

STIP PROJECT R-4751
NEPA/404 Merger Concurrence Point 1 (Purpose and Need)
U.S. 19 (Governor's Island Road) Improvements

SWAIN COUNTY

Introduction and Project Location

A planning, environmental, and engineering study is being conducted for improvements to U.S. 19 (Governors Island Road) from S.R. 1152 (Hughes Branch Road) in Bryson City to U.S. 19A (S.R. 1195), Swain County in accordance with the North Carolina Environmental Policy Act (SEPA), as amended.

U.S. 19 is classified as a Major Collector and is a two-lane undivided roadway through the study area. This roadway provides access to institutional, commercial and residential uses within the study area and serves as a major north-south corridor between Bryson City and Cherokee. The proposed project is within the Eastern Band of Cherokee Indian Boundary.

The posted speed limit in the study area varies from 20 miles per hours (mph) to 45 mph. The terrain along U.S. 19 is mostly mountainous and the existing roadway and shoulders widths are below current design standards.

The proposed project was divided into 3 sections and is approximately 6 miles long: **See Attached Maps.**

Section 1: U.S. 19 (Governors Island Road) from S.R. 1152 (Hughes Branch Road) to S.R. 1159 (Veterans Road).

Section 2: U.S. 19 (Governors Island Road) from S.R. 1159 (Veterans Road) to Great Smoky Mountain Railroad.

Section 3: U.S. 19 (Governors Island Road) from the Great Smoky Mountain Railroad to U.S. 19A (S.R. 1195).

This packet presents the purpose and need for the project and information to help establish a project study area.

Project Status

A scoping meeting was held on November 30, 2017 at 2:00 PM in Sylva NC, at the North Carolina Department of Transportation (NCDOT) Division 14 Office. The purpose of this meeting was to determine the scope of the feasibility study.

The feasibility study evaluated proposed roadway improvements to U.S. 19 (Governors Island Road) from S.R. 1152 (Hughes Branch Road) in Bryson City to U.S. 19A (S.R. 1195), Swain County. The

proposed project was divided into 3 sections (as listed above) and is approximately 6 miles long. The study identified potential improvements along U.S. 19 and potential challenges, issues and impacts to be addressed in more detailed during the planning and design phase. Some of the issues identified were: utility impacts, underground storage tanks, potential habitat for federally threatened and endangered species, Downtown Bryson City Historic District, Eastern Band of Cherokee Indian Lands, The Governors Island Archaeological Site (Kituhwa) and bridge replacement over the Tuckasegee River.

A meeting was held on April 5, 2018, at the NCDOT Division 14 Office Building in Sylva, NC, with representatives from the US Army Corps of Engineers (USACE), the Cherokee Nation, the Eastern Band of the Cherokee Indians (EBCI), the United Keetoowah Band of Cherokee Indians (UKB), NC State Historic Preservation Office (NC HPO), the NC State Office of Archaeology (NC OSA), NCDOT, and TGS Engineers. The purposes of this meeting were to share information pertaining to the project, discuss historic and natural resources along the project corridor, provide an opportunity for members of the group to express concerns at this point in the process so that NCDOT can factor these concerns into the planning process, and plan further coordination.

Draft Project Schedule

- State EA/ FONSI Approved (SEA/FON) Oct 2019
- R/W Plan Complete Jan 2020
- Division Design Raleigh Let (DDRL) Apr 2021

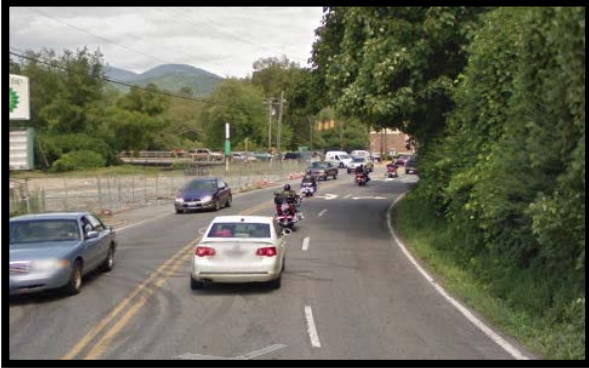
Cost Estimates:

	<u>SECTION 1</u>	<u>SECTION 2</u>	<u>SECTION 3</u>	<u>PROJECT TOTAL</u>
Right of Way:	\$1,200,000	\$500,000	\$1,100,000	\$2,800,000
Construction:	\$4,400,000	\$11,900,000	\$12,600,000	\$28,900,000
TOTAL:	\$5,600,000	\$12,400,000	\$13,700,000	\$31,700,000

Purpose and Need

The purpose of the project is modernization of the existing roadway. The project will address roadway deficiencies, including inadequate lane widths, shoulder widths and poor sight distance. These improvements allow for safer recovery for drivers who leave the paved section of the roadway, in addition both lane and shoulder widths are aimed at enhancing a driver's ability to stay within the lanes. There are business and scenic areas where drivers pull out onto the roadway or pull off the roadway through the project corridor the wider lane and shoulder widths allows opposing traffic to see these vehicles and react in a timely manner. Therefore, these improvements will also improve traffic flow on U.S. 19 in the project area.

U.S. 19 is a two-lane road with substandard travel lane and shoulder widths. There is limited sight distance along some sections of the roadway due to the horizontal and vertical alignment (curves and steep grades or crests) in some sections of the roadway. There are also problems with the alignment of intersecting roadways, which are offset or skewed. U.S. 19 has limited sight distance and inadequate Shoulders.



U.S. 19 Heading East into Bryson City at Beginning of Project



U.S. 19 Just East of Bryson City



U.S. 19 Headed East, narrow lane width and inadequate shoulders



U.S. 19 Headed East, narrow lane width and inadequate shoulders, limited sight distance



U.S. 19 Headed East, narrow lane width and inadequate shoulders, limited sight distance



Railroad Crossing on U.S. 19 just east of Bridge No. 20

Bridge Number 20 on U.S. 19 over the Tuckasegee River was built in 1989 and is structurally deficient and functionally obsolete and in need of replacement. Replacing Bridge No. 20 with this project would improve the inadequacies in pavement widths, shoulder widths, approach geometry and structural deficiencies.



Bridge No. 20, Sharp Horizontal Curve on Bridge narrow lane width and inadequate shoulders, limited sight distance



U.S. 19 Headed Approach to Bridge No. 20 over the Tuckasegee River, narrow lane width and inadequate shoulders, limited sight distance



Bridge No. 20 open crack in bent. "Indication of structural deterioration"



*Bridge No. 20 longitudinal cracking of deck,
"Indication of structural deterioration"*

Logical Termini

The proposed improvements start just west of Bryson City as U.S. 19 enters the commercial, residential and downtown areas of Bryson City.

The project ends at U.S. 19A (S.R. 1195). U.S. 19A intersects U.S. 19 and provides a direct route to U.S. 74 and there is a decrease in traffic volumes along U.S. 19 toward Cherokee.

Long Range and Local Plans

Improvements for U.S. 19 have been identified in the 2012 Swain County Comprehensive Transportation Plan.

This project was included in the Southwestern RPO Prioritization 5.0 to modernize existing roadway with wider lanes and paved shoulders.

Swain County anticipates a redevelopment of downtown Bryson City in the future, particularly near the open area/parking lot for the Great Smoky Mountain Railroad, along the Tuckasegee riverfront, and near Island Park. Additionally, opportunities for commercial development exist along U.S. 19 and West Deep Creek Road, among other roads, surrounding Bryson City. Residential growth is expected in the greater surrounding areas and mountains.

This project is consistent with local plans.

Traffic Data

U.S. 19 is a two-lane undivided roadway through the study area. The roadway has a speed limit of 35 miles per hour (mph) west of the Slope Street intersection, a speed limit of 20 mph between Slope Street and Everett Street, a speed limit of 35 mph between Everett Street and Walker Woody Road, and a speed limit of 45 mph east of the Walker Woody Road intersection. Per NCDOT, the 2015 AADT along U.S. 19 was 11,000 vehicles per day (vpd) west of Slope Street, 7,400 vpd east of Everett Street, and 4,900 vpd east of Hyatt Creek Road (S.R. 1168).

ROUTE	US 19 west of Slope Street	US 19 east of Hyatt Creek Road
ADT 2017 =	11,300	5,100
ADT 2040 =	15,900	7,200
TTST	1%	1%
DUALS	3%	3%
DHV	10%	10%
DIR	55%	55%

Crash Analysis

In addition, the crash rate along U.S. 19 in the project corridor is higher than the statewide average for similar roadways.

