ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 1 of 12

Exhibit 5 to Testimony of Blair Wade

Cultural Resources Assessment

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 2 of 12

Date: Tuesday, August 31, 2021

Project: Cultural Resources Assessment of the SR Lambert Project
Georgetown County, South Carolina
SHPO Project Number 21-EJ0180

From: Josh Fletcher, RPA

Introduction

HDR conducted a cultural resources assessment of the SR Lambert Project (Project) on behalf of Silicon Ranch Corporation (SRC). The site is owned by Resource Management Service, a timber company with which SRC has an option agreement to explore development of a solar facility. The Project Study Area boundary encompasses approximately 2,082 acres of Georgetown County, South Carolina. The Study Area's location is shown on Figure 1. SRC is proposing two solar facilities, SR Lambert I and II, within the Study Area. The final project footprints would be sited within the Study Area based on locations that will have that least amount of impact to existing resources.

The Project is located on private land bound to the north by Alt. US 17 (Saints Delight Road), to the east by Wild Horse Road, to the south by County Road S-22-387, and to the west by Windum Drive. The Project is approximately 6.7 miles south of the town of Andrews, South Carolina. Access to the region is available via SC 41, which is located approximately 4.75 miles northwest of the Project, Alt. US 17 along the northern boundary of the Study Area, and US 17, which is located approximately 11 miles east of the Project.

A series of unpaved roads are located within the Project, largely providing access to different timber stands. These roads include Shacklesford Bay Road, Short Cut Road, Cut Off Road, Tack Road, No Rut Road, Bank Road, and Hangman Spur. No Rut Road leads south from Alt. US 17 to a residence within an outparcel in the center of the Project. An electrical transmission line corridor passes through the northwest portion of the Project, continuing to the east and west of the Project.

From mid-June through early July 2020, HDR environmental scientists reviewed the Project for jurisdictional waters of the U.S. under Section 404 of the Clean Water Act. The field work was conducted during a period of above average rainfall based on the USACE Antecedent Precipitation Tool. The site was revisited between May 3 and 7, 2021 during a period of slightly below average rainfall. The results of the on-site field investigation conducted by HDR indicate that there are five (5) jurisdictional streams, five (5) jurisdictional wetlands, eight (8) non-jurisdictional streams, and fourteen (14) non-jurisdictional wetlands within the Project. The delineation has been submitted to the US Army Corps of Engineers, but the boundaries have not been verified as of the date of this assessment. Most features flow towards Summons Swamp, located to the northeast of the Project, and eventually into the Sampit River. On-site jurisdictional waters of the U.S. total 865.30 acres, including 16,082 linear feet of stream channel. On-site non-jurisdictional waters of the U.S. total 639.65 acres, including 31,977 linear feet of stream channel. Therefore, of the 2,082 acres within the Project, 1,504.95 acres (72.28 percent) are wetlands. The remaining 577.05 acres of uplands are marginally higher in

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 3 of 12

elevation, with many additional areas being covered in standing water at the time of the current cultural resources investigation.

The archaeological Area of Potential Effect (APE), is considered to be the limits of the SR Lambert Project. The cultural resources assessment includes background research and limited archaeological reconnaissance fieldwork. There are no standing structures on the Project and no survey-eligible structures are near the site, therefore, an architectural survey was not conducted, nor is one recommended. On May 7, 2021, HDR submitted a Section 106 Project Review Form and supplemental Project information to the State Historic Preservation Office (SHPO) at the South Carolina Department of Archives and History (SCDAH). The SHPO provided a response on June 22, 2021, and recommended a phased investigation of the project area's potential to contain historic properties, beginning with archival research and a reconnaissance-level survey. On August 19, 2021, HDR conducted an archaeological reconnaissance survey of selected portions of the APE. The results of the background research and field investigations are summarized below. State Historic Preservation Office (SHPO) correspondence is presented in Appendix A.

Background Research

HDR conducted background research on August 13, 2021 to identify known cultural resources within a 0.5-mile buffer (Study Area) of the Project. The background research was also conducted to develop an understanding of the cultural context to evaluate cultural resources within the Study Area for their National Register of Historic Places (NRHP) eligibility. Initially, HDR accessed the licensed version of ArchSite, a website cosponsored by the South Carolina Institute of Archaeology and Anthropology (SCIAA) and the South Carolina Department of Archives and History (SCDAH), to compile data on previously recorded archaeological sites, aboveground cultural resources, and previously conducted cultural resource investigations within the 0.5-mile buffer. In addition, HDR consulted various online resources for soil information, historical maps and aerial photographs, and historical information on the project area vicinity and Georgetown County, including the NRHP GIS database; U.S. Department of Agriculture (USDA) Web Soil Survey; U.S. Geological Survey (USGS) Earth Explorer and topoView.

