U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

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Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: Proposed Hilton Heights/Myers Park Replacement – Caton Road

Responsible Entity: NC Office of Recovery and Resiliency (NCORR)

Grant Recipient: **NCORR**

State/Local Identifier: NC / Robeson County / Housing Authority

Preparer: S&ME Engineering Firm for Housing Authority of the City of Lumberton

Certifying Officer Name and Title: Laura Hogshead, Chief Operating Officer, NCORR

Grant Subrecipient : Housing Authority of the City of Lumberton

Consultant (if applicable): Ashley Bentz of S&ME, Inc.

Direct Comments to: W. Stephanie Richardson, Environmental Manager, NCORR

Project Location:

The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road, approximately 500 feet northwest of its intersection with Glen Cowan Road, in Lumberton, Robeson County, North Carolina (34.63247, -79.065994). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The proposed site is less than 3 miles west-northwest of the original sites.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

The proposed project will involve the construction of 72 residential rental units which are intended to provide low-income housing to replace the 72 units at Hilton Heights and Myers Park which were left uninhabitable by the effects of Hurricane Matthew in October 2016. The project will also involve construction of the associated required storm-water facilities, parking, and on-site utilities.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The proposed project consists of the development of 72 residential rental units, intended to replace the low-income housing units known as Hilton Heights and Myers Park, which were flooded in October 2016 during Hurricane Matthew. Flood damage to the housing units at Hilton Heights and Myers Park made the units un-livable and residents were relocated.

Plans for the flood-damaged properties are not finalized, but all 30 housing units at Myers Park and 42 units at Hilton Heights are currently anticipated to be demolished and cleared with FEMA funding and proceeds from insurance. At Hilton Heights, the Maintenance Building will be left intact to be used for storage, which was identified as the only possible use for this building by the HACL Any changes to the proposed scope of work will require approval from HUD and resubmission for environmental review.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road, approximately 500 feet northwest of its intersection with Glen Cowan Road, in Lumberton, Robeson County, North Carolina (34.63247, -79.065994). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The site was previously an active agricultural field and is currently in the process of being purchased by the Housing Authority of the City of Lumberton (HACL). The surrounding vicinity is a mix of active agricultural fields, rural residences, the Robeson County Social Services compound, and industrial facilities. The site has been rezoned from M-2, Heavy Manufacturing to R-3, Residential Multifamily.

Funding Information

Grant Number	HUD Program	Funding Amount
B-16-DL-37-0001	CDBG-DR	$5,931,531

Estimated Total HUD Funded Amount: $5,931,531

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** $12,755,463

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	According to AirNav (www.airnav.com), the nearest civilian airport is the Lumberton Regional Airport, which is approximately 1.6 miles (8,448 feet) south of the site. There are no military airports within 20 statute miles of the site. The proposed project will not include the construction of obstacles such as tall utility lines, microwave towers, or power generation stacks that would impact the approach/ takeoff zones of these airports. The proposed project is not located in a RPZ/CZ or APZ. A map depicting the location of the nearest airport is attached. **The proposed project is in compliance and the review is complete.**
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Site is not located within Coastal Barrier Resource System (CBRS) or coastal county. **Therefore, this project has no potential to impact a CBRS unit and is in compliance with the Coastal Barrier Resources Act.**
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994	Yes ☐ No ☒	The project limit of disturbance and therefore all structures will be located outside a FEMA-designated Special Flood Hazard Area. While flood insurance may not be mandatory in this instance, HUD recommends that all insurable structures

[42 USC 4001-4128 and 42 USC 5154a]		maintain flood insurance under the National Flood Insurance Program (NFIP). **The project is in compliance with flood insurance requirements.**
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The site is located within Robeson County, which is in attainment status for all criteria pollutants. **The project is in compliance with the Clean Air Act.**
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The project is not located in and does not affect a Coastal Zone as defined in the state Coastal Management Plan. **The project is in compliance with the Coastal Zone Management Act.**
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	Site contamination was evaluated during an ASTM Phase I ESA. On-site or nearby toxic, hazardous, or radioactive substances that could affect the health and safety of project occupants or conflict with the intended use of the property were not found. **The project is in compliance with contamination and toxic substances requirements.**
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	No adverse impacts are anticipated as a result of this project to threatened or endangered species or their designated critical habitat. A scoping letter requesting concurrence was submitted to the USFWS on May 11, 2021. No response was received within the standard 30-day response period, indicating that the USFWS does not have immediate concerns in regard to the project. **The review is complete and the project is in compliance with the Endangered Species Act.**
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	The project meets the Acceptable Separation Distances (ASD) as calculated by the ASD Electronic Assessment Tool. **The project is in compliance and the review is complete.**
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The USDA Natural Resources Conservation Services (NRCS) Form AD-1006 (Farmland Conversion Impact Rating) was completed in consultation with Ms. Kristin May of the NRCS. The site received a score of 136, which is below the 160-point threshold for requiring alternatives or mitigation to be considered. **The site is in compliance with the Farmland Policy Protection Act.**

Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	This project does not occur in a floodplain. **The project is in compliance with Executive Order 11988.**
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	Based on Section 106 consultation and an archaeological investigation performed by S&ME, Inc and summarized in a report dated April 2021, there are No Historic Properties Affected because there are no historic properties present. During consultation, the Catawba Indian Nation indicated that they had no immediate concerns with regard to traditional cultural properties, sacred sites, or Native American archaeological sites, but wanted to be contacted if artifacts or human remains were located during ground disturbance. **The project is in compliance with Section 106.**
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	Per the HUD DNL calculator, the noise sources (one road and one railroad) in the immediate vicinity exceed 65 decibels in a small portion of the site closest to Caton Road. Based on calculations from the HUD DNL calculator for various points within the site, the area with calculated DNL greater than 65 decibels extends approximately 95 feet from Caton Road onto the southern portion of the property. Preliminary site plans for the project depict the locations of the structures outside of the area of elevated noise. Mitigation is not be necessary if residences are constructed outside of the area of elevated noise. **Based on project site plans, the project is in compliance with the Noise Control Act/Quiet Communities Act.**
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	There are no sole source aquifers in the state of North Carolina. **The project is in compliance with Sole Source Aquifer requirements.**
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	No wetlands were observed on site during the site visit and the site is not depicted within a wetland as depicted on the National Wetlands Inventory map of the Department of the Interior. **The project is in compliance with Executive Order 11990. Review is complete.**

Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	This project is not within proximity of a NWSRS river. **The project is in compliance with the Wild and Scenic Rivers Act.**
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	No adverse impacts were identified during the projects total environmental review. **The project is in compliance with Executive Order 12898.**

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The site was previously zoned as M-2, Heavy manufacturing but has since been rezoned as R-3, Residential Multifamily. The zoning request was approved by the Lumberton City Council on February 17, 2021 and the proposed project would therefore be consistent with current zoning ordinances. The proposed project would construct homes consistent with current local plans and zoning ordinances. If it is determined that permits are needed, the contractor will obtain them from the appropriate department prior to construction activities (See **Conditions for Approval**).
Soil Suitability/ Slope/ Erosion/	2	The proposed project will take place on a site which has been previously graded and drained for agricultural use. Best

Drainage/ Storm Water Runoff		management practices will be implemented during construction to reduce the potential for sedimentation and erosion. Unsuitable soils are not expected to affect the proposed project. Soil Suitability will be assessed prior to construction.
Hazards and Nuisances including Site Safety and Noise	2	Contractors will be required to provide health and safety plans and monitoring during construction. The proposed action would cause temporary increases in noise levels. Noise impacts would be mitigated to the extent feasible. The proposed project itself will not impact long term ambient noise levels. Regarding the impact that ambient noise will have on the facility, the noise sources (1 road, 2 railroads) in the immediate vicinity exceed 65 decibels at the site per the HUD DNL Calculator, but will not affect residents in the completed project based on site plans to construct the units farther back on the site beyond the excessive ambient noise levels.
Energy Consumption	2	Though some energy will be consumed over the short-term during construction, the new residential facilities being constructed will be high efficiency, Energy Star rated facilities due to incorporation of updated energy efficient building materials and practices. All proposed actions will accord with HUD standards and local codes.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	1	The proposed project will aid in restoring residents to their previous communities, employment, and income patterns, thus leading to favorable developments to commercial, industrial, and institutional operations within the City of Lumberton.
Demographic Character Changes, Displacement	1	The residences that this project is being designed to replace were made uninhabitable due to flooding during Hurricane Matthew. After the units were flooded, FEMA relocated the residents into hotels. The Robeson County Department of Social Services then started to provide services for these residents. After flooding destroyed the HACL Administration Offices, a temporary base of operations was established. The HACL then located any residents they could find at the local hotels and offered transfers to other public housing units and vouchers for the Section 8 housing program. All residents located by the HACL were offered housing. The proposed project will not significantly alter the demographic characteristics of the community involved. Residential, commercial, or industrial uses will not be altered because of the project, as proposed. The proposed activities will be carried out on parcels that have already been designated for their intended use.

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	The proposed project will consist of a similar number of units to the that were lost in 2016, due to flooding during Hurricane Matthew. The local educational facilities were able to accommodate students prior to Hurricane Matthew, and therefore should be able to accommodate a small increase in students. Local educational facilities which would service the residential facility would include Piney Green Elementary School, Piney Green Middle School, and Lumberton Senior High School. A figure depicting the location of these educational facilities is included in the Appendices.
Commercial Facilities	2	The proposed development of the project has the potential to encourage future investment. Existing commercial facilities can be accessed via the Robeson County South East Area Transit (SEATS) system.
Health Care and Social Services	1	The City of Lumberton, including the project site, is serviced by the Southeastern Regional Medical Center, located at 300 W 27th St, Lumberton, NC, approximately three miles east of the site. The office of the Robeson County Department of Social Services is located at 120 Glen Cowan Road, Lumberton, NC, approximately 0.1 mile southeast of the site, on the south side of Caton Road. The number of residents anticipated at the site would be similar to previous occupancy levels at the previously occupied Myers Park and Hilton Heights facilities. Therefore, the project should not cause a need for additional health care facilities. Social services in the City of Lumberton are provided by city-level, county-level, and state-level organizations. The proposed project would provide replacement housing for abandoned facilities, but this would not cause a significant increase in the demand for social services at the city level. In addition, the site would be located directly across Caton Road from the Robeson County Social Services facility, providing walkable access to these facilities. A figure of these facilities is located in the Appendices.
Solid Waste Disposal / Recycling	2	The proposed project would result in generation of construction waste. All solid waste must be properly segregated and disposed of in accordance with applicable regulations. Construction activities and continued use of the site will cause increases in generation of municipal solid

		waste; however, the project is not expected to overload design capacities of local solid waste disposal facilities.
Waste Water / Sanitary Sewers	2	A stormwater control measure will be constructed in accordance with local and state regulations and is anticipated to adequately service the proposed project. Best management practices will be implemented during construction activities to prevent erosion and sedimentation on the site. Because the proposed project is intended to replace residential units flooded in the Hilton Heights and Myers Park communities, the proposed project will not result in an overall increase in wastewater generation. The proposed project will cause an increase in the number of households generating wastewater in the vicinity of the site. However, the City of Lumberton currently maintains sanitary sewer lines along Caton Road and the anticipated development is not expected to overload design capacities of local facilities.
Water Supply	2	The proposed project is intended to replace existing residential units flooded in the Hilton Heights and Myers Park communities in downtown Lumberton, therefore the proposed project will not result in an overall increase in the demand for water. The City of Lumberton currently maintains municipal water lines along Caton Road, which will serve the proposed project.
Public Safety - Police, Fire and Emergency Medical	2	The proposed project is served by the Raft Swamp Fire and Rescue Department and the City of Lumberton Police Department. The increase in residences will not strain the effectiveness of these local services. A figure of the local public safety facilities is included in the Appendices.
Parks, Open Space and Recreation	2	The proposed project will take place within an existing agricultural field and will have no impact on open space or recreational facilities. The proposed project will also have no effect on cultural facilities.
Transportation and Accessibility	2	Transportation to and from the site can be served by the Robeson County South East Area Transit System (SEATS). The SEATS program provides human service agency and rural general public transportation for Robeson County residents. SEATS has established routes through Robeson County operating from Monday through Friday, 5:30 am to 5:30 pm, and in Lumberton on Saturday, 5:00 am to 2:00 pm for the general public and agency-sponsored passengers. SEATS provides scheduled routes for out-of-county medical trips to Durham, Raleigh, Chapel Hill,

		Fayetteville, Laurinburg and Pinehurst. All of SEATS' vehicles are accessible to passengers with disabilities. The proposed project is intended to replace existing residential units flooded in the Hilton Heights and Myers Park communities in downtown Lumberton, therefore the proposed project will not result in an overall increase in the demand for transportation services. While the SEATS program may see an increase in use due to the location of the proposed project in relation to downtown City of Lumberton, the site should not greatly impact the transportation services in the area. The site is also located in close proximity to I-95.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	Construction activities will occur on a site currently utilized as an agricultural field. The NC Natural Heritage Program did not identify and important communities, natural areas, or conservation/managed areas within the proposed project boundary. The northern portion of the property, which is currently undeveloped, will remain undeveloped.
Vegetation, Wildlife	2	Construction activities will occur primarily within an existing agricultural field. Therefore, it is not anticipated that trees, vegetation, or native plant community habitats will be negatively impacted or cause impacts to the proposed project.
Other Factors		

Additional Studies Performed:
No additional studies performed.

Field Inspection (Date and completed by)**:**

Site visit conducted March 2, 2021 by S&ME personnel (Ashley Bentz).

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**
Housing Authority of the City of Lumberton
U.S. Fish and Wildlife Service
N.C. State Historic Preservation Office
Catawba Indian Nation
U.S. Department of Agriculture

List of Permits Obtained:

Building permits and site plan approvals issued by the City of Lumberton or Robeson County.

Public Outreach [24 CFR 50.23 & 58.43]**:**
No public meetings or hearings have been held as a part of this environmental review.

Cumulative Impact Analysis [24 CFR 58.32]**:**
If the project is constructed as proposed, the project is intended to replace 72 residential units that were lost to flooding from Hurricane Matthew. The residents that were displaced by the loss of these units were offered housing within other units in Lumberton or provided vouchers for Section 8 housing. Replacing the units that were lost due to flooding would reduce strain on the HACL system and allow them to provide housing to more individuals.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]
In addition to the proposed site, several other locations were considered for the location of this project. These alternatives were dismissed due to cost of the land, unsuitability due to zoning restrictions on the site, unsuitability due to the City of Lumberton's Density Ordinance, which only allows a certain amount of multi-family units within a quarter mile radius, or public opposition to the location of the project.

No Action Alternative [24 CFR 58.40(e)]:
If no action is taken, the land will continue to be utilized as agricultural land or will be sold to an alternative buyer and developed in another capacity. The no active alternative will also reduce the City of Lumberton's ability to provide affordable housing for low to moderate income families due to a lack of suitable and safe housing. The 72 units lost to flooding from Hurricane Matthew would not be replaced, straining the existing capacity of the subsidized housing system.

Summary of Findings and Conclusions:

The project will have a beneficial impact because it is replacing existing housing for low to moderate income families in the City of Lumberton, which was previously damaged by flooding during Hurricane Matthew. Due to the proposed project replacing housing which had previously been in downtown Lumberton, effects of the project on the surrounding community will be minimal. The new housing will allow also allow HACL to move residents out of temporary housing into permanent housing, which will be less expensive for HACL to subsidize. Formal compliance steps or mitigation are not required for airport hazards, air quality, coastal barrier, coastal zone management, hazardous materials, farmlands protection, flood insurance, floodplain management, historic preservation, protected species, sole source aquifers, wetlands, or wild and scenic rivers.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into

project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Historic Preservation	The Catawba Indian Nation must be notified if Native American artifacts and / or human remains are located during the ground disturbance of this project.
Historic Preservation	If archaeological deposits are uncovered, the project shall be halted, and the applicant shall stop all work immediately need the discovery and take reasonable measures to avoid or minimize harm to the finds. The North Carolina State Historic Preservation Office will be consulted immediately. Work in sensitive areas cannot resume until consultation is complete and appropriate measures have been taken to ensure the project complies with the National Historic Preservation Act.
Noise	All equipment should be outfitted with operational mufflers and work should comply with applicable noise ordinances.
General	Acquire all required federal, state, and local permits prior to commencement of construction and comply with all permit conditions.

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: 6/30/2021

Name/Title/Organization: Samuel P. Watts / Senior Environmental Consultant
S&ME, Inc. 3201 Spring Forest Rd, Raleigh, NC 27616 ph# 919-872-2660

Certifying Officer Signature: _____ Date: _____

Name/Title: _____

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Airport Hazards / Airport Runway Clear Zones Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Airport Hazards (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/airport-hazards

1. **To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?**

   ☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.*

   ☐Yes → *Continue to Question 2.*

2. **Is your project located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Potential Zone (APZ)?**

   ☐Yes, project is in an APZ → *Continue to Question 3.*

   ☐Yes, project is an RPZ/CZ → *Project cannot proceed at this location.*

   ☐No, project is not within an APZ or RPZ/CZ

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.*

3. **Is the project in conformance with DOD guidelines for APZ?**

   ☐Yes, project is consistent with DOD guidelines without further action.

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

   ☐No, the project cannot be brought into conformance with DOD guidelines and has not been approved. → *Project cannot proceed at this location.*

If mitigation measures have been or will be taken, explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

Click here to enter text.

→ *Work with the RE/HUD to develop mitigation measures. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to AirNav (www.airnav.com), the nearest civilian airport is the Lumberton Regional Airport, which is approximately 1.6 miles (8,448 feet) south of the site. There are no military airports within 20 statute miles of the site. The proposed project will not include the construction of obstacles such as tall utility lines, microwave towers, or power generation stacks that would impact the approach/ takeoff zones of these airports. The proposed project is not located in a RPZ/CZ or APZ. A map depicting the location of the nearest airport is attached.

OMB No. 2506-0177
(exp.9/30/2021)

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Airport Runway Clear Zones (CENST) – PARTNER

https://www.hudexchange.info/environmental-review/airport-hazards

1. **Does the project involve the sale or acquisition of developed property?**

   ☐No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☒Yes → *Continue to Question 2.*

2. **Is the project in the Runway Protection Zone/Clear Zone (RPZ/CZ)[1]?**

   ☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.*

   ☐Yes → Written notice must be provided to prospective buyers to inform them of the potential hazards from airplane accidents as well as the potential for the property to be purchased as part of an airport expansion project. A sample notice is available through the HUD Exchange.

   Provide a map showing that the site within RPZ/CZ. Work with the RE/HUD to provide written notice to the prospective buyers. Continue to the Worksheet Summary below.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

[1] Runway Protection Zone/Clear Zones are defined as areas immediately beyond the ends of runways. The standards are established by FAA regulations. The term in 24 CFR Part 51, Runway Clear Zones, was redefined in FAA's Airport Design Advisory Circular (AC) 150/5300-13 to refer to Runway Protection Zones for civil airports. See link above for additional information.

According to AirNav (www.airnav.com), the nearest civilian airport is the Lumberton Regional Airport, which is approximately 1.6 miles (8,448 feet) south of the site. There are no military airports within 20 statute miles of the site. The proposed project will not include the construction of obstacles such as tall utility lines, microwave towers, or power generation stacks that would impact the approach/ takeoff zones of these airports. The proposed project is not located in a RPZ/CZ or APZ. A map depicting the location of the nearest airport is attached.

AirNav.com

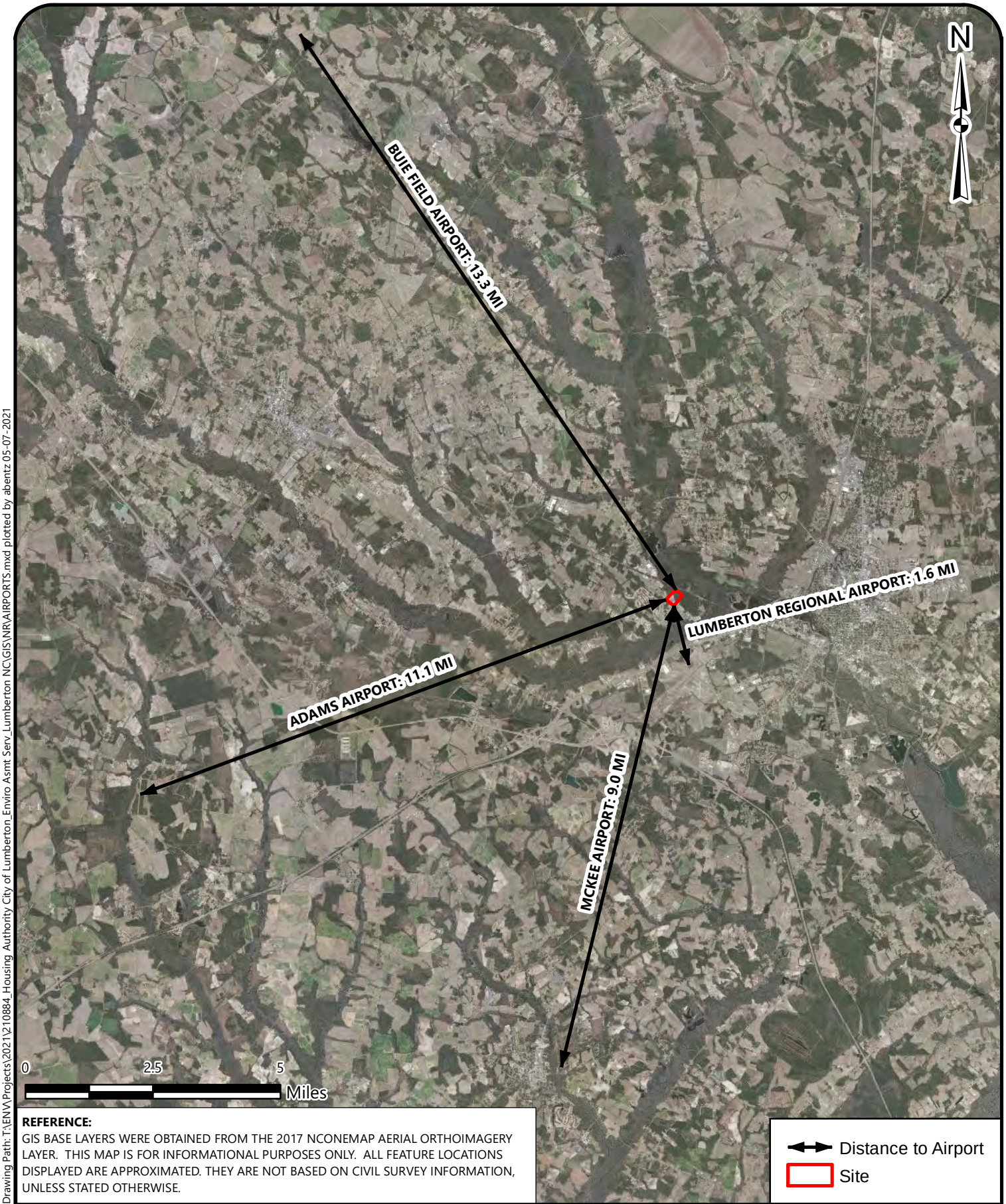
Airports | Navaids | Airspace Fixes | Aviation Fuel | AIRBOSS | iPhone App | My AirNav

Airport Search Results

11 airports found

ID	CITY	AIRPORT NAME	WHERE
LBT	LUMBERTON, NC	LUMBERTON REGIONAL AIRPORT	1.6 mi S
NC70	*FAIRMONT, NC*	*MCKEE AIRPORT*	9.0 mi SSW
8NC	ROWLAND, NC	ADAMS AIRPORT	11.1 mi WSW
9NR8	*RED SPRINGS, NC*	*BUIE FIELD AIRPORT*	13.3 mi NW
06NC	*ST. PAULS, NC*	*TAILWINDS AIRPORT*	15.5 mi NNE
61NC	*PARKTON, NC*	*SOUTHERN COMFORTS AERODROME AIRPORT*	17.5 mi NNE
3W6	BLADENBORO, NC	BLADENBORO AIRPORT	17.5 mi ESE
53NC	*LUMBERTON, NC*	*MYNATT FIELD AIRPORT*	17.5 mi S
32NC	*PARKTON, NC*	*HALL FIELD AIRPORT*	18.3 mi N
NC86	*WHITE OAK, NC*	*ROCKING A FARM AIRPORT*	19.1 mi ENE
NC71	*PARKTON, NC*	*E T FIELD AIRPORT*	19.7 mi N

Privacy Policy Contact



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AERIAL ORTHOIMAGERY LAYER. THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Distance to Airport
Site

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\NR\AIRPORTS.mxd plotted by abentz 05-07-2021

AIRPORT LOCATION EXHIBIT

LUMBERTON HOUSING AUTHORITY CATON ROAD SITE
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	1 " = 2.5 miles
DATE:	5-7-21
PROJECT NUMBER	210884
FIGURE NO.	1

Air Quality Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Air Quality (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/air-quality

1. **Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?**

   ☒ Yes → *Continue to Question 2.*

   ☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide any documents used to make your determination.*

2. **Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?**
   Follow the link below to determine compliance status of project county or air quality management district:
   https://www.epa.gov/green-book

   ☒ No, project's county or air quality management district is in attainment status for all criteria pollutants
   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

   ☐ Yes, project's management district or county is in non-attainment or maintenance status for one or more criteria pollutants. → *Continue to Question 3.*

3. **Determine the <u>estimated emissions levels of your project for each of those criteria pollutants</u> that are in non-attainment or maintenance status on your project area. Will your project exceed any of the *de minimis or threshold* emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?**

   ☐ No, the project will not exceed *de minimis* or threshold emissions levels or screening levels
   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Explain how you determined that the project would not exceed de minimis or threshold emissions.*

☐ Yes, the project exceeds *de minimis* emissions levels or screening levels.

→ *Continue to Question 4. Explain how you determined that the project would not exceed de minimis or threshold emissions in the Worksheet Summary.*

4. **For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.**
   Click here to enter text.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

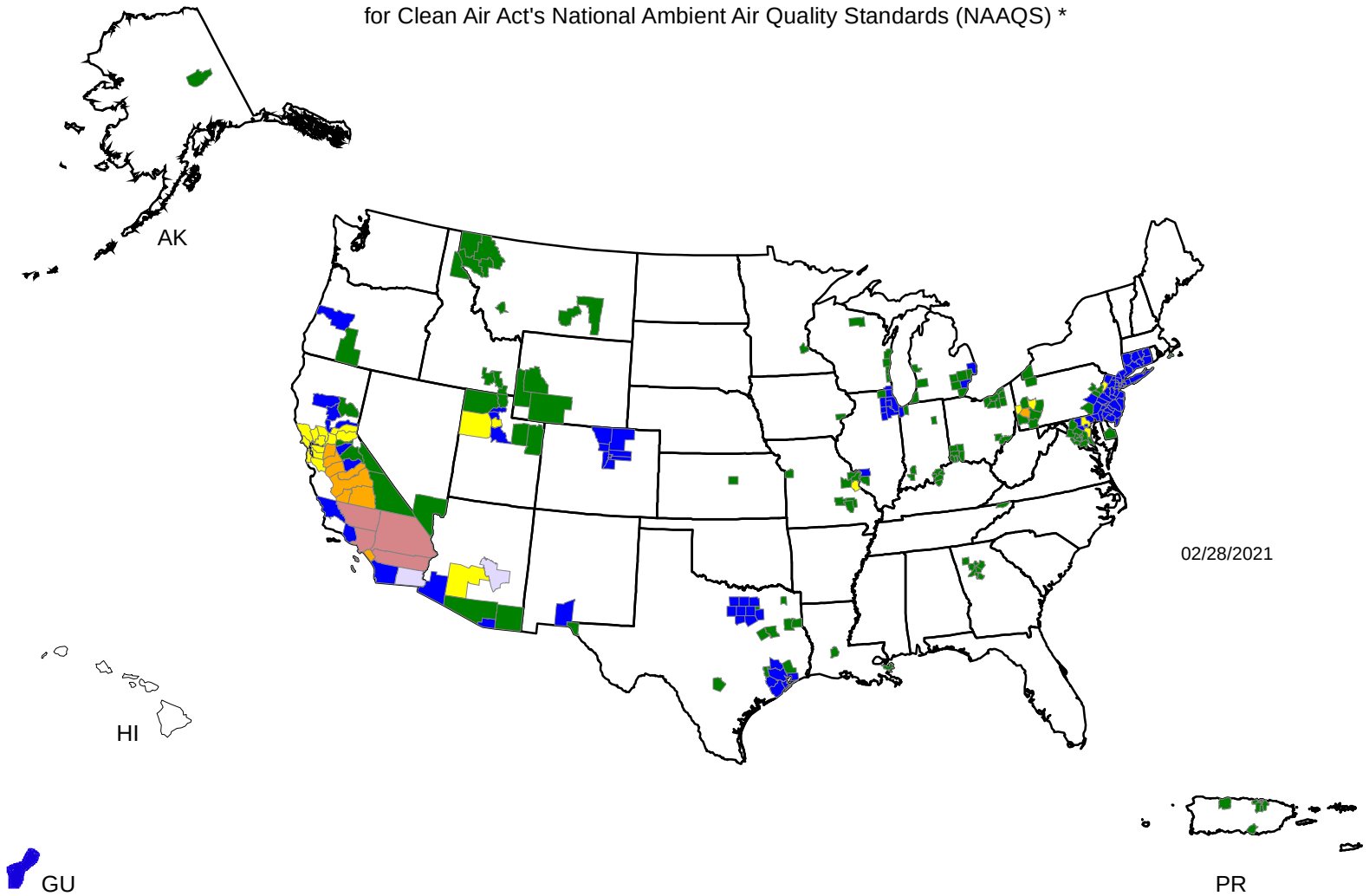
- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to the US EPA Green Book Nonattainment Areas for Criteria Pollutants website, Robeson County is in attainment status for all criteria pollutants. The PDF map depicting "Counties Designated 'Nonattainment' for Clean Air Act's National Ambient Air Quality Standards (NAAQS)" is attached.

Counties Designated "Nonattainment"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) *



Legend **

- County Designated Nonattainment for 6 NAAQS Pollutants
- County Designated Nonattainment for 5 NAAQS Pollutants
- County Designated Nonattainment for 4 NAAQS Pollutants
- County Designated Nonattainment for 3 NAAQS Pollutants
- County Designated Nonattainment for 2 NAAQS Pollutants
- County Designated Nonattainment for 1 NAAQS Pollutant

* The National Ambient Air Quality Standards (NAAQS) are health standards for Carbon Monoxide, Lead (1978 and 2008), Nitrogen Dioxide, 8-hour Ozone (2008), Particulate Matter (PM-10 and PM-2.5 (1997, 2006 and 2012), and Sulfur Dioxide.(1971 and 2010)

** Included in the counts are counties designated for NAAQS and revised NAAQS pollutants. Revoked 1-hour (1979) and 8-hour Ozone (1997) are excluded. Partial counties, those with part of the county designated nonattainment and part attainment, are shown as full counties on the map.

Coastal Barrier Resources Act / Coastal Zone Management Act Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Coastal Barrier Resources (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/coastal-barrier-resources

Projects located in the following states must complete this form.

Alabama	Georgia	Massachusetts	New Jersey	Puerto Rico	Virgin Islands
Connecticut	Louisiana	Michigan	New York	Rhode Island	Virginia
Delaware	Maine	Minnesota	North Carolina	South Carolina	Wisconsin
Florida	Maryland	Mississippi	Ohio	Texas	

1. Is the project located in a CBRS Unit?

☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a CBRS Unit.*

☐Yes → *Continue to 2.*

> Federal assistance for most activities may not be used at this location. You must either choose an alternate site or cancel the project. In very rare cases, federal monies can be spent within CBRS units for certain exempted activities (e.g., a nature trail), after consultation with the Fish and Wildlife Service (FWS) (see 16 USC 3505 for exceptions to limitations on expenditures).

2. Indicate your recommended course of action for the RE/HUD

☐ Consultation with the FWS

☐ Cancel the project

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Site is not located within Coastal Barrier Resources System (CBRS) as shown on official USFWS CBRS Mapper (https://www.fws.gov/cbra/maps/mapper.html) and official USFWS CBRS PDF Map for North Carolina. The project site is located within Robeson County, which is not a coastal county.

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Coastal Zone Management Act (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/coastal-zone-managementh

Projects located in the following states must complete this form.

Alabama	Florida	Louisiana	Mississippi	Ohio	Texas
Alaska	Georgia	Maine	New Hampshire	Oregon	Virgin Islands
American Samoa	Guam	Maryland	New Jersey	Pennsylvania	Virginia
California	Hawaii	Massachusetts	New York	Puerto Rico	Washington
Connecticut	Illinois	Michigan	North Carolina	Rhode Island	Wisconsin
Delaware	Indiana	Minnesota	Northern Mariana Islands	South Carolina	

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

☐Yes → *Continue to Question 2.*
☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a Coastal Zone.*

2. Does this project include activities that are subject to state review?

☐Yes → *Continue to Question 3.*
☐No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.*

3. Has this project been determined to be consistent with the State Coastal Management Program?

☐Yes, with mitigation. → *The RE/HUD must work with the State Coastal Management Program to develop mitigation measures to mitigate the impact or effect of the project.*

☐Yes, without mitigation. → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.*

☐No → Project cannot proceed at this location.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management website (https://coast.noaa.gov/czm/mystate/#northcarolina), the North Carolina Coastal Management Program is administered by the NC Department of Environmental Quality (NCDEQ). North Carolina's coastal zone includes 20 counties that in whole or in part are adjacent to, adjoining, intersected, or bounded by the Atlantic Ocean or any coastal sound. The project site is located in Robeson County, which is not one of the 20 counties identified as being within North Carolina's coastal zone. The NCDEQ list of the 20 coastal counties is included in the environmental review record.

Number of CBRS Units:	16
Number of System Units:	*9*
Number of Otherwise Protected Areas:	*7*
Total Acres:	149,379
Upland Acres:	*23,814*
Associated Aquatic Habitat Acres:	*125,565*
Shoreline Miles:	193

N

Map date: May 4, 2015

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and are maintained by the U.S. Fish and Wildlife Service. The official CBRS maps are available for download at http://www.fws.gov/CBRA.

* A portion of the unit falls outside of the state border.

Select Language ▼

NORTH CAROLINA Environmental Quality NC DEQ

CAMA Counties

The following counties are subject to the rules and policies of the Coastal Resources Commission, which administers the Coastal Area Management Act. If you are planning to develop in one of these counties, check to see whether your project is also in an Area of Environmental Concern (/about/divisions/coastal-management/coastal-management-permit-guidance/areas-of-concern). If it is, you may need a CAMA permit.

CAMA Counties		
• Beaufort • Bertie • Brunswick • Camden • Carteret • Chowan • Craven • Currituck • Dare • Gates	• Hertford • Hyde • New Hanover • Onslow • Pamlico • Pasquotank • Pender • Perquimans • Tyrrell • Washington	

About Coastal Management

DCM Offices & Program Areas (/about/divisions/coastal-management/about-coastal-management/dcm-offices-program-areas)

Staff Listing (/about/divisions/coastal-management/about-coastal-management/staff-listing)

CAMA Counties (/about/divisions/coastal-management/about-coastal-management/cama-counties)

CAMA accomplishments (/about/divisions/coastal-management/about-coastal-management/cama-accomplishments)

Share this page:

Facebook (https://www.facebook.com/sharer/sharer.php?u=https%3A%2F%2Fdeq.nc.gov%2Fabout%2Fdivisions%2Fcoastal-management%2Fabout-coastal-management%2Fcama-counties)

Twitter (http://twitter.com/intent/tweet?url=https%3A%2F%2Fdeq.nc.gov%2Fabout%2Fdivisions%2Fcoastal-management%2Fabout-coastal-management%2Fcama-counties)

Contamination and Toxic Substances Supporting Documentation

OMB No. 2506-0177
(exp. 9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Contamination and Toxic Substances (Multifamily and Non-Residential Properties) – PARTNER

https://www.hudexchange.info/programs/environmental-review/site-contamination

1. **How was site contamination evaluated?** [1] **Select all that apply.**

   ☒ ASTM Phase I ESA
   ☐ ASTM Phase II ESA
   ☐ Remediation or clean-up plan
   ☐ ASTM Vapor Encroachment Screening
   ☐ None of the above

   → *Provide documentation and reports and include an explanation of how site contamination was evaluated in the Worksheet Summary.*
   Continue to Question 2.

2. **Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)**

   ☒ No → **Explain below.**

   The ASTM Phase I ESA revealed no evidence of recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the subject property.

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☐ Yes → *Describe the findings, including any recognized environmental conditions (RECs), in Worksheet Summary below. Continue to Question 3.*

3. **Can adverse environmental impacts be mitigated?**

[1] HUD regulations at 24 CFR § 58.5(i)(2)(ii) require that the environmental review for multifamily housing with five or more dwelling units or non-residential property include the evaluation of previous uses of the site or other evidence of contamination on or near the site. For acquisition and new construction of multifamily and nonresidential properties HUD strongly advises the review include an ASTM Phase I Environmental Site Assessment (ESA) to meet real estate transaction standards of due diligence and to help ensure compliance with HUD's toxic policy at 24 CFR §58.5(i) and 24 CFR §50.3(i). Also note that some HUD programs require an ASTM Phase I ESA.

☐ Adverse environmental impacts cannot feasibly be mitigated → HUD assistance may not be used for the project at this site. Project cannot proceed at this location.

☐ Yes, adverse environmental impacts can be eliminated through mitigation.
→ *Provide all mitigation requirements*[2] *and documents. Continue to Question 4.*

4. **Describe how compliance was achieved. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls**[3]**, or use of institutional controls**[4]**.**
Click here to enter text.

If a remediation plan or clean-up program was necessary, which standard does it follow?
☐ Complete removal
☐ Risk-based corrective action (RBCA)
→ *Continue to the Worksheet Summary.*

Worksheet Summary
Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.
Phase I Environmental Site Assessment completed by S&ME, Inc and dated March 25, 2021.

[2] Mitigation requirements include all clean-up actions required by applicable federal, state, tribal, or local law. Additionally, provide, as applicable, the long-term operations and maintenance plan, Remedial Action Work Plan, and other equivalent documents.
[3] Engineering controls are any physical mechanism used to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls may include, without limitation, caps, covers, dikes, trenches, leachate collection systems, signs, fences, physical access controls, ground water monitoring systems and ground water containment systems including, without limitation, slurry walls and ground water pumping systems.
[4] Institutional controls are mechanisms used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site at levels above the applicable remediation standard which would allow for unrestricted use of the property. Institutional controls may include structure, land, and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions.

Endangered Species Act Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Endangered Species Act (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/endangered-species

1. Does the project involve any activities that have the potential to affect species or habitats?

☐No, the project will have No Effect due to the nature of the activities involved in the project.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

☐No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office.

Explain your determination:

Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

☒Yes, the activities involved in the project have the potential to affect species and/or habitats.

→ *Continue to Question 2.*

2. Are federally listed species or designated critical habitats present in the action area?

Obtain a list of protected species from the Services. This information is available on the FWS Website.

☒No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation may include letters from the Services, species lists from the Services' websites, surveys or other documents and analysis showing that there are no species in the action area.*

☐Yes, there are federally listed species or designated critical habitats present in the action area.

→ *Continue to Question 3.*

3. **Recommend one of the following effects that the project will have on federally listed species or designated critical habitat:**

☒No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate.*

☐May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Informal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

☐Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Formal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

A Trust Resources review was conducted using the USFWS Information for Planning and Consultation (IPaC) planning tool to identify federally protected species that need to be evaluated in a project area as part of an official species list. This search identified four species, the red-cockaded woodpecker, wood stork, American alligator, and Michaux's sumac as species that could potentially be impacted in the vicinity of the project. The USFWS also recommends that the site be evaluated for the northern long-eared bat and bald eagle.