Five-year crash data (4/1/2012 – 3/31/2017) was obtained from the NCDOT for U.S. 19 from Hughes Branch Road (S.R. 1152) to U.S. 19A (S.R. 1195).

Rate	Crashes	Crashes per 100 MVM	Statewide Rate ¹	Critical Rate ²
Total	147	227.97	146.62	147.94
Fatal	0	0.00	1.67	0.00
Non-Fatal Injury	39	60.47	44.86	46.29
Night	18	27.91	53.33	55.62
Wet	25	38.76	26.22	27.59

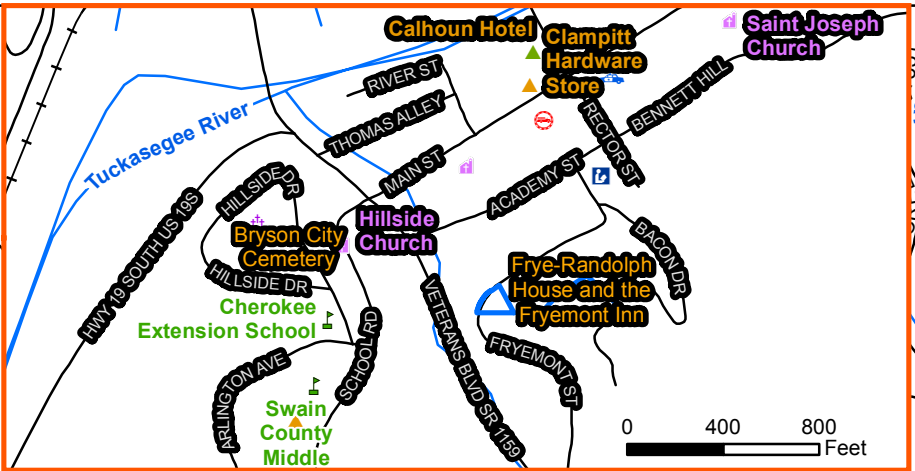
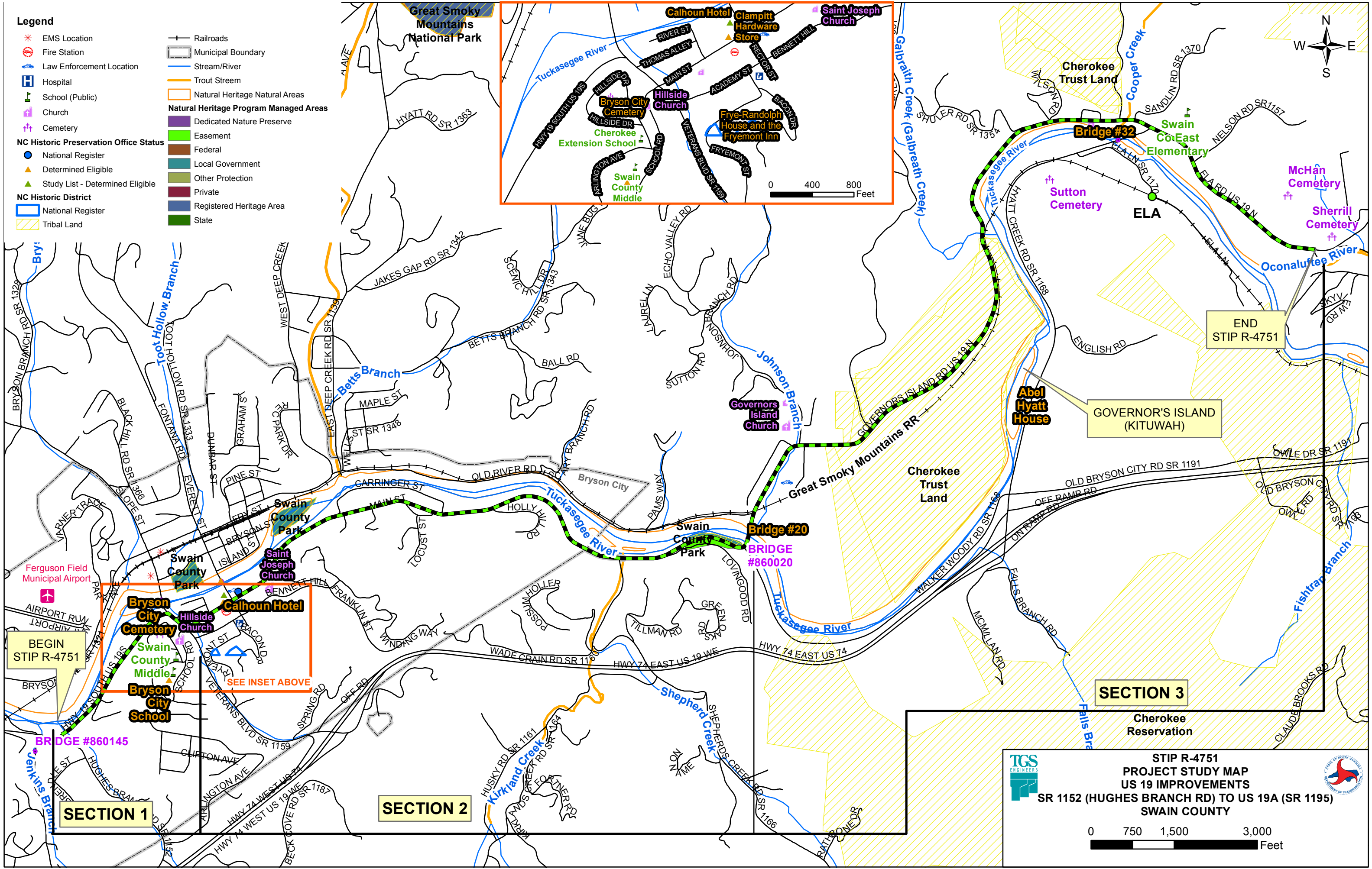
¹2013-2015 statewide crash rate for rural 2-lane, undivided US Routes in North Carolina

²Based on the statewide crash rate (95% level of confidence)

A secondary benefit of addressing the roadway deficiencies; inadequate lane widths, shoulder widths and poor sight distance, will potentially provide a reduction in crashes.

Legend

- EMS Location
- Fire Station
- Law Enforcement Location
- Hospital
- School (Public)
- Church
- Cemetery
- NC Historic Preservation Office Status
 - National Register
 - Determined Eligible
 - Study List - Determined Eligible
- NC Historic District
 - National Register
 - Tribal Land
- Railroads
- Municipal Boundary
- Stream/River
- Trout Stream
- Natural Heritage Program Managed Areas
 - Dedicated Nature Preserve
 - Easement
 - Federal
 - Local Government
 - Other Protection
 - Private
 - Registered Heritage Area
 - State



TGS ENGINEERS

**STIP R-4751
PROJECT STUDY MAP
US 19 IMPROVEMENTS
SR 1152 (HUGHES BRANCH RD) TO US 19A (SR 1195)
SWAIN COUNTY**

0 750 1,500 3,000 Feet

END STIP R-4751

GOVERNOR'S ISLAND (KITUWAH)

