAFRAS CT	47	48	52	5
I28	Residential	B	1	1728 SASSAFRAS CT	47	48	52	5
I29	Residential	B	1	1704 SASSAFRAS CT	51	52	55	4
I30	Residential	B	1	3605 CATTAIL LN	50	51	54	4
I31	Residential	B	1	3607 CATTAIL LN	49	50	54	5
I32	Residential	B	1	3611 CATTAIL LN	48	49	52	4
I33	Residential	B	1	3613 CATTAIL LN	47*	47*	49	2
I34	Residential	B	1	3615 CATTAIL LN	47*	47*	49	2
I35	Residential	B	1	3617 CATTAIL LN	47*	47*	48	1
I36	Residential	B	1	3619 CATTAIL LN	47*	47*	49	2
I37	Residential	B	1	3621 CATTAIL LN	47*	47*	48	1

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
I38	Residential	B	1	1732 SASSAFRAS CT	47*	47	51	4
I39	Residential	B	1	3701 CATTAIL LN	48	49	53	5
I40	Residential	B	1	3705 CATTAIL LN	48	49	52	4
I41	Residential	B	1	3709 CATTAIL LN	47	48	52	5
I42	Residential	B	1	3711 CATTAIL LN	47	48	53	6
I43	Residential	B	1	3600 CATTAIL LN	47	48	52	5
I44	Residential	B	1	3602 CATTAIL LN	47	48	52	5
I45	Residential	B	1	3606 CATTAIL LN	47*	47	50	3
I46	Residential	B	1	3610 CATTAIL LN	47*	47	51	4
I47	Residential	B	1	3612 CATTAIL LN	47*	47*	49	2
I48	Residential	B	1	3614 CATTAIL LN	47*	47*	49	2
I49	Residential	B	1	3616 CATTAIL LN	47*	47*	48	1
I50	Residential	B	1	3618 CATTAIL LN	47*	47*	49	2
I51	Residential	B	1	3620 CATTAIL LN	47*	47*	49	2
I52	Residential	B	1	3622 CATTAIL LN	47*	47*	49	2
I53	Residential	B	1	3624 CATTAIL LN	47*	47*	49	2
I54	Residential	B	1	3700 CATTAIL LN	47*	47*	49	2
I55	Residential	B	1	1441 PORTERTOWN RD	65	66	69	4
I56	Residential	B	1	1431 PORTERTOWN RD	62	63	67	5
I57	Residential	B	1	1427 PORTERTOWN RD	62	63	67	5
I58	Residential	B	1	1421 PORTERTOWN RD	64	65	69	5
I59	Residential	B	1	1411 PORTERTOWN RD	65	66	70	5
I60	Church Administration	C	1	4310 EASTERN PINES RD	64	66	64	0
I61	Residential	B	1	1410 BOYD PARK DR	54	55	58	4
I62	Residential	B	1	4320 EASTERN PINES RD	62	63	64	2

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
I63	Residential	B	1	1411 BOYD PARK DR	50	52	55	5
I64	Retail	F	1	4300 EASTERN PINES RD	63	64	65	2
J01	Office	E	1	1221 PORTERTOWN RD	62	63	67	5
J02	Restaurant	E	1	1201 PORTERTOWN RD	66	67	68	2
J03	Cemetery	C	0 ²	4150 E 10th St	59	60	66	7
J04	Cemetery	C	0 ²	4150 E 10th St	59	61	66	7
J05	Cemetery	C	0 ²	4150 E 10th St	60	61	66	6
J06	Cemetery	C	0 ²	4150 E 10th St	60	61	67	7
J07	Cemetery	C	0 ²	4150 E 10th St	61	62	67	6
J08	Cemetery	C	0 ²	4150 E 10th St	61	62	67	6
J09	Cemetery	C	0 ²	4150 E 10th St	62	63	67	5
J10	Cemetery	C	0 ²	4150 E 10th St	63	64	67	4
J11	Cemetery	C	0 ²	4150 E 10th St	66	67	69	3
J12	Cemetery	C	0 ²	4150 E 10th St	70	71	72	2
J13	Cemetery	C	0 ²	4150 E 10th St	54	55	61	7
J14	Cemetery	C	0 ²	4150 E 10th St	55	56	61	6
J15	Cemetery	C	0 ²	4150 E 10th St	55	56	62	7
J16	Cemetery	C	0 ²	4150 E 10th St	56	57	62	6
J17	Cemetery	C	0 ²	4150 E 10th St	57	58	63	6
J18	Cemetery	C	0 ²	4150 E 10th St	58	59	63	5
J19	Cemetery	C	0 ²	4150 E 10th St	59	60	63	4
J20	Cemetery	C	0 ²	4150 E 10th St	61	62	65	4
J21	Cemetery	C	0 ²	4150 E 10th St	64	65	67	3
J22	Cemetery	C	0 ²	4150 E 10th St	69	70	71	2
J23	Cemetery	C	0 ²	4150 E 10th St	50	51	56	6
J24	Cemetery	C	0 ²	4150 E 10th St	50	51	56	6