The site parcel contains suitable habitat for the northern long-eared bat and the American alligator. There are no trees within the anticipated limit of disturbance for the project, and therefore, no habitat for the northern long-eared bat within the limit of disturbance. As a

result, there will be no effect on the northern long-eared bat as a result of this project. However, in the event that tree clearing would be necessary, the final 4(d) rule exempts incidental take for activities undertaken by this project. The project is not located in a county known to contain maternity roost trees, is not located within ¼ mile of a known hibernation site, and is not within a 150-foot radius of a known, occupied maternity roost. Therefore, no consultation would be necessary with the USFWS and the project could rely upon the findings of the 1/5/2016 Programmatic Biological Opinion for the Final 4(d) Rule on the Northern Long-Eared Bat and Activities Exempted from Take Prohibitions to fulfill our project specific section 7 responsibilities, which would result in any incidental take being exempt. The potential habitat for the American alligator consists of a small pond within the wooded portion in the northern side of the site. However, the pond is located outside of the anticipated limit of disturbance and therefore, it is not anticipated that the project will affect the American alligator. As a result, the project should have no effect on federally protected species.

In a letter dated May 11, 2021, a request for project review was submitted to Mr. John Ellis requesting concurrence that the project is not likely to adversely affect threatened or endangered species or their designated critical habitats. No response was received within the 30-day response window. The letter submitted to the USFWS is attached.

North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Erik A. Hooks, Secretary

Michael A. Sprayberry, Director
Laura H. Hogshead, Chief Operating Officer

May 11, 2021

Mr. John Ellis
United States Department of the Interior
Fish and Wildlife Service
Raleigh ES Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Reference: Request for Project Review, HUD CDBG-DR
Proposed Hilton Heights/Myers Park Relocation
Caton Road, Lumberton, Robeson County, North Carolina
Public Housing Restoration
GPS Coordinates: 34.632418, -79.632418

Dear Mr. Ellis:

North Carolina Office of Recovery and Resiliency (NCORR), under the U.S. Department of Housing and Urban Development (HUD), Community Development Block Grant Disaster Recovery (CDBG-DR) program is considering assisting funding a housing project at the site described below in order to assist the City of Lumberton to recover from damages resulting from Hurricane Matthew occurring between September 28 and October 10, 2016. Through HUD's CDBG-DR program, NCORR provides federal grant assistance for the repair, replacement or restoration of disaster damaged housing facilities. Pursuant to the Endangered Species Act (ESA) of 1973, as amended, NCORR is hereby requesting informal consultation for the above-referenced project.

The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road in Lumberton, Robeson County, North Carolina (34.63247, -79.065994). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The site is an active agricultural field and is currently in the process of being purchased by the Housing Authority of the City of Lumberton (HACL) with HUD CDBG-DR funds.

The proposed project consists of the development of 72 residential rental units, intended to replace the low-income housing units known as Hilton Heights and Myers Park, which were flooded in October 2016, during Hurricane Matthew. Flood damage to the housing units at Hilton Heights and Myers Park made the units un-livable and residents were relocated.

Plans for the flood-damaged properties are not finalized, but all 30 housing units at Myers Park and 42 units at Hilton Heights are currently anticipated to be demolished and cleared with FEMA funding and proceeds from insurance. At Hilton Heights, the Maintenance Building will be left intact to be used for storage, which was identified as the only possible use for this building by the HACL. Any changes to the proposed scope of work will require approval from HUD and resubmission for environmental review.

The locations of the proposed project and former housing units are depicted on the attached Site Vicinity Exhibit (**Figure 1**), the appropriate portions of the 1982 Northwest Lumberton, NC USGS Topographic Exhibits (**Figures 2A through 2C**), Site Exhibits (**Figures 3A through 3C**) and Proposed Site Plan (**Figure 4**). Land use in the vicinity consists of a mix of uses including residential and industrial.

S&ME personnel reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website, and on March 2, 2021, S&ME Natural Resources personnel conducted a site visit to observe biological habitats and determine the likely occurrence of protected (threatened, endangered), candidate, and proposed species within the project area. According to the USFWS IPaC response for the site, four species should be reviewed for the site. These four species included the Red-cockaded Woodpecker, Wood Stork, American Alligator, and Michaux's sumac. In addition, the USFWS recommends that the following species be considered if the site is within the range of the listed species: Northern Long-eared Bat and Bald Eagle. The North Carolina Natural Heritage Program (NCNHP) was also consulted to identify any known occurrences of these species within a one-mile search radius and the resulting report is attached. Following is information regarding the listed species obtained from the USFWS website:

American Alligator (Alligator mississippiensis) Status: Similarity of Appearance (Threatened)

Species listed as threatened due to similarity of appearance to another species that is listed as threatened are not biologically endangered are not subject to Section 7 consultation. The American alligator is regulated due to their similarity to several related species such as crocodiles and caimans, which are imperiled. American alligators are found in fresh or brackish marshes, ponds, lakes, rivers, swamps, and canals. While a small pond is located within the evaluation area, the pond is too small to support the American alligator. In addition, the pond is outside the anticipated limit of disturbance, which will be limited to the agricultural field. Finally, the project will not result in the harvest or legal trade of the animals and therefore does not require Section 7 consultation.

Bald Eagle (Haliaeetus leucocephalus) Status: Delisted due to Recovery, protected under Bald and Golden Eagle Protection Act

The Bald Eagle prefers to nest in large mature trees within half a mile of coastlines, rivers, or large lakes which provide adequate feeding grounds. The nearest large water body capable of supporting a bald eagle, the Lumber River, is approximately 0.5 miles to the south of the site. In addition, no bald eagles or bald eagle nests were observed in the vicinity of the site or identified by NCNHP as being present within one mile of the site. Therefore, the project will have no effect on bald eagles.

Michaux's Sumac (Rhus michauxii) Status: Endangered

Michaux's sumac is a rhizomatous, densely hairy shrub with erect stems approximately one to three feet in height. The compound leaves have acuminate leaflets that are evenly serrated and oblong to lanceolate. Flowers are small, borne in a terminal, erect, dense cluster, and greenish yellow to white in color. Michaux's sumac flowers between June and July, and the fruit, a red drupe, is produced through the months of August to October.

Michaux's sumac grows in sandy or rocky, open woods in association with basic soils, surviving best in areas where some form of disturbance has provided an open area. In North Carolina, observed populations have been identified on highway rights-of-way, roadsides, or on the edges of artificially maintained clearings. It is commonly observed with species such as pitchfork crowngrass (Paspalum bifidum), woodland sunflower (Helianthus divaricatus), Carolina fluffgrass (Tridens carolinanus), winged sumac (Rhus copallinum), green silkyscale (Anthaenantia villosa), skeletongrass (Gymnopogon sp.), and woolysheath threeawn (Aristida lanosa). This species does not tolerate shade or wet soils.

Within the site, the anticipated limit of disturbance is located entirely within an active agricultural field. In addition, the soil within the active agricultural field and its boundaries are strongly acidic, resulting in no suitable habitat. The remainder of the site is shaded or consists of a wetland, resulting in no suitable habitat. Finally, no individuals of Michuax's sumac or other sumac species were identified during the site visit. Therefore, the project will have no effect on this species.

Northern Long-eared Bat (Myotis septentrionalis) Status: Threatened

The northern long-eared bat hibernates during the winter in caves or mines. During the fall, these bats inhabit the woodlands where they hibernate and during the summer months, the northern long-eared bat roosts underneath bark or in the cavities and crevices of dead or live trees. They can also roost in caves or mines. The project is not located within ¼-mile of a known hibernation site or within a 150-foot radius of a known, occupied maternity roost during the pup season (June 1 – July 31), and the site is located entirely outside of counties identified by the Raleigh Field Office as containing confirmed hibernation and maternity roost sites. While the proposed site does contain mature trees that could provide suitable habitat for the northern long-eared bat, the proposed project is anticipated to remain entirely within the agricultural field. No tree removal is anticipated and therefore, no effect is anticipated on the northern long-eared bat. In the event that tree removal is required, the project is considered exempt from incidental take under the final Section 4(d) of the Endangered Species Act [4(d) rule] for this species (effective February 16, 2016). In the event

that minimal tree removal is required, the northern long-eared bat has a 'may affect, likely to adversely affect' determination; therefore, incidental take, though unlikely to occur, is permissible.

Red-cockaded Woodpecker (Picoides borealis) Status: Endangered

The red-cockaded woodpecker is a small bird approximately seven inches long. This bird is differentiated by a white cheek patch and their black and white barred back feathers. In addition, males have small red feathers underneath the black top of the head and the white cheek patch. The red-cockaded woodpecker requires open stands of mature pine. The mature pine generally needs to be approximately 60 years old or older. There are no mature, open pine stands within the project site. Therefore, the project will have no effect on this species.

Wood Stork (Mycteria americana) Status: Threatened
Biological Determination: No effect

The wood stork is a large, white, bald-headed wading bird measuring three feet in length, weighing over five pounds, and with a wingspan of five feet. Their short tail feathers and primary and secondary flight feathers are black in color and the remaining plumage is white. These birds have rough, scaly, dark gray skin on their head and upper neck. Wood storks often feed in groups and are most often found in open shallow wetlands where their prey is found. Nests are constructed out of sticks atop high cypress, mangrove, or other trees in marshy wetlands. There are no marsh wetlands within the project site. In addition, no wood stork nesting colonies were observed in the vicinity of the site or identified by NCNHP as being present within one mile of the site. Therefore, the project will have no effect on this species.

Attached for your review are copies of relevant documents supporting out findings, including the IPaC report, NCNHP report, species conclusion table, and site photographic log.

Therefore, in accordance with Section 7 of the ESA and its implementing regulations through 50 CFR Part 402, NCORR has determined that the proposed construction of the multi-family apartment building and associated amenities is not likely to adversely affect threatened or endangered species or their designated critical habitats.

To facilitate NCORR's evaluation of this project, written concurrence with this determination is requested. Your prompt response would be greatly appreciated, and may be submitted in writing to the following address: P.O. Box 110465, Durham, NC 27709 Attn: Stephanie Richardson or via email (preferred) at stephanie.richardson@ncdps.gov.

Should you have any questions regarding this project, please do not hesitate to contact me via email listed above. Thank you in advance for your attention to this matter.

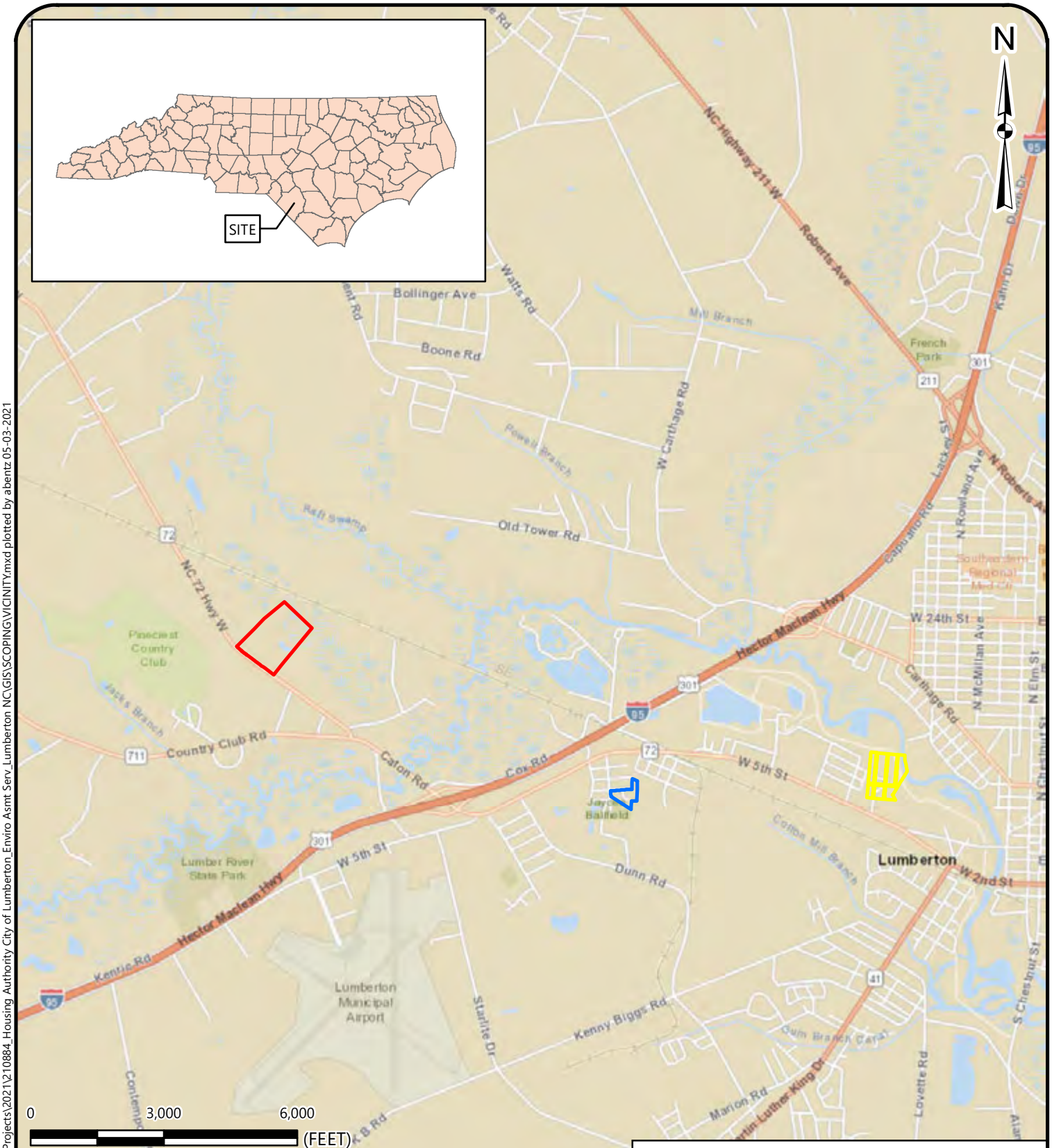
Sincerely,

W. Stephanie Richardson

W. Stephanie Richardson
North Carolina Office of Recovery and Resiliency
Environmental Manager
PO Box 110465
Durham, North Carolina 27709
984-232-1958

Enclosures:

- Figure 1: Site Vicinity Map
- Figures 2: USGS Topographic Exhibit
- Figures 3: Site Exhibit
- Figure 4: Proposed Site Plan
- USFWS Information for Planning and Consultation (IPaC) Report
- NCNHP Report
- Species Conclusions Table
- Site Photographs



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE USGS NATIONAL TOPO MAP VIEWER . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

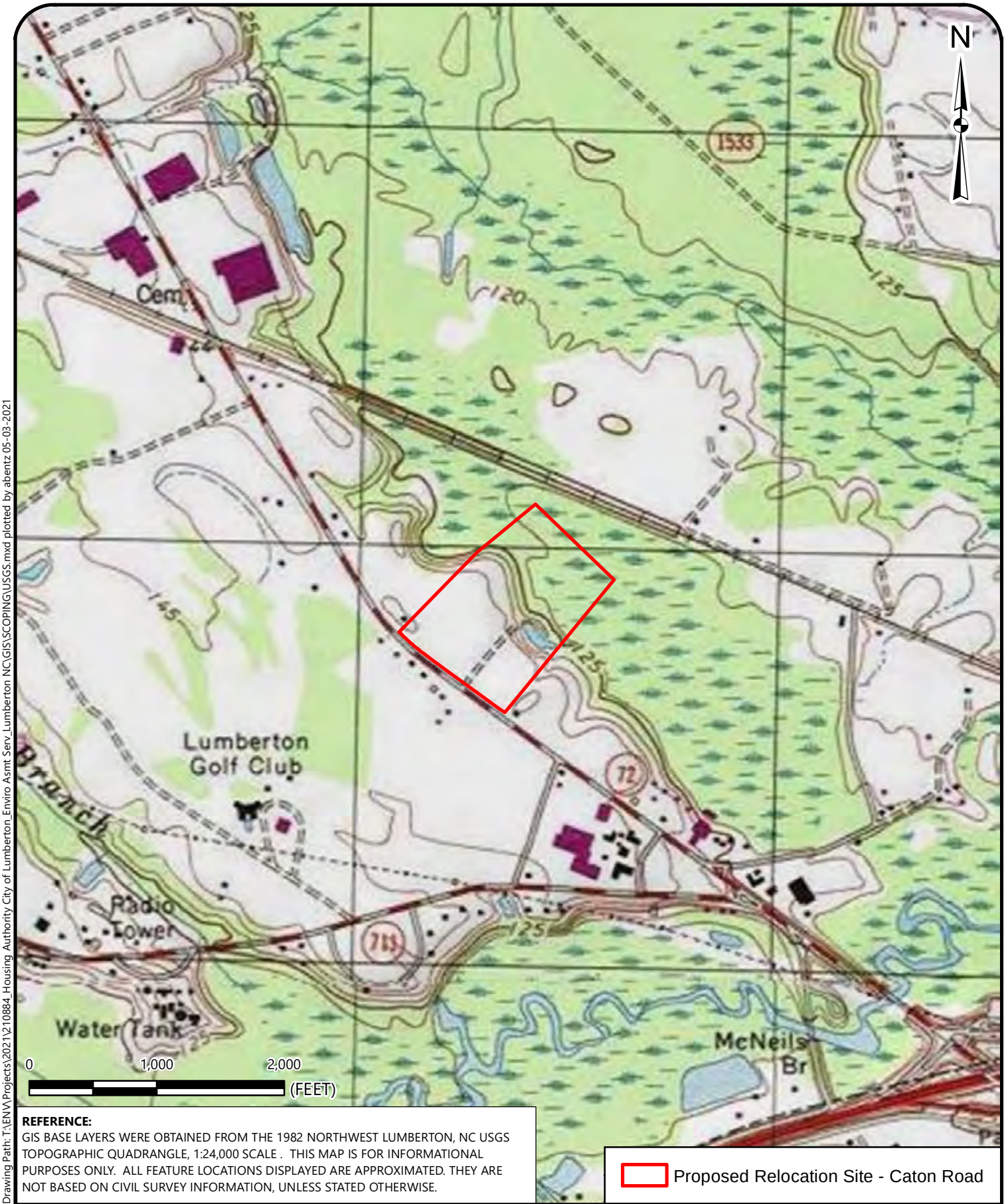
- Former Myers Park Site
- Former Hilton Heights Site
- Proposed Relocation Site - Caton Road

VICINITY MAP

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 3,000 '	1
DATE: 5-3-21	
PROJECT NUMBER 210884	

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\VICINITY.mxd plotted by abentz 05-03-2021



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REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road

USGS TOPOGRAPHIC EXHIBIT
PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2A
DATE: 5-3-21	
PROJECT NUMBER 210884	

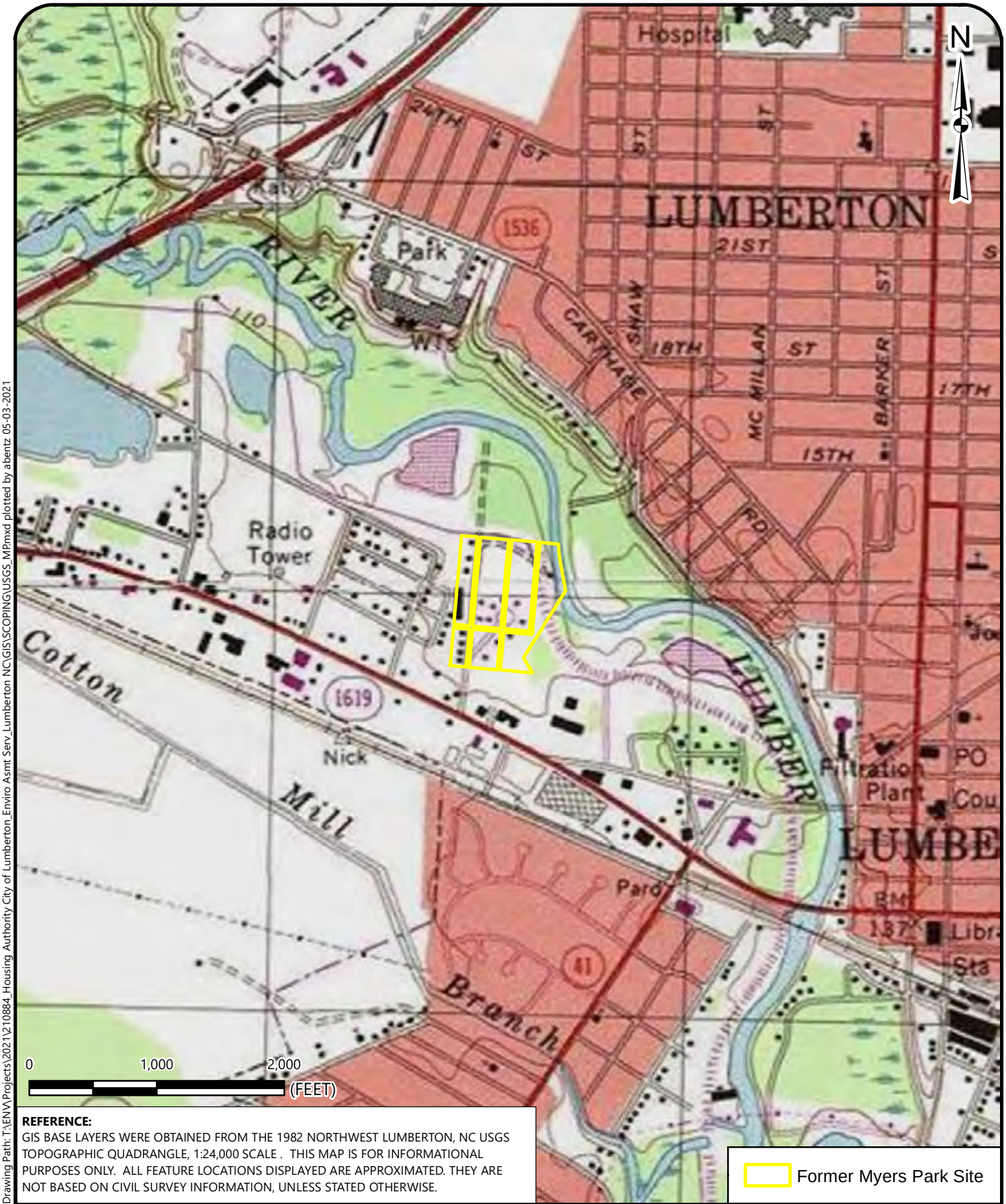
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_HH.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT
FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2B
DATE: 5-3-21	
PROJECT NUMBER 210884	



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_MP.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 1,000 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 2C

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road
Robeson County Parcels

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE.mxd plotted by abentz 05-03-2021

SITE MAP - PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 350 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3A

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Hilton Heights Site
Robeson County Parcels

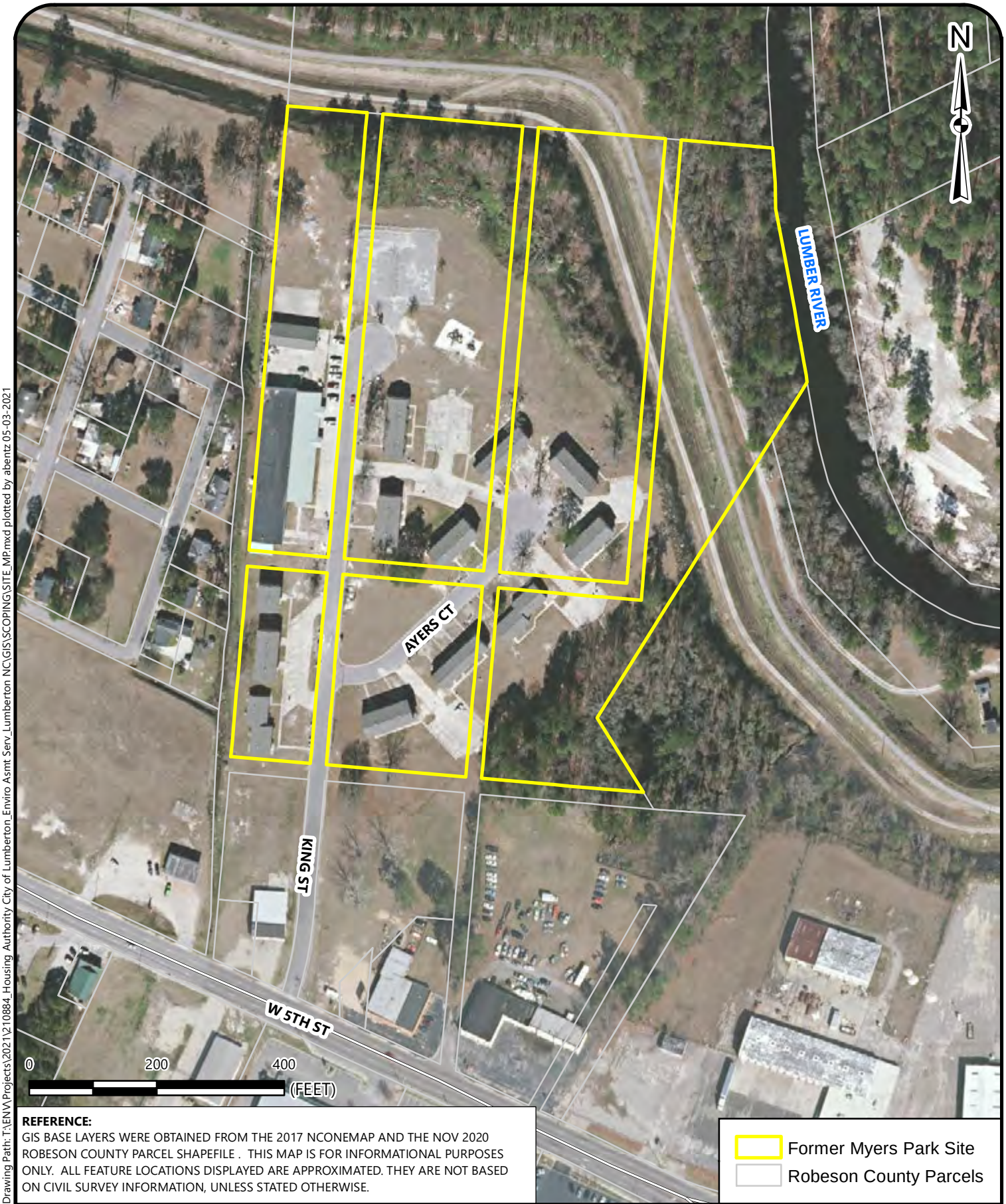
Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_HH.mxd plotted by abentz 05-03-2021

SITE MAP - FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 100 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. **3B**



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_MP.mxd plotted by abentz 05-03-2021

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site
Robeson County Parcels

SITE MAP - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 200 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3C

2 / A100 PRELIMINARY ELEVATION
N.T.S.

1 / A100 PRELIMINARY SITE PLAN
1'-0" = 100'

REVISIONS

THE WOOTEN COMPANY
120 North Boylan Avenue Raleigh, NC 27603-1423
919.828.0531 fax 919.834.3589
License Number: F-0115

HOUSING AUTHORITY OF THE CITY OF LUMBERTON
LUMBERTON NORTH CAROLINA

HILTON HEIGHTS UNIT RELOCATION

AERIAL SITE PLAN

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

DESIGNED BY:	RDP
DRAWN BY:	TSM
CHECKED BY:	RDP
PROJECT NO.:	3313-B-11
DATE:	02-05-21
SCALE:	AS SHOWN

Figure
4

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556

In Reply Refer To: March 01, 2021
Consultation Code: 04EN2000-2021-SLI-0768
Event Code: 04EN2000-2021-E-01670
Project Name: Caton Road Site

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The species list generated pursuant to the information you provided identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or

evaluation and can be found on our web page at http://www.fws.gov/raleigh. Please check the web site often for updated information or changes

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

Not all Threatened and Endangered Species that occur in North Carolina are subject to section 7 consultation with the U.S Fish and Wildlife Service. Atlantic and shortnose sturgeon, sea turtles,when in the water, and certain marine mammals are under purview of the National Marine Fisheries Service. If your project occurs in marine, estuarine, or coastal river systems you should also contact the National Marine Fisheries Service, http://www.nmfs.noaa.gov/

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If you have any questions or comments, please contact John Ellis of this office at john_ellis@fws.gov.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

Project Summary

Consultation Code: 04EN2000-2021-SLI-0768
Event Code: 04EN2000-2021-E-01670
Project Name: Caton Road Site
Project Type: DEVELOPMENT
Project Description: Proposed multi-family affordable housing
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@34.633119199999996,-79.06500843037497,14z

Counties: Robeson County, North Carolina

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
American Alligator *Alligator mississippiensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)

Flowering Plants

NAME	STATUS
Michaux's Sumac *Rhus michauxii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5217	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

Roy Cooper, **Governor**
D. Reid Wilson, **Secretary**
Walter Clark
Director, Division of Land and Water Stewardship

NCNHDE-14087

March 1, 2021

Ashley Bentz
S&ME, Inc.
3201 Spring Forest Road
Raleigh, NC 27616
RE: Caton Road Site

Dear Ashley Bentz:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

Based on the project area mapped with your request, a query of the NCNHP database indicates that there are no records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is found within the project area or is indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or Federally-listed species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at rodney.butler@ncdcr.gov or 919-707-8603.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
Caton Road Site
March 1, 2021
NCNHDE-14087

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Dragonfly or Damselfly	33769	Somatochlora georgiana	Coppery Emerald	2004-Pre	H?	5-Very Low	---	Significantly Rare	G3G4	S1?
Dragonfly or Damselfly	33789	Triacanthagyna trifida	Phantom Darner	2004-Pre	H?	5-Very Low	---	Significantly Rare	G5	SH
Freshwater Fish	29762	Cyprinella sp. cf. zanema	Thinlip Chub	2010-07-07	E	3-Medium	---	Special Concern	G2Q	S2
Freshwater Fish	31779	Enneacanthus chaetodon	Blackbanded Sunfish	2010-07-07	E	3-Medium	---	Significantly Rare	G3G4	S3
Freshwater Fish	36966	Notropis chalybaeus	Ironcolor Shiner	1997-05-27	H?	3-Medium	---	Significantly Rare	G4	S2S3
Natural Community	27516	Cypress--Gum Swamp (Blackwater Subtype)	---	2008	AB	1-Very High	---	---	G4?	S4
Vascular Plant	26672	Ditrysinia fruticosa	Sebastian-bush	2008-05-07	A?	4-Low	---	Special Concern Vulnerable	G5	S2
Vascular Plant	472	Ludwigia brevipes	Long Beach Seedbox	1954-09-13	H	3-Medium	---	Significantly Rare Throughout	G2	S1

Natural Areas Documented Within a One-mile Radius of the Project Area

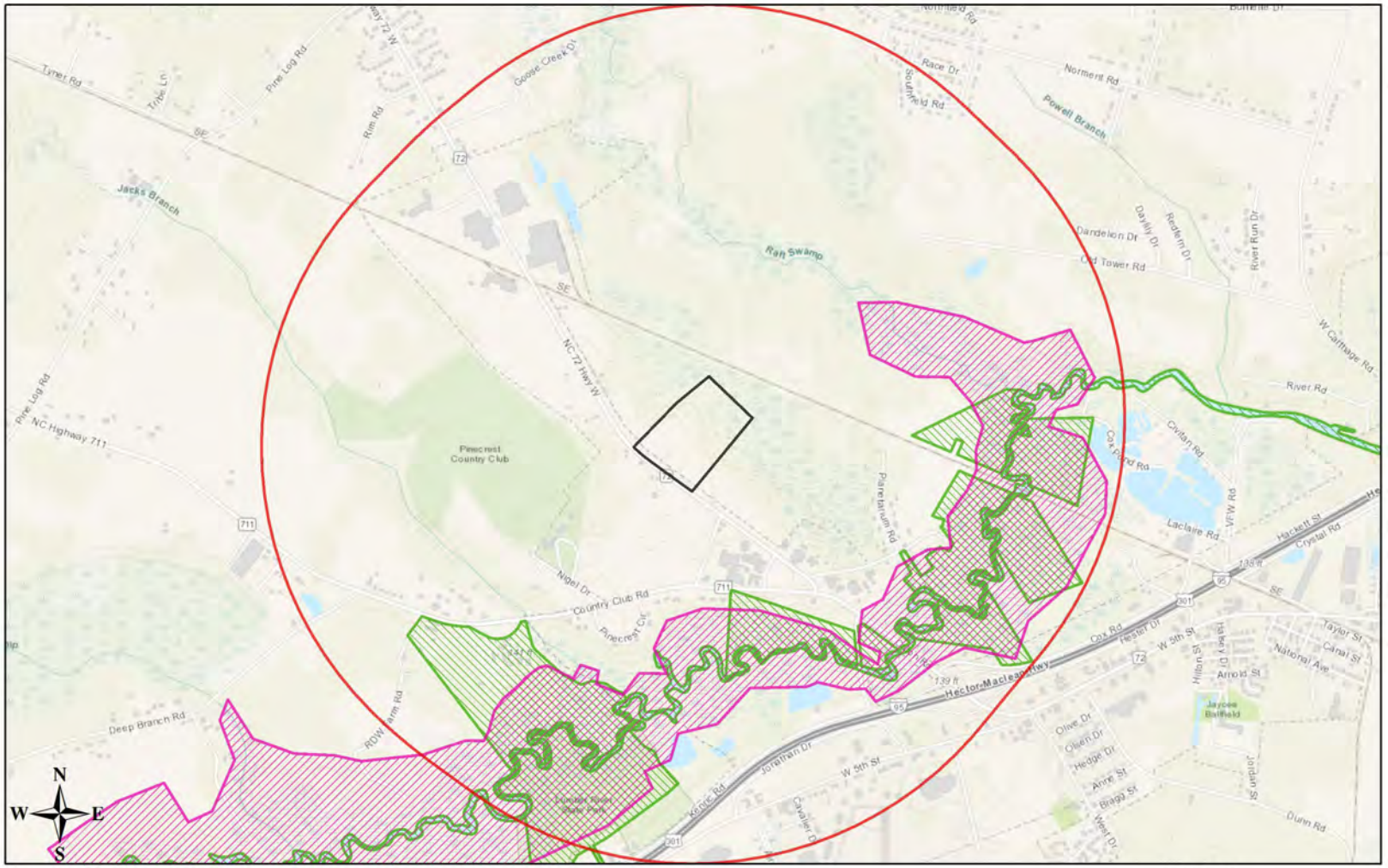
Site Name	Representational Rating	Collective Rating
Lumber River Swamp/Avent Landing	R3 (High)	C5 (General)

Managed Areas Documented Within a One-mile Radius of the Project Area

Managed Area Name	Owner	Owner Type
Lumber River State Park	NC DNCR, Division of Parks and Recreation	State
Lumber State Natural and Scenic River	NC DNCR, Division of Parks and Recreation	State
Lumber National Wild and Scenic River	US National Park Service	Federal
Lumber River Conservancy Preserve	Lumber River Conservancy	Private
Former Robeson Correctional Center	NC Department of Public Safety	State
Robeson County Open Space	Robeson County: multiple local government	Local Government

Definitions and an explanation of status designations and codes can be found at https://ncnhde.natureserve.org/help. Data query generated on March 1, 2021; source: NCNHP, Q4 January 2021. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

NCNHDE-14087: Caton Road Site



March 1, 2021

- Project Boundary
- Buffered Project Boundary
- NHP Natural Area (NHNA)
- Managed Area (MAREA)

1:23,413

0 0.2 0.4 0.8 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Species Conclusions Table

Project Name: Proposed Hilton Heights Unit Relocation

Date: 3/25/2021

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Red-cockaded woodpecker (*Picoides borealis*)	Suitable habitat not present No critical habitat present	No Effect	No mature open stands of pine are present on site.
Wood Stork (*Mycteria americana*)	Suitable habitat not present No critical habitat present	No Effect	No suitable habitat in the form of a freshwater marsh present on site.
American alligator (*Alligator mississippiensis*)	Suitable habitat not present No critical habitat present	No Effect	While the small pond on site is capable of supporting an American alligator, the pond is located well outside of the anticipated limit of disturbance and no impacts are anticipated to the pond. In addition, no evidence of American alligators was observed during the site visit.
Michaux's Sumac (*Rhus michauxii*)	Suitable habitat not present No critical habitat present	No Effect	No suitable habitat – species prefers basic soils, soils on site where suitable disturbance is present are considered strongly acidic. No individuals were observed during site visit.
Bald Eagle (*Haliaeetus leucocephalus)*	Suitable habitat not present No critical habitat present	No Effect	The nearest large body of water capable of supporting a bald eagle is approximately 0.45 miles southwest of the site. No individuals or nests were identified during the site visit and NCNHP did not identify any known bald eagles within one mile of the site.
Northern Long-Eared Bat (*Myotis septentrionalis*)	Suitable habitat present No critical habitat present	No Effect	While mature trees are present on site, there is no tree clearing anticipated as a result of this project. In addition, Robeson County does not contain known roost trees. Therefore, no effect is anticipated for the northern long-eared bat.

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Ashley Bentz

Signature /Title

3/25/2021

Date

1	View of agricultural field within site from Caton Road looking northeast.

2	View of agricultural field from the southern corner of the site adjacent to Caton Road looking north.

3	View of the agricultural field from the eastern corner of the field looking west.

4	View of the agricultural field and field edge from the eastern corner of the field looking northwest.

	Site Photographs **Proposed Hilton Heights/Myers Park Relocation – Caton Road** **Lumberton, Robeson County, North Carolina**	S&ME Project No. 210884	
		Taken by: A. Bentz	Date Taken: 3-2-2021

5 View of small pond within wooded portion of the site in the eastern corner.

6 View of wooded area in north/northeast portion of the site.

7 View of wooded area in north/northeast portion of the site.

8 View of wetland within northern/northeastern portion of the site.

	Site Photographs **Proposed Hilton Heights/Myers Park Relocation – Caton Road** **Lumberton, Robeson County, North Carolina**	S&ME Project No. 210884	
		Taken by: A. Bentz	Date Taken: 3-2-2021

9 View of the agricultural field from the northern corner of the agricultural field looking along the northwestern property line.

10 View of the agricultural field from the western corner of the agricultural field looking northeast along the northwestern property line.

11 View of the agricultural field from the western corner of the agricultural field looking east across the site.

12 View of the agricultural field from the western corner of the agricultural field looking southeast along Caton Road.

	Site Photographs **Proposed Hilton Heights/Myers Park Relocation – Caton Road** **Lumberton, Robeson County, North Carolina**	S&ME Project No. 210884	
		Taken by: A. Bentz	Date Taken: 3-2-2021

Explosives and Flammable Hazards Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Explosive and Flammable Hazards (CEST and EA) – PARTNER
https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities

1. **Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?**

   ☒ No
   → *Continue to Question 2.*

   ☐ Yes
   Explain:
   Click here to enter text.
   → *Go directly to Question 5.*

2. **Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?**

   ☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☒ Yes → *Continue to Question 3.*

3. **Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are NOT covered under the regulation include:**
   - **Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR**
   - **Containers of liquified petroleum gas (LPG) or propane with a water volume capacity of 1,000 gallons or less that meet the requirements of the 2017 version of National Fire Protection Association (NFPA) Code 58.**

   If all containers within the search area fit the above criteria, answer "no." For any other type of aboveground storage container within the search area that holds one of the flammable or explosive materials listed in Appendix I of 24 CFR Part 51 Subpart C, answer "yes."