SECTION 3

SECTION 1

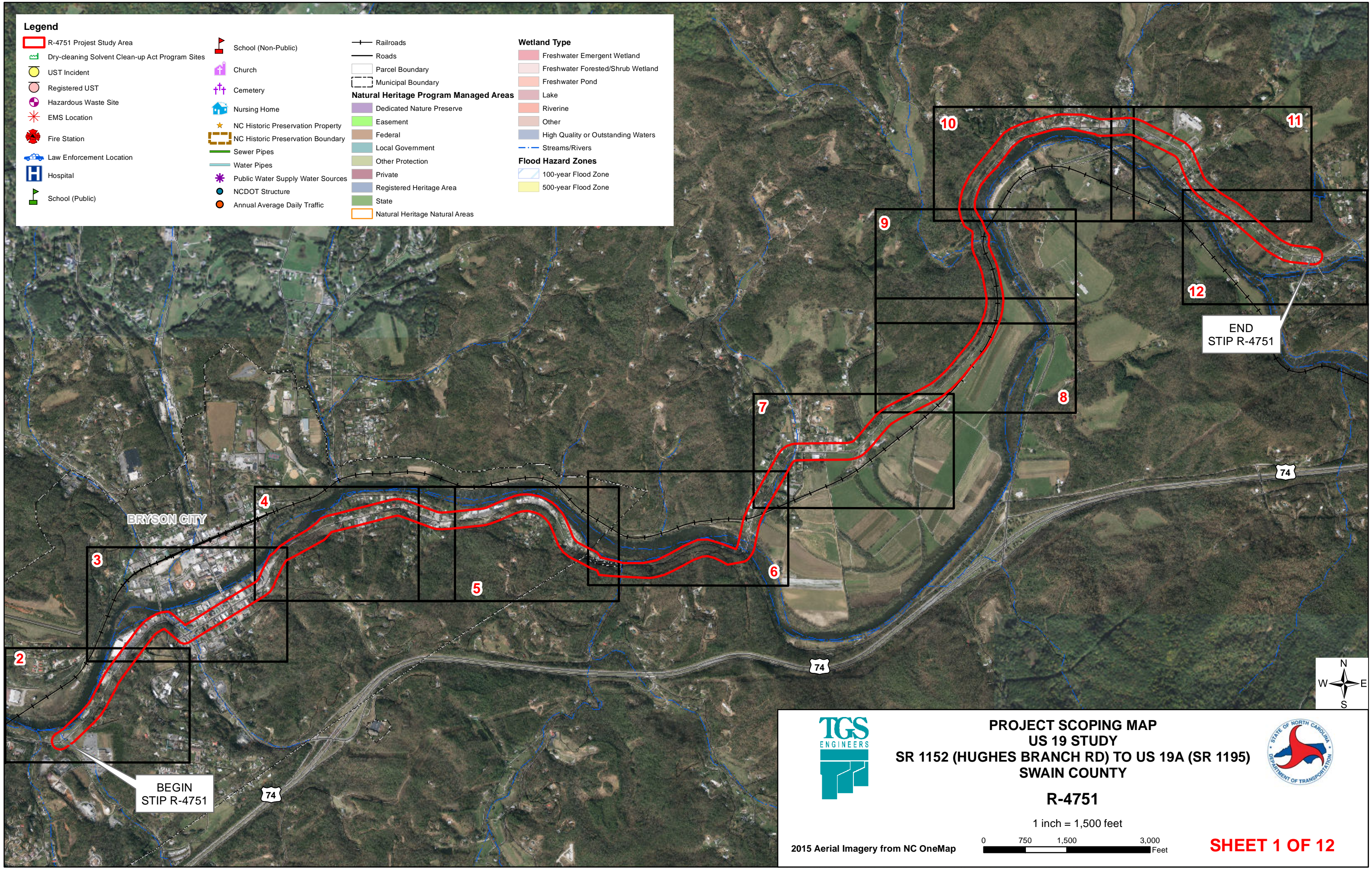
SECTION 2

BEGIN STIP R-4751

SEE INSET ABOVE

Legend

R-4751 Project Study Area	School (Non-Public)	Railroads	Wetland Type
Dry-cleaning Solvent Clean-up Act Program Sites	Church	Roads	Freshwater Emergent Wetland
UST Incident	Cemetery	Parcel Boundary	Freshwater Forested/Shrub Wetland
Registered UST	Nursing Home	Municipal Boundary	Freshwater Pond
Hazardous Waste Site	NC Historic Preservation Property	Natural Heritage Program Managed Areas	Lake
EMS Location	NC Historic Preservation Boundary	Dedicated Nature Preserve	Riverine
Fire Station	Sewer Pipes	Easement	Other
Fire Station	Water Pipes	Federal	High Quality or Outstanding Waters
Law Enforcement Location	Public Water Supply Water Sources	Local Government	Streams/Rivers
Hospital	NCDOT Structure	Other Protection	Flood Hazard Zones
School (Public)	Annual Average Daily Traffic	Private	100-year Flood Zone
		State	500-year Flood Zone
		Natural Heritage Natural Areas	



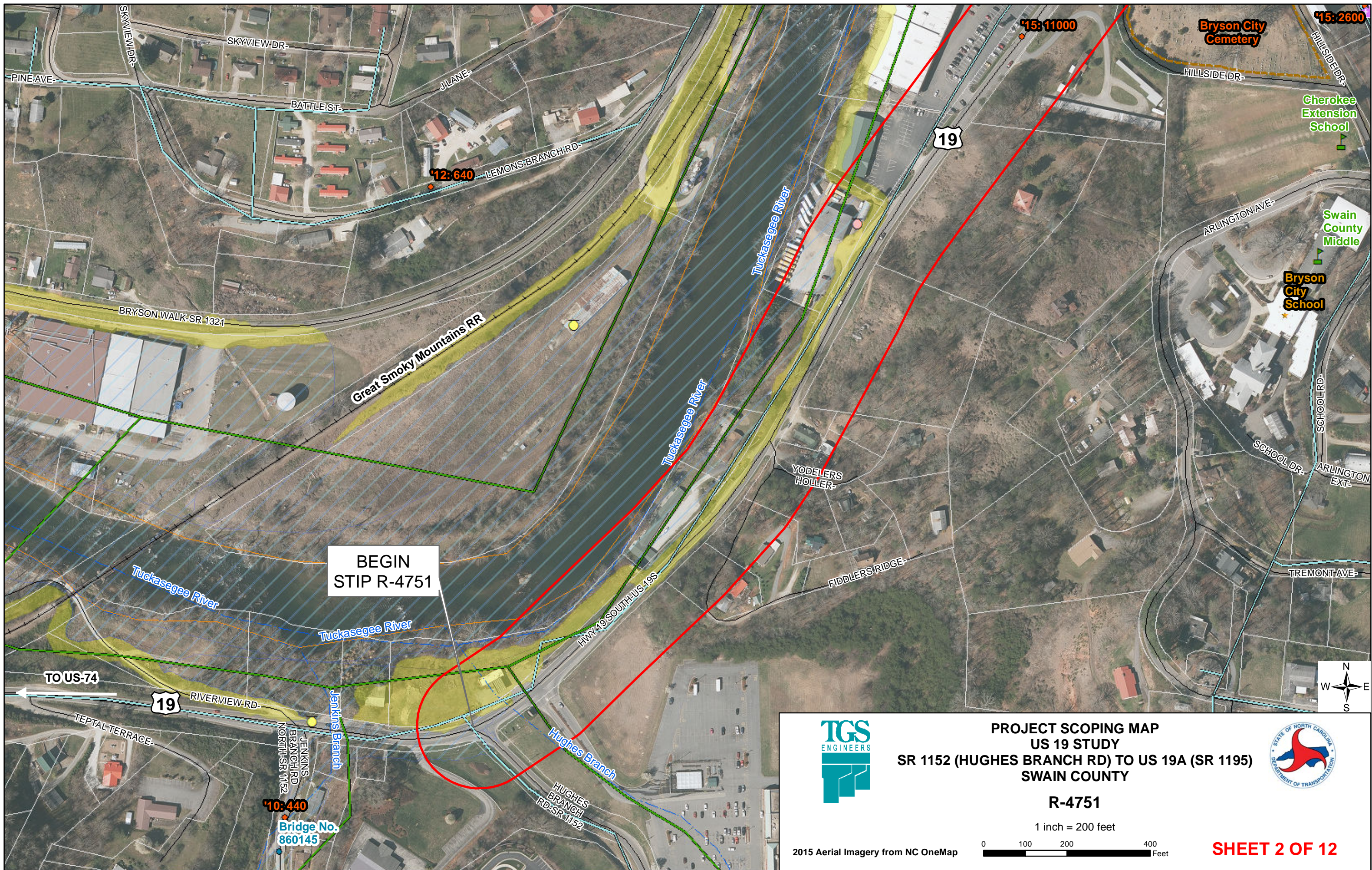
PROJECT SCOPING MAP
US 19 STUDY
SR 1152 (HUGHES BRANCH RD) TO US 19A (SR 1195)
SWAIN COUNTY

R-4751

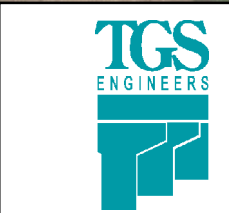
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2015 Aerial Imagery from NC OneMap

SHEET 1 OF 12



**BEGIN
STIP R-4751**



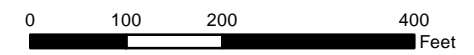
**PROJECT SCOPING MAP
US 19 STUDY
SR 1152 (HUGHES BRANCH RD) TO US 19A (SR 1195)
SWAIN COUNTY**