Receivers					Predicted Noise Levels, Leq(h) (dB(A))			Noise Level Increase (dB(A))
ID	Use	NAC	D. U.	Address	Existing	2040 No Build	2040 Build	
J25	Cemetery	C	0 ²	4150 E 10th St	51	52	57	6
J26	Cemetery	C	0 ²	4150 E 10th St	53	54	58	5
J27	Cemetery	C	0 ²	4150 E 10th St	54	55	58	4
J28	Cemetery	C	0 ²	4150 E 10th St	55	56	59	4
J29	Cemetery	C	0 ²	4150 E 10th St	57	58	60	3
J30	Cemetery	C	0 ²	4150 E 10th St	60	61	62	2
J31	Cemetery	C	0 ²	4150 E 10th St	63	64	66	3
J32	Cemetery	C	0 ²	4150 E 10th St	68	69	70	2
Total Predicted "Build" Alternative Design Year 2040 Traffic Noise Impacts:							111 ^{3,4}	

1. The calculated number of "equivalent residences" for the Brook Valley Country Club golf course is less than 1 D.U., therefore a minimum value of 1 D.U. is assigned to the overall golf course and split amongst the 10 grid points used to represent it (Receptors F22-F31).
2. The calculated number of "equivalent residences" for the Pinewood Cemetery is less than 1 D.U., therefore a minimum value of 1 D.U. is assigned to the overall Cemetery and split amongst the 30 grid points used to represent it (Receptors J03-J32).
3. Predicted traffic noise level impact due to approaching or exceeding NAC or due to a "substantial increase."
4. The number of predicted impacts is not duplicated if receptors are predicted to be impacted by more than one criterion (e.g. if a receptor is impacted by NAC "C" and NAC "D", it is counted as only one impact).

* TNM predicted noise level was less than 47 dB(A)

Table B-1: Hourly Equivalent Traffic Noise Level Table
U-5785 Traffic Noise Report Addendum (Kimley-Horn and Associates, 2018)

Receivers					Predicted Noise Levels, Leq(h) [dB(A)]			Noise Level Increase [dB(A)]
ID	Use	NAC	D. U.	Address	2016 Existing	2040 No Build	2040 Build	
1.01	Outdoor Eating	E	1	1605 E FIRE TOWER RD	59	60	61	2
1.02a	Residential	B	1	1510 WIMBLEDON DR	56	57	59	3
1.02b	Residential	B	1	1510 WIMBLEDON DR	60	61	62	2
1.03	Outdoor Eating	E	1	1675 E FIRE TOWER RD	65	66	68	3
1.04	Outdoor Eating	E	1	1885 E FIRE TOWER RD	67	68	69	2
1.05	Outdoor Eating	E	1	1889 E FIRE TOWER RD	69	70	71	2
1.06	Residential	B	1	1812 BRADFORD DR	47*	47*	53	6
1.07	Residential	B	1	1812 BRADFORD DR	47*	47*	53	6
1.08	Residential	B	1	1810 BRADFORD DR	47*	47*	55	8
1.09	Residential	B	1	1810 BRADFORD DR	47*	47	55	8
1.10	Residential	B	1	1808 BRADFORD DR	48	49	56	8
1.11	Residential	B	1	1808 BRADFORD DR	49	50	57	8
2.01	Outdoor Eating	E	1	1920 SMYTHEWYCK DR	56	57	57	1
2.02	Outdoor Eating	E	1	1914 TURNBURY DR	58	59	59	1
2.03	Outdoor Eating	E	1	2085 E FIRE TOWER RD	68	69	71	3
2.04	Outdoor Eating	E	1	3702 CHARLES BLVD	70	71	72	2
2.05	Recreational	C	1	1900 COVENGTON WAY	62	63	64	2
2.06a	Residential	B	1	1904 COVENGTON WAY	61	62	63	2
2.06b	Residential	B	1	1904 COVENGTON WAY	63	64	65	2
2.07a	Residential	B	1	1904 COVENGTON WAY	58	59	60	2
2.07b	Residential	B	1	1904 COVENGTON WAY	60	61	62	2
2.08a	Residential	B	1	1908 COVENGTON WAY	55	56	57	2
2.08b	Residential	B	1	1908 COVENGTON WAY	57	58	59	2