   ☐ No
   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide all documents used to make your determination.*

   ☒ Yes
   → *Continue to Question 4.*

4. **Visit HUD's website to identify the appropriate tank or tanks to assess and to calculate the required separation distance using the electronic assessment tool. To document this step in the analysis, please attach the following supporting documents to this screen:**
    - **Map identifying the tank selected for assessment, and showing the distance from the tank to the proposed HUD-assisted project site; and**
    - **Electronic assessment tool calculation of the required separation distance.**

   Based on the analysis, is the proposed HUD-assisted project site located at or beyond the required separation distance from all covered tanks?

   ☒ Yes

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☐ No

   → *Go directly to Question 6.*

5. **Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?**

   Please visit HUD's website for information on calculating Acceptable Separation Distance.

   ☐ Yes

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

   ☐ No

   → *Continue to Question 6.*

   Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

6. **For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Mitigation measures may include both natural and manmade barriers, modification of the project design, burial or removal of the hazard, or other engineered solutions. Describe selected mitigation measures, including the timeline for implementation, and attach an implementation plan. If negative effects cannot be mitigated, cancel the project at this location.**

   Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

   Click here to enter text.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates

- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

Click here to enter text.

Three storage tanks were identified within the one-mile radius are covered by 24 CFR 51C. Of these, two are gasoline/diesel storage tanks at a NCDOT refueling station that are approximately 800 gallons each. The other is a combustible fuel tank approximately 5,400 gallons at the International Paper Company facility. The ASD of the gasoline tanks at the NCDOT facility is approximately 252 feet and the site is located approximately 3,400 feet from these tanks, The ASD for the tank at the International Paper Company site is 558 feet and is located approximately 2,700 feet from the site.

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD-Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☐ **No:** ☑
What is the volume (gal) of the container?	800
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	252.02
ASD for Thermal Radiation for Buildings (ASDBPU)	45.35
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD-Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☐ **No:** ☑
What is the volume (gal) of the container?	5400
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	558.36
ASD for Thermal Radiation for Buildings (ASDBPU)	109.64
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

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Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

Farmlands Protection
Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Farmlands Protection (CEST and EA) - PARTNER

https://www.hudexchange.info/environmental-review/farmlands-protection

1. **Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?**
   ☒ Yes → *Continue to Question 2.*
   ☐ No
   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. **Does "important farmland," including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?**
   You may use the links below to determine important farmland occurs on the project site:
   - Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm
   - Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
   - Contact NRCS at the local USDA service center http://offices.sc.egov.usda.gov/locator/app?agency=nrcs or your NRCS state soil scientist https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951 for assistance

   ☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

   ☒ Yes → *Continue to Question 3.*

3. **Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.**
   - Complete form **AD-1006**, "Farmland Conversion Impact Rating" and contact the state soil scientist before sending it to the local NRCS District Conservationist.
   - Work with NRCS to minimize the impact of the project on the protected farmland. When you have finished with your analysis, return a copy of form AD-1006 to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination.

Work with the RE/HUD to determine how the project will proceed. Document the conclusion:

☐Project will proceed with mitigation.

Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

☒Project will proceed without mitigation.

Explain why mitigation will not be made here:

After completing the AD-1006 form in consultation with the NRCS, the site received a total score of 136. This score is lower than 160, which is the minimum score where alternative sites or mitigation should be considered to reduce adverse impacts to Prime or Unique Farmland.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The AD-1006 form (attached) was completed in consultation with Ms. Kristin May of the NRCS. The site received a score of 136, which is below the 160-point threshold for requiring alternatives or mitigation to be considered. The site is in compliance with the Farmland Policy Protection Act.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 3-4-2021
Name of Project Hilton Heights Unit Relocation-Caton Rd	Federal Agency Involved HUD - CDBG-DR
Proposed Land Use Multi-family development	County and State Robeson, NC
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 4/19/2021 / Person Completing Form: Kristin Mav

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES	NO	Acres Irrigated	Average Farm Size
	✔		None	365

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount of Farmland As Defined in FPPA
Corn	Acres: 79.36 % 482,088	Acres: 79.36 % 482,088

Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS
Robeson Co. LESA	NA	5/14/2021

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	8.36			
B. Total Acres To Be Converted Indirectly	23.01			
C. Total Acres In Site	31.37			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	12.3			
B. Total Acres Statewide Important or Local Important Farmland	9.7			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0046			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	44.50			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	79			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	2			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	10			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	0			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	57	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	79	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	57	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	136	0	0	0

Site Selected: Site A	Date Of Selection 05/14/2021	Was A Local Site Assessment Used? YES ☐ NO ✔

Reason For Selection:

This site was selected because it is the only site the Lumberton City Council would agree on, that is large enough to accommodate the development, not in a floodplain and that is within a reasonable proximity to services the residents need.

Name of Federal agency representative completing this form: W. Stephanie Richardson	Date: 4/19/2021

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Flood Insurance and Floodplain Management Supporting Documentation

OMB No. 2506-0177
(exp. 9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Flood Insurance (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/flood-insurance

1. **Does this project involve mortgage insurance, refinance, acquisition, repairs, rehabilitation, or construction of a structure, mobile home, or insurable personal property**?
   ☐No. This project does not require flood insurance or is excepted from flood insurance.
   → *Continue to the Worksheet Summary.*

   ☒Yes → *Continue to Question 2.*

2. **Provide a FEMA/FIRM map showing the site.**
   The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs).

   Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?
   ☒ No → *Continue to the Worksheet Summary.*

   ☐ Yes → *Continue to Question 3.*

3. **Is the community participating in the National Flood Insurance Program *or* has less than one year passed since FEMA notification of Special Flood Hazards?**

   ☐ Yes, the community is participating in the National Flood Insurance Program.
   Flood insurance is required. Provide a copy of the flood insurance policy declaration or a paid receipt for the current annual flood insurance premium and a copy of the application for flood insurance.
   → *Continue to the Worksheet Summary.*

   ☐ Yes, less than one year has passed since FEMA notification of Special Flood Hazards.
   If less than one year has passed since notification of Special Flood Hazards, no flood Insurance is required.
   → *Continue to the Worksheet Summary.*

   ☐ No. The community is not participating, or its participation has been suspended.
   Federal assistance may not be used at this location. Cancel the project at this location.

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

FEMA map numbers 3710938200K and 3710937200K effective 12/6/2019 are depicted on the attached FEMA firmette. While the northeastern portion of the site is located within a special flood hazard area, the area will not be utilized as part of the project or built upon. As a result, no flood insurance is necessary for this project.

OMB No. 2506-0177
(exp. 9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Floodplain Management (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/floodplain-management

1. **Does 24 CFR 55.12(c) exempt this project from compliance with HUD's floodplain management regulations in Part 55?**

   ☐ Yes

   Provide the applicable citation at 24 CFR 55.12(c) here. If project is exempt under 55.12(c)(6) or (8), provide supporting documentation.

   Click here to enter text.

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Continue to the Worksheet Summary.*

   ☒ No → *Continue to Question 2.*

2. **Provide a FEMA/FIRM map showing the site.**

   The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs).

   Does your project occur in a floodplain?

   ☒ No → *Continue to the Worksheet Summary below.*

   ☐ Yes

   Select the applicable floodplain using the FEMA map or the best available information:

   ☐ Floodway → *Continue to Question 3, Floodways*

   ☐ Coastal High Hazard Area (V Zone) → *Continue to Question 4, Coastal High Hazard Areas*

   ☐ 500-year floodplain (B Zone or shaded X Zone) → *Continue to Question 5, 500-year Floodplains*

   ☐ 100-year floodplain (A Zone) → *The 8-Step Process is required. Continue to Question 6, 8-Step Process*

3. **Floodways**

   Is this a functionally dependent use?

   ☐ Yes

The 8-Step Process is required. Work with HUD or the RE to assist with the 8-Step Process.
→ *Continue to Worksheet Summary.*

☐ No → *Federal assistance may not be used at this location unless an exception in 55.12(c) applies. You must either choose an alternate site or cancel the project.*

4. **Coastal High Hazard Area**

Is this a critical action such as a hospital, nursing home, fire station, or police station?

☐ Yes → *Critical actions are prohibited in coastal high hazard areas unless an exception in 55.12(c) applies. You must either choose an alternate site or cancel the project.*

☐ No

Does this action include new construction that is not a functionally dependent use, existing construction (including improvements), or reconstruction following destruction caused by a disaster?

☐ Yes, there is new construction of something that is not a functionally dependent use. New construction must be designed to FEMA standards for V Zones at 44 CFR 60.3(e) (24 CFR 55.1(c)(3)(i)).
→ *Continue to Question 6, 8-Step Process*

☐ No, this action concerns only existing construction.
Existing construction must have met FEMA elevation and construction standards for a coastal high hazard area or other standards applicable at the time of construction.
→ *Continue to Question 6, 8-Step Process*

5. **500-year Floodplain**

Is this a critical action?

☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

☐Yes → *Continue to Question 6, 8-Step Process*

6. **8-Step Process**.

Is this 8-Step Process required? Select one of the following options:

☐ 8-Step Process applies.
This project will require mitigation and may require elevating structure or structures. See the link to the HUD Exchange above for information on HUD's elevation requirements.
→ *Work with the RE/HUD to assist with the 8-Step Process. Continue to Worksheet Summary.*

☐ 5-Step Process is applicable per 55.12(a)(1-3).
Provide the applicable citation at 24 CFR 55.12(a) here.
Click here to enter text.
→ *Work with the RE/HUD to assist with the 5-Step Process. Continue to Worksheet Summary.*

☐ 8-Step Process is inapplicable per 55.12(b)(1-4).
Provide the applicable citation at 24 CFR 55.12(b) here.
Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to FEMA map panels 3710938200K and 3710937200K, both effective 12/6/2019, the proposed development is located in Zone X, an area of minimal flood hazard. The northern portion of the property is located within Zone AE, a special flood hazard area with a determined Base Flood Elevation. No impacts are anticipated within the special flood hazard area. The FEMA Firmette and site plan are attached.

National Flood Hazard Layer FIRMette

FEMA

79°4'16"W 34°38'8"N

79°3'38"W 34°37'39"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/1/2021 at 2:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Historic Preservation Supporting Documentation

OMB No. 2506-0177
(exp. 9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Historic Preservation (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/historic-preservation

Threshold

Is Section 106 review required for your project?

☐ No, because a Programmatic Agreement states that all activities included in this project are exempt. (See the PA Database to find applicable PAs.)
Either provide the PA itself or a link to it here. Mark the applicable exemptions or include the text here:
Click here to enter text.
→ *Continue to the Worksheet Summary.*

☐ No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].
Either provide the memo itself or a link to it here. Explain and justify the other determination here:
Click here to enter text.
→ *Continue to the Worksheet Summary.*

☒Yes, because the project includes activities with potential to cause effects (direct or indirect). → *Continue to Step 1.*

The Section 106 Process
After determining the need to do a Section 106 review, HUD or the RE will initiate consultation with regulatory and other interested parties, identify and evaluate historic properties, assess effects of the project on properties listed on or eligible for the National Register of Historic Places, and resolve any adverse effects through project design modifications or mitigation.
Step 1: Initiate consultation
Step 2: Identify and evaluate historic properties
Step 3: Assess effects of the project on historic properties
Step 4: Resolve any adverse effects

Only RE or HUD staff may initiate the Section 106 consultation process. Partner entities may gather information, including from SHPO records, identify and evaluate historic properties, and make initial assessments of effects of the project on properties listed in or eligible for the National Register of Historic Place. Partners should then provide their RE or HUD with all of their analysis and documentation so that they may initiate consultation.

Step 1 - Initiate Consultation

The following parties are entitled to participate in Section 106 reviews: Advisory Council on Historic Preservation; State Historic Preservation Officers (SHPOs); federally recognized Indian tribes/Tribal Historic Preservation Officers (THPOs); Native Hawaiian Organizations (NHOs); local governments; and project grantees. The general public and individuals and organizations with a demonstrated interest in a project may participate as consulting parties at the discretion of the RE or HUD official. Participation varies with the nature and scope of a project. Refer to HUD's website for guidance on consultation, including the required timeframes for response. Consultation should begin early to enable full consideration of preservation options.

Use the When To Consult With Tribes checklist within Notice CPD-12-006: Process for Tribal Consultation to determine if the RE or HUD should invite tribes to consult on a particular project. Use the Tribal Directory Assessment Tool (TDAT) to identify tribes that may have an interest in the area where the project is located. Note that only HUD or the RE may initiate consultation with Tribes. Partner entities may prepare a draft letter for the RE or HUD to use to initiate consultation with tribes, but may not send the letter themselves.

List all organizations and individuals that you believe may have an interest in the project here:
State Historic Preservation Office (SHPO) – Scoping Letter sent, no response received within standard 30-day response window
Catawba Indian Nation – Scoping Letter sent, response received June 2, 2021

→ *Continue to Step 2.*

Step 2 - Identify and Evaluate Historic Properties

Provide a preliminary definition of the Area of Potential Effect (APE), either by entering the address(es) or providing a map depicting the APE. Attach an additional page if necessary.
The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road in Lumberton, Robeson County, North Carolina (34.63247, -79.065994). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The direct APE is limited to the approximately 31-acre site and the indirect APE is limited to the adjacent properties.

Gather information about known historic properties in the APE. Historic buildings, districts and archeological sites may have been identified in local, state, and national surveys and registers, local historic districts, municipal plans, town and county histories, and local history websites. If not already listed on the National Register of Historic Places, identified properties are then evaluated to see if they are eligible for the National Register. Refer to HUD's website for guidance on identifying and evaluating historic properties.

In the space below, list historic properties identified and evaluated in the APE.
Every historic property that may be affected by the project should be listed. For each historic property or district, include the National Register status, whether the SHPO has concurred with the finding, and whether information on the site is sensitive. Attach an additional page if necessary.
No historic properties were identified within the direct or indirect APE.

Provide the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination.

Was a survey of historic buildings and/or archeological sites done as part of the project?
If the APE contains previously unsurveyed buildings or structures over 50 years old, or there is a likely presence of previously unsurveyed archeological sites, a survey may be necessary. For Archeological surveys, refer to HP Fact Sheet #6, Guidance on Archeological Investigations in HUD Projects.

☒ Yes → *Provide survey(s) and report(s) and continue to Step 3.*
Additional notes:
Report summarizing findings of archaeological site survey is attached.

☐ No → *Continue to Step 3.*

Step 3 - Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. (36 CFR 800.5) Consider direct and indirect effects as applicable as per HUD guidance.

Choose one of the findings below to recommend to the RE or HUD.
Please note: this is a recommendation only. It is **not** the official finding, which will be made by the RE or HUD, but only your suggestion as a Partner entity.

☐ No Historic Properties Affected
Document reason for finding:
☐ No historic properties present.
☐ Historic properties present, but project will have no effect upon them.

☒ No Adverse Effect
Document reason for finding and provide any comments below.
Comments may include recommendations for mitigation, monitoring, a plan for unanticipated discoveries, etc.
Per the Phase I Archaeological Investigation report by S&ME, Inc dated April 2021, the project as currently proposed will have no effect on historic properties within the project APE and no additional cultural resource investigations are necessary at this time.

☐ Adverse Effect
Document reason for finding:
Copy and paste applicable Criteria into text box with summary and justification.
Criteria of Adverse Effect: 36 CFR 800.5]
Click here to enter text.

Provide any comments below:
Comments may include recommendations for avoidance, minimization, and/or mitigation.
Click here to enter text.

Remember to provide all documentation that justifies your National Register Status determination and recommendations along with this worksheet.

North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Erik A. Hooks, Secretary

Michael A. Sprayberry, Director
Laura H. Hogshead, Chief Operating Officer

May 6, 2021

Catawba Indian Nation
C/O Dr. Wenonah G. Haire
THPO and Catawba Cultural Center Executive Director
1536 Tom Steven Road
Rock Hill, South Carolina 29730

RE: Proposed Hilton Heights/Myers Park Relocation-Caton Road, Caton Road, Lumberton, Robeson County, North Carolina
Public Housing Restoration

Dear Dr. Haire:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. It is being considered for assistance in the Public Housing Restoration program through the Community Development Block Grant – Disaster Recovery (CDBG-DR) funds awarded by the U.S Department of Housing and Urban Development (HUD) to the State of North Carolina and is subject to review under 24 CFR Part 58.

Based on our research of the property in State Historic Preservation Office (SHPO) records performed by professionally qualified preservation staff, we have defined the direct Area of Potential Effect (APE) as the approximately 8.4 acres identified as the limit of disturbance on Figure 4 and the indirect APE as resources within a 0.5-mile radius of the project area. We find that the undertaking will result in a determination of "**No Historic Properties Adversely Affected"** pursuant to 36 CFR 800.5 based on the following:

> The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road in Lumberton, Robeson County, North Carolina (34.63247, -79.065994) (Figures 1, 2A, 3A and 4). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The site is currently an active agricultural field and is currently in the process of being purchased by the Housing Authority of the City of Lumberton (HACL) with HUD CDBG-DR funds.

The proposed project consists of the development of 72 residential rental units, intended to replace the low-income housing units known as Hilton Heights and Myers Park, which were flooded in October 2016, during Hurricane Matthew. Flood damage to the housing units at Hilton Heights and Myers Park made the units un-livable and residents were relocated.

Plans for the flood-damaged properties are not finalized, but all 30 housing units at Myers Park and 42 units at Hilton Heights are currently anticipated to be demolished and cleared with FEMA funding and proceeds from insurance. At Hilton Heights, the Maintenance Building will be left intact to be used for storage, which was identified as the only possible use for this building by the HACL Any changes to the proposed scope of work will require approval from HUD and resubmission for environmental review.

The locations of the proposed project and former housing units are depicted on the attached Site Vicinity Exhibit (**Figure 1**), the appropriate portions of the 1982 Northwest Lumberton, NC USGS Topographic Exhibits (**Figures 2A through 2C**), and Site Exhibits (**Figures 3A through 3C**) and preliminary site plan (**Figure 4**).

Background research was completed on April 12, 2021, reviewed HPOWEB, a GIS-based program containing information about aboveground historic resources in North Carolina and a review of master archaeological site maps, state archaeological site files, and associated archaeological reports by the Office of State Archaeology.

A site visit and academic investigation confirm that there are no buildings on the property and that no National Register of Historic Places listed or eligible resources within a 0.5-mile search radius will be affected by the proposed undertaking.

Research revealed that three previously recorded archaeological sites are within the parent parcel or directly adjacent to the project area (31RB329, 31RB330, and 31RB331); these three sites are recorded as not assessed for inclusion in the National Register of Historic Places. This in addition to the landform and well drained soils suggested that the project area had a high probability for containing archaeological sites. An archaeological survey of the project area was conducted in an attempt to locate the three archaeological sites and to survey the project area to determine if archaeological sites are present in the direct APE. Two of the archaeological sites were located and no additional archaeological sites were identified/recorded. No potentially eligible archaeological sites exist within the direct APE. The detailed archaeological survey report is appended to this letter. NCORR acknowledges that the applicant (HACL) preceded Section 106 consultation by the responsible agency by independently conducting an archaeological field investigation.

We have reviewed the Criteria of Adverse Effect and have determined that none apply to the activities that are proposed to be carried out in this project and therefore the undertaking will result in a determination of "**No Historic Properties Adversely Affected.**"

Attached for your review are copies of relevant documents supporting our finding, including a Phase I Archaeological Investigations report, dated April 2021, provided by consulting parties and the public, including photographs, and a map showing the location of the property. This documentation satisfies requirements set forth at §800.11(e).

In accordance with §800.5(c), your office has thirty days to object to this finding. Please respond within this timeframe, otherwise we will assume that you concur with our finding. If you concur, please sign on the line below and return a copy of this letter by email to stephanie.richardson@ncdps.gov or mail to: P.O. Box 110465, Durham, NC 27709 Attn: Stephanie Richardson.

Should you need to discuss this project in greater detail, you may contact me at the above email or by phone at 984-232-1958. Thank you very much for your assistance with this request. We look forward to your response.

Sincerely,

W. Stephanie Richardson

W. Stephanie Richardson
North Carolina Office of Recovery and Resiliency
Environmental Manager
PO Box 110465
Durham, North Carolina 27709
984-232-1958

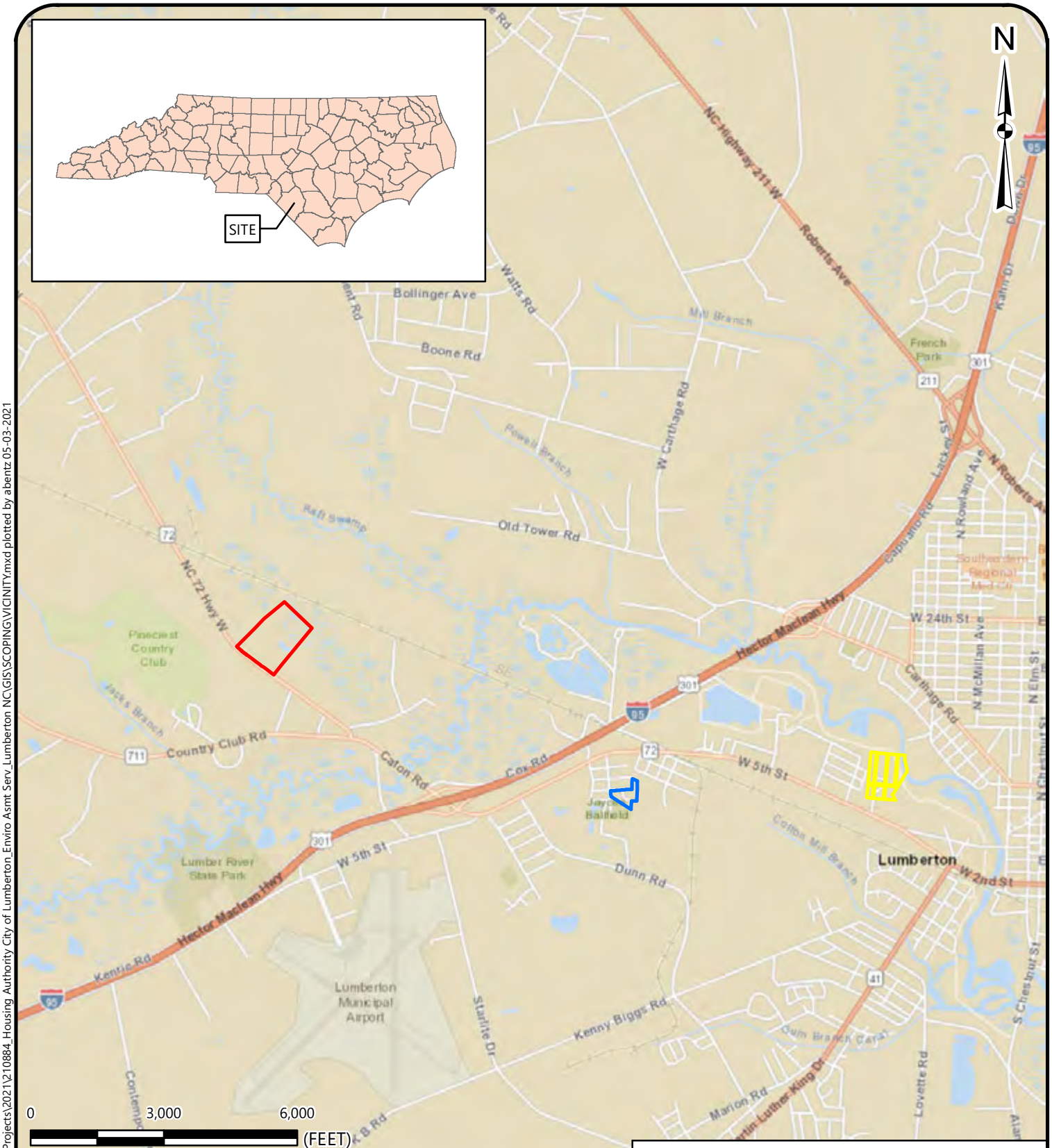
Enclosures:

- Figure 1: Site Vicinity Map
- Figures 2: USGS Topographic Exhibit
- Figures 3: Site Exhibit
- Figure 4: Preliminary Site Plan
- *Phase I Archaeological Investigations,* dated April 2021, prepared by S&ME

Mailing Address:
Post Office Box
110465
Durham, NC 27709

NCORR
NORTH CAROLINA OFFICE OF RECOVERY AND RESILIENCY

Telephone:
984.833.5350
www.ncdps.gov
www.rebuildnc.gov



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE USGS NATIONAL TOPO MAP VIEWER . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

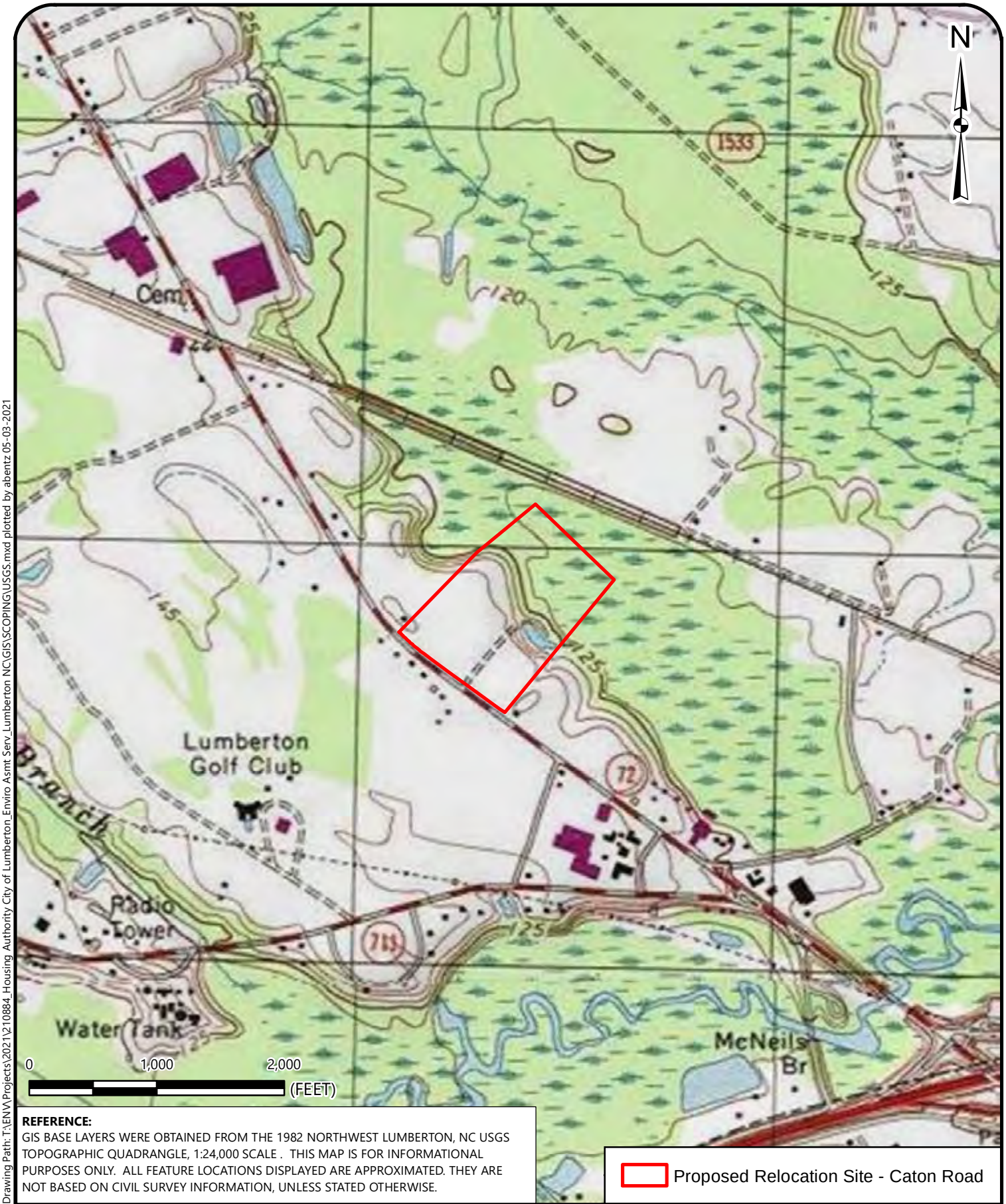
- Former Myers Park Site
- Former Hilton Heights Site
- Proposed Relocation Site - Caton Road

VICINITY MAP

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 3,000 '	1
DATE: 5-3-21	
PROJECT NUMBER 210884	

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\VICINITY.mxd plotted by abentz 05-03-2021



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REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road

USGS TOPOGRAPHIC EXHIBIT
PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2A
DATE: 5-3-21	
PROJECT NUMBER 210884	

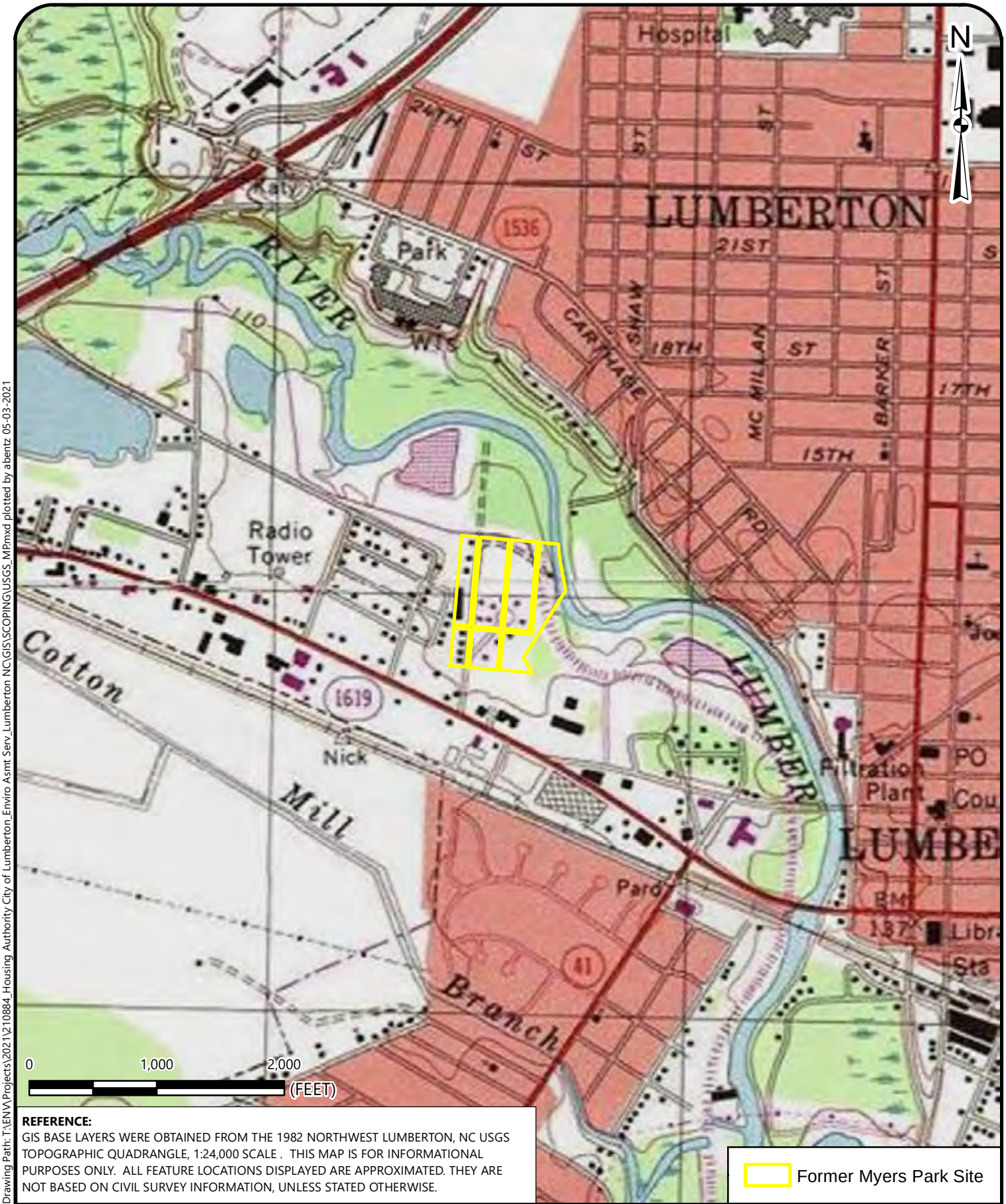
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_HH.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT
FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2B
DATE: 5-3-21	
PROJECT NUMBER 210884	



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_MP.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 1,000 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 2C

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road
Robeson County Parcels

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE.mxd plotted by abentz 05-03-2021

SITE MAP - PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 350 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3A

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Hilton Heights Site
Robeson County Parcels

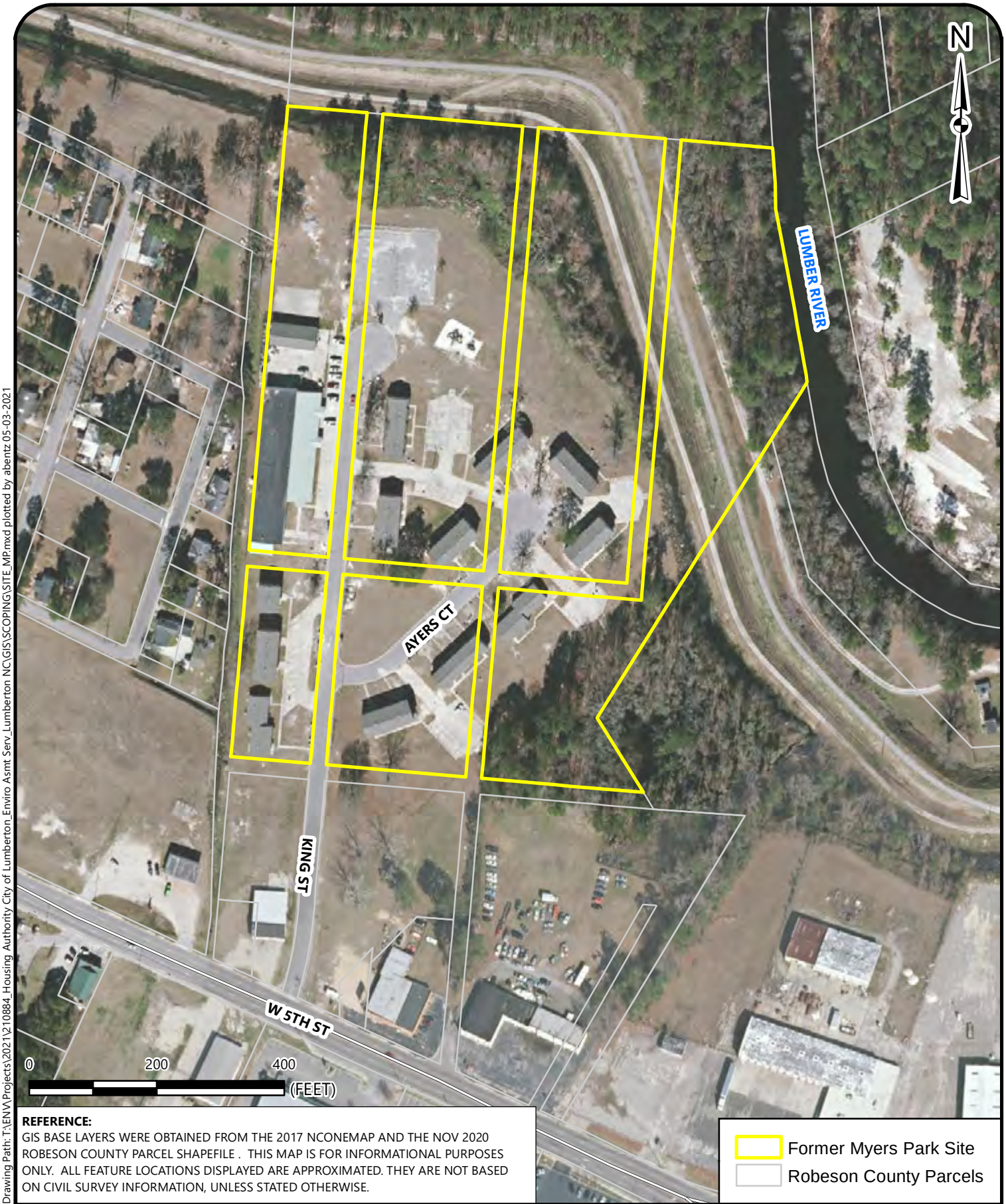
Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_HH.mxd plotted by abentz 05-03-2021

SITE MAP - FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 100 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. **3B**



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_MP.mxd plotted by abentz 05-03-2021

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site
Robeson County Parcels

SITE MAP - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 200 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3C

2 A100 PRELIMINARY ELEVATION
N.T.S.

1 A100 PRELIMINARY SITE PLAN
1'-0" = 100'

REVISIONS

THE WOOTEN COMPANY
120 North Boylan Avenue Raleigh, NC 27603-1423
919.828.0531 fax 919.834.3589
License Number: F-0115

HOUSING AUTHORITY OF THE CITY OF LUMBERTON
LUMBERTON NORTH CAROLINA

HILTON HEIGHTS UNIT RELOCATION

AERIAL SITE PLAN

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

DESIGNED BY:	RDP
DRAWN BY:	TSM
CHECKED BY:	RDP
PROJECT NO.:	3313-B-11
DATE:	02-05-21
SCALE:	AS SHOWN

Figure
4

Phase I Archaeological Investigations
Housing Authority City of Lumberton
Robeson County, North Carolina
S&ME Project No. 210884

PREPARED FOR:

Housing Authority City of Lumberton
407 North Sycamore Street
Lumberton, North Carolina 28358

PREPARED BY:

S&ME, Inc.
134 Suber Road
Columbia, SC 29210

April 2021

Phase I Archaeological Investigations
Housing Authority City of Lumberton
Robeson County, North Carolina

Prepared for:

Housing Authority City of Lumberton
407 North Sycamore Street
Lumberton, North Carolina 28358

Prepared by:

S&ME, Inc.
134 Suber Road
Columbia, South Carolina 29210

S&ME Project No. 210884

Kimberly Nagle, M.S., RPA
Principal Investigator

Authors: Kimberly Nagle and Paul Connell, B.A.

April 2021

Management Summary

On behalf of Housing Authority City of Lumberton, S&ME, Inc. (S&ME) has completed a Phase I archaeological survey for the proposed Hilton Heights Community in Robeson County, North Carolina. The overall project area is roughly 30.53 acres in size and is located just outside the city limits of Lumberton, North Carolina (Figures 1.1 and 1.2).

The following work was conducted in response to anticipated federal funding from the US Department of Housing and Urban Development (HUD) requiring a HUD Part 58 Environmental Review Record and was carried out in general accordance with the agreed-upon scope, terms, and conditions presented in S&ME Proposal No. 210884, Change Order 1, dated April 13, 2021.