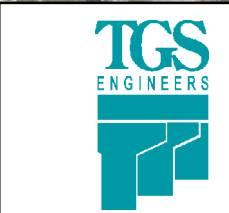
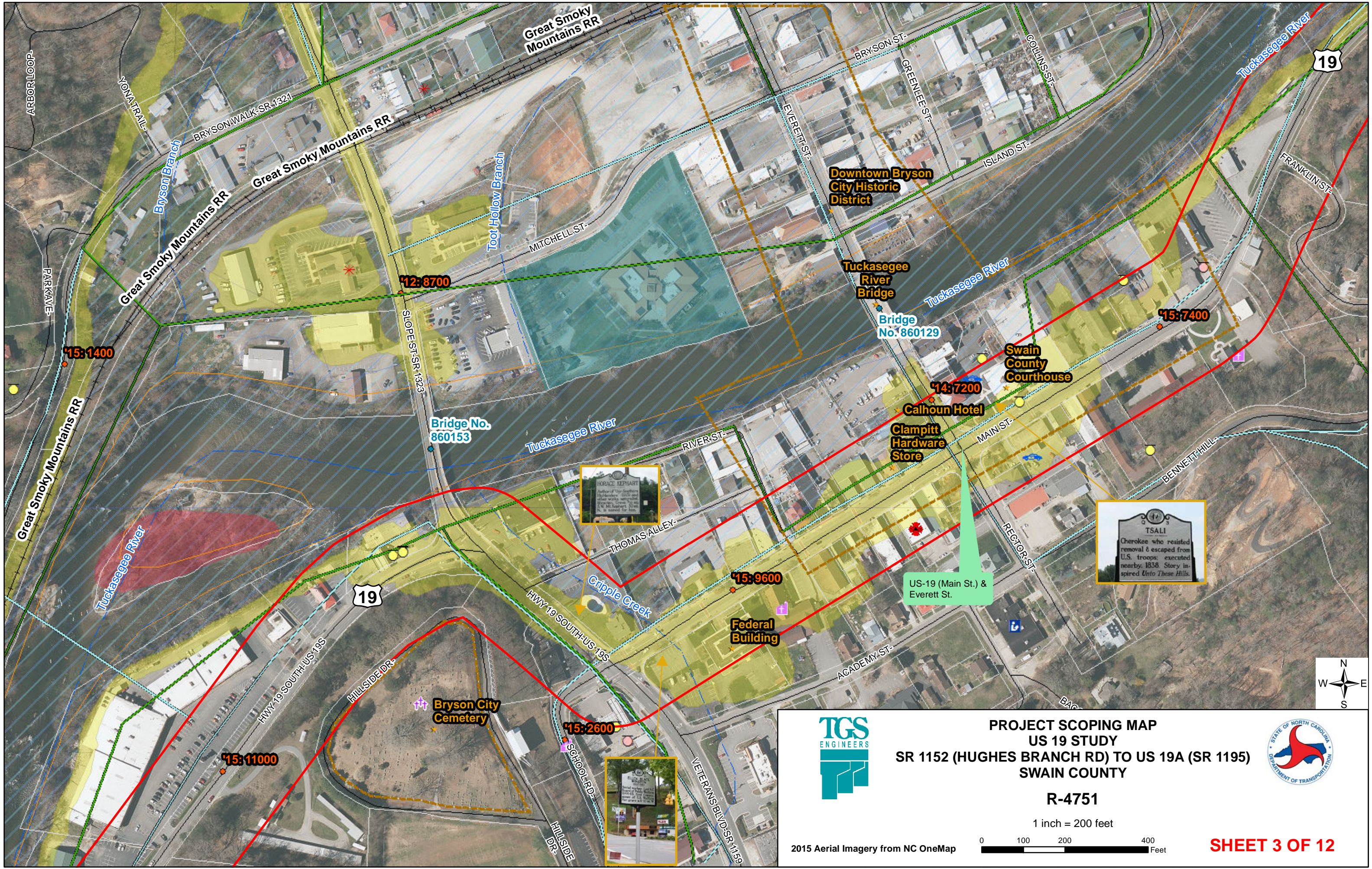
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1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 2 OF 12



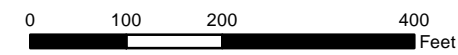
**PROJECT SCOPING MAP
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SR 1152 (HUGHES BRANCH RD) TO US 19A (SR 1195)
SWAIN COUNTY**



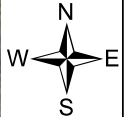
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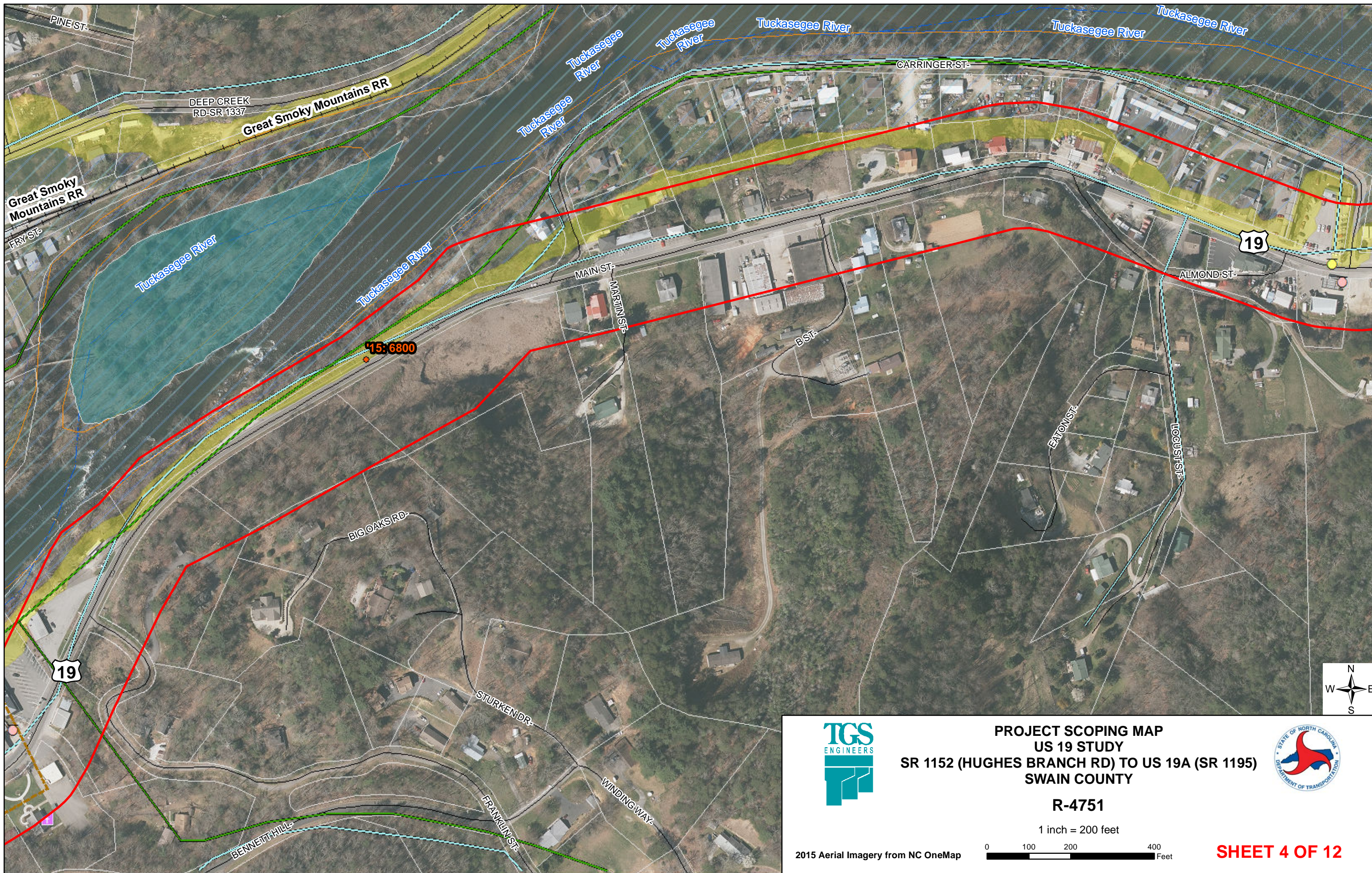
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2015 Aerial Imagery from NC OneMap