Receivers					Predicted Noise Levels, Leq(h) [dB(A)]			Noise Level Increase [dB(A)]
ID	Use	NAC	D. U.	Address	2016 Existing	2040 No Build	2040 Build	
2.09a	Residential	B	1	1908 COVENGTON WAY	54	55	55	1
2.09b	Residential	B	1	1908 COVENGTON WAY	57	58	58	1
2.10a	Residential	B	1	1938 TARA CT	50	51	52	2
2.10b	Residential	B	1	1938 TARA CT	54	55	56	2
2.11a	Residential	B	1	1938 TARA CT	47*	47*	47	0
2.11b	Residential	B	1	1938 TARA CT	49	50	51	2
2.12a	Residential	B	1	1940 TARA CT	47*	47	48	1
2.12b	Residential	B	1	1940 TARA CT	50	51	52	2
2.13a	Residential	B	1	1940 TARA CT	47*	47*	47	0
2.13b	Residential	B	1	1940 TARA CT	49	50	51	2
2.14a	Residential	B	1	1942 TARA CT	47*	47*	47*	0
2.14b	Residential	B	1	1942 TARA CT	49	50	50	1
2.15a	Residential	B	1	1942 TARA CT	48	49	51	3
2.15b	Residential	B	1	1942 TARA CT	52	54	55	3
2.16a	Residential	B	1	1944 TARA CT	47*	48	49	2
2.16b	Residential	B	1	1944 TARA CT	51	52	53	2
2.17a	Residential	B	1	1944 TARA CT	53	54	55	2
2.17b	Residential	B	1	1944 TARA CT	56	57	59	3
3.01	Place of Worship	C	1	3551 CHARLES BLVD	56	57	59	3
4.01	Outdoor Eating	E	1	2100 E FIRE TOWER RD	65	66	67	2
4.02	Residential	B	1	2116 ESTHER CIR	54	55	57	3
4.03	Residential	B	1	2118 ESTHER CIR	57	58	60	3
4.04	Residential	B	1	2120 ESTHER CIR	57	58	60	3
4.05	Residential	B	1	2122 ESTHER CIR	57	58	60	3
4.06	Residential	B	1	2124 ESTHER CIR	55	56	58	3
5.01	Residential	B	1	1903 ARLINGTON PARK DR	67	68	69	2

Receivers					Predicted Noise Levels, Leq(h) [dB(A)]			Noise Level Increase [dB(A)]
ID	Use	NAC	D. U.	Address	2016 Existing	2040 No Build	2040 Build	
5.02	Residential	B	1	1907 ARLINGTON PARK DR	62	63	64	2
5.03	Residential	B	1	1911 ARLINGTON PARK DR	60	61	61	1
5.04	Residential	B	1	1915 ARLINGTON PARK DR	58	59	59	1
5.05	Residential	B	1	1919 ARLINGTON PARK DR	56	57	57	1
5.06	Residential	B	1	1923 ARLINGTON PARK DR	54	55	56	2
5.07	Residential	B	1	1921 ARLINGTON PARK DR	50	51	52	2
5.08	Residential	B	1	1917 ARLINGTON PARK DR	50	51	52	2
5.09	Residential	B	1	1913 ARLINGTON PARK DR	51	52	53	2
5.10	Residential	B	1	1909 ARLINGTON PARK DR	53	54	55	2
5.11	Residential	B	1	1905 ARLINGTON PARK DR	57	58	58	1
5.12	Residential	B	1	1901 ARLINGTON PARK DR	70	71	71	1
6.01	Residential	B	1	2200 KITTRELL RD	62	64	67	5
6.02	Residential	B	1	2404 BELLS FORK RD	59	61	62	3
6.03	Residential	B	1	2221 BELLS FORK RD	64	66	65	1
6.04	Residential	B	1	2225 BELLS FORK RD	64	66	65	1
6.05	Residential	B	1	2233 BELLS FORK RD	58	60	60	2
Total Predicted "Build" Alternative Design Year 2040 Traffic Noise Impacts:							7 ^{1,2}	