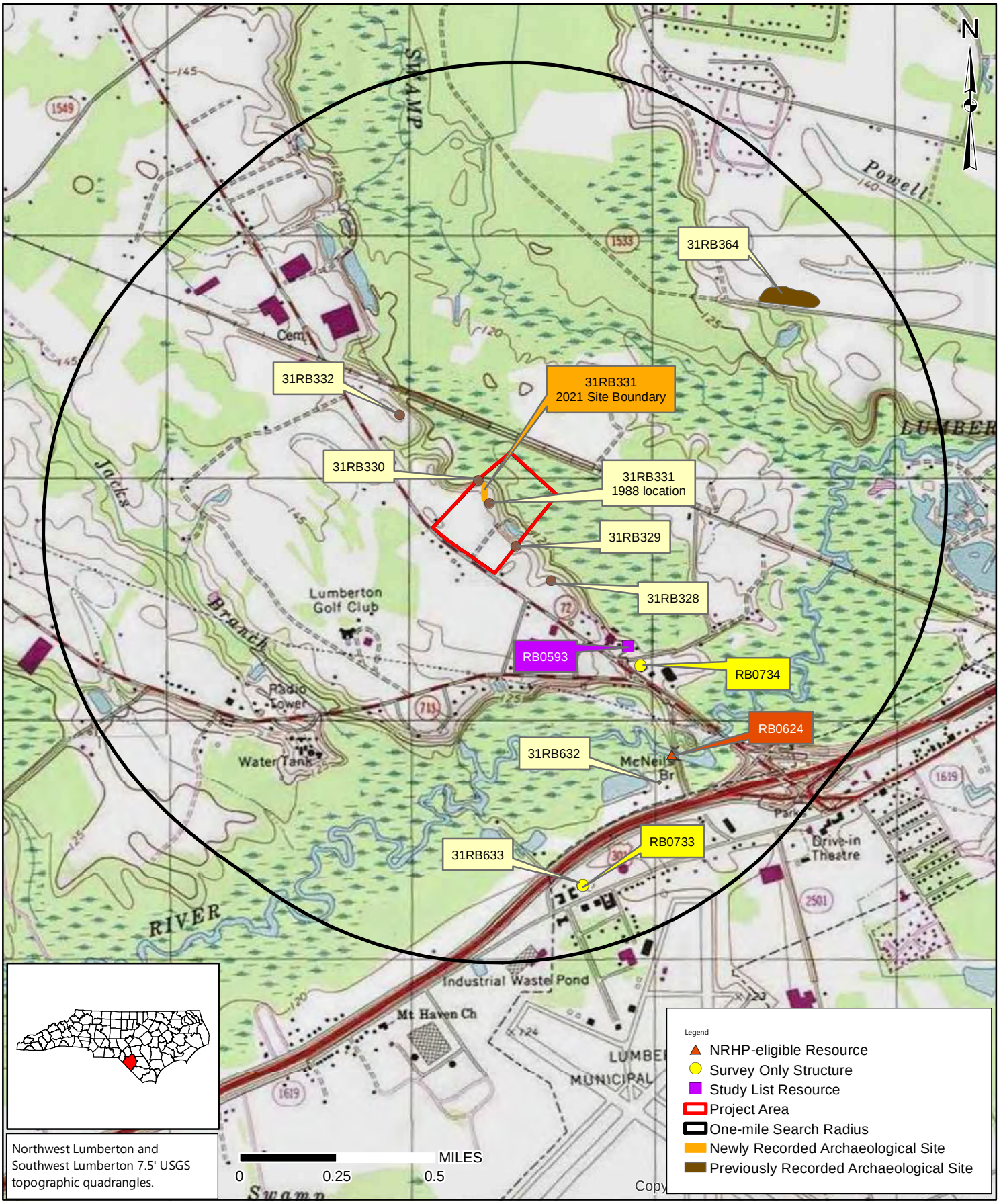
Fieldwork was completed in April 2021; specifically, two people worked for one day on the project. This work consisted of a systematic shovel testing on 16.8 acres, pedestrian survey on approximately 3.5 acres, and no survey was completed on approximately 10.23 acres due to standing water. The Area of Potential Effects (APE) for direct effects for the proposed undertaking encompasses the project area footprint; indirect effects were not assessed, as an architectural survey was not necessary as there were no aboveground historic properties within a 0.5-mile search radius of the proposed project area.

As a result of the investigations, one previously recorded archaeological site (31RB331) was re-located (Figures 1.1 and 1.2; Table 1.1). Site 31RB331 is a prehistoric lithic scatter and nineteenth/twentieth century artifact scatter, is recommended not eligible for inclusion in the National Register of Historic Places (NRHP). An attempt was made to re-locate sites 31RB329 and 31RB330; no artifacts were identified on the surface or in the shovel tests excavated in and around the recorded location of 31RB329. Site 31RB330 was recorded in 1988, as a historic cemetery in a clear area on a flat landform. There was no evidence of a cemetery at the recorded location of the site.

Table 1.1 Summary of archaeological sites identified/re-located during the intensive survey.

Resource	Description	NRHP Eligibility	Recommendation
31RB330	19th through 21st century cemetery	Not Assessed	No Further Work
31RB331	Prehistoric lithic scatter; 19th/20th century artifact scatter	Not Eligible	No Further Work

Site 31RB330, the historic cemetery, was not re-located in its recorded location. There is a cemetery (Townsend Cemetery) that matches the description of the landform, setting, and dates of death approximately 700-ft west of the recorded location of 31RB330. It is likely that site 31RB330 was misplotted and its more accurate location is that of Townsend Cemetery. It is the opinion of S&ME that the project, as currently proposed, will have no effect on historic properties within the project APE and that no additional cultural resource investigations are necessary at this time.



Northwest Lumberton and Southwest Lumberton 7.5' USGS topographic quadrangles.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure 1-1 topo.mxd plotted by KNagle 04-28-2021

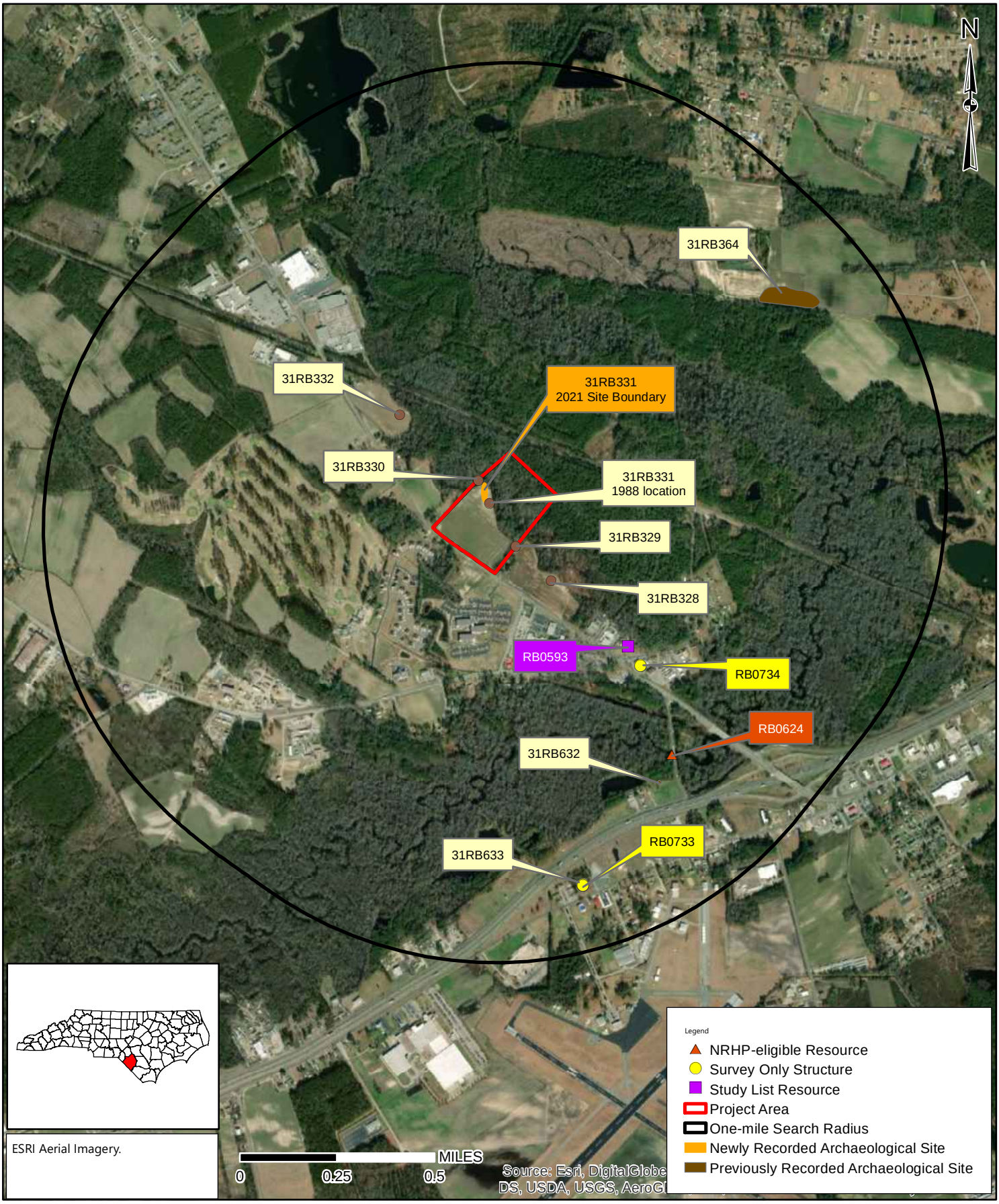
SCALE:	1:20,973
PROJECT NO:	210884
DRAWN BY:	KJN
DATE:	4/28/2021

Topographic Map

Housing Authority City of Lumberton

Robeson County, North Carolina

FIGURE NO. 1.1



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SCALE:	1:20,973
PROJECT NO:	210884
DRAWN BY:	KJN
DATE:	4/28/2021

Aerial Map

Housing Authority City of Lumberton

Robeson County, North Carolina

FIGURE NO.

1.2

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1.0 Introduction

On behalf of Housing Authority City of Lumberton, S&ME has completed a Phase I archaeological survey for the proposed Hilton Heights Community in Robeson County, North Carolina. The overall project area is roughly 30.53 acres in size and is located just outside the city limits of Lumberton, North Carolina (Figures 1.1 and 1.2).

The following work was conducted in response to anticipated federal funding from HUD requiring a HUD Part 58 Environmental Review Record and was carried out in general accordance with the agreed-upon scope, terms, and conditions presented in S&ME Proposal No. 210884, Change Order 1, dated April 13, 2021.

Kimberly Nagle, M.S., RPA, served as Principal Investigator and was assisted in the field by Senior Crew Chief Paul Connell. Graphics were created by Ms. Nagle and Mr. Connell. Artifact analysis was completed by Mr. Connell. This report has been prepared in compliance with the National Historic Preservation Act of 1966, as amended; the Archaeological and Historic Preservation Act of 1979; procedures for the Protection of Historic Properties (36 CFR Part 800); and 36 CFR Parts 60 through 79, as appropriate. Field investigations and the technical report meet the qualifications specified in the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (Federal Register [FR] 48:44716-44742), and the *Guidelines for Preparation of Archaeological Survey Reports in North Carolina* (North Carolina Office of State Archaeology 2018). Supervisory personnel meet the Secretary of the Interior's Professional Qualifications Standards set forth in 36 CFR Part 61.

2.0 Environmental Setting

2.1 Location

The project area is located in central portion of Robeson County, approximately three miles east of the city center of Lumberton. Robeson County, which covers approximately 951 square miles, is bounded by Cumberland County to the north, Bladen County to the east, Columbus County to the southeast, Scotland County to the west, Hoke County to the northwest, and Dillion County, South Carolina to the southwest.

2.2 Geology and Topography

The proposed pipeline is located entirely within the Lower Coastal Plain Physiographic Province. The area was once part of the Pleistocene sea floor (Coe et al. 1980) and soils were formed from Coastal Plain and stream sediments. Topography in the project area is flat along North Carolina State Route 72 and gradually slopes towards Raft Swamp associated with the Lumber River, with elevations ranging from approximately 120 ft AMSL within the wetland, to 140 ft AMSL along State Route 72 (Figure 1.1).

2.3 Hydrology

The project area is contained within the Lumber River drainage basin, which lies within North and South Carolina and covers approximately 3,329 square miles. Flowing 133 miles in length, the Lumber River begins near the border between Montgomery and Moore counties and flows south into the Little Pee Dee River in South Carolina.

The closest permanent water source to the project area is Raft Swamp, which runs through the northern portion of the project area (Figure 1.1). Raft Swamp flows southeast into the Lumber River approximately 0.72 mile northeast of the project area. The Lumber River continues flowing south into the Little Pee Dee River, east of Mullins, South Carolina, roughly 30 miles south of the project area.

2.4 Climate and Vegetation

The climate of Robeson County is characterized by long, hot, and humid summers and short, mild winters (McCachren 1978). The growing season ranges in length from 225 days and extends from at late March through early November. The mean annual temperature is 63˚F. The mean winter temperature is 58˚F and the average summer temperature is 90˚F. Vegetation in the project area is primarily fallow field, with areas of secondary growth, wooded areas, and hardwood swamp (Figures 2.1 through 2.4); disturbances include drainage ditch, buried utilities, and a man-made pond (Figures 2.5 and 2.6).

Figure 2.1. Typical fallow field in the project area, facing north.

Figure 2.2. Typical area of secondary growth, facing northeast.

Figure 2.3. Hardwood swamp in the project area, facing northeast.

Figure 2.4. Wooded areas with slope in the project area, facing west.

Figure 2.5. Drainage ditch in the project area, facing southwest.

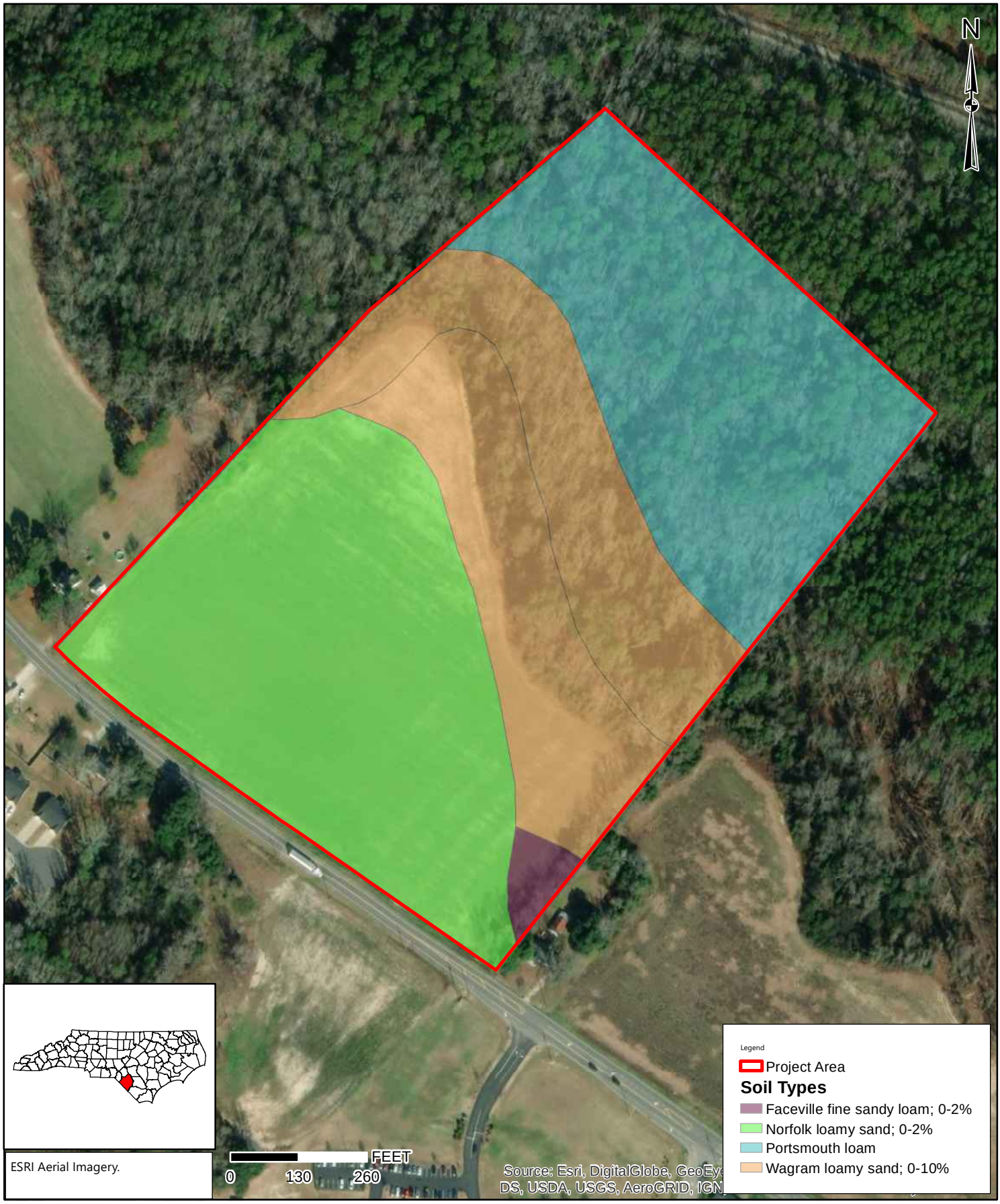
Figure 2.6. Man-made pond in the project area, facing southeast.

2.5 Soils

There are four soil types located within the project area (Figure 2.7); their descriptions can be found in Table 2.1 (USDA Web Soil Survey, Accessed April 12, 2021).

Table 2.1. Specific soil types found within the intensive survey areas.

Soil Name	Type	Drainage	Location	Slope	Percent in Survey Area
Faceville	Fine sandy loam	Well drained	Marine terraces	0–2%	1.3%
Norfolk	Loamy sand	Well drained	Marine terraces	0-2%	38.1%
Portsmouth	Loam	Very poorly drained	Depressions and flats	0–2%	29.7%
Wagram	Loamy sand	Well drained	Ridges	0–10%	30.9%



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure 2-7 Soils.mxd plotted by KNagle 04-28-2021

SCALE:	1:2,944
PROJECT NO:	210884
DRAWN BY:	PAC
DATE:	4/28/2021

Soil Map

Housing Authority City of Lumberton

Robeson County, North Carolina

FIGURE NO.

2.7

3.0 Cultural Context

S&ME conducted cultural background research in order to assess the potential for significant cultural resources and to formulate our expectations regarding the nature and types of cultural resources we were likely to encounter. While this text only provides a general history of the region, we refer the reader to the original sources for additional information.

3.1 Prehistoric Context

Most of North America, including the Coastal Plain region of North Carolina, has been occupied by humans for at least the last 12,500 years (Ward and Davis 1999); however, a date for the initial settlement of North America is part of an ongoing debate (e.g., Adovasio and Pedler 1996; Dillehay and Collins 1988). Changes in technology, social structure, subsistence, environmental conditions, and ideology allow archaeologists to divide the past 12,500 years into three broad prehistoric periods: Paleoindian, Archaic, and Woodland (Ward and Davis 1999). These three cultural periods are discussed below.

3.1.1 Paleoindian Period (ca. 13,000–10,000 B.P.)

When humans first arrived in North America is a subject of great debate, with suggested dates going back more than 35,000 years (Dillehay and Collins 1988; Goodyear 2005). Evidence for pre-Clovis occupations are posited for Meadowcroft Rockshelter in Pennsylvania, the Cactus Hill and Saltville sites in Virginia, and at the Topper site in South Carolina, although this evidence is not widely accepted and has not been validated (Adovasio and Pedler 1996; Dillehay and Collins 1988; Goodyear 2005). The earliest generally accepted dates for occupation in the Southeastern United States are at the end of the Pleistocene, approximately 13,000 years ago (Anderson and O'Steen 1992; Bense 1994).

The most readily recognizable artifact from the early Paleoindian Period is the Clovis point, which is a fluted, lanceolate-shaped spear point. Clovis points, first identified from a site in New Mexico, have been found across the nation (Anderson and Sassaman 1996:222). The Hardaway site on the Yadkin River in Stanly County is the most important North Carolina site with a Paleoindian component (Coe 1964; Ward and Davis 1999). The earliest occupation of the site, the Hardaway Phase, dates to at least 10,000 B.P. (Coe 1964). Investigations at this site form the basis of the Paleoindian and Early Archaic sequences defined by Coe (1964) for the Piedmont. Unfortunately, the bulk of the data about Paleoindian life in North Carolina and the rest of the Southeast come from the surface finds of projectile points rather than from controlled excavations.

Projectile point types associated with the Paleoindian Period in North Carolina include Clovis, Simpson, Cumberland, Suwannee, Quad, Beaver Lake, and Dalton (Anderson 1992). Hardaway points are very similar to Paleoindian types; however, there is debate as to whether Hardaway points reflect a temporal difference, are stages of Paleoindian tool modification, or are a regional variant (Coe 1964:64; Daniel 1998:52; Goodyear 1974:19–33). In a reexamination of the Hardaway site lithic assemblage, Daniel (1998) has also identified the Small Dalton type, a transitional Paleoindian to Early Archaic projectile point type sharing characteristics of Hardaway Side Notched and Palmer Side Notched points.

Unfortunately, most of our knowledge about the Paleoindian Period in the Southeast is based on surface collections and inference rather than controlled subsurface excavations. As a result of these limitations, settlement

models describing the Paleoindian Period of the North Carolina Coastal Plain rely on broad regional models that more generally describe cultural patterns throughout the Southeast and the Mid-Atlantic regions. The limited information we do have, however, suggests that the earliest Native Americans had a mixed subsistence strategy based on the hunting (or scavenging) of the megafauna and smaller game combined with the foraging of wild plant foods. Groups are thought to have consisted of small, highly transient bands made up of several nuclear and/or extended families. Settlements appears to be concentrated along major rivers near the Fall Line and in the Coastal Plain, although it is almost certain that many additional sites along the coast have been inundated by the rise of sea level that has occurred since that time (Anderson et al. 1992; Anderson and Sassaman 1996).

The North Carolina Coastal Plain largely lacks the high-quality cryptocrystalline resources that were the first choice of Paleoindians for tool manufacturing. The only sources for cryptocrystalline materials within the Coastal Plain are cobbles contained within alluvial deposits from the Piedmont. Phelps (1983) reported that Paleoindian artifacts within the Coastal Plain were most commonly produced from materials that are locally available such as quartz, quartzite, and slate (Klein and Herbert 1994).

3.1.2 Archaic Period (ca. 10,000–3000 B.P.)

Major environmental changes at the terminal end of the Pleistocene led to changes in human settlement patterns, subsistence strategies, and technology. As the climate warmed and the megafauna became extinct, population size increased and there was a simultaneous decrease in territory size and settlement range.

The chronology for the Archaic Period in the Carolinas is still derived primarily from Coe's (1964) seminal work in the Piedmont of North Carolina. The Archaic is typically divided into three subperiods: Early Archaic (10,000–8000 B.P.), Middle Archaic (8000–5000 B.P.), and Late Archaic (5000–3000 B.P.). Each of these subperiods appears to have been lengthy, and the inhabitants of each were successful in adapting contemporary technology to prevailing climatic and environmental conditions of the time. Settlement patterns reflected a fairly high degree of mobility, making use of seasonally available resources in the changing environment across different areas of the Southeast. People relied on large animals and wild plant resources for food. Group size gradually increased during this period, culminating in a fairly complex and populous society by the Late Archaic. Seasonal base camps and small foraging camps were numerous in North Carolina during this time and most ubiquitous in the Coastal Plain (Phelps 1983).

Early Archaic (10,000–8000 B.P.)

The Early Archaic subperiod reflects a continuation of the semi-nomadic hunting and gathering lifestyle of the Paleoindian groups, although there was a focus on modern game species rather than the megafauna, which had become extinct by this time. Changes during this subperiod include a population increase (Goodyear et al. 1989), with people concentrated in temporary encampments along river floodplains. In North Carolina, the greatest concentrations of Early Archaic archaeological sites are at or near the Fall Line (Pickett 2001). Diagnostic markers of the Early Archaic subperiod include a variety of side and corner notched projectile point types, including Hardaway, Kirk, Palmer, Taylor, and Big Sandy, and later bifurcate base projectile point types such as Lecroy, McCorkle, and St. Albans. Additional tools of the Early Archaic subperiod include end scrapers, side scrapers, gravers, microliths, and adzes (Sassaman et al. 2002), and likely perishable items such as traps, snares, nets, and basketry. Direct evidence of Early Archaic basketry and woven fiber bags was found at the Icehouse Bottom site in the mountains of eastern Tennessee (Chapman and Adovasio 1977).

During the early spring, groups would forage in the lower coastal plain and then move inland to temporary camps in the Piedmont and Mountains during the summer and early fall. In the late fall and winter, these bands would aggregate into larger, logistically provisioned base camps in the upper Coastal Plain, near the Fall Line. It is believed that group movements would have been circumscribed within major river drainages, and that movement across drainages into other band territories was limited. At a higher level of organization, bands were believed to be organized into larger "macrobands" of 500 to 1500 people that periodically gathered at strategic locations near the Fall Line for communal food harvesting, rituals, and the exchange of mates and information.

Daniel (1998, 2001) has argued that access to high quality lithic material has been an under-appreciated component of Early Archaic settlement strategies. He presents compelling evidence that groups are moving between major drainages just as easily as they are moving along them. In contrast to earlier models, group movements are tethered to stone quarries rather than to specific drainages. Regardless of which model is correct, settlement patterns generally reflect a relatively high degree of mobility, making use of seasonally available resources such as nuts, migratory water fowl, and white-tailed deer.

Middle Archaic (8000–5000 B.P.)

The beginning of the Middle Archaic subperiod coincides with the start of the Altithermal (a.k.a. Hypsithermal), a significant warming trend where pine forests replaced the oak-hickory dominated forests of the preceding time. These environmental changes caused changes in human behavior as well (Sassaman and Anderson 1995:10). It is assumed that population density increased during the Middle Archaic, but small hunting and gathering bands probably still formed the primary social and economic units. Larger and more intensively occupied sites tend to occur near rivers, especially within the Coastal Plain, and numerous small, upland lithic scatters dot the interriverine landscape. Subsistence was presumably based on a variety of resources such as white-tail deer, nuts, fish, and migratory birds; however, shellfish do not seem to have been an important resource at this time.

During the Middle Archaic, ground stone tools such as axes, atlatl weights, and grinding stones become more common, while flaked stone tool styles became less diverse and tended to be made of locally available raw materials. The most common point type of the Middle Archaic in North Carolina is the Morrow Mountain point; additional diagnostic point types include Stanly, Guilford, and Halifax (Blanton and Sassaman 1989; Coe 1964). The Middle Archaic Stanly phase appears to have developed out of the preceding phases and is the earliest clearly documented occupation at the Doerschuk site (31MG22) in Montgomery County (Coe 1964; Phelps 1983). The major difference in the artifact assemblage seems to be the addition of stone atlatl weights. The Morrow Mountain and Guilford phases also appear during this subperiod; Coe (1964) considers these phases to be without local precedent, viewing them as western intrusions.

Late Archaic (5000–3000 B.P.)

The Late Archaic subperiod is marked by a number of key developments. There was an increased focus on riverine locations and resources (e.g., shellfish), small-scale horticulture was adopted, and ceramic and soapstone vessel technology was introduced. These changes developed because humans were occupying strategically placed locations for longer periods of time. The Savannah River phase, which appears during this subperiod, is marked by the presence of larger sites containing steatite bowls, human burials, and prepared hearths (Ward 1983). The most common diagnostic biface of this period is the Savannah River Stemmed projectile point (Coe 1964). Other

artifacts include soapstone cooking discs, shell tools, grooved axes, worked bone, and most importantly fiber-tempered Stallings Island and sand-tempered Thom's Creek pottery.

On the coast, Late Archaic sites are found both with and without significant amounts of shell. Sites with shell occur as middens or mounds indicating the intensive exploitation of marine resources. Recent analyses of Late Archaic settlement patterns in the Upper Coastal Plain and adjacent areas indicate that groups gathered in large numbers at sites along major rivers in the spring and summer, and established base camps near large tributaries that were occupied during the spring through early fall. These large gathering areas may have been used for ritual feasting and other communal activities; at least one site, Stallings Island in the middle Savannah River Valley, seems to have a functioned as a mortuary as well (Sassaman et al. 2006). In the late fall and winter, populations dispersed into the uplands, living in small, semiautonomous groups (Sassaman and Anderson 1995; Sassaman et al. 1990).

In the spring and summer, Late Archaic people gathered large amounts of shellfish. It is not known why this productive resource was not exploited earlier, but one explanation is that the environmental conditions conducive to the creation of shellfish beds were not in place until the Late Archaic. Other resources that would have been exploited in the spring and summer months include fish, white-tailed deer, small mammals, birds, and turtles (House and Ballenger 1976; Stoltman 1974). During the late fall and winter, populations likely subsisted on white-tailed deer, turkey, and nuts such as hickory and acorn. It is also possible that plants such as *Cucurbita* (squash and gourds*),* sunflower, sumpweed, and chenopod, were being cultivated on a small-scale basis, but direct evidence for these cultigens is lacking.

Both Stallings Island and Thom's Creek pottery date from about 4500–3000 B.P. and have a wide variety of surface treatments including plain, punctated, and incised designs (Sassaman et al. 1990). For a long time it was believed that fiber-tempered Stallings Island pottery was the oldest pottery in the region (perhaps in the New World), and that sand-tempered Thom's Creek wares appeared a few centuries later (Sassaman 1993). Recent work at several shell ring sites on the coast, however, has demonstrated that the two types are contemporaneous, with Thom's Creek possibly even predating Stallings Island along the coast (Heide and Russo 2003; Russo and Heide 2003; Saunders and Russo 2002). The distribution of Late Archaic Period ceramics in North Carolina suggests that the Coastal Plain was divided into a northern and a southern sub-region. The northern sub-region is more closely identified with Mid-Atlantic cultures; whereas, the southern sub-region is more closely associated with Southeastern cultures (Klein and Herbert 1994).

3.1.3 Woodland Period (ca. 3000–350 B.P.)

The Woodland Period saw a number of important developments in the region, including a gradual increase in population and sedentism; the widespread adoption of ceramic vessel technology; the introduction of the bow and arrow technology; the intensification of horticultural activities; the establishment of long distance trading networks; and the use of conical burial mounds for interring the dead. Like the preceding Archaic Period, the Woodland is traditionally divided into three subperiods: Early Woodland (3000-2300 B.P.), Middle Woodland (2300-1200 B.P.), and Late Woodland (1200-350 B.P.). Each of these subperiods is discussed below; however, it should be noted that there is no well-defined cultural sequence for the North Carolina coast. Furthermore, Coastal Plain settlement patterns during the Woodland Period can be divided into two cultural areas that may reflect regional linguistic differences. The Neuse River divides the Coastal Plain into northern and southern sections, with the project area located in the northern region.

Early Woodland (3000–2300 B.P.)

By 3000 B.P., pottery was used throughout most of the Southeast and there was a proliferation of pottery styles in the Carolinas and Georgia. In North Carolina, transitional Late Archaic/Early Woodland pottery is characterized by Hamp's Landing limestone-tempered wares, with surface treatments that include plain, cordmarked, and small amounts of fabric-impressed (Hargrove 1993; Hargrove and Eastman 1997:92; Herbert 1999). Other Early Woodland ceramics from the North Carolina Coast include coarse-sand tempered wares known as either Deep Creek or New River (Herbert 1999; Phelps 1983; Trinkley 1990; Ward and Davis 1999). These types are very similar and include pottery that contains cordmarked, simple stamped, plain, and sometimes net-impressed surface treatments. Diagnostic bifaces of this subperiod include Otarre, Swannanoa, and Gary stemmed points, as well as Badin Crude Triangular points (Anderson and Joseph 1988; Coe 1964:123–124; Sassaman et al. 1990).

Subsistence data indicate a continuation of Late Archaic diet during the Early Woodland, including the hunting of white-tailed deer, bear, small mammals, reptiles, and fish (Hanson and DePratter 1985; Marrinan 1975). One major difference, however, is that shellfish do not appear to have been an important part of the diet. Early Woodland sites tend to be small, seasonal camps located away from the marshes where shellfish are found. This may be a result of rising sea levels, which inundated the shellfish beds and possibly any sites located along the coast and tidal marshes (Trinkley 1990:12).

Middle Woodland (2300–1500 B.P.)

In the North Carolina Coastal Plain, the Middle Woodland is marked by the presence of grog-tempered Hanover series pottery (Herbert 1999; South 1976; Ward and David 1999). This pottery, which is very similar to the Late Woodland Wilmington series found in South Carolina and Georgia, has a wide variety of surface treatments, including plain, cordmarked, fabric-impressed and net-impressed. Some researchers have suggested subsuming Hanover pottery into the Wilmington series, as the two are almost indistinguishable (Anderson et al. 1996:75). Yadkin Large Triangular points are the most common diagnostic projectile points of the Middle Woodland (Coe 1964), although Trinkley (1989:78) mentions a very small stemmed point he calls Deptford Stemmed. Other artifacts found in Middle Woodland assemblages include clay platform pipes, ground and polished stone ornaments, engraved shell and bone, bone tools, bifacial knives, and shark tooth pendants (Sassaman et al. 1990:96, Waring and Holder 1968).

Middle Woodland occupations in North and South Carolina are not well documented and settlement models tend to follow Milanich's "seasonal transhumance" model for the Deptford Period in Florida (Milanich 1971; Milanich and Fairbanks 1980), which posits that in the winter and summer months groups moved to the coast and lived in small, semipermanent villages adjacent to tidal creeks and marshes. From these locations they would fish, gather shellfish, and exploit a variety of other marine and estuarine resources. In the fall, small groups moved inland to terraces adjacent to swamps to gather nuts and hunt white-tailed deer (Cantley and Cable 2002:29; Trinkley 1989:78-79). Horticulture is thought to have increased in importance during this subperiod, with plants such as maygrass, goosefoot, knotweed, and sunflower being harvested.

In contrast to Milanich's model, evidence from the G.S. Lewis West site (38AK228) in Aiken County, South Carolina (Sassaman et al 1990:96-98) suggests a year round settlement occupied by a small resident population. Over 500 features, including pits, posts, human burials, and dog burials, were found at the site. White-tail deer was the

primary food source, with alligator, turtle, fish, turkey, freshwater mussels, hickory, and acorns also being found (Sassaman et al. 1990:96). Based on the evidence at G.S. Lewis and surrounding sites at the Savannah River Site, Sassaman et al (1990:98) suggest a pattern where small villages were occupied on a year-round basis, with smaller outlying sites representing seasonally occupied logistical camps.

Data recovery excavations at the Broad Reach site (31CR218) in Carteret County, North Carolina have uncovered over 100 Middle and Late Woodland structures and over 2500 features, including shell-filled pits, smudge pits, dog burials, and lithic caches within an area encompassing 10 acres (SEAC Newsletter 2007:10–11). Human burials, including two ossuaries, one multiple interment (two individuals), and nine single interments, also have been excavated from this site (Mathis 1993:44). Evidence from both G.S. Lewis and the Broad Reach Site would seem to indicate a much larger, intensive, and more sustained occupation than has been previously suggested for the Middle Woodland subperiod.

Late Woodland (1500–350 B.P.)

In coastal North Carolina it is during the Late Woodland subperiod that linguistic, physical, and cultural differences appear that can be traced to ethnohistorically documented tribes (Ward and Davis 1999:210). Along the northern North Carolina coast, north of Onslow County, were Algonkian-speaking groups; to the south were Siouan-speaking groups. There is disagreement as to whether Onslow County was occupied by Siouan or Algonkian-speaking people (Phelps 1983; Loftfield 1990). South (1976) and Phelps (1983) hold that Onslow County was occupied by Siouan speakers identified by the presence of White Oak ceramics, while Loftfield (1990) suggests that Algonkian speakers lived as far south as Onslow County.

Several different house types are found at Late Woodland sites on the coast, including a small, rectangular structures, and large, long house-style structures (Ward and Davis 1999:218–222). Burial practices of the Late Woodland include single and multiple inhumations, as well as large ossuaries, including one at the Cold Morning site located in New Hanover County (Mathis 1993).

Diagnostic ceramics in the Coastal Plain are usually identified as either White Oak (a.k.a, Oak Island), which is shell-tempered, or Cape Fear, which is sand-tempered (Loftfield 1976; South 1976). However, many other types, including Cashie, Colington, Hanover/Wilmington, and Mount Pleasant also have been associated with sites of this subperiod along the coast (Anderson et al. 1996; Ward and Davis 1999). Ceramics typically contain cordmarked or fabric-impressed surface treatments. Wilmington cordmarked pottery is found more frequently on the southern South Carolina and Georgia coasts, whereas Hanover fabric impressed pottery is found more often on the northern South Carolina and North Carolina coasts, although there is substantial overlap between the two ranges (DePratter 1979; Herbert and Mathis 1996:149). Cape Fear pottery is nearly identical to the Hanover series, but is tempered with sand rather than grog. Also, cordmarking seems to be more common on Hanover sherds, while fabric impressing is more common on the Cape Fear pottery (Herbert and Mathis 1996).

3.2 Historic Context

The project area is located in central portion of Robeson County, approximately three miles east of the city center of Lumberton.

3.2.1 Eighteenth Century Expansion

From the abandonment of Charles Towne through the early eighteenth century, European settlers showed little interest in the Cape Fear area and the rest of southern North Carolina, and permanent settlement did not occur until 1720 (Watson 1992:5). Following the 1712 division of the Carolina colony into North and South Carolina, the region's affiliation remained undefined, although it was generally claimed by South Carolina (Lee 1978:24). The lack of clear legal rights to the land hindered the flow of colonists into the area, although there were sporadic attempts by South Carolinians to claim land along the west side of the Cape Fear River. These are poorly documented in title and deed records and many grantees never set foot on their land. Thomas Jones, however, reportedly settled on a 1,000 acre holding around 1712, but a lone colonist in an unsettled area was a dangerous endeavor. A plantation destroyed by the Cape Fear Indians during the Yamassee War of 1715 likely belonged to Jones (Lee 1978:25).

Permanent settlement along the Cape Fear, the earliest in the southern part of North Carolina, began in the late 1720s, with colonists moving northward from South Carolina. Although North Carolina had approximately 36,000 residents when it became a royal colony in 1729, more than 80 percent were concentrated around Albemarle Sound. Significant expansion of the colony, however, was on the horizon and by 1760, a population of 130,000 stretched from the coast to the Blue Ridge Mountains (Connor 1919:144).

By 1730, the population in the Lower Cape Fear area had increased to approximately 1,200, including many slaves. Since a large number of its settlers migrated northward from South Carolina during the eighteenth century, the area developed a similar economic and social framework as the South Carolina Lowcountry (Loftfield and Stoner 1997:91). Much of this early population lived on rice and timber plantations, which required a substantial amount of slave labor to operate (Randall 1968:442). Two port towns, Brunswick and Newtown (later Wilmington), were established in the 1720s and 1730s. Both towns served trade vessels bringing goods to and from the new area settlements, with each vying for dominance of the area's trade during the mid- to late 1700s (Connor 1919:149, 153–156).

During the mid-eighteenth century, the Cape Fear River Valley was "the fastest growing, most prosperous region in North Carolina" (Randall 1968:443). The immigrants to the area came from diverse backgrounds, including a large number who came from South Carolina looking to escape excessive taxation and a government they believed was too controlling (Wood 2004:17). In addition to South Carolinians moving northward into the area, settlers came from other areas such as the Albemarle region of North Carolina. These settlers moved southward to the area for similar reasons as the South Carolinians, including political and economic reasons (Wood 2004:23). Other immigrants to the area were of English and Scot-Irish descent, including Scottish Highlanders who came to the area by entering the Cape Fear region through Wilmington and moving up the river into the North Carolina backcountry (Randall 1968:443). In addition, many of the slaves who worked on Cape Fear plantations were either imported directly from Africa or the West Indies, or they were brought to the area from other colonies by their owners (Wood 2004:38-39).

Although the earliest settlers along the Cape Fear acquired large tracts of land and established large plantations, during the second half of the eighteenth century an influx of new colonists resulted in a more diverse settlement and economic pattern. Agriculture was the primary pursuit of the region, with a combination of small subsistence farms interspersed among large riverfront plantations. The settlers in the Lower Cape Fear area were successful

because they "followed the economic pursuits dictated by the resources of nature that surrounded them," resources that were based primarily around the land and forest (Lee 1965:145).