SHEET 3 OF 12





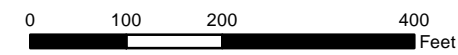
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SWAIN COUNTY**



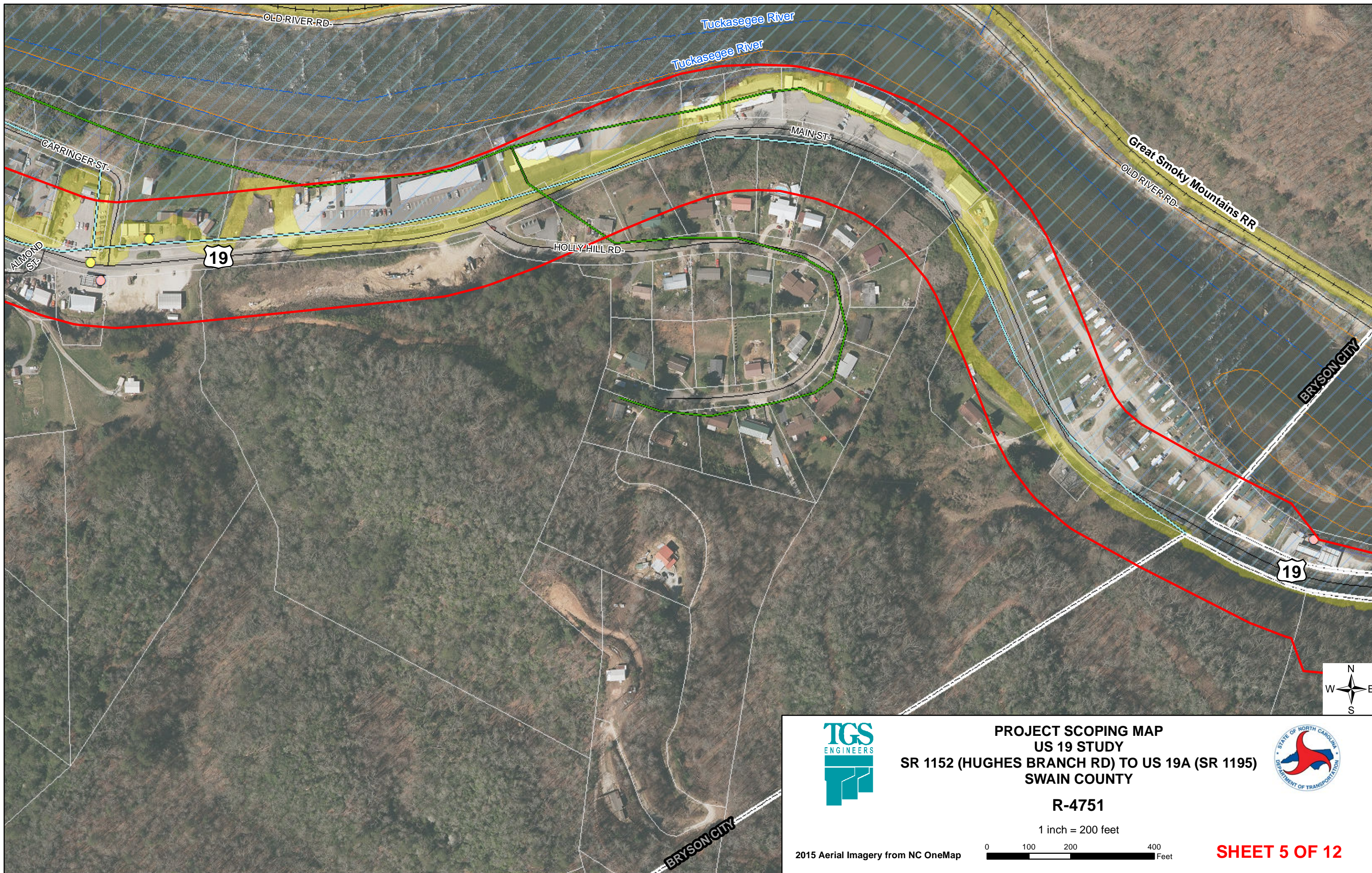
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2015 Aerial Imagery from NC OneMap



SHEET 4 OF 12



OLD RIVER RD.

Tuckasegee River

Great Smoky Mountains RR

19

19



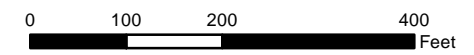
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SWAIN COUNTY



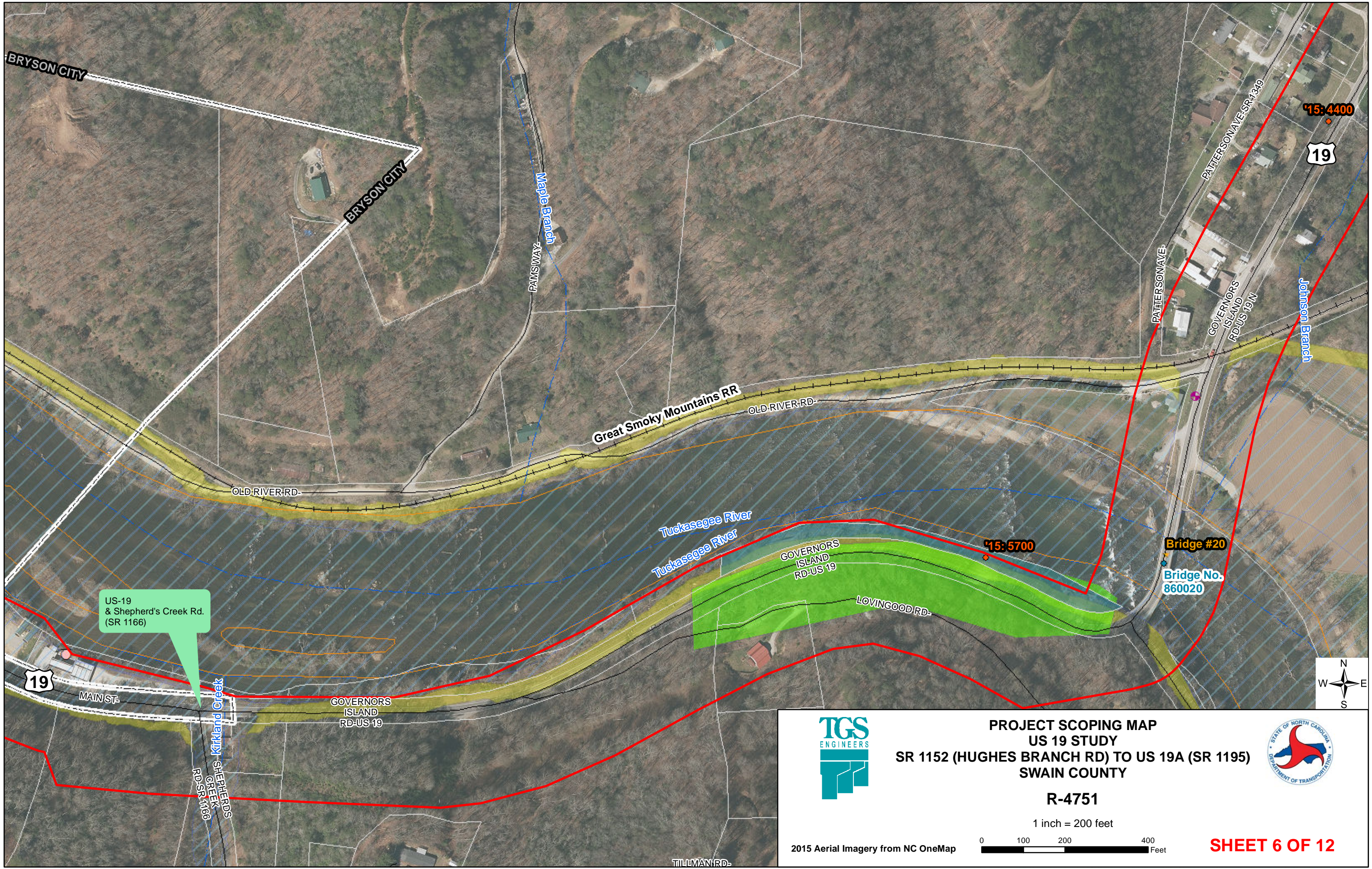
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SHEET 5 OF 12