1. Predicted traffic noise level impact due to approaching or exceeding NAC or due to a "substantial increase."
2. The number of predicted impacts is not duplicated if receptors are predicted to be impacted by more than one criterion (e.g. if a receptor is impacted by NAC "C" and NAC "D", it is counted as only one impact).

* TNM predicted noise level was less than 47 dB(A)

APPENDIX F

F-2. Noise Wall Analysis

Noise Wall Analysis

Six traffic noise abatement measures presently meet feasibility and reasonableness criteria for the benefit of impacted receptors in NSA A, NSA B, NSA H, and NSA I. The heights, lengths, areas, locations, noise level reductions, and benefits cited in this TNR represent a preliminary assessment of noise wall feasibility and reasonableness, and, subject to the public involvement process and final project design, constitute a recommendation for construction.

The summary of the evaluated noise walls is as follows:

-NW1-

Location: NW1 is located on the north side of Fire Tower Road beginning just east of Cleere Court and continuing along the slope stakes 690 ft. east to 14th Street.

Dimensions: Length = 690 ft, Height = 6 ft, Area = 4,140 ft²

Impacts: 9

Benefits: 8

Area/Benefit: 517 ft²

Allowable Area/Benefit: 1,500 ft²

NLR \geq 7 dB(A): 7

-NW2-

Location: NW2 is located on the north side of Fire Tower Road beginning just east of Mary Beth Drive (West) and continuing along the edge of the shoulder 973 ft. east to Mary Beth Drive (East).

Dimensions: Length = 973 ft, Height = 12 ft, Area = 11,676 ft²

Impacts: 3

Benefits: 9

Area/Benefit: 1,297 ft²

Allowable Area/Benefit: 1,500 ft²

NLR \geq 7 dB(A): 7

-NW3-

Location: NW3 is located on the south side of Portertown Road beginning approximately 250 ft. east of Willow Run Drive and continuing along the edge of the shoulder 1110 ft. east.

Dimensions: Length = 1110 ft, Height = 6 ft, Area = 6,660 ft²

Impacts: 8

Benefits: 11

Area/Benefit: 605 ft²

Allowable Area/Benefit: 1,500 ft²

NLR \geq 7 dB(A): 2

-NW4-

Location: NW4 is located on the north side of Portertown Road beginning approximately 250 ft. east of Rhema Street and continuing along the edge of the shoulder 480 ft. east to Elkin Ridge Drive.

Dimensions: Length = 480 ft, Height = 6 ft, Area = 2,880 ft²

Impacts: 6

Benefits: 9

Area/Benefit: 320 ft²

Allowable Area/Benefit: 2,000 ft²

NLR \geq 7 dB(A): 7

-NW5-

Location: NW5 is located on the north side of Portertown Road beginning just east of Elkin Ridge Drive and continuing along the slope stakes 220 ft. east.

Dimensions: Length = 220 ft, Height = 8 ft, Area = 1,760 ft²

Impacts: 7

Benefits: 7

Area/Benefit: 251 ft²

Allowable Area/Benefit: 1,500 ft²

NLR \geq 7 dB(A): 6

-NW6-

Location: NW6 is located on the north side of Portertown Road beginning just east of Rocket Road and continuing along the edge of the shoulder 570 ft. east to Rhema Street.

Dimensions: Length = 570 ft, Max Height = 10 ft, Min Height = 8 ft., Area = 4,880 ft²

Impacts: 3

Benefits: 4

Area/Benefit: 1,220 ft²

Allowable Area/Benefit: 2,500 ft²

NLR \geq 7 dB(A): 2