Agricultural practices in the area were diverse and many of the crops grown on the Cape Fear farms were consumed locally. Corn was a particularly important crop because it was used for a variety of food products as well as feed for poultry and livestock. Although rice was grown in some of the low, swampy areas along rivers and streams, the amount of rice produced was miniscule compared to that produced in neighboring South Carolina, particularly in Georgetown County. Other crops grown locally included peas, beans, and potatoes, and livestock provided an additional source of food and income (Lee 1965:145-148).

Forest products were the biggest exports in the region, with the production of both timber and naval stores becoming important industries. Mills were common in the Cape Fear area, with the first saw mill on the river built in 1727; at least 50 mills were in operation only half a century later (Lee 1965:149). The economic pattern of the Cape Fear developed into a diversified system that "combined forest industries, such as tar and pitch burning, boxing for turpentine, and lumbering with cattle ranching and traditional agriculture" (Wood 2004:199). This combination of pursuits led to a unique economic situation in the region.

Expansion into the backcountry of southern North Carolina began during the mid-1700s and the Inner Coastal Plain and Piedmont regions of the colony began seeing increasing numbers of settlers. Colonists from northern colonies, who travelled down the Great Wagon Road into North Carolina from Maryland, Pennsylvania, and Virginia, were lured to the colony by large amounts of fertile land. These colonists generally migrated in family or community groups and created small settlements that reinforced these bonds. The result was a number of rural settlements scattered along the inland landscape, with some small villages that served as trading centers (Kars 2002:15–18).

In addition to the settlers from the north, who were primarily of English descent, other groups also migrated to the inland portion of southern North Carolina during the eighteenth century. Scottish Highlanders began arriving in the colony as early as 1729, with the first large group landing in 1739. Their numbers increased significantly during the 1760s and 1770s, with colonists of Scottish descent making up 7.5 percent of North Carolina's population by 1790. Fleeing poverty and high rents charged by English landholders in their own country, they came to North Carolina to improve their fortunes. The majority of the Scottish Highlanders landed at Wilmington and began moving up the Cape Fear River and its tributaries looking for unclaimed land. They eventually settled near Cross Creek, which had been established by Wilmington merchants in 1754, and founded the village of Campbellton; the two villages were subsequently combined into the town of Fayetteville. As the population of Scottish colonists grew, they spread out among settlements that were within present-day Robeson County (Social Explorer 2021; Watson 1992; Connor 1919).

In addition to Scottish Highlanders, other groups immigrated to the inland areas of North Carolina during the mid- to late 1700s. Scots-Irish settlers, who were people of Scottish descent who had been living in Northern Ireland since the early 1600s, sought land and religious freedom in the American colonies. During the eighteenth century, approximately 250,000 Scots-Irish came to the colonies, with a large number landing in Philadelphia and settling in the inland areas of Pennsylvania. High land prices and border disputes with Maryland, however, caused some of these settlers to move southward into Virginia and North Carolina. Following the Great Wagon Road, Scots-Irish families began applying for land grants in the newly formed Anson County in 1749. Small groups of

Scots-Irish landed at Charleston, Wilmington, and New Bern as well, traveling along the rivers into unsettled inland areas (Hoefling 2005:52–55; Connor 1919:165). Groups of Welsh, English, and German settlers also joined the influx into the backcountry during the 1700s. All of these new immigrants to the North Carolina colony established communities around their traditional religious beliefs and endeavored to retain much of their language and customs over the ensuing decades (Connor 1919:168, 176).

In these interior areas, landholdings were generally smaller than they were along the coast. Settlements were primarily comprised of small farmers, who owned few or no slaves, and crops were often planted among the trees that remained on large expanses of uncleared farmland. Although many crops were grown for home consumption, corn was the main agricultural product of the region during the eighteenth century. Corn was a versatile crop that could be used for both human consumption and fodder for livestock; mills were built to process the corn into meal that could be stored for winter or easily transported. Backcountry farmers also planted wheat, rye, barley, oats, tobacco, flax, and hemp, raised livestock, and engaged in the production of naval stores. Garden produce and hunting wild game supplemented their diets. Although the majority of farm products were used for home consumption, excess yields, as well as the timber, tar, pitch, and turpentine produced from the pine forests, were traded in nearby towns to supplement the income of these small, self-sufficient farmers (Connor 1919:189–190; Hoefling 2005:57–58). These agricultural practices would continue through the eighteenth and into the nineteenth century.

The transportation network of eighteenth century North Carolina necessitated the self-sufficiency of interior residents, since the primary roads of the colony ran more north-south than east-west, connecting the area to Virginia, Pennsylvania, South Carolina, and Georgia instead of the coastal settlements within the colony. Transportation from inland settlements to the coast was primarily via rivers and streams, although many of these were navigable only for limited stretches. Lack of easy transportation options made the trade of a single staple crop unprofitable, preventing, the backcountry residents of North Carolina from developing a plantation-based economy similar to coastal settlements (Ready 2005:65).

3.2.2 Regulation and Revolution

The 1760s was a period of significant unrest and conflict in the colonial backcountry of North and South Carolina. Increases in taxes to fund military campaigns during the previous decade angered the small inland farmers, who believed that the flat tax, assessed on everyone regardless of wealth or assets, was an unfair burden on them. Since the subsistence based economy of the backcountry brought little hard currency to the inland farmers, many of these colonists lacked the funds to pay these new levies. North Carolina's inland settlers believed that government officials were abusing their power, including levying excessive taxes, seizing property to cover debts and taxes, imprisoning debtors, and accepting bribes in lieu of upholding laws. The inland counties began to view their coastal counterparts as sympathetic to this governmental corruption, especially after a special tax was imposed to pay for a governor's mansion, referred to as "Tryon's Palace," in New Bern. The rift that developed gradually gave rise to the Regulator Movement, which reached its peak in North Carolina between 1768 and 1771 (Kars 2002; Connor 1919; Ready 2005:93, 96). This movement was primarily a grassroots attempt to obtain local autonomy and independence; farmers in the backcountry wished to participate in the local government system in order to "make the colonial government more responsive to the[ir] immediate needs" (Fryer 2011:170).

By the 1760s, North Carolina's relations with England were strained because of the history of ineffective colonial government. The Stamp Act, which was passed by the British Parliament in March 1765, taxed all printed paper in

the American colonies, including shipping documents. Opposition to the act in the colonies was almost immediate, especially in port cities. Although the colonial government voiced its support for the Stamp Act, colonists of North Carolina generally joined the resistance efforts against the act and a public demonstration was held in Wilmington in October 1765. In November, when the British ship *Diligence* attempted to deliver the stamp paper at the port of Brunswick, a group of colonial militiamen prevented the captain from offloading the stamps; the *Diligence* sat anchored off shore for two months, still loaded with her cargo of stamps. When three merchant ships entered the Cape Fear River in early 1766 without stamped shipping paperwork, they were seized. When a lawyer for the king verified that the seizures of the ships were legal, even though they had presented signed documentation indicating that stamps were not available at their originating ports, the colonial population was outraged and threatened violence against the British ships in the harbor. In February 1766, the colonists' demands were met: the ships were released and customs officials in North Carolina promised not to enforce the Stamp Act in the colony (Ready 2005:94–95; Russell 2000:29–30; Moore 1880: 92–94; Connor 1919:323–326).

Tensions grew between colonists and the colonial government during the 1760s and 1770s, and when fighting began at Lexington and Concord, Massachusetts, in April 1775, North Carolina colonists saw a parallel to their own earlier struggles against the Stamp Act. With open warfare seemingly inevitable, North Carolina colonists aligned themselves as either Patriots (Whigs) or Loyalists (Tories). Provincial Congresses had been held during 1774 and 1775 and the third of these congresses, in August 1775, organized the enlistment of the colony's citizens in the Continental Army. A 13 member Committee of Safety was organized to oversee the colony's resistance to the British. The first armed encounter of the war in North Carolina occurred in early 1776, when Scottish settlers from the interior of the colony formed Tory regiments, consisting of about 1,600 troops, and began marching towards Wilmington. In February, these troops, marching from Cross Creek, were met at Moore's Creek Bridge, northwest of Wilmington, by a force of Continental militia sent by the Committee of Safety. Under Colonel Andrew Lillington and Colonel Richard Caswell, approximately 950 Patriot troops defeated the Loyalist force and captured nearly 850 men. This victory convinced many North Carolina residents of the superiority of the Patriot cause and swung the majority of popular sentiment toward independence. The Halifax Resolves, which were the colony's official endorsement of pursuing independence from England, were adopted by the Provincial Congress in April 1776 and were presented to the Continental Congress by delegates from North Carolina in May (Connor 1919:384–388; Russell 2000:80–84).

Although little actual fighting occurred in North Carolina, the residents still felt the effects of the Revolutionary War. The colony sent soldiers to join the Continental Army and the North Carolina troops saw significant action during the war, first in Pennsylvania, New York, and New Jersey in 1777 and 1778, then in South Carolina and Georgia in 1779 and 1780. As British troops attempted to secure the Carolina backcountry during 1780 and 1781, some skirmishes took place in North Carolina. British General Charles Cornwallis marched through Bladen, Brunswick, Mecklenburg, and New Hanover counties during 1780 and 1781, while the Continental Army under General Nathaniel Greene moved through Anson County. In August 1781, Tory regiments had taken over Elizabethtown and began raiding Patriot farms along the Cape Fear River, forcing the residents to leave their homes to seek shelter. The Loyalist forces also held Patriot prisoners at Elizabethtown and a Patriot force under Colonel Thomas Brown, primarily comprised of men from Bladen County, attacked on August 29, 1781, and ousted the Tories. The Battle of Elizabethtown essentially caused the fall of Loyalists in Bladen County, who were disheartened by the defeat; this was the final major conflict in North Carolina during the Revolutionary War. The final British forces evacuated Wilmington in November 1781 (Connor 1919:490; Moore 1880:330; Russell 2000:81; Ready 2005:134, 143).

3.2.3 Antebellum and Civil War

During the antebellum period, North Carolina retained its agriculture character and its population consisted primarily of subsistence farmers. At the turn of the nineteenth century, with the exception of Wilmington on the coast, the southern portion of the state had only a few small towns that were spread throughout the landscape of farms. Contemporary observers referred to North Carolina as "a state asleep", due to the limited industry, inadequate education and transportation systems, and lack of sufficient capital in the state's three small banks (Ready 2005:164). Connections between the coastal population and the settlers who had migrated to interior counties were few, as the limited number of roads in the state were poorly maintained. Rivers that could not support navigation far upstream hindered the shipment of products to and from the state's interior counties, making the development of a single cash crop economy nearly impossible (Ready 2005:163).

Although North Carolina was a slave state, the regional differences and late development of a single staple crop resulted in a population that was never comprised of a majority of slaves, unlike neighboring South Carolina. As the connections between the eastern and western portions of the state improved following the reorganization of the state government, farmers were able to grow surplus crops for export and develop more land, creating a need for additional labor.

The most profitable economic pursuits, however, were lumber and naval stores production. These two industries exploited the vast forest resources of North Carolina and were often carried out by slave labor, who could be more profitably deployed in pine forests than in agricultural fields in areas were soils were poor and yields were low (Sharpe 1958). The Lumber River, which is the primary drainage basin in Robeson County, derived its name from the harvesting of timber along its banks and the transportation of the trees by floating them downriver. Tar, pitch, and turpentine are the three main naval stores, all produced from pine trees. Tar was made by extracting the gum residue from dead pine wood in an earth covered kiln (Perry 1968). Dead pine wood and branches were piled in a circle in the kiln and then covered with earth and pine straw; here they would be burned slowly to extract tar. As the kiln was fired, tar flowed down the sides of the floor into the gutter (or conduit), from which it could be collected (Outland 1996; Robinson 1997). Once the tar was extracted from the pine wood, pitch could then be made by boiling the tar into a concentrate. Both products were waterproof, with tar often being applied to sail riggings to keep them from decaying while pitch was spread on boat hulls to prevent leaks (Outland 1996). Turpentine has two forms, the raw turpentine, also known as resin or gum, which is extracted from the trees, and the distilled spirits of turpentine made from the raw sap (Outland 1996; Robinson 1997; Perry 1968:511). The distilled turpentine spirits were often used as a cleaner, or as a waterproofing agent for leather and cloth. It was also used in some colonial medicines, including laxatives and flea repellents (Robinson 1997; Outland 1996).

In the eighteenth and early nineteenth centuries, tar and pitch were the most produced naval store products, but after 1830, with changes in usage and demand, the focus shifted to distilled turpentine. Turpentine was an effective solvent for crude rubber, and as rubber production increased in the 1830s the need for such a product also increased. Spirits of turpentine were also being developed as a lighting source, as a turpentine and alcohol mixture called camphene was becoming an inexpensive and popular replacement for whale oil. The increased demand for these products required an increase in their production, a situation to which North Carolina, quickly adapted (Perry 1968; Outland 1996).

The advent of railroad technology provided a transportation method that was more reliable and less expensive for the transportation of agricultural products from farms in the interior of the state, providing access to markets

along the coast, as well as in South Carolina and Virginia. Although the idea of a railroad in North Carolina had begun in the 1820s, the first tracks weren't laid in the state until the 1930s, when the Petersburg Railroad (operating in Virginia) extended its tracks nine miles into its southern neighbor to the town of Halifax. Shortly afterward, businessman Edward Dudley of Wilmington raised approximately $1.5 million to finance a portion of the Wilmington and Raleigh Railroad Company. Without matching capital from Raleigh, however, Dudley altered the route of the railroad to pass through Goldsboro, creating the Wilmington and Weldon Railroad. By 1840, the line was complete, and the 161 miles of tracks spanned from the coast into the Piedmont. The state owned North Carolina Railroad continued to build additional tracks and claimed 223 miles of tracks within the state in 1856. This development of the railroad fostered growth in the small communities that the tracks passed through and resulted in North Carolina having the best interior railroad system in the South at the beginning of the Civil War (Ready 2005:179–181).

In 1860, the question of whether to secede from the Union again divided the eastern portion of North Carolina from the western portion. The majority of the slaveholders in the state were located in the eastern portion, including the project counties, while in many of the western counties only a small percentage of whites owned slaves. In Wilmington, demonstrators publicly supported secession, while voters in the western counties had Unionist sentiments. North Carolina joined other southern states in seceding in May 1861, five months after South Carolina became the first state to secede (Barrett 1963:6–10). The Civil War disrupted trade and transportation throughout North Carolina. Blockades interrupted the shipments of naval stores out of North Carolina, nullifying the most profitable economic venture of many of the southern counties. However, few major battles were fought within the state.

By 1864, half of the supplies received by the Confederate Army of Virginia were coming through Wilmington, and the Union realized the importance of taking control of the port to force the final surrender of the Confederacy. They also knew that to accomplish this goal Fort Fisher first had to be taken. On Christmas Eve of 1864, the Union navy began its first offensive against Fort Fisher with bombardment from its blockade ships. This original attack proved unsuccessful as the walls of Fort Fisher withheld the bombardment and the marching soldiers retreated without engaging the fort's garrison (Gragg 1991:62, 100). On January 12, 1865, the second Union attack on Fort Fisher began, with the Union employing three lines of more than 60 warships, including five ironside battleships (Gragg 1991:102, 112-113). Although the Federal forces were repelled several times, they finally succeeded in capturing Fort Fisher on January 16, 1865. This effectively ended the blockade running into the Cape Fear region, closed the Confederacy's last functioning port, and ended the supply lines flowing out of Wilmington (Gragg 1991:228; Lee 1978:163). One month later, the town of Wilmington was invaded and occupied by Union Forces (Gragg 1991:246-247).

In 1865, as General William T. Sherman marched northward from South Carolina to Richmond, he traveled through the southeastern portion of North Carolina. In March, a portion of his army moved through Richmond County and engaged Confederate forces in a skirmish at Rockingham, where they destroyed Confederate munitions and a cotton factory. On March 11, Sherman occupied Fayetteville and remained there for four days, destroying an arsenal that had been used by Confederate forces before splitting his troops and heading to Raleigh and Goldsboro in pursuit of General Joseph Johnston (Barrett 1963:297).

3.2.4 Reconstruction and Twentieth Century

The conclusion of the Civil War meant an end to military engagements, but it also brought devastating consequences to much of the former Confederacy. The prevailing economic system, which had been based on slavery, was abolished. Debt within the southern states was high, while destruction of property during the war limited efforts to return to a semblance of normal life. Both soldiers returning from war, many severely wounded, and former slaves needed to find new ways to integrate into society (Ready 2005:250–253).

Despite the end of slavery, agriculture continued to dominate much of the region after the Civil War, although crop production fell during the early Reconstruction era. In areas where the landholdings had been large, these plantations were often broken up into smaller units. Most owners could no longer afford such large holdings, since they could not make them profitable without slave labor (Ready 2005).

During the late nineteenth century, tenancy and sharecropping developed across the south, as landless farmers, both black and white, sought arrangements that would allow them to continue farming to support their families. The newly freed black slaves were forced into these arrangements because they had no land, little money, and few other options. As the 1800s drew to a close, many white farmers succumbed to large debts and also became tenants for large landholders. Two categories of tenancy developed, cash tenants and share tenants. Cash tenants provided their own tools and seed, gaining ownership of the crop they produced while paying rent on their house and land to the landlord. Sharecroppers could not afford their own tools or seeds; the landlords supplied these items and subtracted their value from the farmer's share of the crop. Both systems resulted in many small farmers living meager existences (Ready 2005:284–290).

The late nineteenth and early twentieth century brought periods of growth and development to southern North Carolina, especially in the Piedmont. The resumption of railroad construction after the Civil War brought relative prosperity to many small towns located along the railroad routes. Existing railroad routes were expanded, new routes linking the western portion of the state to the coast were built, and smaller companies were purchased and consolidated into large railroad conglomerations. In the Piedmont counties, small mill operations had begun before the Civil War but larger, industrialized textile mills became a dominant feature in the economy during the last decades of the 1800s (Ready 2005:170–173).

The twentieth century brought changes and economic development to large portions of North Carolina. Although family farms were gradually being replaced by larger scale agricultural ventures, the southeastern portion of the state retained its overwhelmingly rural character and agriculture remained the primary economic activity at the turn of the century. As the century progressed, the gradual adoption of mechanical farm practices and larger landholdings decreased the number of agricultural jobs available (Ready 2005).

3.2.5 Lumberton

The city of Lumberton was founded in by John Willis, an officer in the American Revolution, and was passed by an Act in the North Carolina General Assembly in 1787. Lumberton was established as the county seat of Robeson County and was incorporated in 1859. The city developed as a shipping point for lumber along the Lumber River. The logs were used by the Navy and would be guided downriver to Georgetown, South Carolina. Growth within Lumberton accelerated following World War II as different industrial companies invested into the area.

3.3 Previously Recorded Cultural Resources

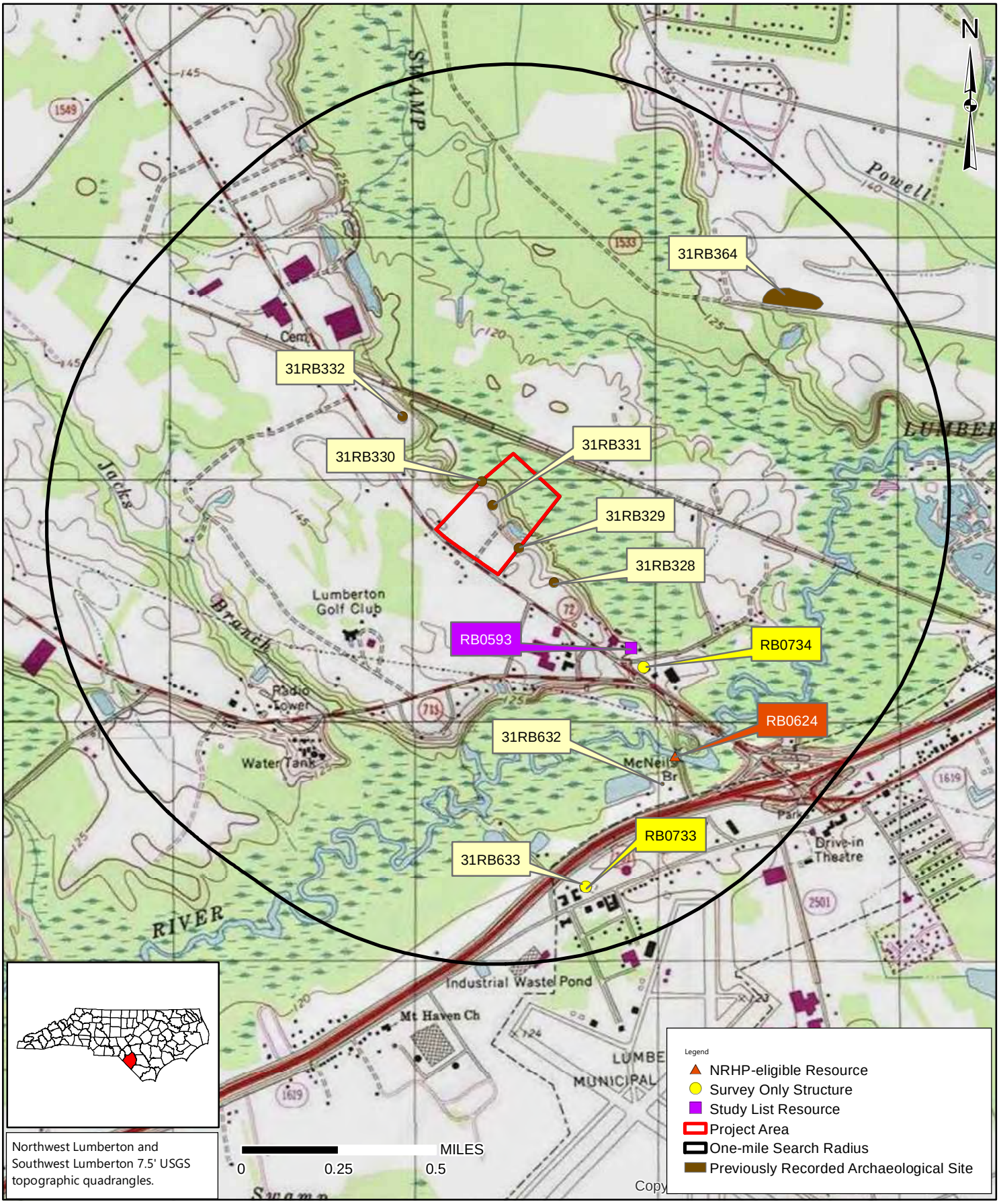
On April 13, 2021, a background literature review and records search was conducted at the North Carolina Office of State Archaeology (OSA) and at the State Historic Preservation Office (SHPO). The records examined at SHPO included a review of National Register and survey files for properties listed in or eligible for inclusion in the National Register and an examination of HPOWEB, a GIS-based program containing information about aboveground historic resources in North Carolina. Records examined at OSA included master archaeological site maps, state archaeological site files, and associated archaeological reports. The area examined was a one-mile radius around the project area

A review of HPOWEB and the files at OSA indicated there are eight previously recorded archaeological sites, one National Register of Historic Places (NRHP) eligible resource that is no longer extent, one North Carolina study List resource, and two survey only resources within a one-mile radius of the project area (Figure 1; Table 1). Three of the archaeological sites (31RB329, 31RB330, and 31RB331) are located within or directly adjacent to the project area. Site 31RB329 is recorded as a Woodland artifact scatter and historic artifact scatter; site 31RB330 is a historic cemetery; and site 31RB331 is a prehistoric lithic scatter and historic artifact scatter. These three sites have not been assessed for inclusion in the NRHP. The remaining archaeological sites and above ground resources are not within or adjacent to the project area.

Table 1. Previously recorded cultural resources within a one-mile search radius of the project area.

Resource #	Description	NRHP Eligibility	Source
31RB328	Prehistoric lithic scatter/Historic artifact scatter	Unassessed	OSA Site Form
31RB329	**Woodland artifact scatter/Historic artifact scatter**	**Unassessed**	**OSA Site Form**
31RB330	**Historic cemetery**	**Unassessed**	**OSA Site Form**
31RB331	**Prehistoric lithic scatter/Historic artifact scatter**	**Unassessed**	**OSA Site Form**
31RB332	Woodland artifact scatter	Unassessed	OSA Site Form
31RB364	Prehistoric and historic artifact scatter	Unassessed	OSA
31RB632	Prehistoric lithic scatter/Historic artifact scatter	Unassessed	OSA
31RB633	Historic cemetery	Unassessed	OSA
RB0593	Biddle School (One Room School)	Study List	HPOWEB
RB0624	Bridge #430 – McNeil's Bridge (Gone)	Eligible	HPOWEB
RB0733	McNeil-Bennett Cemetery	Survey Only	HPOWEB
RB0734	Robeson County Board of Education	Survey Only	HPOWEB

BOLD means site is within/directly adjacent to the project area.



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure 3-1 background.mxd plotted by KNagle 04-28-2021

SCALE:	1:20,973
PROJECT NO:	210884
DRAWN BY:	PAC
DATE:	4/28/2021

Background Map
Housing Authority City of Lumberton
Robeson County, North Carolina

FIGURE NO.
3.1

As part of the background research, the Collet (1780) map; the Price-Strother (1808) map; the McRae-Brazier (1833) map; the Kerr-Cain (1882) map; the McDuffie (1884) map; a 1900 railroad map; the United States Department of Agriculture (USDA) soil survey map from 1908; the Lennon (1922) map; North Carolina Department of Transportation (NCDOT) maps from 1938, 1953, and 1968; and United States Geological Survey (USGS) topographic maps from 1972 were examined. The Collet map shows the project area in Bladen County near a river (3.2). The Price-Strother map shows Lumberton to the east and an unnamed road in the vicinity of the project area; Greg Willis is a named landowner in the vicinity of the project area and Robeson County had been established (Figure 3.3). The McRae-Brazier map shows Lumberton as a small city to the east and an unnamed road in the vicinity of the project area; the project area is located along Raft Swamp (Figure 3.4). By 1882, when the Kerr-Cain map was drawn, very little detail is shown in the vicinity of the project area other than a few roadways and a railroad running east/west through Robeson County (Figure 3.5). The McDuffie (1884) map of Robeson County shows the project area located in Backswamp Township (Figure 3.6).

The 1900 railroad map shows six rail lines within Robeson County and the project area is south of one of those lines; Lumberton is shown to the east (Figure 3.7). The 1908 USDA soils map shows the town of Kingsdale to the southeast of the project area with very little detail in and around the project area (Figure 3.8). The Lennon (1922) map of Robeson County shows the project area as part of the Raft Swamp section but provides little detail of the project area (Figure 3.9). The 1938, 1953, and 1968 NCDOT maps show an increasing number of roadways but does not show any structures within the project area (Figures 3.10 through 3.12). The 1972 USGS topographic map shows a pond and dirt roadway within the project area (Figure 3.13).

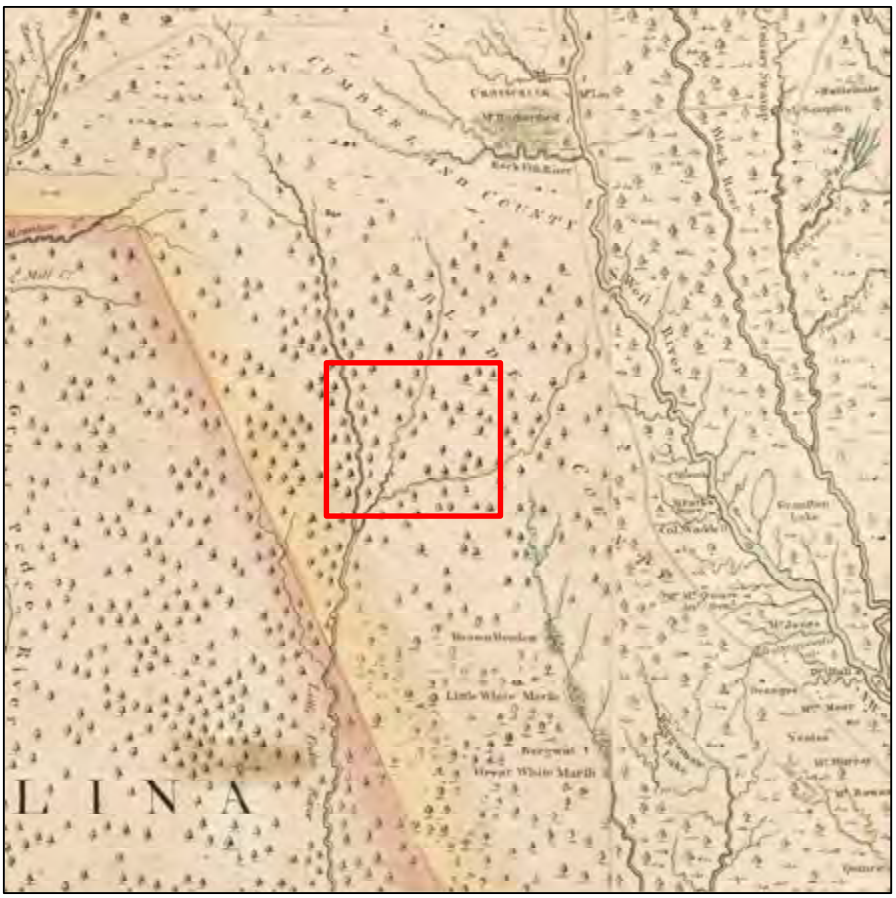


Figure 3.2. Portion of the Collet map (1780) showing approximate project area

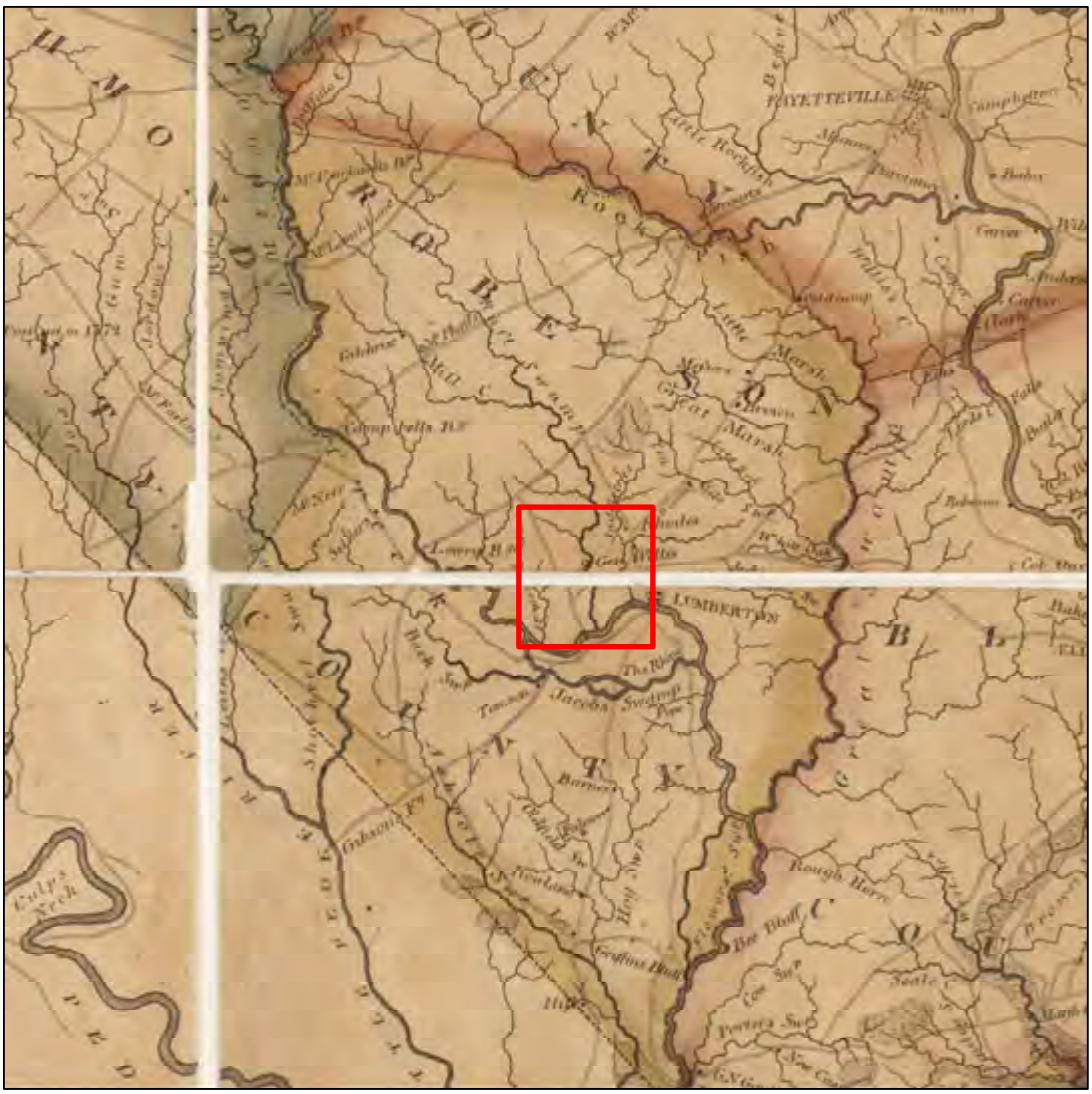


Figure 3.3. Portion of the Price Strother map (1808) showing approximate project area.

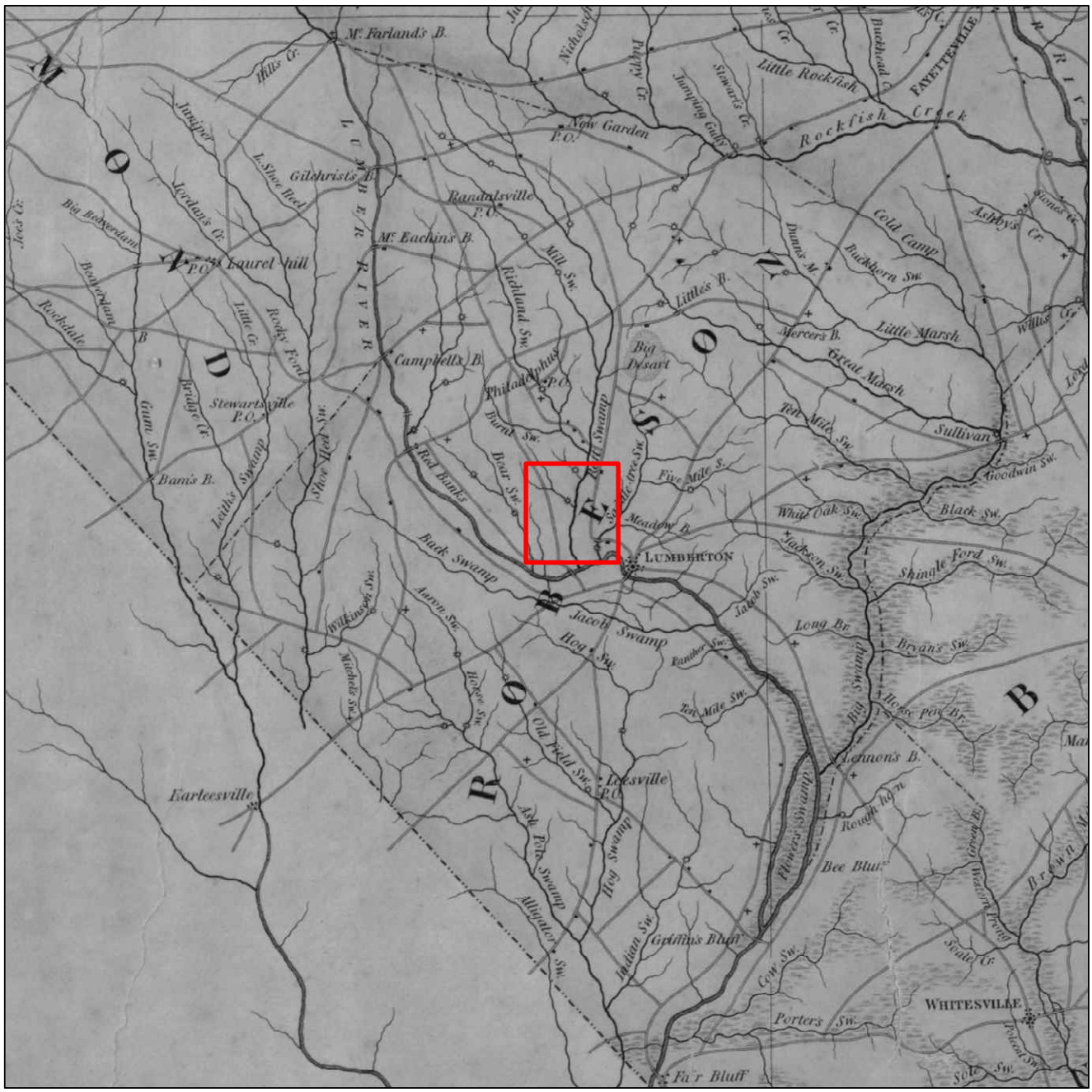


Figure 3.4. Portion of the MacRae Brazier map (1833) showing approximate project area.

Figure 3.5. Portion of the Kerr Cain map (1882) showing approximate project area.

Figure 3.6. A portion of McDuffie map of Robeson County (1884), showing vicinity of the project area.

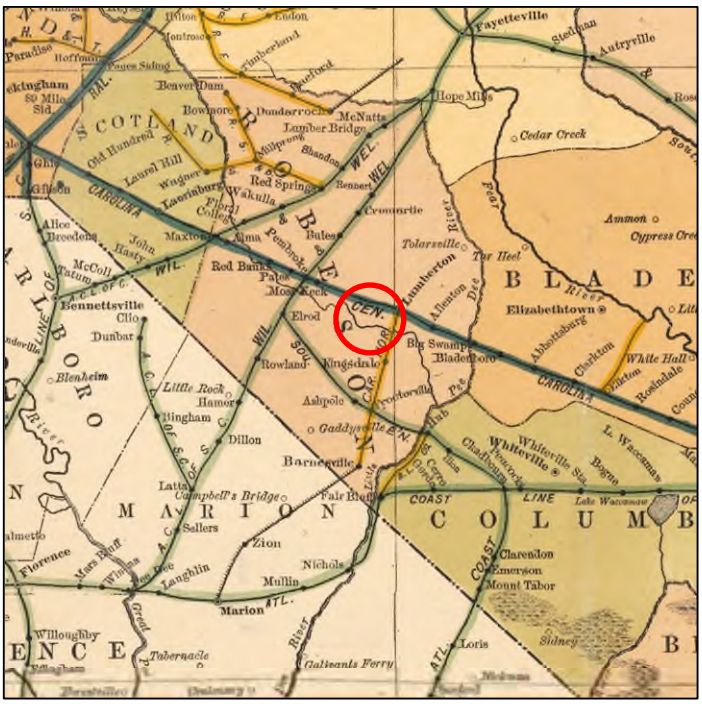


Figure 3.7. A portion of a 1900 railroad map, showing vicinity of the project area.

Figure 3.8. A portion of the USDA Robeson County soils map (1908), showing vicinity of the project area.