US-19
& Shepherd's Creek Rd.
(SR 1166)



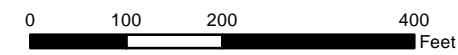
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SWAIN COUNTY



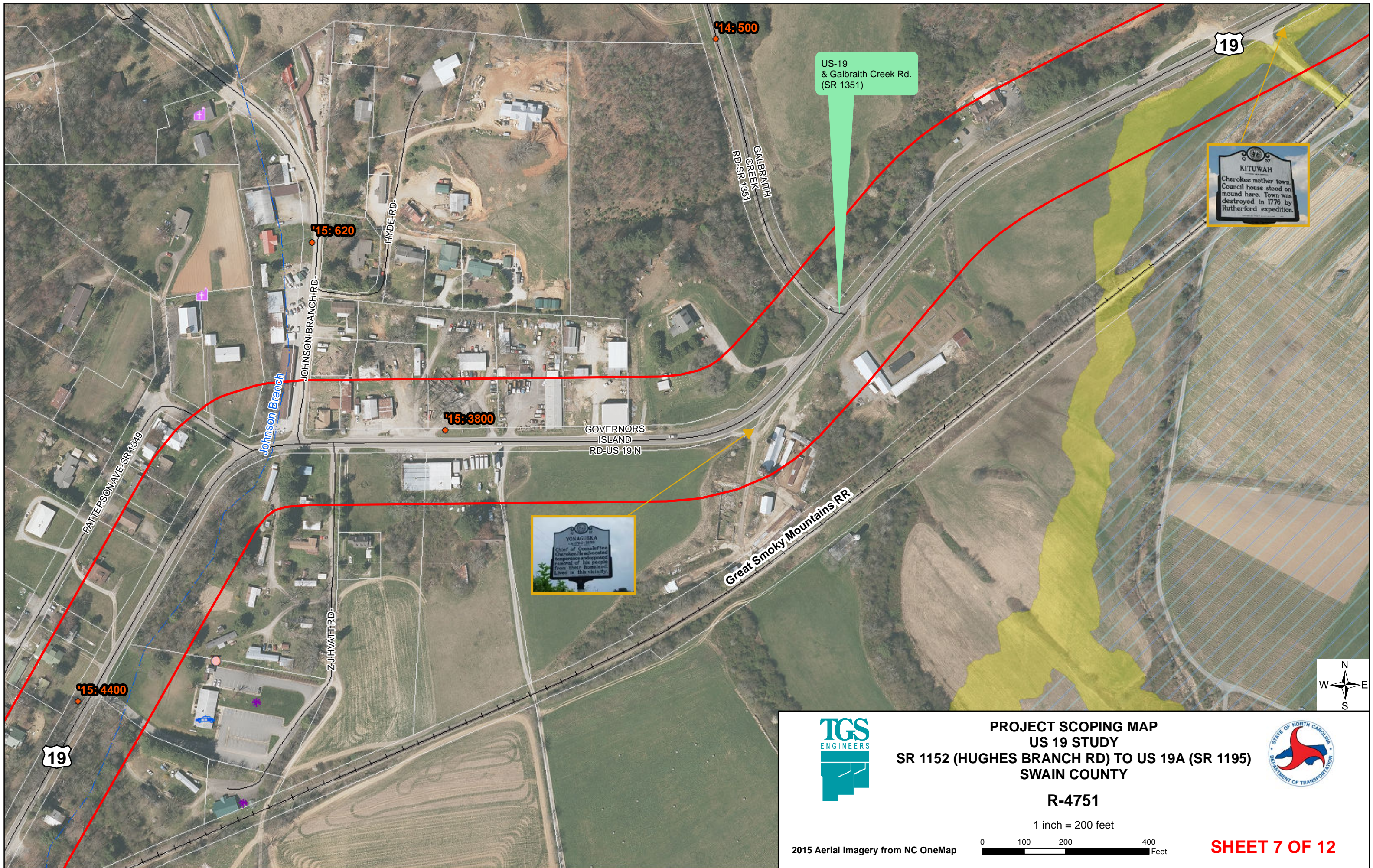
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1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 6 OF 12



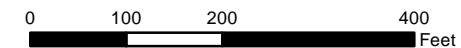
**PROJECT SCOPING MAP
US 19 STUDY
SR 1152 (HUGHES BRANCH RD) TO US 19A (SR 1195)
SWAIN COUNTY**



R-4751

1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 7 OF 12

US-19
& Galbraith Creek Rd.
(SR 1351)

KITUWAH
Cherokee mother town.
Council house stood on
mound here. Town was
destroyed in 1776 by
Rutherford expedition.

YONAGISKA
Chief of Oconalufee
Cherokee. He advocated
temperance and opposed
removal of his people
from their homeland.
Lived in this vicinity.

14:500

15:620

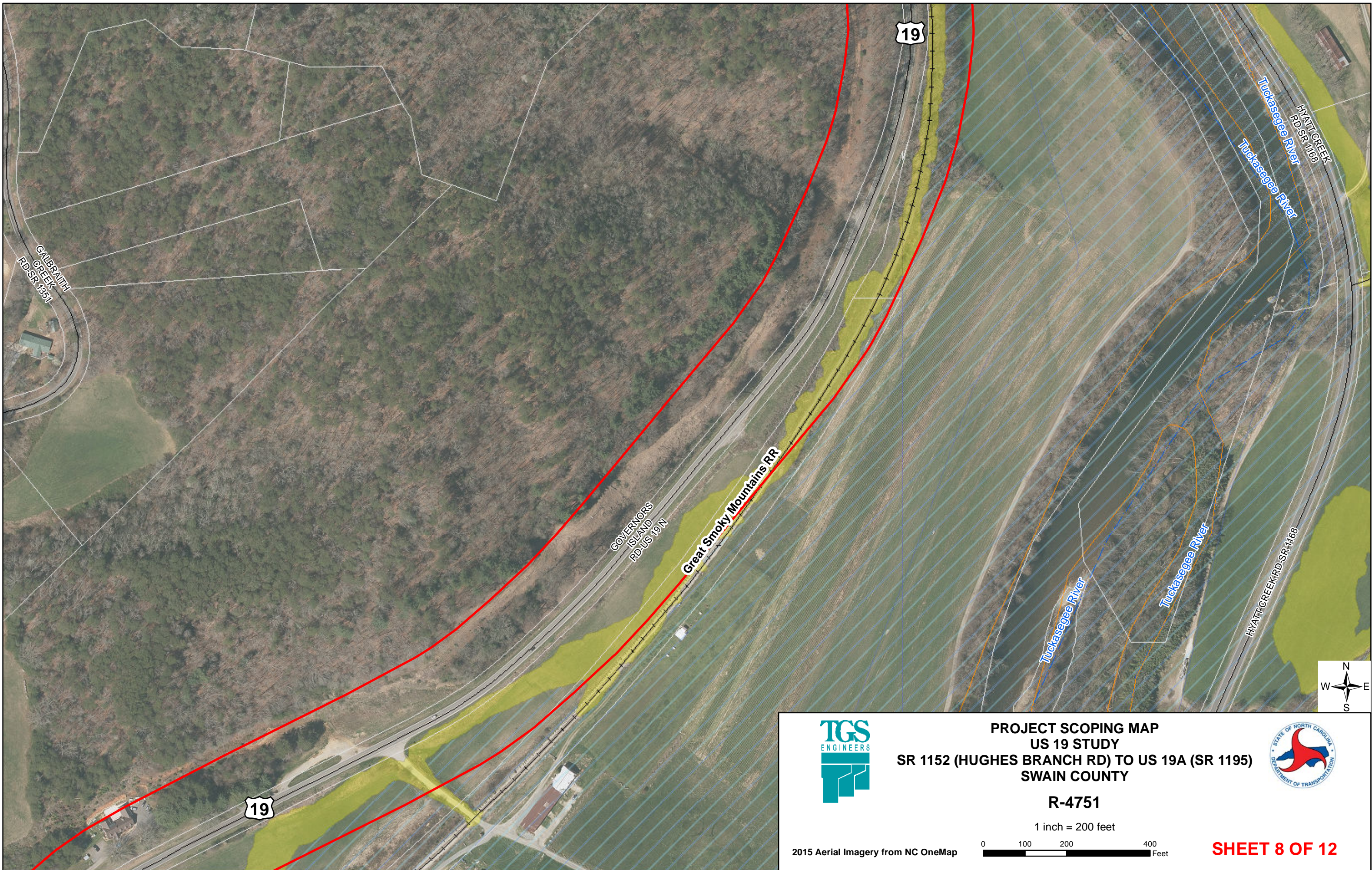
15:3800

15:4400

19

19





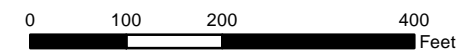
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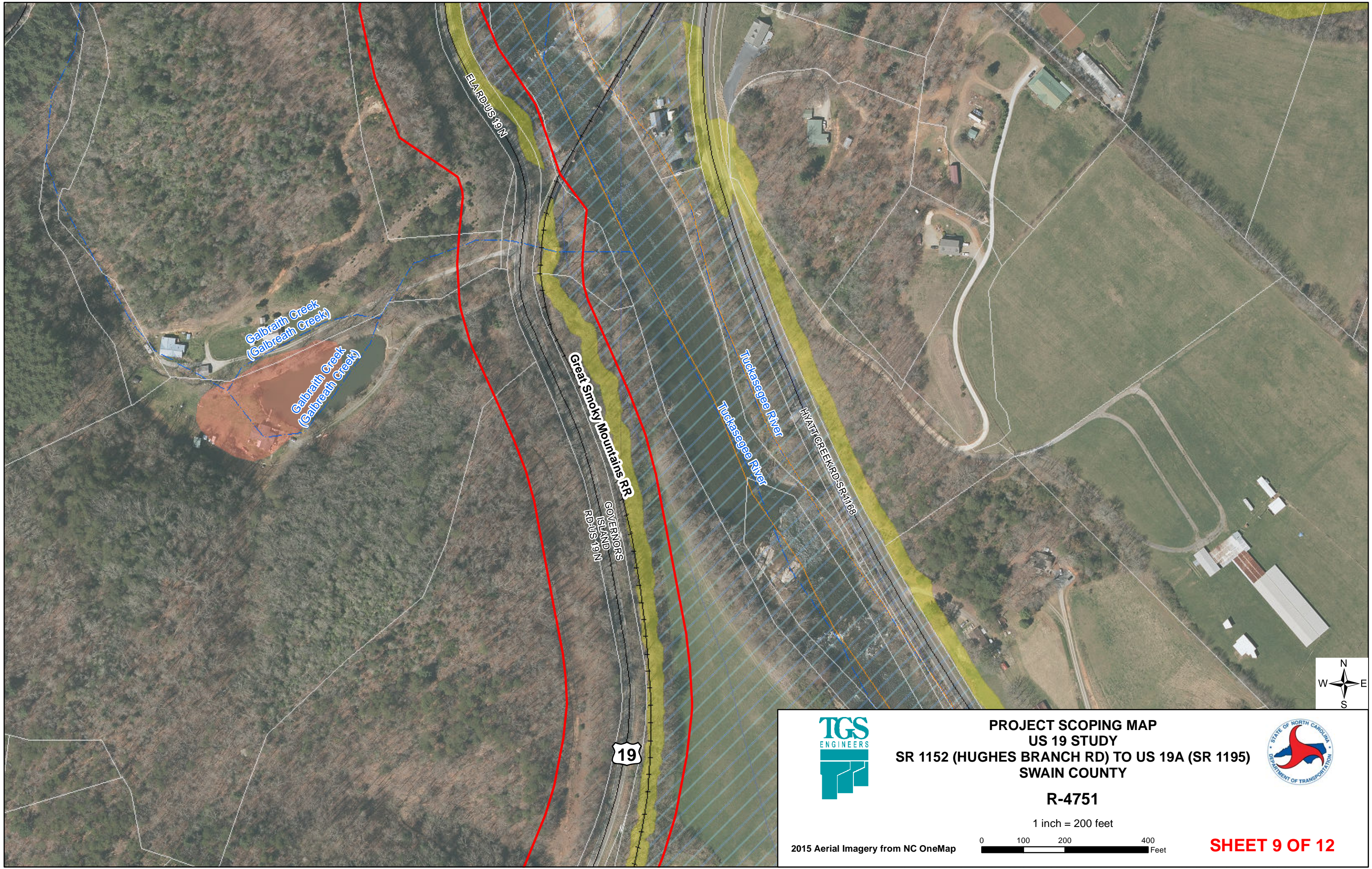
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1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 8 OF 12



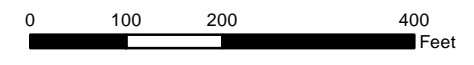
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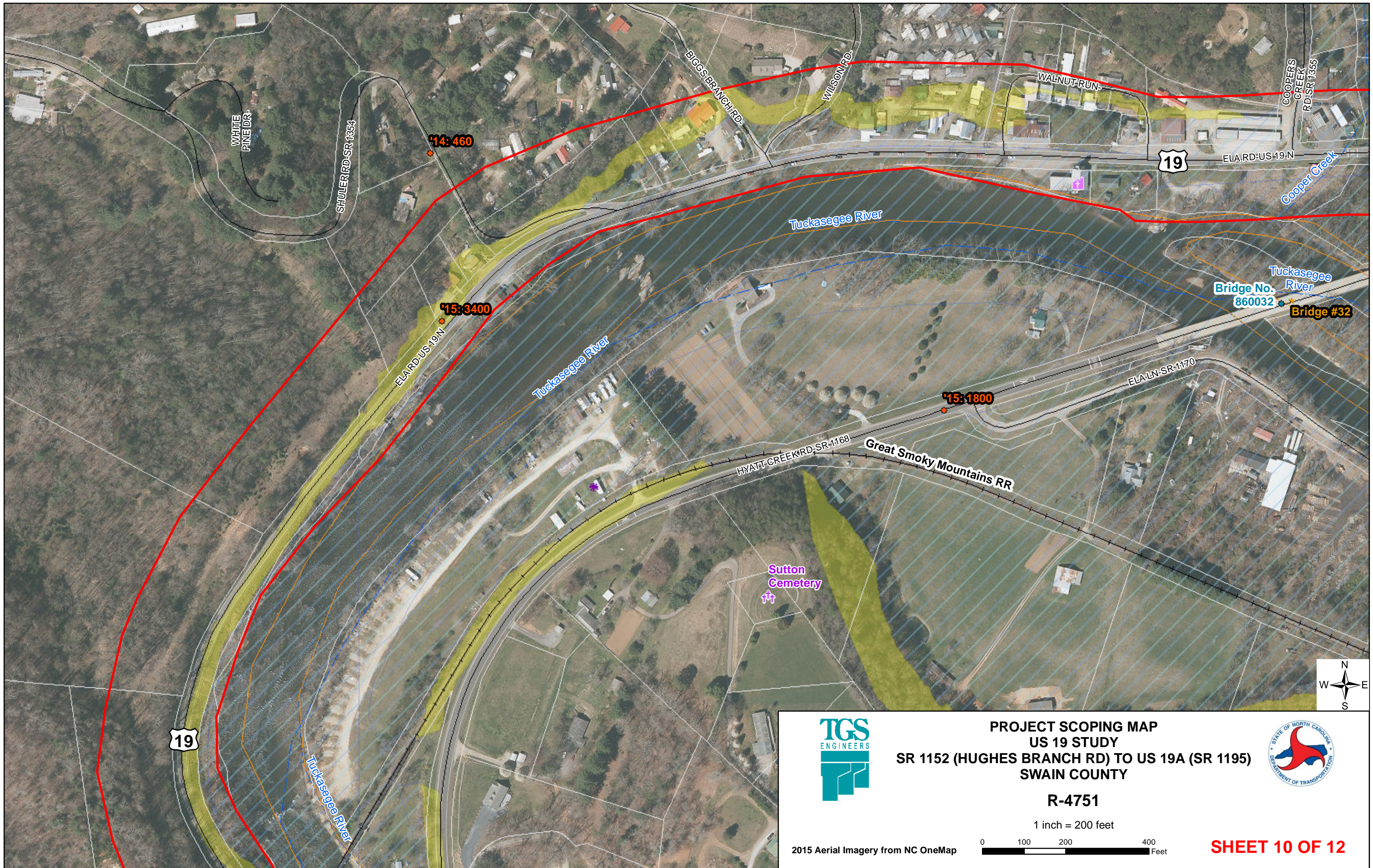
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1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 9 OF 12



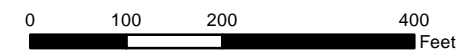
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SWAIN COUNTY**