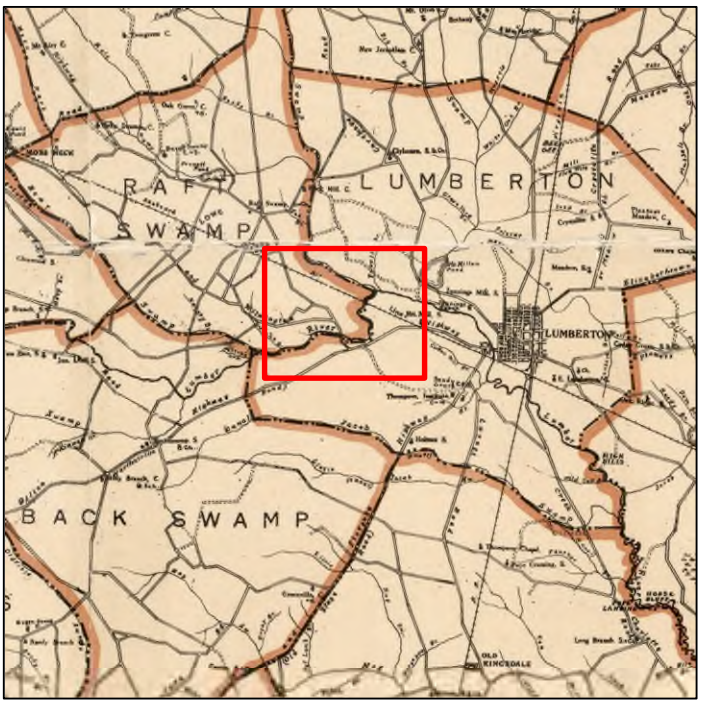


Figure 3.9. A portion of the Lennon map of Robeson County (1922), showing vicinity of the project area.

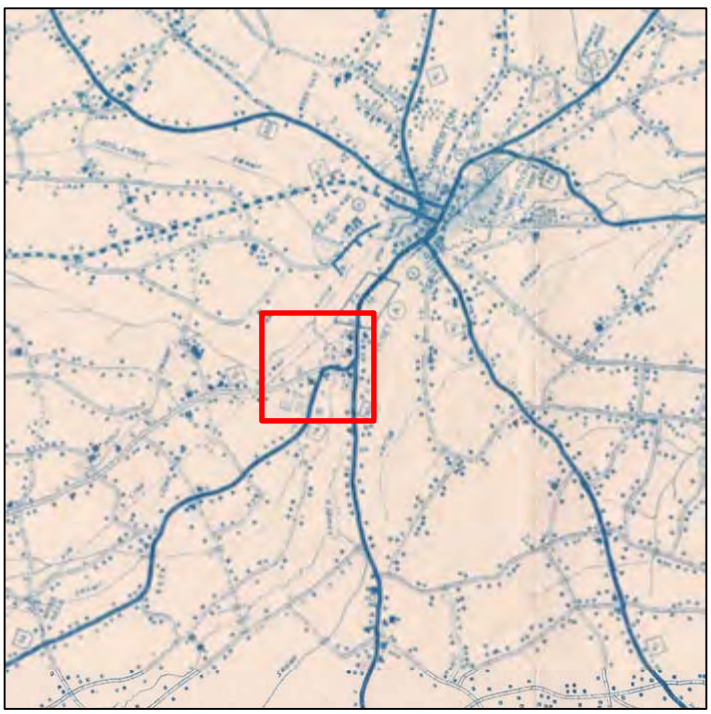


Figure 3.10. A portion of the NCDOT map of Robeson County (1938), showing vicinity of the project area.

Figure 3.11. A portion of the NCDOT map of Robeson County (1953), showing vicinity of the project area.

Figure 3.12. A portion of the NCDOT map of Robeson County (1968), showing vicinity of the project area.

Figure 3.13. Portion of the USGS 7.5′ Northwest Lumberton (1972) map showing approximate project area.

4.0 Methods

4.1 Archaeological Field Methods

Fieldwork for the project was conducted in April 2021. This work included a Phase I archaeological survey of the roughly 30.53-acre project area. The field methods include both pedestrian survey and shovel testing: pedestrian survey and judgmental shovel testing was conducted in approximately 3.5 acres that contained slope to the swamp, hydric soils, and/or were disturbed by the man-made pond; no survey was completed in approximately 10.23 acres where standing water associated with Raft Swamp is present; and the remaining approximately 16.8 acres were systematically shovel tested. Figure 4.1 shows where the different survey methods were used within the project area.

Shovel tests were at least 30 cm in diameter and excavated to sterile subsoil, the water table, or at least 80 cm below surface (cmbs), whichever was encountered first. Soil from shovel tests was screened though ¼-inch wire mesh and soil colors were determined through comparison with Munsell Soil Color Charts. Sites were located using a GPS unit and plotted on USGS 7.5-minute topographic maps. Artifacts recovered during the survey were organized and bagged by site and relative provenience within each site.

Site boundaries were determined by excavating shovel tests at 15-m intervals radiating out in a cruciform pattern from positive shovel tests or surface finds at the perimeter of each site. Sites were recorded in the field using field journals and standard S&ME site forms, and documented using digital photography and detailed site maps. State site forms were completed for archaeological sites and submitted to OSA once fieldwork was complete.

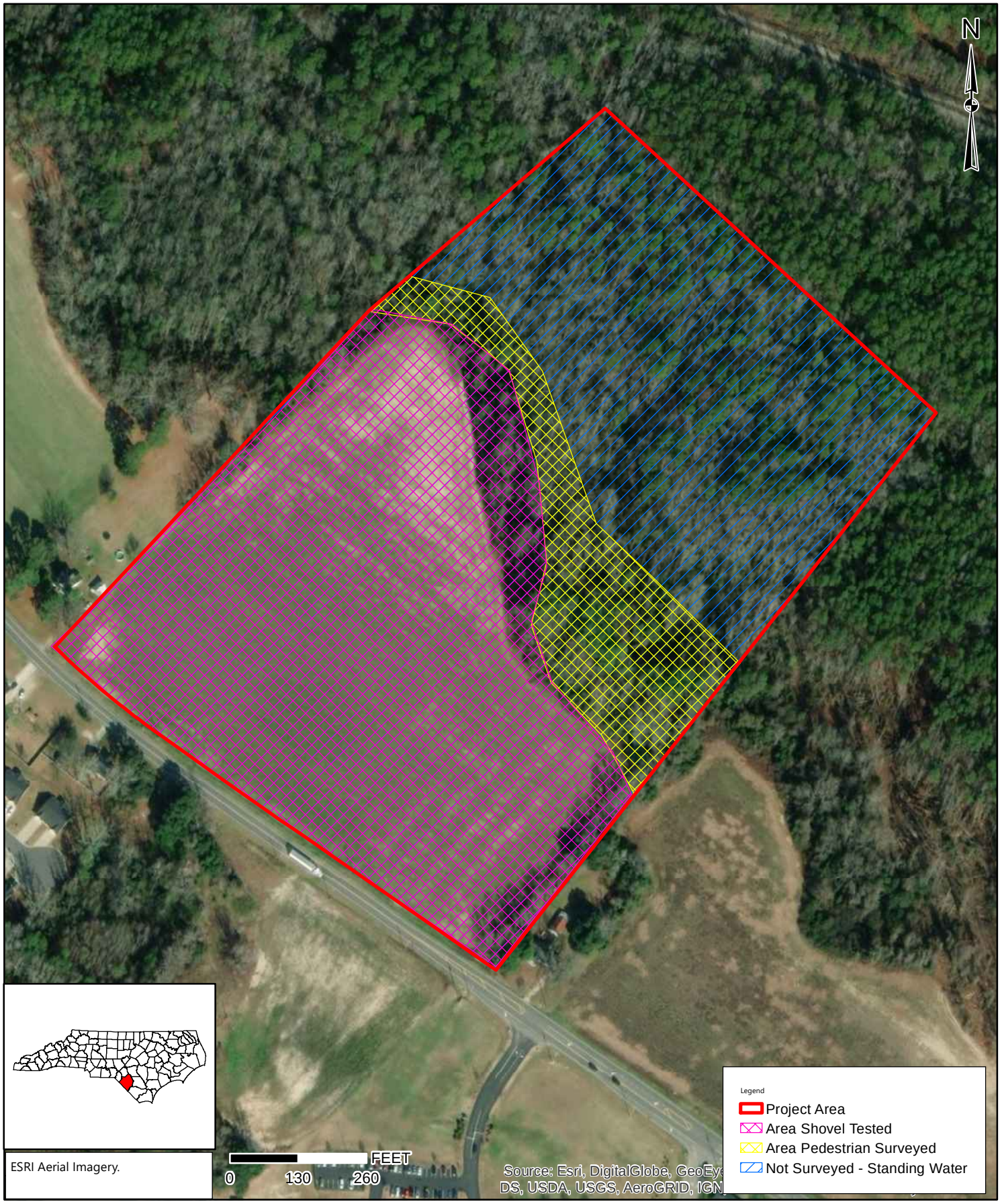
4.2 Laboratory Methods

With fieldwork complete, recovered artifacts were cleaned, sorted, analyzed, and labeled, at the S&ME laboratory in Columbia, South Carolina. Artifacts were analyzed by provenience unit and classified into raw material, technological, and functional categories based on accepted southeastern typologies and artifact classifications used in the project vicinity.

Lithic artifacts were initially identified as either debitage (flakes and shatter) or tools. Debitage was sorted by raw material type and size graded using the mass analysis method advocated by Ahler (1989). When present, formal tools were classified by type, and metric attributes (e.g., length, width, and thickness) were recorded for each unbroken tool. Projectile point typology generally follows that outlined by Coe (1964) and Justice (1987).

Historic artifacts were separated by material type and then further sorted into functional groups. For example, historic ceramics were sorted into coarse earthenware, refined earthenware, stoneware, porcelain, colonoware, or pipe. Glaze, slip, maker's marks, and/or decorations were noted to ascertain chronological attributes using established references for historic materials, including Noel Hume (1969), South (1976), and Miller (1991).

The artifacts, field notes, maps, photographs, and other technical materials generated as a result of this project will be temporarily curated at the S&ME office in Columbia. After conclusion of the project, project materials will be permanently curated at the Office of State Archaeology's Research Center (OSARC).



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure 4-1 field methods.mxd plotted by KNagle 04-29-2021

SCALE:	1:2,944
PROJECT NO:	210884
DRAWN BY:	PAC
DATE:	4/29/2021

Field Methods Map

Housing Authority City of Lumberton

Robeson County, North Carolina

FIGURE NO.

4.1

4.3 National Register Eligibility Assessment

For a property to be considered eligible for the NRHP it must retain integrity of location, design, setting, materials, workmanship, feeling, and association (National Register Bulletin 15:2). In addition, properties must meet one or more of the criteria below:

- **A.** are associated with events that have made a significant contribution to the broad patterns of our history; or
- **B.** are associated with the lives of persons significant in our past; or
- **C.** embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- **D.** have yielded or may be likely to yield information important in history or prehistory.

The most frequently used criterion for assessing the significance of an archaeological site is Criterion D, although other criteria were considered where appropriate. For an archaeological site to be considered significant, it must have potential to add to the understanding of the area's history or prehistory. A commonly used standard to determine a site's research potential is based on a number of physical characteristics including variety, quantity, integrity, clarity, and environmental context (Glassow 1977). These factors were considered in assessing a site's potential for inclusion in the NRHP.

5.0 Results

Fieldwork for the project was conducted on April 15, specifically two people worked for one day on the project. A total of 81 shovel tests were excavated within the project area. The project area was surveyed using a mixture of shovel testing and pedestrian survey techniques (Figure 4.1).

One soil profile was identified within the well-drained areas of the project area; the typical soil profile in these areas consisted of approximately 20 cm of gray (10YR 5/1) sand, followed by 20 cm (20–40 cmbs) of yellow (10YR 7/8) sand, terminating with 10+ cm (40–50+ cmbs) of strong brown (7.5YR 5/8) sandy clay subsoil (Figure 5.1). The remainder of the project area contained slopes down to the swamp with standing water. No shovel testing was completed in these areas.

Vegetation in the project area is primarily fallow field, with areas of secondary growth, small wooded sloped areas along the waterways, and the swamp associated with Raft Swamp (Figures 5.2 through 5.5); disturbances in the project area include a pond, drainage ditches, and buried utilities along the roadway (Figures 5.6 through 5.8). Historic aerials show that the project area is largely unchanged from the 1950s with the exception of a man-made pond in the northeastern portion of the project area that appears in the 1970s; the rest of the project area is undeveloped (Figures 5.9 through 5.12).

Three archaeological sites (31RB329 through 31RB331) have been previously recorded within or directly adjacent to the project area. Site 31RB331 was re-located and will be discussed in greater detail below. Shovel testing was completed in and around the previously recorded location of site 31RB329; no artifacts were identified on the surface of the site or in the shovel tests.

Site 31RB330 was recorded in 1988 as a historic cemetery located at the edge of the woods on a relatively flat landform overlooking Raft Swamp at the end of a dirt road (OSA Site Form). An attempt was made to re-locate the site at the previously recorded location. There is no indication that a cemetery exists or existed at the recorded location (Figure 5.13). Approximately 700-ft to the west is a dirt road from State Route 72 that leads to the Townsend Cemetery, which is located on a relatively flat landform at the edge of the wood line (Figures 5.14 and 5.15). The dates on the headstones match the notes made on the OSA site form, the vegetation in the current project area has not changed since at least the 1950s, and the vegetation in and around the Townsend Cemetery has been routinely cleared and maintained for the same amount of time (Figures 5.9 through 5.12, and 5.15). It appears that the cemetery was recorded at the edge of the wrong field in 1988 and should be recorded at the location of Townsend Cemetery (NAD83 E677096 N3834272). The cemetery was not evaluated for inclusion in the NRHP and the proposed project will not affect the resource.

Figure 5.1. Typical soil profile throughout the well-drained portions of the project area.

Figure 5.2. Typical fallow field in the project area, facing southeast.

Figure 5.3. Secondary growth in the project area, facing east.

Figure 5.4. Sloped areas in the project area, facing northeast.

Figure 5.5. Raft Swamp in the northern portion of the project area, facing northeast.

Figure 5.6. Manmade pond in the project area, facing northeast.

Figure 5.7. Drainage ditch in the project area, facing northeast.

Figure 5.8. Buried utilities and drainage ditch along the project area boundary, facing southeast.

Figure 5.9. Aerial imagery from 1955 showing the approximate project area.

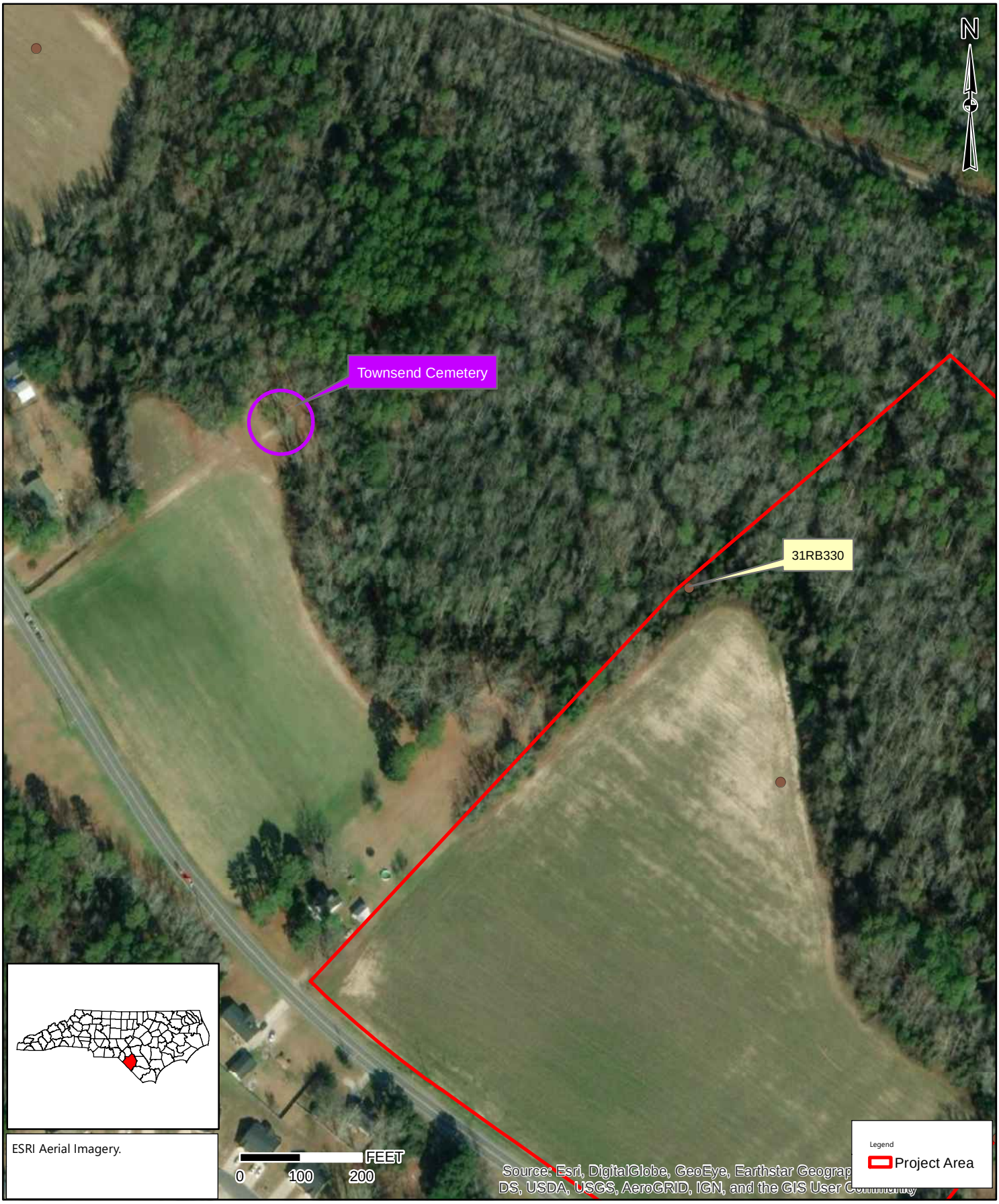
Figure 5.10. Aerial imagery from 1971 showing the approximate project area.

Figure 5.11. Aerial imagery from 1983 showing the approximate project area.

Figure 5.12. Google Earth imagery from 2016 showing the approximate project area.

Figure 5.13. Recorded location of site 31RB330, facing northeast.

Figure 5.14. Townsend Cemetery, 700-ft west of the recorded location of 31RB330, facing northeast.



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure 5-15 cemetery location.mxd plotted by KNagle 04-28-2021

SCALE:	1:2,533
PROJECT NO:	210884
DRAWN BY:	KJN
DATE:	4/28/2021

Site 31RB330 and Townsend Cemetery Location

Housing Authority City of Lumberton

Robeson County, North Carolina

FIGURE NO.

5.15

5.1 Site 31RB331

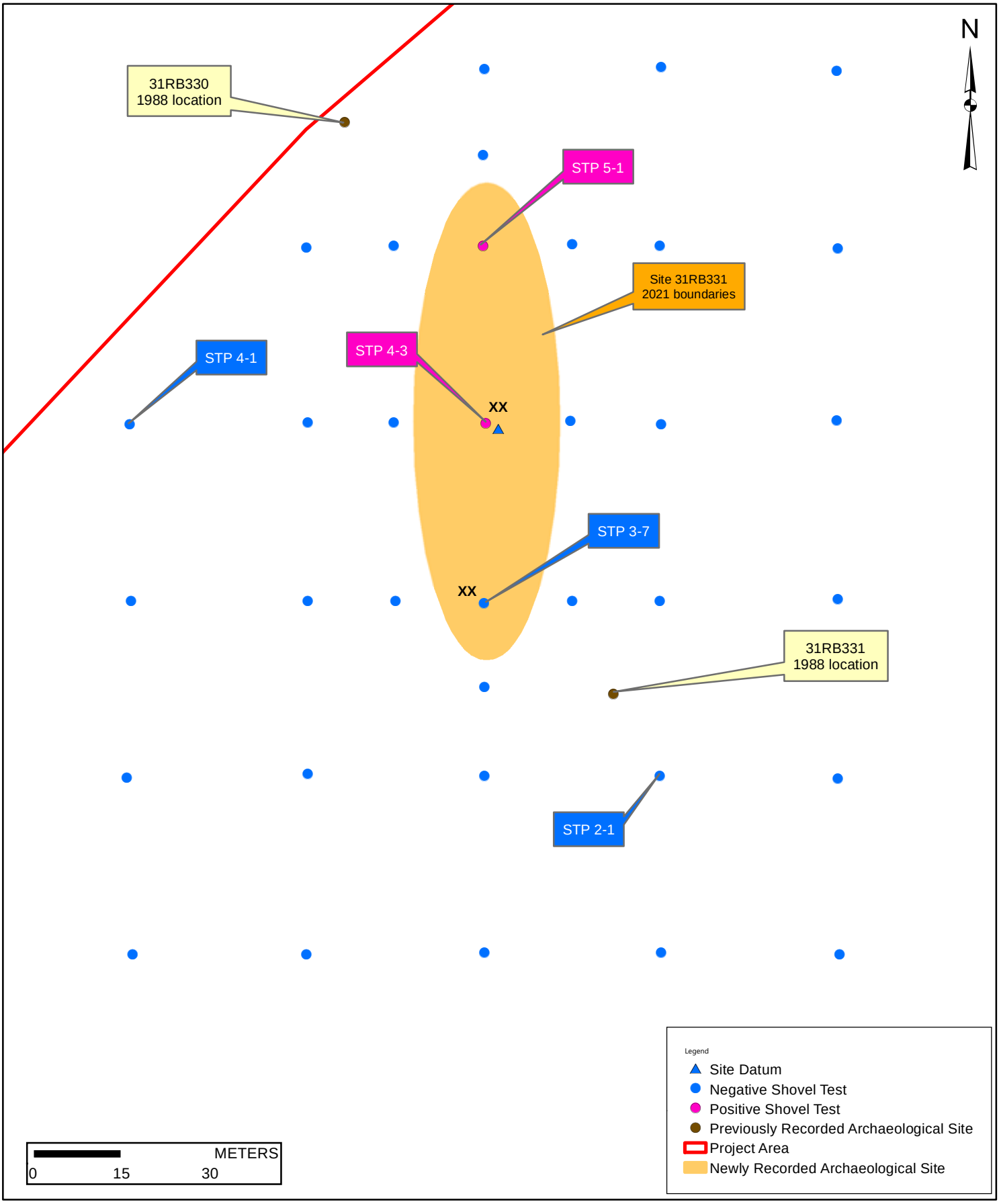
Site Number: 31RB331	**NRHP Recommendation**: Not Eligible
Site Type: Prehistoric lithic scatter; Historic artifact scatter	**Elevation:** 125 ft AMSL
Components: Unidentified; 19th to 20th century	**Landform:** Bluff
UTM Coordinates: E733304, N3965593 (NAD 83)	**Soil Type**: Norfolk loamy sand; Wagram loamy sand
Site Dimensions: 80 N/S x 25 E/W m	**Vegetation:** Fallow field
Artifact Depth: Surface; 0–35 cm	**No. of STPs/Positive STPs:** 19/2

Site 31RB331 is a prehistoric lithic scatter and a nineteenth/twentieth century artifact scatter located on a bluff overlooking Raft Swamp (Figures 1.1 and 1.2). The site is located in a fallow field and measures approximately 80 m north/south by 25 m east/west; it is bounded by two negative shovel tests to each of the four cardinal directions (Figures 5.16 and 5.17).

The site was initially identified as a prehistoric lithic scatter and historic artifact scatter in 1988 during the Robeson Trails Archaeological Survey (Knick 1988). The artifacts were recovered from the surface of the site, no shovel testing was completed during the 1988 survey and the site was not assessed for NRHP eligibility.

During the current survey, site 31RB331 was re-located. A total of 19 shovel tests were excavated in and around the site; a typical soil profile contained approximately 25 cm of brown (10YR 5/3) sand, followed by 25 cm (25–50 cmbs) of yellow (10YR 7/8) sand, terminating with 10+ cm (50–60+ cmbs) of strong brown (7.5YR 5/8) sandy clay subsoil (Figure 5.18). A total of five historic artifacts were recovered from the site (Appendix A); two from the surface and three from between 0 and 35 cm in two shovel tests. The historic artifacts include three pieces of glass (two clear and one milk), one piece of gray glazed stoneware, and one wire nail. The wire nail dates from 1850 to the present. The historic maps show a structure west of the site location, outside of the current project area, in the 1970s and 1980s (Figure 5.10 and 5.11).

Site 31RB331 is prehistoric lithic scatter and a nineteenth/twentieth century artifact scatter that has a paucity of artifacts, a lack of structural remains, and a lack of artifacts collected from intact deposits. Given the information presented above, it is S&ME's opinion that the site is not associated with events that have made a significant contribution to the broad patterns of history (Criterion A); is not associated with the lives of significant persons in the past (Criterion B); does not embody the distinctive characteristics of a type, period, or methods of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); and is unlikely to yield significant information on the prehistory or history of the area (Criterion D). As such, site 31RB331 is recommended ineligible for inclusion in the NRHP.



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\Working_Documents\Cultural Resources\GIS\Figures\Figure X Site Map.mxd plotted by KNagle 04-28-2021

SCALE:	1:862	**31RB331 Site Map**	FIGURE NO.
PROJECT NO:	210884	Housing Authority City of Lumberton	5.16
DRAWN BY:	KJN		
DATE:	4/28/2021	Robeson County, North Carolina	

Figure 5.17. Overview of site 31RB331, facing north.

Figure 5.18. Typical soil profile at site 31RB331.

6.0 Conclusions and Recommendations

On behalf of Housing Authority City of Lumberton, S&ME has completed a Phase I archaeological survey for the proposed Hilton Heights Community in Robeson County, North Carolina. The overall project area is roughly 30.53 acres in size and is located just outside the city limits of Lumberton, North Carolina (Figures 1.1 and 1.2).

The following work was conducted in response to anticipated federal funding from the HUD requiring a HUD Part 58 Environmental Review Record and was carried out in general accordance with the agreed-upon scope, terms, and conditions presented in S&ME Proposal No. 210884, Change Order 1, dated April 13, 2021.

Fieldwork was completed in April 2021; specifically, two people worked for one day on the project. This work consisted of a systematic shovel testing on 16.8 acres, pedestrian survey on approximately 3.5 acres, and no survey was completed on approximately 10.23 acres due to standing water. The APE for direct effects for the proposed undertaking encompasses the project area footprint; indirect effects were not assessed, as an architectural survey was not necessary as there were no aboveground historic properties within a 0.5-mile search radius of the proposed project area.

As a result of the investigations, one previously recorded archaeological site (31RB331) was re-located (Figures 1.1 and 1.2; Table 1.1). Site 31RB331 is a prehistoric lithic scatter and nineteenth/twentieth century artifact scatter, is recommended not eligible for inclusion in the NRHP. An attempt was made to re-locate sites 31RB329 and 31RB330; no artifacts were identified on the surface or in the shovel tests excavated in and around the recorded location of 31RB329. Site 31RB330 was recorded in 1988, as a historic cemetery in a clear area on a flat landform. There was no evidence of a cemetery at the recorded location of the site.

Site 31RB330, the historic cemetery, was not re-located in its recorded location. There is a cemetery (Townsend Cemetery) that matches the description of the landform, setting, and dates of death approximately 700-ft west of the recorded location of 31RB330 (Figures 1.1 and 1.2). It is likely that site 31RB330 was misplotted and its more accurate location is that of Townsend Cemetery. It is the opinion of S&ME that the project, as currently proposed, will have no effect on historic properties within the project APE and that no additional cultural resource investigations are necessary at this time.

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Watson, Alan D.
1992 *Wilmington: Port of North Carolina*. University of South Carolina Press, Columbia.

Whitehead, Donald R.
1972 Development and Environmental History of the Dismal Swamp. Ecological Monographs 42:301–315.

Wood, Bradford J.
2004 *This Remote Part of the World: Regional Formation in Lower Cape Fear, North Carolina, 1725-1775*. University of South Carolina Press, Columbia.

8.0 Appendix A – Artifact Catalog

Appendix A - City of Lumberton Artifact Catalog

Site #	Cat. #	Provenience	Depth (cmbs)	Count	Weight (g)	Class	Category	Sub-Category	Type/Description	Material	Portion	Temper	Lithic Size Grade	Notes
31RB331	1.01	STP 3-3	Surface	1	2.5	Glass	Machine Molded	Canning jar insert	Milk					"SON JAR"
31RB331	2.01	STP 4-3	Surface	1	6.7	H. Ceramic	Stoneware				Body			Gray interior and exterior glaze
31RB331	3.01	STP 4-3	0-35	1	0.6	Glass	Machine Molded	Unid. Vessel	Clear					
31RB331	4.01	STP 5-1	0-25	1	1.8	Glass	Machine Molded	Unid. Vessel	Clear					
31RB331	4.02	STP 5-1	0-25	1	3.2	Metal	Hardware/Tools	Nail	Wire					1850-Present

Artifact measurements in mm

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791

June 2, 2021

Attention: Stephanie Richardson
NC Department of Public Safety
P.O. Box 110465
Durham, NC 27709

Re. THPO #	TCNS #	Project Description
2021-1119-2		Proposed Hilton Heights/Myers Park Relocation-Caton Road, Caton Road, Lumberton, Robeson Co., NC

Dear Ms. Richardson,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Caitlin Rogers for

Wenonah G. Haire
Tribal Historic Preservation Officer

North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Erik A. Hooks, Secretary

Michael A. Sprayberry, Director
Laura H. Hogshead, Chief Operating Officer

May 6, 2021

Ramona Bartos
State Historic Preservation Officer
North Carolina Historic Preservation Office
4617 Mail Service Center
Raleigh, North Carolina 27699-4617

RE: Proposed Hilton Heights/Myers Park Relocation-Caton Road, Caton Road, Lumberton, Robeson County, North Carolina
Public Housing Restoration

Dear Ms. Bartos:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. It is being considered for assistance in the Public Housing Restoration program through the Community Development Block Grant – Disaster Recovery (CDBG-DR) funds awarded by the U.S Department of Housing and Urban Development (HUD) to the State of North Carolina and is subject to review under 24 CFR Part 58.

Based on our research of the property in State Historic Preservation Office (SHPO) records performed by professionally qualified preservation staff, we have defined the direct Area of Potential Effect (APE) as the approximately 8.4 acres identified as the limit of disturbance on Figure 4 and the indirect APE as resources within a 0.5-mile radius of the project area. We find that the undertaking will result in a determination of "**No Historic Properties Adversely Affected"** pursuant to 36 CFR 800.5 based on the following:

> The proposed development is an approximately 31-acre portion of one parcel located along the northern side of Caton Road in Lumberton, Robeson County, North Carolina (34.63247, -79.065994) (Figures 1, 2A, 3A and 4). The parent parcel is further identified by Robeson County Property Identification Number 938201325479. The site is currently an active agricultural field and is currently in the process of being purchased by the Housing Authority of the City of Lumberton (HACL) with HUD CDBG-DR funds.

The proposed project consists of the development of 72 residential rental units, intended to replace the low-income housing units known as Hilton Heights and Myers Park, which were flooded in October 2016, during Hurricane Matthew. Flood damage to the housing units at Hilton Heights and Myers Park made the units un-livable and residents were relocated.

Plans for the flood-damaged properties are not finalized, but all 30 housing units at Myers Park and 42 units at Hilton Heights are currently anticipated to be demolished and cleared with FEMA funding and proceeds from insurance. At Hilton Heights, the Maintenance Building will be left intact to be used for storage, which was identified as the only possible use for this building by the HACL Any changes to the proposed scope of work will require approval from HUD and resubmission for environmental review.

The locations of the proposed project and former housing units are depicted on the attached Site Vicinity Exhibit (**Figure 1**), the appropriate portions of the 1982 Northwest Lumberton, NC USGS Topographic Exhibits (**Figures 2A through 2C**), and Site Exhibits (**Figures 3A through 3C**) and preliminary site plan (**Figure 4**).

Background research was completed on April 12, 2021, reviewed HPOWEB, a GIS-based program containing information about aboveground historic resources in North Carolina and a review of master archaeological site maps, state archaeological site files, and associated archaeological reports by the Office of State Archaeology.

A site visit and academic investigation confirm that there are no buildings on the property and that no National Register of Historic Places listed or eligible resources within a 0.5-mile search radius will be affected by the proposed undertaking.

Research revealed that three previously recorded archaeological sites are within the parent parcel or directly adjacent to the project area (31RB329, 31RB330, and 31RB331); these three sites are recorded as not assessed for inclusion in the National Register of Historic Places. This in addition to the landform and well drained soils suggested that the project area had a high probability for containing archaeological sites. An archaeological survey of the project area was conducted in an attempt to locate the three archaeological sites and to survey the project area to determine if archaeological sites are present in the direct APE. Two of the archaeological sites were located and no additional archaeological sites were identified/recorded. No potentially eligible archaeological sites exist within the direct APE. The detailed archaeological survey report is appended to this letter. NCORR acknowledges that the applicant (HACL) preceded Section 106 consultation by the responsible agency by independently conducting an archaeological field investigation.

We have reviewed the Criteria of Adverse Effect and have determined that none apply to the activities that are proposed to be carried out in this project and therefore the undertaking will result in a determination of "**No Historic Properties Adversely Affected.**"

Attached for your review are copies of relevant documents supporting our finding, including a Phase I Archaeological Investigations report, dated April 2021, provided by consulting parties and the public, including photographs, and a map showing the location of the property. This documentation satisfies requirements set forth at §800.11(e).

In accordance with §800.5(c), your office has thirty days to object to this finding. Please respond within this timeframe, otherwise we will assume that you concur with our finding. If you concur, please sign on the line below and return a copy of this letter by email to stephanie.richardson@ncdps.gov or mail to: P.O. Box 110465, Durham, NC 27709 Attn: Stephanie Richardson.

Should you need to discuss this project in greater detail, you may contact me at the above email or by phone at 984-232-1958. Thank you very much for your assistance with this request. We look forward to your response.

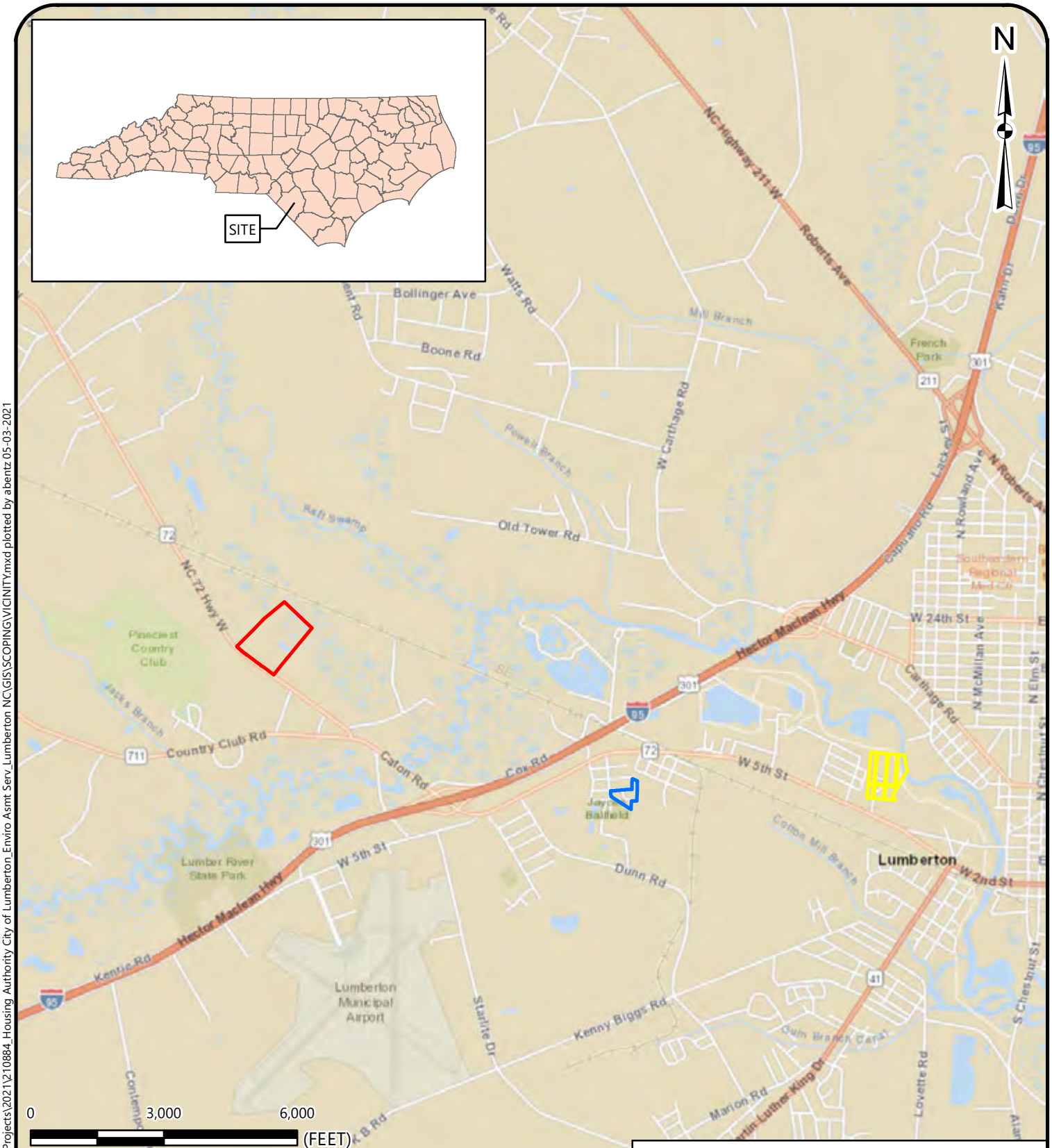
Sincerely,

W. Stephanie Richardson

W. Stephanie Richardson
North Carolina Office of Recovery and Resiliency
Environmental Manager
PO Box 110465
Durham, North Carolina 27709
984-232-1958

Enclosures:

- Figure 1: Site Vicinity Map
- Figures 2: USGS Topographic Exhibit
- Figures 3: Site Exhibit
- Figure 4: Preliminary Site Plan
- *Phase I Archaeological Investigations,* dated April 2021, prepared by S&ME



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE USGS NATIONAL TOPO MAP VIEWER . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