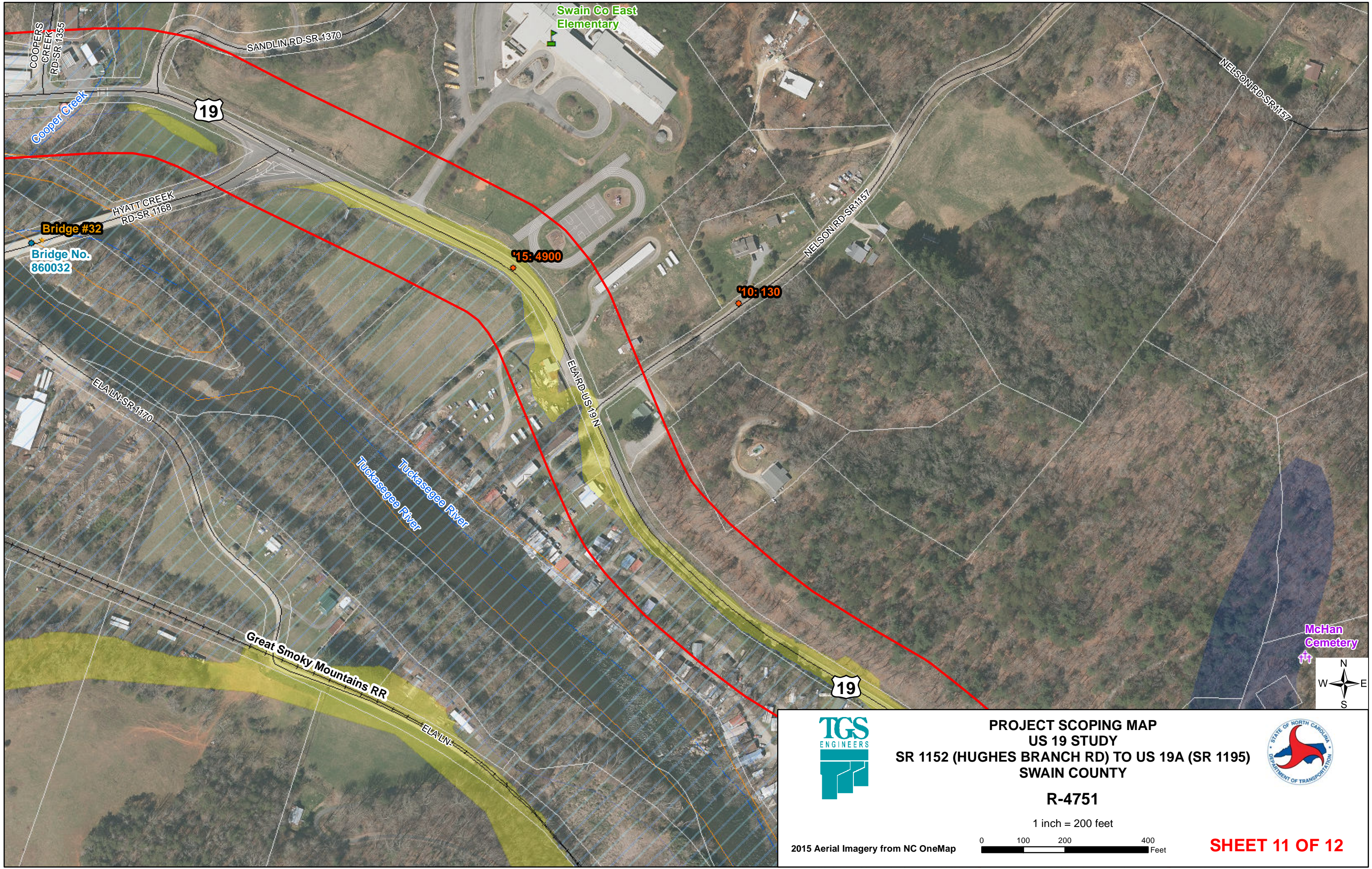
R-4751

1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 10 OF 12



Swain Co East Elementary

19

Bridge #32

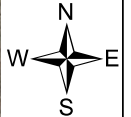
Bridge No. 860032

'15: 4900

'10: 130

19

McHan Cemetery



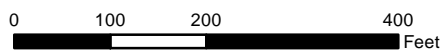
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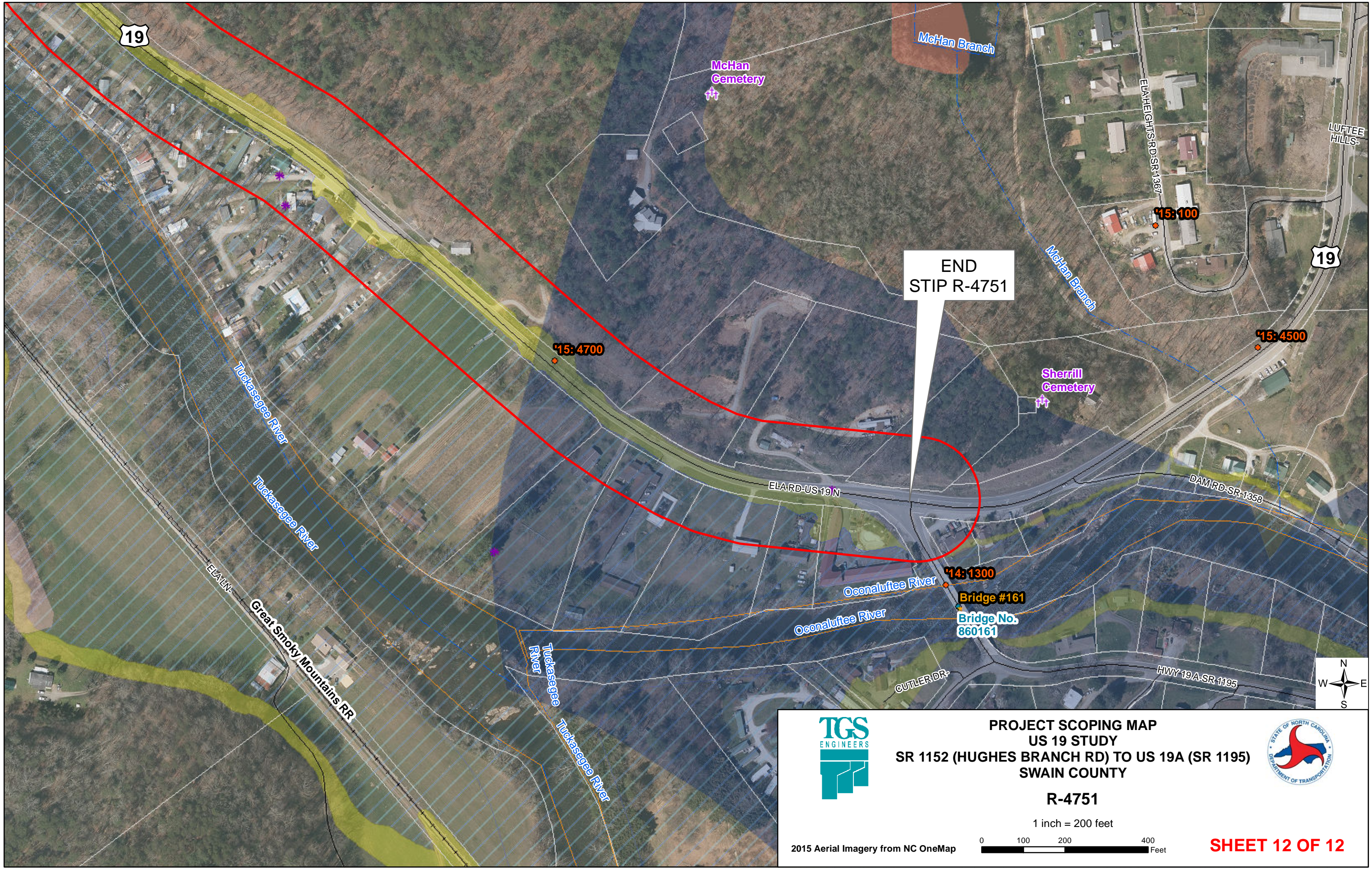
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1 inch = 200 feet

2015 Aerial Imagery from NC OneMap



SHEET 11 OF 12



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STIP R-4751



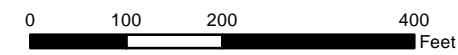
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SHEET 12 OF 12