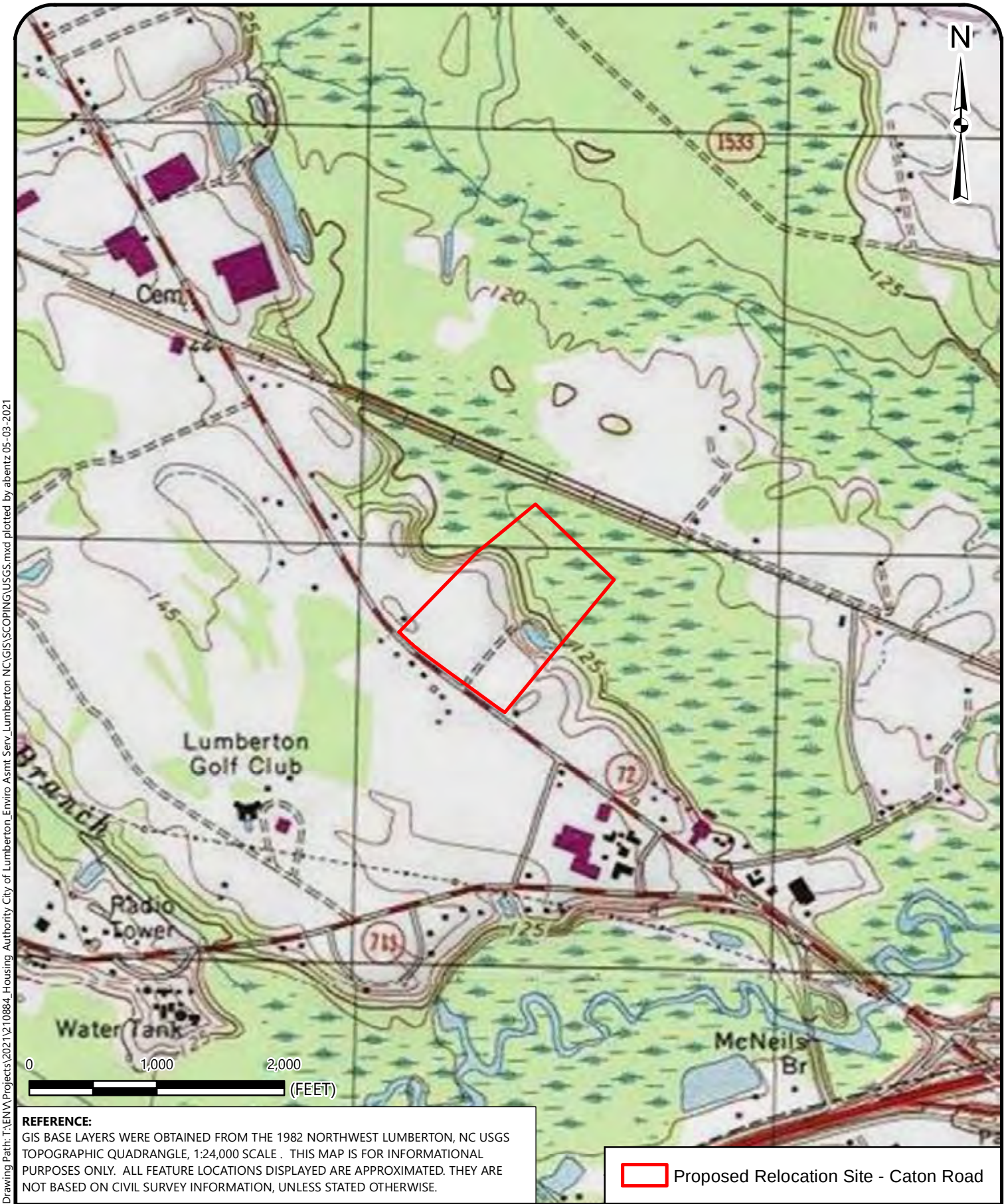
- Former Myers Park Site
- Former Hilton Heights Site
- Proposed Relocation Site - Caton Road

VICINITY MAP

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 3,000 '	1
DATE: 5-3-21	
PROJECT NUMBER 210884	

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\VICINITY.mxd plotted by abentz 05-03-2021



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS.mxd plotted by abentz 05-03-2021

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road

USGS TOPOGRAPHIC EXHIBIT
PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2A
DATE: 5-3-21	
PROJECT NUMBER 210884	

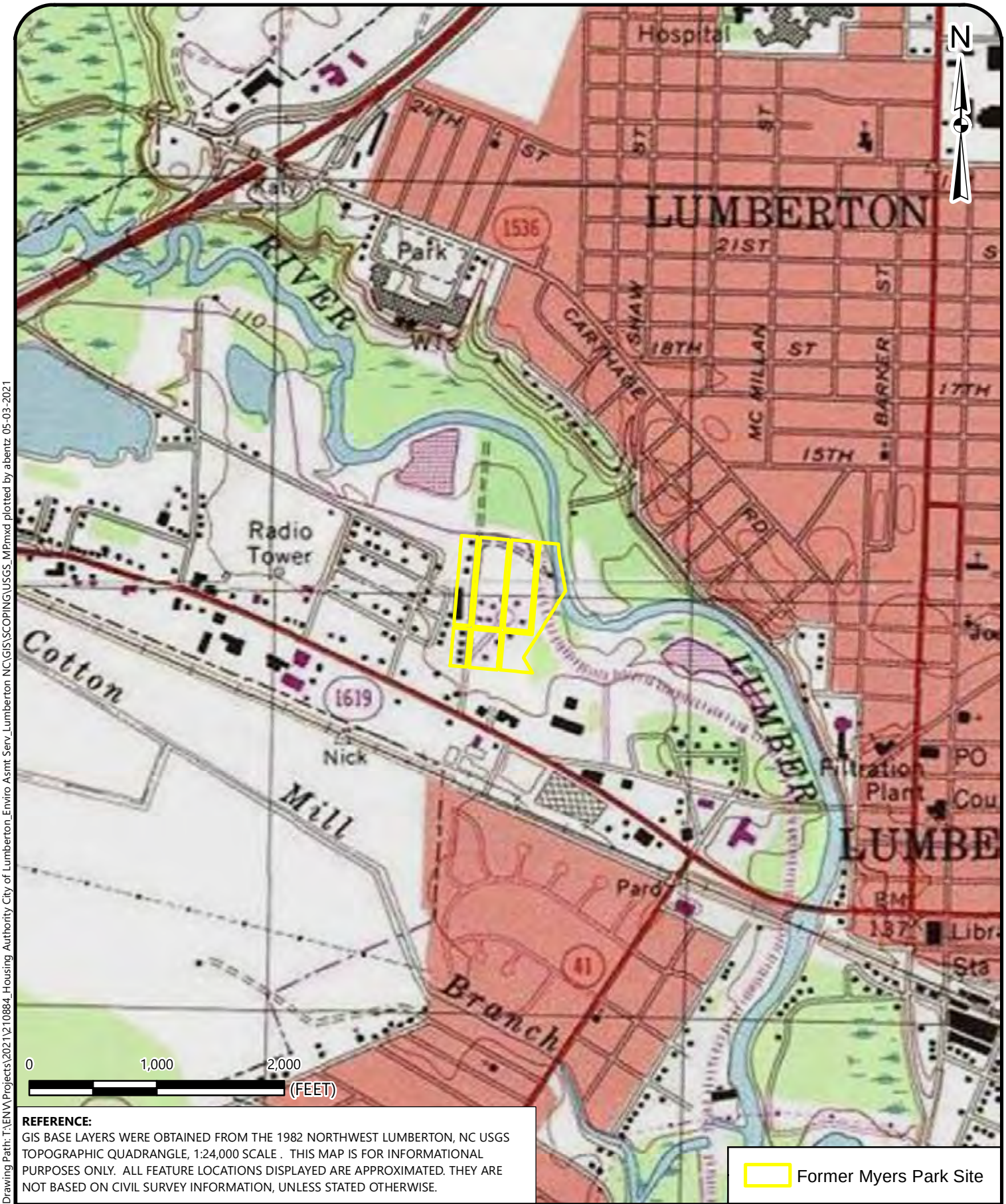
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_HH.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT
FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1,000 '	2B
DATE: 5-3-21	
PROJECT NUMBER 210884	



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 1982 NORTHWEST LUMBERTON, NC USGS TOPOGRAPHIC QUADRANGLE, 1:24,000 SCALE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\USGS_MP.mxd plotted by abentz 05-03-2021

USGS TOPOGRAPHIC EXHIBIT - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 1,000 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 2C

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Proposed Relocation Site - Caton Road
Robeson County Parcels

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE.mxd plotted by abentz 05-03-2021

SITE MAP - PROPOSED CATON ROAD SITE

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 350 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3A

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Hilton Heights Site
Robeson County Parcels

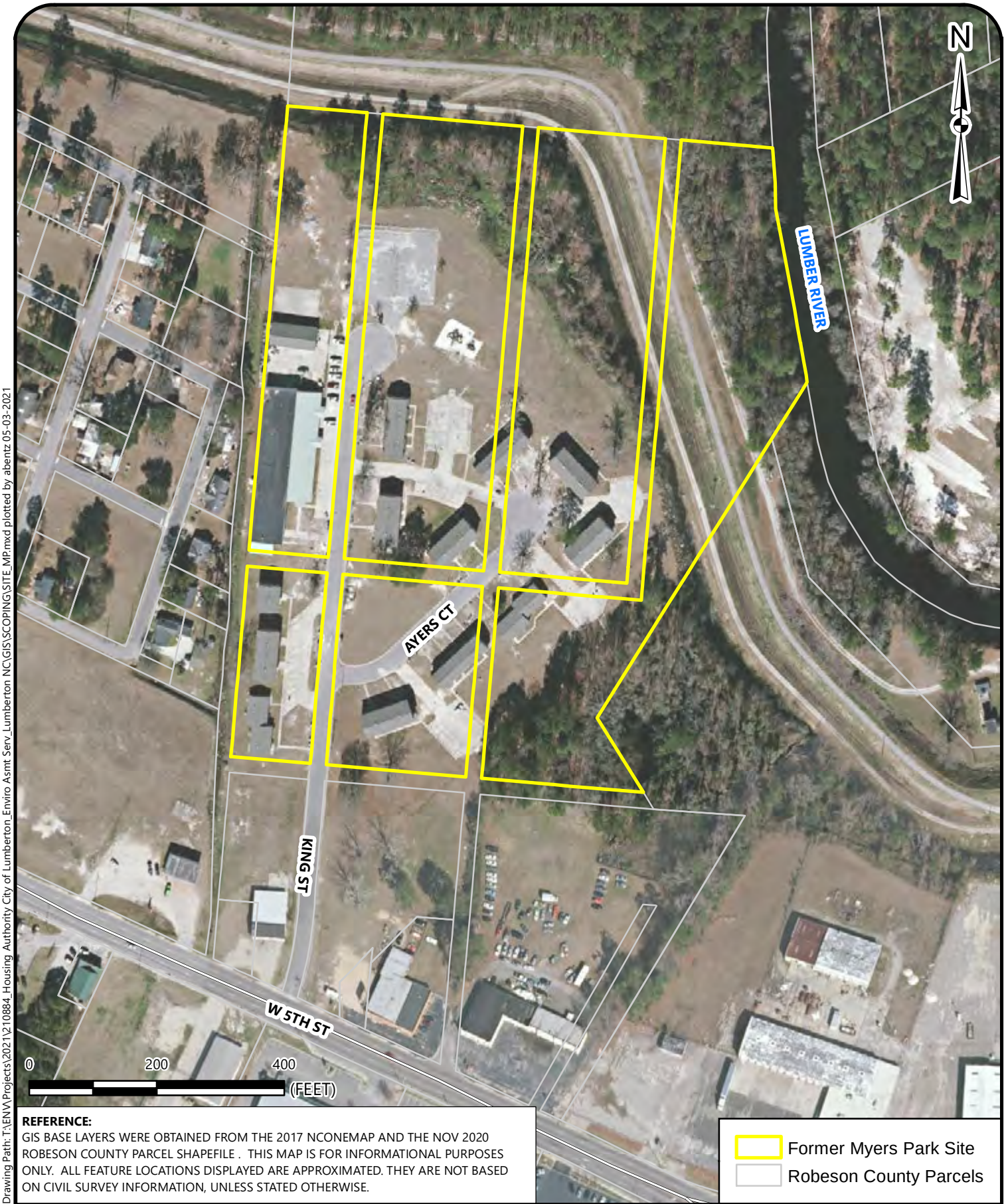
Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_HH.mxd plotted by abentz 05-03-2021

SITE MAP - FORMER HILTON HEIGHTS

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 100 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. **3B**



Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\SCOPING\SITE_MP.mxd plotted by abentz 05-03-2021

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Former Myers Park Site
Robeson County Parcels

SITE MAP - FORMER MYERS PARK

PROPOSED HILTON HEIGHTS UNIT RELOCATION - CATON ROAD
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE: 1 " = 200 '
DATE: 5-3-21
PROJECT NUMBER 210884

FIGURE NO. 3C

2 A100 PRELIMINARY ELEVATION
N.T.S.

1 A100 PRELIMINARY SITE PLAN
1'-0" = 100'

REVISIONS

THE WOOTEN COMPANY
120 North Boylan Avenue Raleigh, NC 27603-1423
919.828.0531 fax 919.834.3589
License Number: F-0115

HOUSING AUTHORITY OF THE CITY OF LUMBERTON
LUMBERTON NORTH CAROLINA

HILTON HEIGHTS UNIT RELOCATION

AERIAL SITE PLAN

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

DESIGNED BY:	RDP
DRAWN BY:	TSM
CHECKED BY:	RDP
PROJECT NO.:	3313-B-11
DATE:	02-05-21
SCALE:	AS SHOWN

Figure

4

See previously provided Phase I Archaeological Investigations report dated April 2021 by S&ME, Inc.

Noise Supporting Documentation

AirNav.com

Airports | Navaids | Airspace Fixes | Aviation Fuel | AIRBOSS | iPhone App | My AirNav

Airport Search Results

11 airports found

ID	CITY	AIRPORT NAME	WHERE
LBT	LUMBERTON, NC	LUMBERTON REGIONAL AIRPORT	1.6 mi S
NC70	*FAIRMONT, NC*	*MCKEE AIRPORT*	9.0 mi SSW
8NC	ROWLAND, NC	ADAMS AIRPORT	11.1 mi WSW
9NR8	*RED SPRINGS, NC*	*BUIE FIELD AIRPORT*	13.3 mi NW
06NC	*ST. PAULS, NC*	*TAILWINDS AIRPORT*	15.5 mi NNE
61NC	*PARKTON, NC*	*SOUTHERN COMFORTS AERODROME AIRPORT*	17.5 mi NNE
3W6	BLADENBORO, NC	BLADENBORO AIRPORT	17.5 mi ESE
53NC	*LUMBERTON, NC*	*MYNATT FIELD AIRPORT*	17.5 mi S
32NC	*PARKTON, NC*	*HALL FIELD AIRPORT*	18.3 mi N
NC86	*WHITE OAK, NC*	*ROCKING A FARM AIRPORT*	19.1 mi ENE
NC71	*PARKTON, NC*	*E T FIELD AIRPORT*	19.7 mi N

Privacy Policy Contact

5010

LUMBERTON RGNL

Location Identifier: LBT **FAA Site:** 16882.*A **Associated City:** LUMBERTON **NPIAS Number:** 37-0040

Data Effective Date: 04/22/2021

GENERAL INFORMATION | SERVICES & FACILITIES | BASED AIRCRAFT & OPERATIONS | RUNWAY INFORMATION | REMARKS

Based Aircraft	
Single Engine (SE):	31
Multi Engine (ME):	6
Jet (J):	0
Helicopters:	2
TOTAL FIXED WING: (SE + ME + J + H)	39
Gliders:	0
Military:	0
Ultra-Light:	0

Operations	
Air Carrier:	0
Air Taxi:	1,000
General Aviation Local:	10,000
General Aviation Itinerant:	12,000
Military:	2,000
TOTAL OPERATIONS:	25,000
Operations for 12 Months Ending:	11/11/2019

5010

MCKEE

Location Identifier: NC70 **FAA Site:** 16711.*A **Associated City:** FAIRMONT

Data Effective Date: 04/22/2021

GENERAL INFORMATION | SERVICES & FACILITIES | BASED AIRCRAFT & OPERATIONS | RUNWAY INFORMATION | REMARKS

Based Aircraft	
Single Engine (SE):	0
Multi Engine (ME):	0
Jet (J):	0
Helicopters:	0
TOTAL FIXED WING: (SE + ME + J + H)	0
Gliders:	0
Military:	0
Ultra-Light:	0

Operations	
Air Carrier:	0
Air Taxi:	0
General Aviation Local:	0
General Aviation Itinerant:	0
Military:	0
TOTAL OPERATIONS:	0
Operations for 12 Months Ending:	

5010

ADAMS

Location Identifier: 8NC **FAA Site:** 17067.5*A **Associated City:** ROWLAND

Data Effective Date: 04/22/2021

GENERAL INFORMATION | SERVICES & FACILITIES | BASED AIRCRAFT & OPERATIONS | RUNWAY INFORMATION | REMARKS

Based Aircraft	
Single Engine (SE):	2
Multi Engine (ME):	0
Jet (J):	0
Helicopters:	0
TOTAL FIXED WING: (SE + ME + J + H)	2
Gliders:	0
Military:	0
Ultra-Light:	1

Operations	
Air Carrier:	0
Air Taxi:	0
General Aviation Local:	200
General Aviation Itinerant:	200
Military:	0
TOTAL OPERATIONS:	400

Operations for 12 Months Ending: 07/24/2018

5010

BUIE FLD

Location Identifier: 9NR8 **FAA Site:** 17050.*A **Associated City:** RED SPRINGS

Data Effective Date: 04/22/2021

GENERAL INFORMATION | SERVICES & FACILITIES | BASED AIRCRAFT & OPERATIONS | RUNWAY INFORMATION | REMARKS

Based Aircraft	
Single Engine (SE):	0
Multi Engine (ME):	0
Jet (J):	0
Helicopters:	0
TOTAL FIXED WING: (SE + ME + J + H)	0
Gliders:	0
Military:	0
Ultra-Light:	0

Operations	
Air Carrier:	0
Air Taxi:	0
General Aviation Local:	0
General Aviation Itinerant:	0
Military:	0
TOTAL OPERATIONS:	0
Operations for 12 Months Ending:	

Airport Noise Worksheet

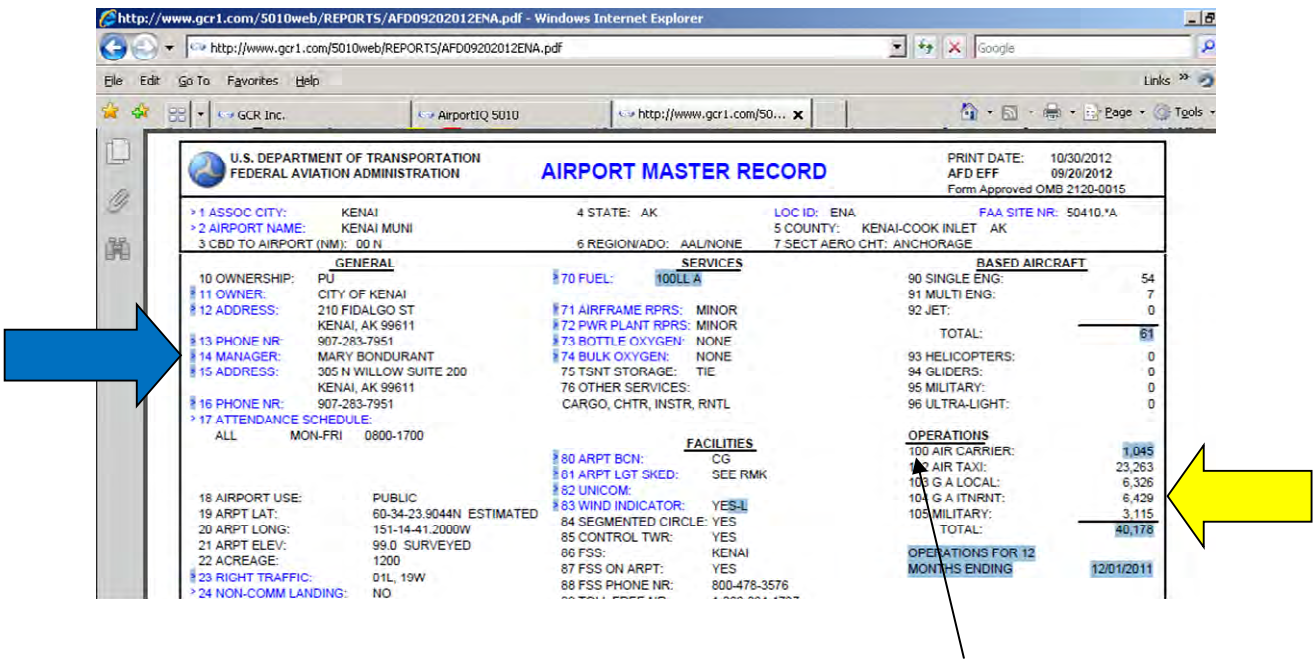
Use this worksheet to identify information needed to evaluate a site's exposure to aircraft noise.

Name and Location of Project: **Proposed Hilton Heights Relocation in Lumberton, NC** Date: **5/7/2021**
Name of Airport: **Adams Airport** Person completing worksheet: **A. Bentz**

1. Determine if the proposed site/project is within 15 miles of a civil or military airport.

☐ No. Attach a map identifying the location of the proposed project site and the location of any airports. This worksheet is not required.
☒ Yes. Attach a map identifying the location of the proposed project site and the location of any airports. Continue

2. Determine the number of operations at the airport by:
   - Going to: http://www.gcr1.com/5010web/
   - Type in the name of the city press search
   - Find your airport.
   - Open the report under "Print 5010."
   - Complete section 3 below by using the information found in the report (see yellow arrow in the example below).



3. Determine if the annual number of operations for air carriers #100, air taxis #102, military #105, and general aviation #103 plus #104 exceeds thresholds.

Annual air carrier operations **0**	Is this 9,000 or more	Yes ☐	No ☒
Annual air taxi operations **0**	Is this 18,000 or more	Yes ☐	No ☒
Annual military operations **0**	Is this 18,000 or more	Yes ☐	No ☒
Annual general aviation operations **400**	Is this 72,000 or more	Yes ☐	No ☒

4. If you answer "No" on each of the questions above, it is assumed that the noise attributed to the airplanes will not extend beyond the boundaries of the airport. Maintain the documentation in your Environmental Review Record. You are finished with the evaluation of airport noise for this airport. If you have marked any question in #3 with "Yes," continue to 5.
   Included in Noise Assessment.

5. Contact the airport manager, (see blue arrow above) and ask them if the airport has noise contour maps. Are contour maps available?

   ☐ Yes. Locate your project on the noise contour map. If there are no roads or railroads that are being considered for noise, utilize the information from the contour map to determine if the site is acceptable. If roads or railroads are being considered input the information obtained from the airport noise contours, along with the road and railroad information in the HUD Noise Assessment Guidelines (NAG) or the online tool at http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm.

   ☐ No. Construct the approximate DNL contours by using the guidance on page 52 and 53 of the NAG. You will need to obtain the following information from the airport:
      1. The number of nighttime jet operations (10pm to 7 am)
      2. The number of daytime jet operations (7 am to 10 pm)
      3. The flight paths of the major runways.
      4. Any available information about expected changes in airport traffic (e.g. will the number of operations increase or decrease in the next 10 to 15 years).

Airport Noise Worksheet

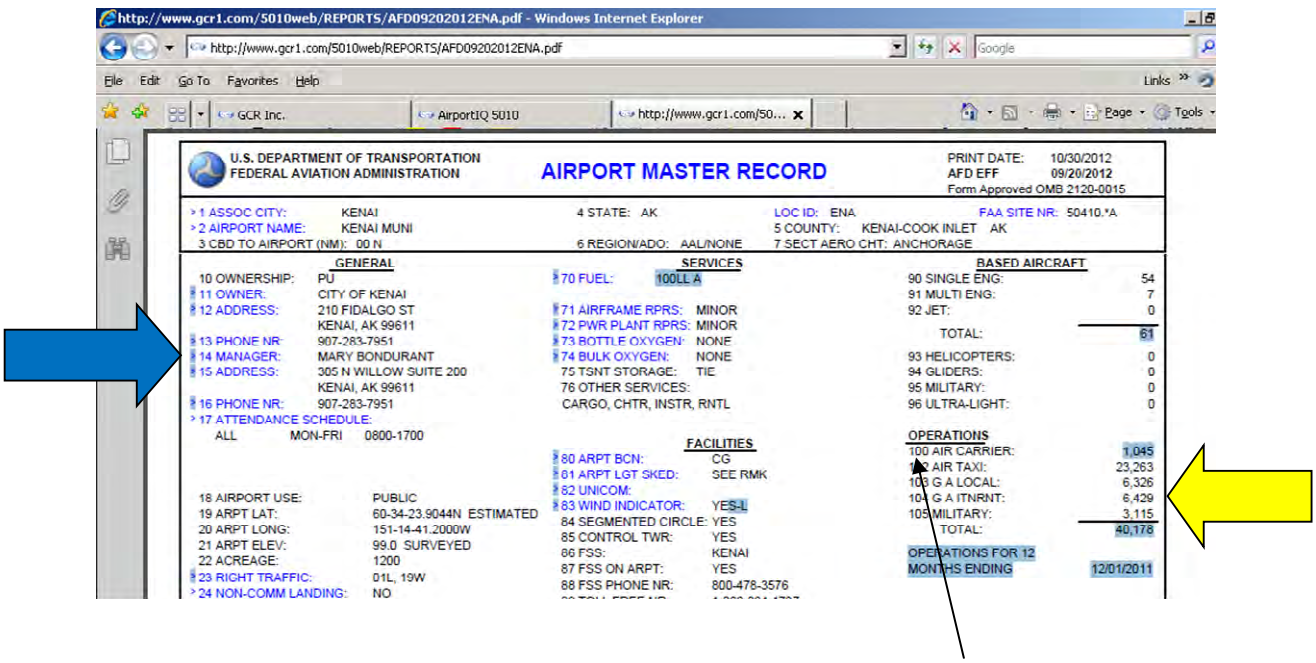
Use this worksheet to identify information needed to evaluate a site's exposure to aircraft noise.

Name and Location of Project: **Proposed Hilton Heights Relocation in Lumberton, NC** Date: **5/7/2021**
Name of Airport: **Lumberton Regional Airport** Person completing worksheet: **A. Bentz**

1. Determine if the proposed site/project is within 15 miles of a civil or military airport.

☐ No. Attach a map identifying the location of the proposed project site and the location of any airports. This worksheet is not required.
☑ Yes. Attach a map identifying the location of the proposed project site and the location of any airports. Continue

2. Determine the number of operations at the airport by:
   - Going to: http://www.gcr1.com/5010web/
   - Type in the name of the city press search
   - Find your airport.
   - Open the report under "Print 5010."
   - Complete section 3 below by using the information found in the report (see yellow arrow in the example below).



3. Determine if the annual number of operations for air carriers #100, air taxis #102, military #105, and general aviation #103 plus #104 exceeds thresholds.

Annual air carrier operations	**0**	Is this 9,000 or more	Yes ☐ No ☒
Annual air taxi operations	**1,000**	Is this 18,000 or more	Yes ☐ No ☒
Annual military operations	**2,000**	Is this 18,000 or more	Yes ☐ No ☒
Annual general aviation operations	**25,000**	Is this 72,000 or more	Yes ☐ No ☒

4. If you answer "No" on each of the questions above, it is assumed that the noise attributed to the airplanes will not extend beyond the boundaries of the airport. Maintain the documentation in your Environmental Review Record. You are finished with the evaluation of airport noise for this airport. If you have marked any question in #3 with "Yes," continue to 5.
   Included in Noise Assessment.

5. Contact the airport manager, (see blue arrow above) and ask them if the airport has noise contour maps. Are contour maps available?

   ☐ Yes. Locate your project on the noise contour map. If there are no roads or railroads that are being considered for noise, utilize the information from the contour map to determine if the site is acceptable. If roads or railroads are being considered input the information obtained from the airport noise contours, along with the road and railroad information in the HUD Noise Assessment Guidelines (NAG) or the online tool at http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm.

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      1. The number of nighttime jet operations (10pm to 7 am)
      2. The number of daytime jet operations (7 am to 10 pm)
      3. The flight paths of the major runways.
      4. Any available information about expected changes in airport traffic (e.g. will the number of operations increase or decrease in the next 10 to 15 years).

Airport Noise Worksheet

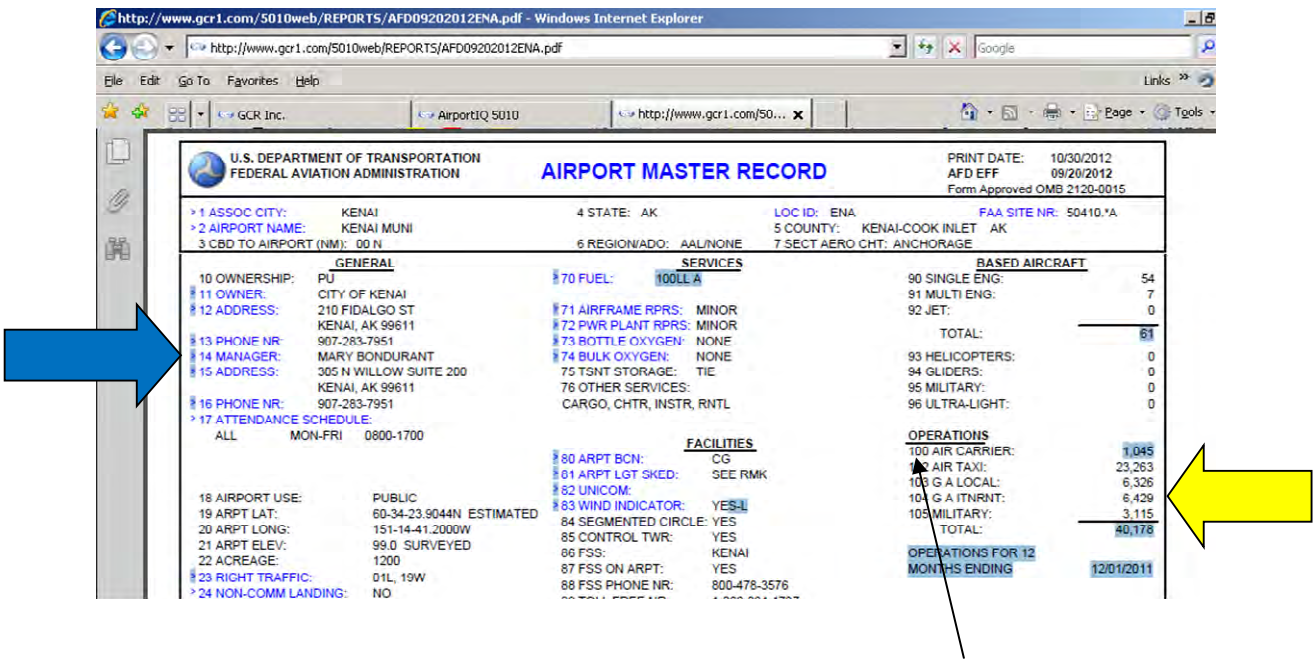
Use this worksheet to identify information needed to evaluate a site's exposure to aircraft noise.

Name and Location of Project: **Proposed Hilton Heights Relocation in Lumberton, NC** Date: **5/7/2021**
Name of Airport: **McKee Airport** Person completing worksheet: **A. Bentz**

1. Determine if the proposed site/project is within 15 miles of a civil or military airport.

☐ No. Attach a map identifying the location of the proposed project site and the location of any airports. This worksheet is not required.
☒ Yes. Attach a map identifying the location of the proposed project site and the location of any airports. Continue

2. Determine the number of operations at the airport by:
   - Going to: http://www.gcr1.com/5010web/
   - Type in the name of the city press search
   - Find your airport.
   - Open the report under "Print 5010."
   - Complete section 3 below by using the information found in the report (see yellow arrow in the example below).



3. Determine if the annual number of operations for air carriers #100, air taxis #102, military #105, and general aviation #103 plus #104 exceeds thresholds.

Annual air carrier operations **0**	Is this 9,000 or more	Yes ☐	No ☒
Annual air taxi operations **0**	Is this 18,000 or more	Yes ☐	No ☒
Annual military operations **0**	Is this 18,000 or more	Yes ☐	No ☒
Annual general aviation operations **0**	Is this 72,000 or more	Yes ☐	No ☒

4. If you answer "No" on each of the questions above, it is assumed that the noise attributed to the airplanes will not extend beyond the boundaries of the airport. Maintain the documentation in your Environmental Review Record. You are finished with the evaluation of airport noise for this airport. If you have marked any question in #3 with "Yes," continue to 5.
   Included in Noise Assessment.

5. Contact the airport manager, (see blue arrow above) and ask them if the airport has noise contour maps. Are contour maps available?

   ☐ Yes. Locate your project on the noise contour map. If there are no roads or railroads that are being considered for noise, utilize the information from the contour map to determine if the site is acceptable. If roads or railroads are being considered input the information obtained from the airport noise contours, along with the road and railroad information in the HUD Noise Assessment Guidelines (NAG) or the online tool at http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm.

   ☐ No. Construct the approximate DNL contours by using the guidance on page 52 and 53 of the NAG. You will need to obtain the following information from the airport:
   1. The number of nighttime jet operations (10pm to 7 am)
   2. The number of daytime jet operations (7 am to 10 pm)
   3. The flight paths of the major runways.
   4. Any available information about expected changes in airport traffic (e.g. will the number of operations increase or decrease in the next 10 to 15 years).

Ashley Steele Bentz

From: Perry, Randy T <rperry@ncdot.gov>
Sent: Friday, April 16, 2021 11:35 AM
To: Ashley Steele Bentz
Cc: Viera, Jamie L
Subject: Your Information / Data Request TDR21-RP-019
Attachments: TDR21-RP-019.xlsx

Good Morning Ashley,

After reviewing your request, we can offer you some additional truck data from this site, but we do not collect speed data. We also do not calculate night-time ADT; however, we can provide you with some recent raw data that will allow you to make your own calculations. In regards to road gradients, this department does not handle that information, but I will give you the email address of someone who can hopefully help with this.

So going back to the truck data, the latest we have is from the year 2019 and that total is 7,700 trucks per day annually averaged. Of that total, 260 are medium-sized Single- Unit and 310 are Multi-Unit Heavy Trucks. In regards to Night-time ADT, please open the attached Excel Spreadsheet to view the raw 15-minute / hourly counts for a 24-hour period in September of 2020. This will give you some idea of what the Night-time volumes are like.

In terms of Road Gradients, please contact Sherri Calhoun in our Roadway Design Unit. Hopefully, she can point you to the right people. Sherri's email address is: scalhoun@ncdot.gov.

Sincerely,

Randy T. Perry

Traffic Analyst
Traffic Survey Group
North Carolina Department of Transportation

919 707 0921 office
919-733-9794 Fax

rperry@ncdot.gov

1 South Wilmington Street (Delivery)
1554 Mail Service Center (Mail)
Raleigh, NC 27699-1554

Ashley Steele Bentz

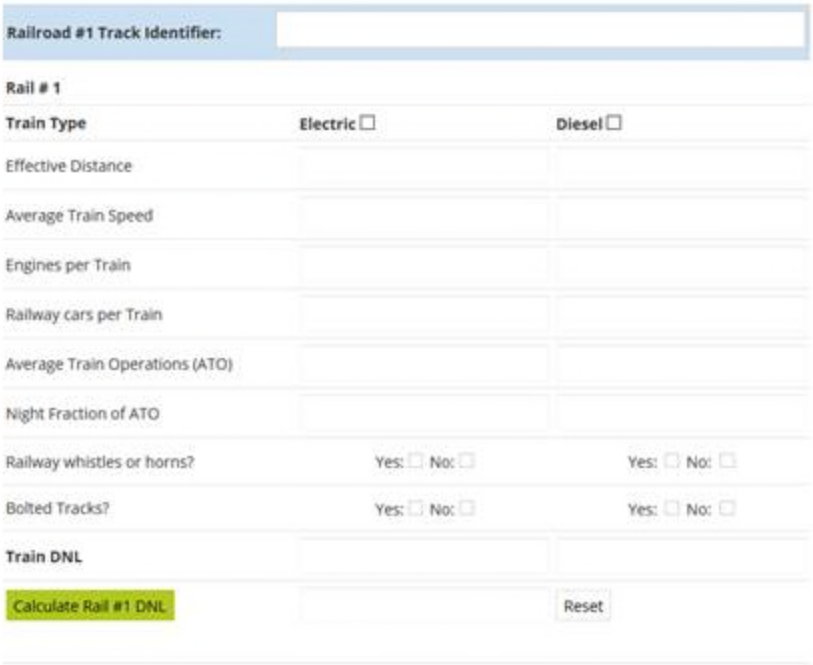
From: Smith, Peggy <Peggy_Smith@CSX.com>
Sent: Thursday, March 25, 2021 11:33 AM
To: Ashley Steele Bentz
Subject: FW: HUD Form Request
Attachments: SITE.pdf; USGS.pdf

- If the trains are electric or diesel — DIESEL
- Average train speed — 49
- Avg engines per train — TYPICALLY 2 LOCOMOTIVES PER TRAIN
- Avg railway cars per train — 25-50 CARS PER TRAIN
- Avg Train Operations (ATO) — 3-6 PER DAY
- Night fraction of ATO — ~ 50%
- If they are utilizing whistles/horns — HORNS ARE SOUNDED IN COMPLIANCE WITH FEDERAL REGULATIONS
- If the tracks are bolted — WELDED

From: Ashley Steele Bentz <abentz@smeinc.com>
Sent: Thursday, March 4, 2021 10:33 AM
To: Community Affairs and Safety <CommunityAffairsAndSafety@csx.com>
Subject: [E] RE: HUD Form Request

I have included a screenshot and a link below for the calculator I will be using. The info I need is as follows:

- If the trains are electric or diesel
- Average train speed
- Avg engines per train
- Avg railway cars per train
- Avg Train Operations (ATO)
- Night fraction of ATO
- If they are utilizing whistles/horns
- If the tracks are bolted



Railroad #1 Track Identifier:		
Rail # 1		
Train Type	**Electric** ☐	**Diesel** ☐
Effective Distance		
Average Train Speed		
Engines per Train		
Railway cars per Train		
Average Train Operations (ATO)		
Night Fraction of ATO		
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☐
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☐
Train DNL		
Calculate Rail #1 DNL		Reset

https://www.hudexchange.info/programs/environmental-review/dnl-calculator/

Thank you for the help!! I have included some figures with the project location as well, in case that is helpful for you.

Ashley Bentz, PWS
Project Scientist

S&ME
3201 Spring Forest Road
Raleigh, NC 27616 map
O: 919.954.6285
M: 919.896.0758
www.smeinc.com
LinkedIn | Twitter | Facebook

-----Original Message-----
From: Community Affairs and Safety
Sent: Thursday, March 4, 2021 10:04 AM
To: Ashley Steele Bentz
Subject: FW: HUD Form Request

This message originated outside of S&ME. Please report this as phishing if it implies it is from an S&ME employee.

Good Morning Ashley,

Please provide the list of questions you need answered.

Thank you

Community Affairs
CSX Transportation

-----Original Message-----
From: noreply-csx@csx.com <noreply-csx@csx.com>
Sent: Thursday, March 4, 2021 10:01 AM
To: Community Affairs and Safety <CommunityAffairsAndSafety@csx.com>
Subject: HUD Form Request

This form was sent at: Mar 4, 2021 10:00 AM

REASON: HUD Forms Request
NAME: Ashley Bentz
PHONENUMBER: 9198960758
EMAILADDRESS: abentz@smeinc.com
AFFECTEDLOCATIONORDOT: Lumberton, NC
YOURMESSAGE: Hello, I am hoping you could provide me with the information normally provided for a HUD DNL calculation for 590 W Caton Road, Lumberton, NC? The railroad crossings I am specifically hoping for information on would be the Caton Road crossing west of the site and the Planetarium Road to the east of the site.

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #1)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	1185	1185	1185
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	44	40	49
Calculate Road #1 DNL	50	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		570
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	52
Calculate Rail #1 DNL	52	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**54**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #2)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	690	690	690
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	47	43	52
Calculate Road #1 DNL	54	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		1005
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	48
Calculate Rail #1 DNL	48	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**55**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

DNL Calculator

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Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #3)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	115	115	115
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	59	55	64
Calculate Road #1 DNL	65	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		1520
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	45
Calculate Rail #1 DNL	45	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**65**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #4)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	95	95	95
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	60	56	65
Calculate Road #1 DNL	67	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		1545
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	45
Calculate Rail #1 DNL	45	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**67**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

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- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #5)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	560	560	560
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	49	44	53
Calculate Road #1 DNL	55	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		1200
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	47
Calculate Rail #1 DNL	47	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**56**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Proposed Hilton Heights Relocation - Caton Road Site (Noise Location #6)
Record Date	05 / 07 / 2021
User's Name	A. Bentz

Road # 1 Name:	**Caton Road**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☑	**Heavy Trucks** ☑
Effective Distance	115	115	115
Distance to Stop Sign			
Average Speed	45	45	45
Average Daily Trips (ADT)	7130	260	310
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	59	55	64
Calculate Road #1 DNL	65	Reset	

Railroad #1 Track Identifier:	**CSX**

Rail # 1

Train Type	**Electric** ☐	**Diesel** ☑
Effective Distance		1630
Average Train Speed		49
Engines per Train		2
Railway cars per Train		35
Average Train Operations (ATO)		5
Night Fraction of ATO		50
Railway whistles or horns?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Bolted Tracks?	Yes: ☐ No: ☐	Yes: ☐ No: ☑
Train DNL	0	45
Calculate Rail #1 DNL	45	Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○**Yes** ◉**No**

Combined DNL for all Road and Rail sources	**65**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

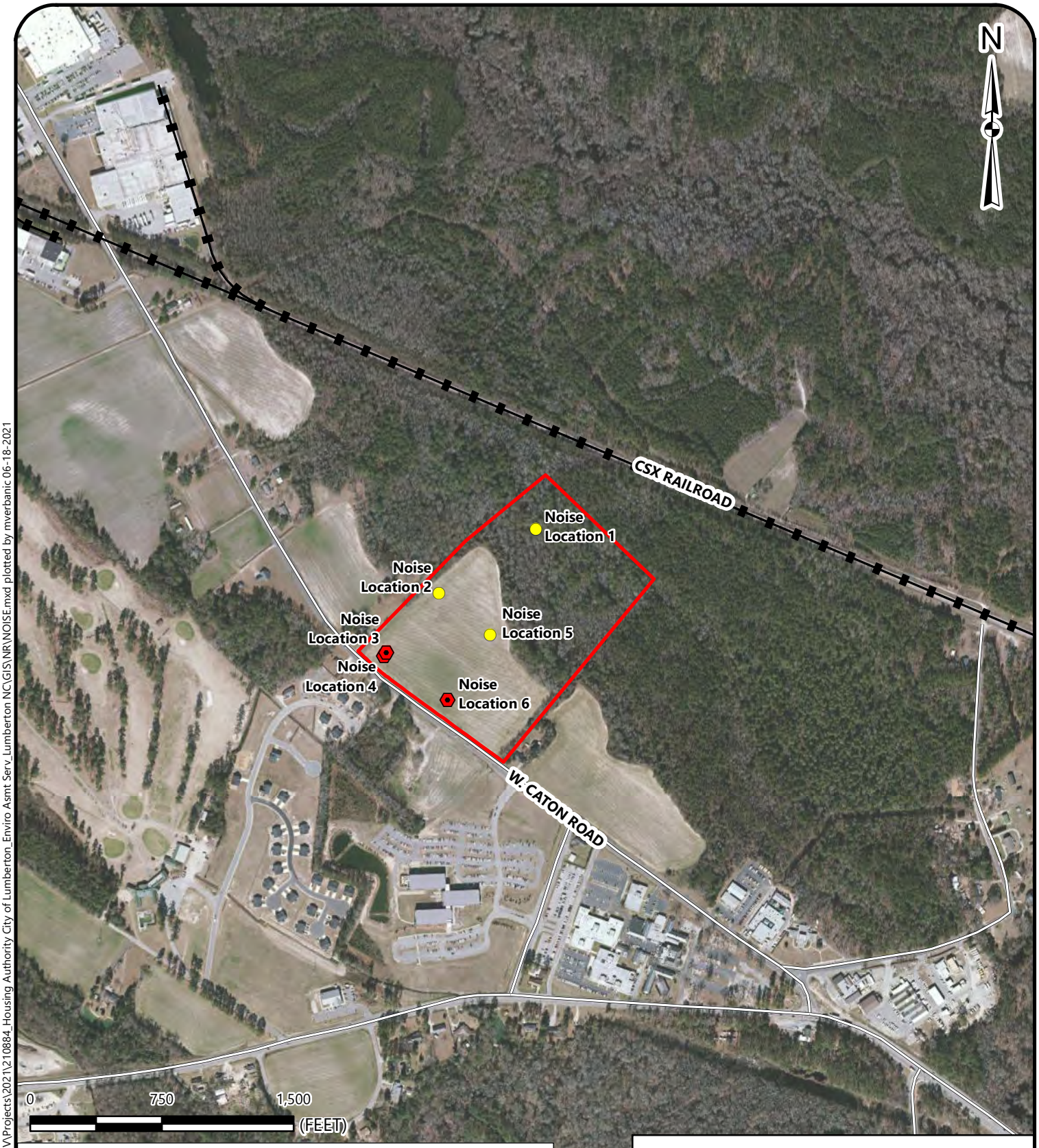
If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AERIAL ORTHOIMAGERY LAYER . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Noise Calculation Location
- DNL <65 Decibels
- DNL >65 Decibels
- Rail Track
- Site

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\NR\NOISE.mxd plotted by mverbanic 06-18-2021

NOISE CALCULATIONS EXHIBIT

LUMBERTON HOUSING AUTHORITY CATON ROAD SITE
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 750 '	1
DATE: 6-18-21	
PROJECT NUMBER 210884	

Wetlands Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Wetlands (CEST and EA) – Partner

https://www.hudexchange.info/environmental-review/wetlands-protection

1. **Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance?**
   The term "new construction" includes draining, dredging, channelizing, filling, diking, impounding, and related activities and construction of any structures or facilities.

   ☐ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☒ Yes → *Continue to Question 2.*

2. **Will the new construction or other ground disturbance impact a wetland as defined in E.O. 11990?**

   ☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map or any other relevant documentation to explain your determination.*

   ☐ Yes → *Work with HUD or the RE to assist with the 8-Step Process. Continue to Question 3.*

3. **Does Section 55.12 state that the 8-Step Process is not required?**

   ☐ No, the 8-Step Process applies.
   This project will require mitigation and may require elevating structure or structures. See the link to the HUD Exchange above for information on HUD's elevation requirements.
   → *Work with the RE/HUD to assist with the 8-Step Process. Continue to Worksheet Summary.*

   ☐ 5-Step Process is applicable per 55.12(a).
   Provide the applicable citation at 24 CFR 55.12(a) here.
   Click here to enter text.
   → *Work with the RE/HUD to assist with the 5-Step Process. This project may require mitigation or alternations. Continue to Worksheet Summary.*

   ☐ 8-Step Process is inapplicable per 55.12(b).
   Provide the applicable citation at 24 CFR 55.12(b) here.
   Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.*

☐ 8-Step Process is inapplicable per 55.12(c).

Provide the applicable citation at 24 CFR 55.12(c) here.

Click here to enter text.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to Worksheet Summary.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

During a pedestrian review, wetlands were identified by S&ME personnel within the floodplain to the north/northeast of the site. This area will not be utilized during construction and all impacts to jurisdictional wetlands will be avoided. The proposed limit of disturbance will be located exclusively within an active agricultural field. This field is drained by a ditch to the east and the wetland within the wooded floodplain to the north and northeast. A map of the USFWS National Wetlands Inventory (NWI), a USGS topographic exhibit, and a copy of the published soil survey of the site is attached. The NWI depicts wetlands in the wooded floodplain in the north/northeast of the site. Per the USDA-NRCS hydric soil list for Robeson County, Norfolk loamy sand and Faceville fine sandy loam are not hydric soils, while the Wagram loamy sand and Portsmouth loam soil units are considered hydric. These mapped soil units are limited to the wooded floodplain wetland within the north/northeast of the site. Finally, the USGS also depicts wetlands within the wooded floodplain wetland to the north/northeast of the site but not within the proposed development. No impacts to wetlands are anticipated. Appropriate sediment and erosion control devices will be implemented during construction to further limit potential impacts to jurisdictional features.

Soil Map—Robeson County, North Carolina
(Caton Road Site)

Map Scale: 1:4,220 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Robeson County, North Carolina
Survey Area Data: Version 18, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 22, 2015—Nov 28, 2017

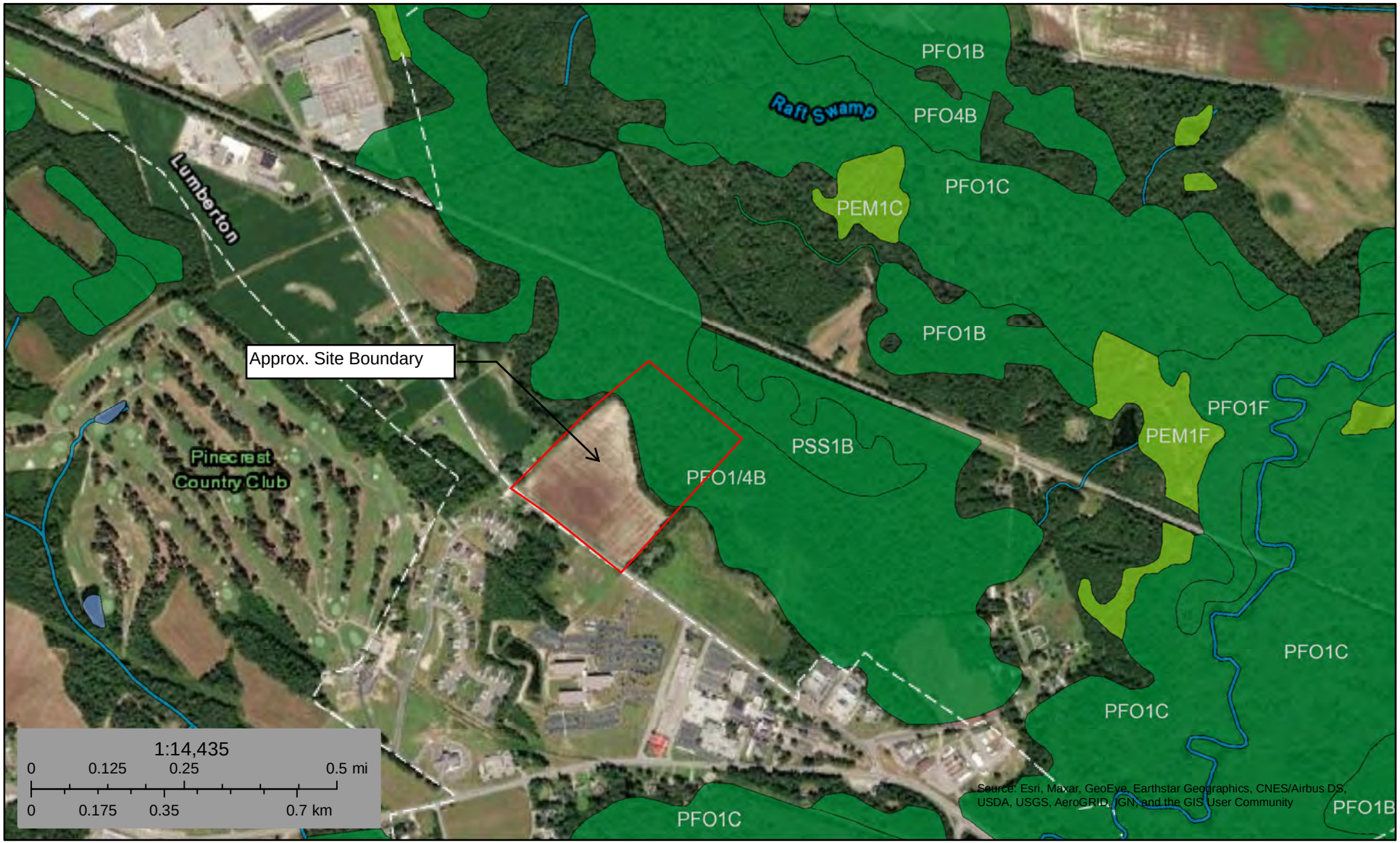
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FaA	Faceville fine sandy loam, 0 to 2 percent slopes	0.4	1.3%
NoA	Norfolk loamy sand, 0 to 2 percent slopes	11.9	38.1%
Pt	Portsmouth loam	9.3	29.7%
WaB	Wagram loamy sand, 0 to 6 percent slopes	4.7	15.1%
WaC	Wagram loamy sand, 6 to 10 percent slopes	5.0	15.8%
Totals for Area of Interest		**31.4**	**100.0%**

U.S. Fish and Wildlife Service
National Wetlands Inventory

LUMBERTON HOUSING AUTHORITY CA



May 7, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Sole Source Aquifers
Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Sole Source Aquifers (CEST and EA) - PARTNER

https://www.hudexchange.info/environmental-review/sole-source-aquifers

1. **Is the project located on a sole source aquifer (SSA)[1]?**
   ☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map of your project or jurisdiction in relation to the nearest SSA.*

   ☐Yes → *Continue to Question 2.*

2. **Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?**
   ☐Yes → *The review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☐No → *Continue to Question 3.*

3. **Does your region have a memorandum of understanding (MOU) or other working agreement with EPA for HUD projects impacting a sole source aquifer?**
   Contact your Field or Regional Environmental Officer or visit the HUD webpage at the link above to determine if an MOU or agreement exists in your area.
   ☐Yes → *Continue to Question 4.*

   ☐No → *Continue to Question 5.*

4. **Does your MOU or working agreement exclude your project from further review?**
   ☐Yes → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination and document where your project fits within the MOU or agreement.*

   ☐No → *Continue to Question 5.*

5. **Will the proposed project contaminate the aquifer and create a significant hazard to public health?**
   Consult with your Regional EPA Office. Your consultation request should include detailed information about your proposed project and its relationship to the aquifer and associated streamflow source area. EPA will also want to know about water, storm water and waste water at the proposed project. Follow

[1] A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

your MOU or working agreement or contact your Regional EPA office for specific information you may need to provide. EPA may request additional information if impacts to the aquifer are questionable after this information is submitted for review.

☐No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide your correspondence with the EPA and all documents used to make your determination*.

☐Yes → *The RE/HUD will work with EPA to develop mitigation measures. If mitigation measures are approved, attach correspondence with EPA and include the mitigation measures in your environmental review documents and project contracts. <u>If EPA determines that the project continues to pose a significant risk to the aquifer, federal financial assistance must be denied.</u> Continue to Question 6.*

<u>Worksheet Summary</u>

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

According to the "Designated Sole Source Aquifers in EPA Region IV" provided by the U.S. Environmental Protection Agency, the only sole source aquifer in EPA Region IV, which includes North Carolina, is located within Florida.

Designated Sole Source Aquifers in EPA Region IV

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

The 3 Sole Source Aquifer designations in Region IV are listed below. Contact the Regional Sole Source Aquifer coordinator for more information.

Lois Hill
US EPA Region IV, Water Division
61 Forsyth St., SE
Atlanta, GA 30303-3104
phone: (404)562-9472
email: hill.lois@epa.gov

DESIGNATED SOLE SOURCE AQUIFERS IN REGION IV:

State	Sole Source Aquifer Name	Federal Register Cit.	Public. Date	GIS Map
FL	Biscayne Aquifer, Broward, Dade, Monroe & Palm Beach Counties	44 FR 58797	10/11/79	No
FL	Volusia-Floridian Aquifer, Flagler & Putnam Counties	52 FR 44221	11/18/87	No
*LA/MS	Southern Hills Regional Aquifer System	53 FR 25538	07/07/88	No

*The Southern Hills Regional Aquifer system is jointly managed with Region VI. While listed in both regions, it is counted only once in the national total of 70.

Wild and Scenic Rivers
Supporting Documentation

OMB No. 2506-0177
(exp. 9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Wild and Scenic Rivers (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/wild-and-scenic-rivers

1. Is your project within proximity of a Wild and Scenic River, Study River, or Nationwide Rivers Inventory River?

☒ No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation used to make your determination.*

☐ Yes → *Continue to Question 2.*

2. Could the project do *any* of the following?

- Have a direct and adverse effect within Wild and Scenic River Boundaries,
- Invade the area or unreasonably diminish the river outside Wild and Scenic River Boundaries, or
- Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment.

Consult with the appropriate federal/state/local/tribal Managing Agency(s), pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a Wild & Scenic River or a Study River and, if so, to determine the appropriate avoidance or mitigation measures.

Select one:

☐ The Managing Agency has concurred that the proposed project will not alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.*

☐ The Managing Agency was consulted and the proposed project may alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.

→ *The RE/HUD must work with the Managing Agency to identify mitigation measures to mitigate the impact or effect of the project on the river.*

Worksheet Summary

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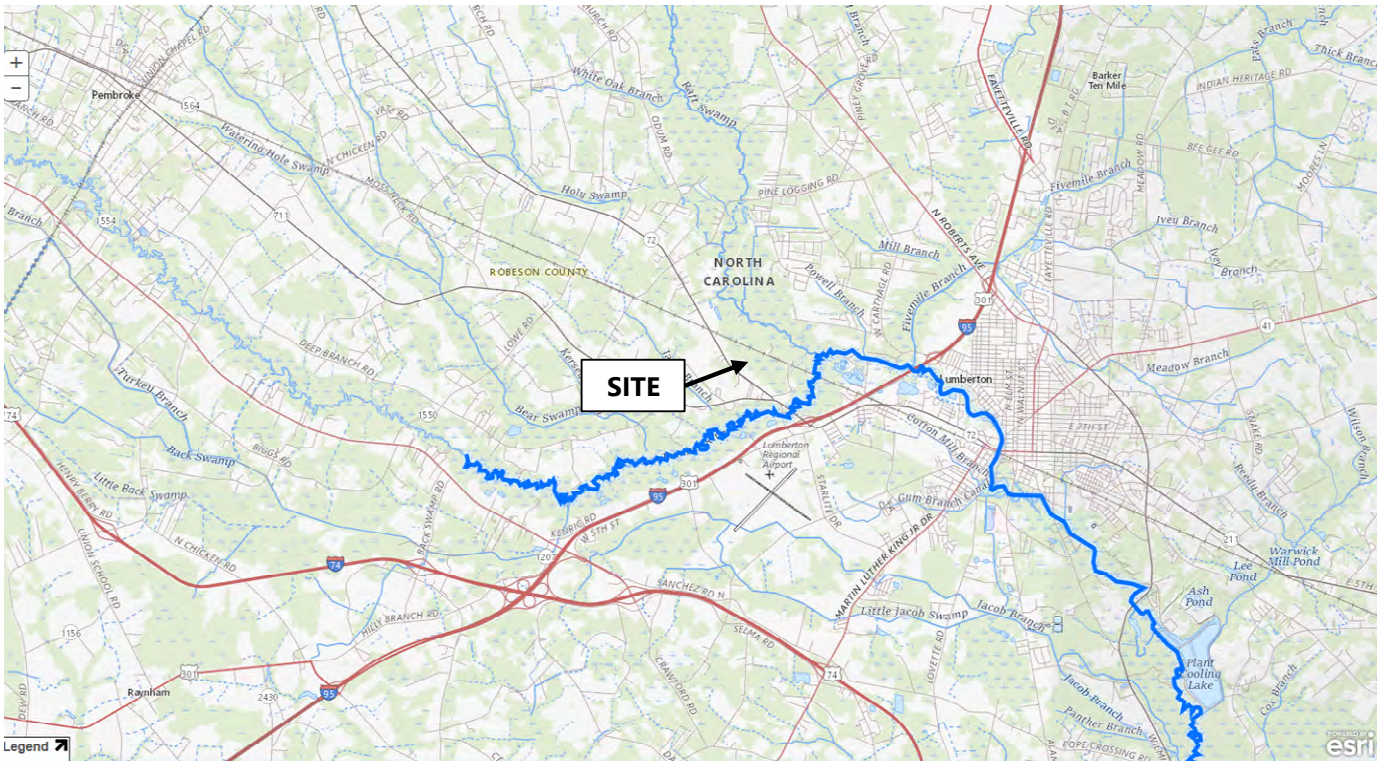
- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.
The site is approximately 0.45 miles south of the Lumber River, which is considered a Wild and Scenic River. Water draining from the site flows into the Raft Swamp, which then drains into the Lumber River. The site will have no adverse effect on the Lumber River boundary. The National Wild and Scenic Rivers System website (https://www.rivers.gov/rivers/lumber.php) was consulted on 3/25/2021 and a map depicting the Wild and Scenic Rivers is attached.

NORTH CAROLINA

North Carolina has approximately 37,853 miles of river, of which 144.5 miles are designated as wild & scenic—less than 4/10ths of 1% of the state's river miles.



Chattooga River
Horsepasture River
Lumber River
New River
Wilson Creek

REFERENCE:
https://www.rivers.gov/north-carolina.php

	NATIONAL WILD AND SCENIC RIVERS	SCALE: NTS	EXHIBIT NO.
	GARDEN STREET 1021 CLARK CIRCLE SANFORD, LEE COUNTY, NORTH CAROLINA	DATE: 3/25/2021 PROJECT NUMBER 210884	

Environmental Justice Supporting Documentation

OMB No. 2506-0177
(exp.9/30/2021)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

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Environmental Justice (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/environmental-justice

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. **Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?**

   ☐Yes → *Continue to Question 2.*

   ☒No → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

2. **Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?**

   ☐Yes

   Explain:

   Click here to enter text.

   → *The RE/HUD must work with the affected low-income or minority community to decide what mitigation actions, if any, will be taken. Provide any supporting documentation.*

   ☐No

   Explain:

   Click here to enter text.

   → *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.*

Worksheet Summary

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- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

The project will have a positive impact on minorities and low-income families through the construction of affordable moderate, low, and very low-income housing units to replace units that have been rendered unsafe and unusable by flooding. According to the US EPA EJ mapper, within a one-mile search radius of Lumberton (centered from coordinates 34.619077, -79.014152) 61% of the population is considered low income compared to the state average of 36% and 64% of the of the population are considered people of color compared to the state average of 37%. The most recent Census data (Source CensusReport.org) estimates that the City of Lumberton has an owner occupied rate of 47.1%, well beneath the average in the US of 64.0%. After the housing units are approved by HUD and occupied, the Housing Authority of the City of Lumberton will manage them under the policies and procedures set forth by HUD.

EJSCREEN Report (Version 2020)

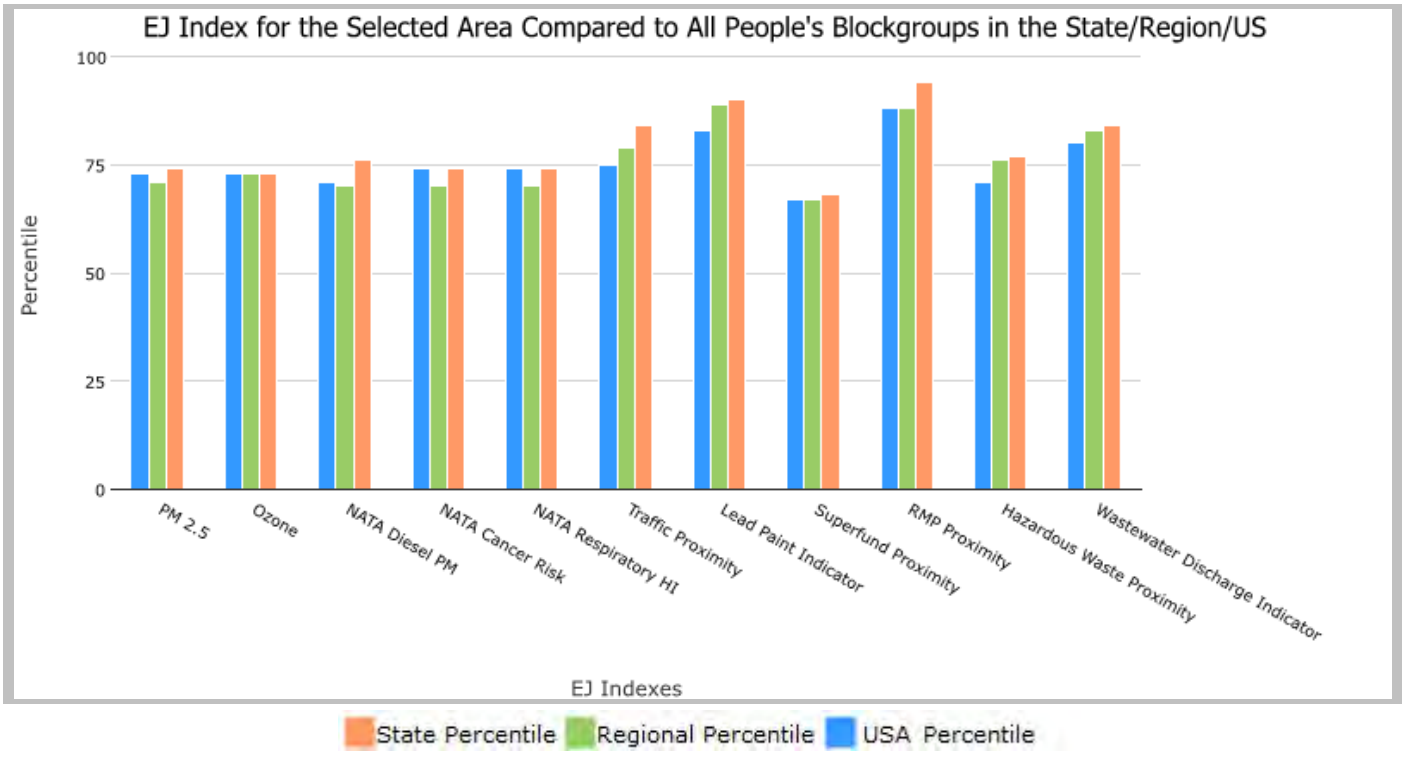
1 mile Ring Centered at 34.619077,-79.014152, NORTH CAROLINA, EPA Region 4

Approximate Population: 4,783

Input Area (sq. miles): 3.14

City of Lumberton Housing Authority

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	74	71	73
EJ Index for Ozone	73	73	73
EJ Index for NATA* Diesel PM	76	70	71
EJ Index for NATA* Air Toxics Cancer Risk	74	70	74
EJ Index for NATA* Respiratory Hazard Index	74	70	74
EJ Index for Traffic Proximity and Volume	84	79	75
EJ Index for Lead Paint Indicator	90	89	83
EJ Index for Superfund Proximity	68	67	67
EJ Index for RMP Proximity	94	88	88
EJ Index for Hazardous Waste Proximity	77	76	71
EJ Index for Wastewater Discharge Indicator	84	83	80



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

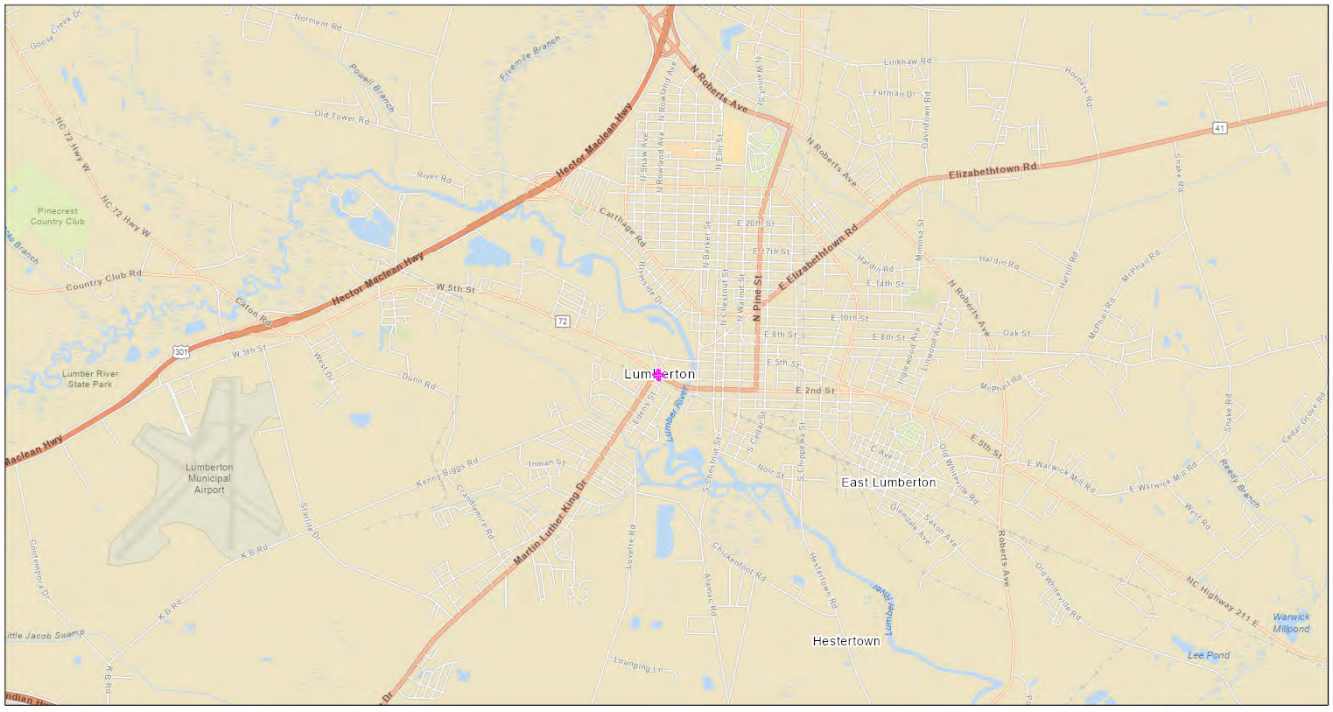
EJSCREEN Report (Version 2020)

1 mile Ring Centered at 34.619077,-79.014152, NORTH CAROLINA, EPA Region 4

Approximate Population: 4,783

Input Area (sq. miles): 3.14

City of Lumberton Housing Authority



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2020)

1 mile Ring Centered at 34.619077,-79.014152, NORTH CAROLINA, EPA Region 4

Approximate Population: 4,783

Input Area (sq. miles): 3.14

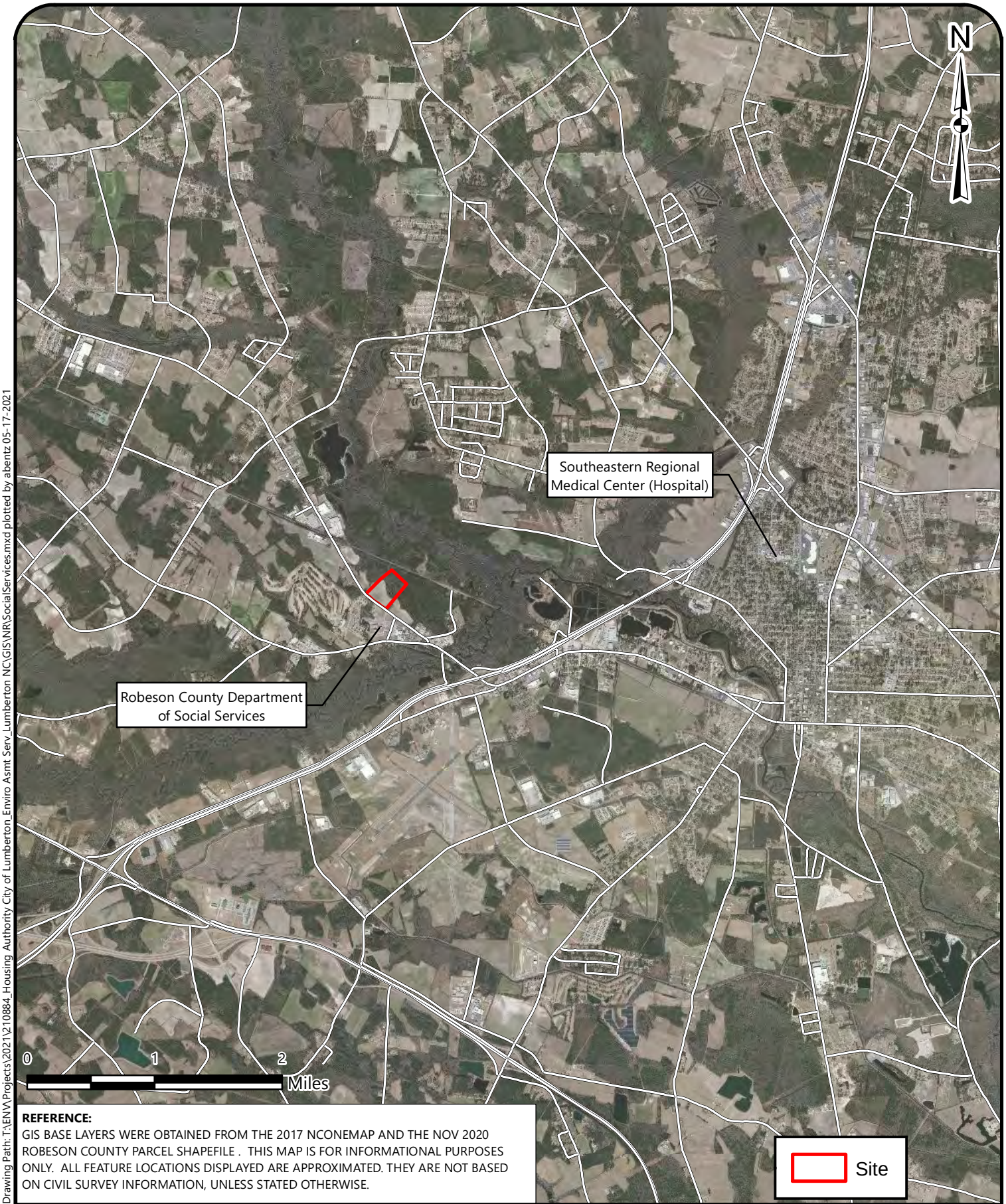
City of Lumberton Housing Authority

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	8.07	8.25	32	8.57	24	8.55	33
Ozone (ppb)	40.4	42.9	13	38	58	42.9	31
NATA* Diesel PM (µg/m^3)	0.313	0.309	58	0.417	<50th	0.478	<50th
NATA* Cancer Risk (lifetime risk per million)	34	34	49	36	<50th	32	60-70th
NATA* Respiratory Hazard Index	0.47	0.46	52	0.52	<50th	0.44	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	350	230	80	350	74	750	60
Lead Paint Indicator (% Pre-1960 Housing)	0.48	0.16	93	0.15	92	0.28	76
Superfund Proximity (site count/km distance)	0.021	0.082	21	0.083	33	0.13	19
RMP Proximity (facility count/km distance)	2	0.39	97	0.6	93	0.74	90
Hazardous Waste Proximity (facility count/km distance)	0.85	1.3	57	0.91	68	5	47
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	9.6E-05	0.16	67	0.65	63	9.4	53
Demographic Indicators							
Demographic Index	63%	36%	87	37%	84	36%	84
People of Color Population	64%	37%	81	39%	77	39%	75
Low Income Population	61%	36%	88	36%	87	33%	89
Linguistically Isolated Population	2%	2%	64	3%	61	4%	54
Population With Less Than High School Education	16%	13%	68	13%	68	13%	72
Population Under 5 years of age	8%	6%	78	6%	78	6%	76
Population over 64 years of age	13%	15%	43	17%	42	15%	46

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

Miscellaneous Supporting Documentation



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\NR\SocialServices.mxd plotted by abentz 05-17-2021

SOCIAL SERVICES EXHIBIT

LUMBERTON HOUSING AUTHORITY CATON ROAD SITE
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	1 " = 1 miles
DATE:	5-17-21
PROJECT NUMBER	210884
FIGURE NO.	1

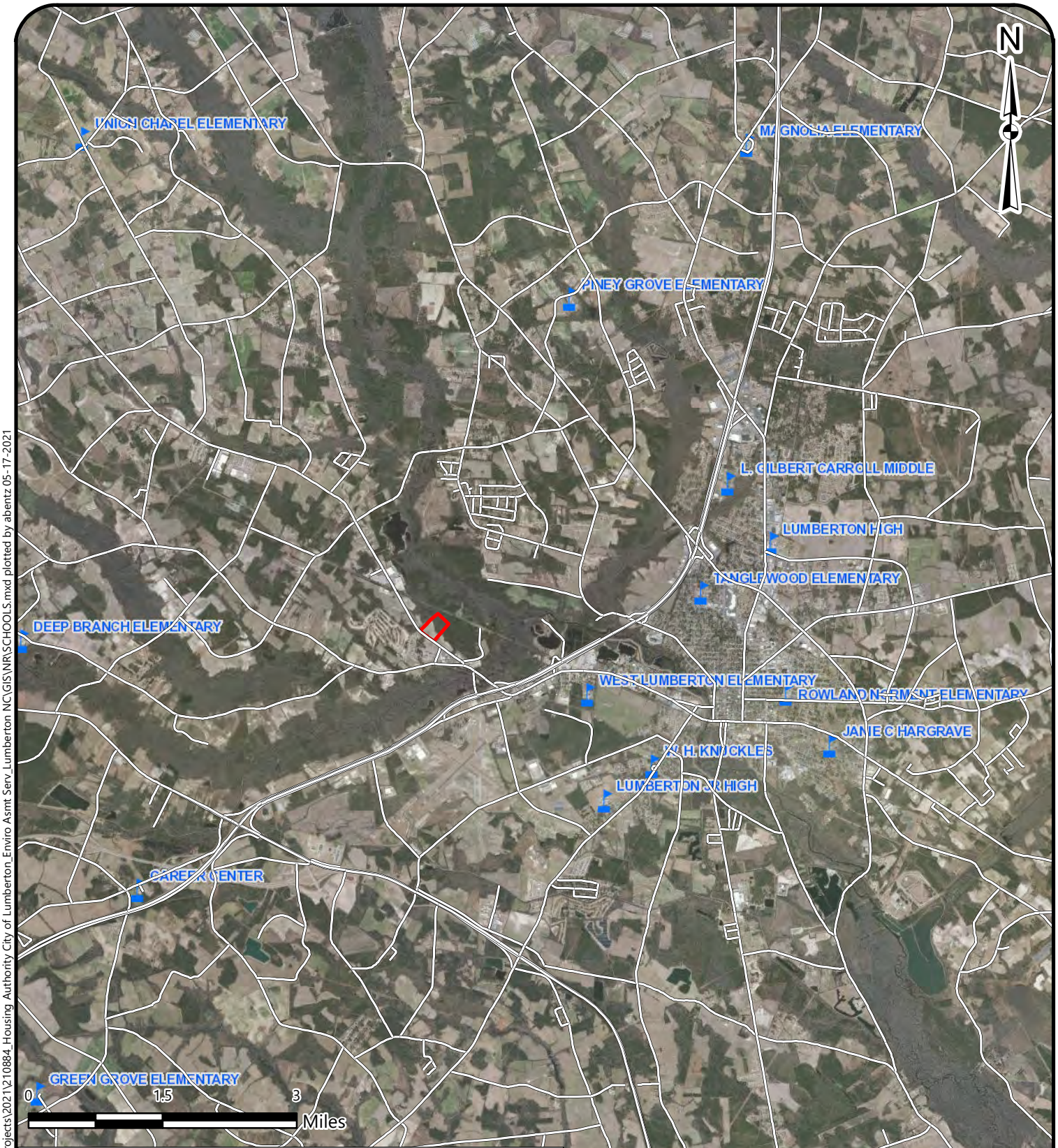
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP, THE ROBESON COUNTY REST SERVICE, AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\NR\FireServices.mxd plotted by abentz 05-17-2021

FIRE SERVICES EXHIBIT

LUMBERTON HOUSING AUTHORITY CATON ROAD SITE
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	1 " = 2,000 '
DATE:	5-17-21
PROJECT NUMBER	210884
FIGURE NO.	1



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM THE 2017 NCONEMAP, THE ROBESON COUNTY REST SERVICE, AND THE NOV 2020 ROBESON COUNTY PARCEL SHAPEFILE . THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE APPROXIMATED. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Site
Public Schools

Drawing Path: T:\ENV\Projects\2021\210884_Housing Authority City of Lumberton_Enviro Asmt Serv_Lumberton NC\GIS\NR\SCHOOLS.mxd plotted by abentz 05-17-2021

PUBLIC SCHOOL LOCATION EXHIBIT

LUMBERTON HOUSING AUTHORITY CATON ROAD SITE
CATON ROAD
LUMBERTON, ROBESON COUNTY, NORTH CAROLINA

SCALE:	FIGURE NO.
1 " = 1.5 miles	1
DATE: 5-17-21	
PROJECT NUMBER 210884	