Within the 0.5-mile study buffer, there is one archaeological site and one historic architectural resource. Two previous cultural resource surveys have occurred within the Study Area: Winyah-Jefferies 230 kV Transmission Line Rebuild project (Anderson 1978) and the Lambert Town kV Project (Trinkley and Southerland 2005); located at the existing substation. The locations of previously recorded cultural resources and previous cultural resources surveys are depicted on Figure 1.

Archaeological Site 38GE165 is located in a transmission line corridor to the north of the Project. It was recorded by Commonwealth Associates in 1978 during the survey for the Winyah-Jefferies 230 kV Transmission Line Rebuild project (Anderson 1978). This cultural resources survey crossed the northwest portion of the Project. Site 38GE165 contains a fairly dense scatter of possible Early Archaic to Late Woodland ceramic and lithic artifacts. No NRHP assessment was made, though the report authors noted that the research potential was high, suggesting that this site may be potentially eligible for the NRHP. Architectural resource 0721

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 4 of 12

was recorded during New South's 2006 *Historic Resources Survey of Georgetown County* (Joseph et al. 2006). Architectural resource 0721, known as "The Hanging Tree" is located to the north of Alt. US 17 from the Project. This resource is not eligible for the NRHP.

According to the 1942 Cedar Creek, SC USGS topographic map (Figure 2), 1973 Cedar Creek, SC USGS topographic map (Figure 3), and 2014 Cedar Creek, SC USGS topographic map (Figure 4), there were no structures within the Project, though as also seen on the 1942 and 1973 USGS topographic maps, there are a number of structures located around the perimeter of the Project, as well as two structures located within an outparcel in the center of the Project. On the 1942 and 1973 USGS topographic maps, Trinity Church is noted just south of the Project. The church no longer exists in the area noted on the historic maps. Care should be taken in this portion of the Project, should there be a possible cemetery associated with this former church location. Cemeteries are protected from desecration by South Carolina state law.

Historic maps and aerial photographs of the area demonstrate that the project research radius was largely a rural agricultural and timber/forest area throughout the twentieth century and remains rural at the present time. As shown on a 1958 aerial photograph (Figure 5), the Project is nearly entirely wooded, but with no tree rows indicative of silviculture, with the possible exception of two rectangular areas in the southwest portion of the Project. As shown on a 1968 aerial photograph (Figure 6), there are large timbered/cleared areas in the southern and central portions of the Project. By 1983 (Figure 7), silviculture planted pines in linear rows are evident across the Project.

The Project has been in silviculture approximately fifty years based on historic aerial imagery. Vegetation, hydrology, and soil indicators have been disturbed. The site is predominantly planted in loblolly pine; however, the site is under active silviculture and large portions of the site have been recently timbered. A network of ditches is present on the site that support an altered hydrology. Soils have been heavily disturbed by bedding.

Silviculture includes timber planting and harvesting. Timber planting typically involves three processes. Initially, areas are prepared (bedded) for planting. Previously wooded areas are mechanically chopped and/or raked with implements pulled behind bulldozers to break and remove the stumps of former trees. Then, the area is disked (with 2.6-foot harrow blades) and plowed to create beds. Seedlings are inserted into the raised furrows. Chemical treatments to the young trees are conducted by air (for fertilizers) and by tractor (for pesticides). After 10 to 30 years, the timber can be harvested. Clear-cutting and mechanical removal of the trees (using skidders and trucks) is employed throughout the harvested areas. Once cleared again, areas are subjected to the initial bedding preparations outlined above.

Archaeological Reconnaissance Survey

The Project has been intensively timbered and is predominately covered in silviculture planted pines, many large areas of which have been timbered within the past year. The area is very flat, with marginal topography. As a result of extensive silviculture, the soils at the Project are heavily disturbed. As such, there are minimal intact soils within the Project. According to the USDA-NRCS Soils Survey of Georgetown County, on-site soils consist of six soil map units (Figure 8).

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 5 of 12

All six, Yauhannah loamy fine sand, 0 to 2 percent slopes (12A), Bladen loam (13), Cape Fear loam (18), Eulonia loamy fine sand, 0 to 2 percent slopes (26A), Eulonia loamy fine sand, 2 to 6 percent slopes (26B), and Wahee fine sandy loam (59), were listed as having hydric components. Table 1 summarizes the soil types.

Table 1. Project Soils Types

Code	Soil Type	Drainage	Area	Percent of Project
13	Bladen loam, 0 to 2 percent slopes	Poorly drained	598.09	29%
18	Cape Fear loam	Very poorly drained	53.95	3%
59	Wahee fine sandy loam	Somewhat poorly drained	1279.80	61%
12A	Yauhannah loamy fine sand, 0 to 2 percent slopes	Moderately well drained	122.58	6%
26A	Eulonia loamy fine sand, 0 to 2 percent slopes	Moderately well drained	24.98	1%
26B	Eulonia loamy fine sand, 2 to 6 percent slopes	Moderately well drained	2.13	<1%

As stated above, of the 2,082 acres within the Project, 1,504.95 acres (72.28 percent) have been identified, but not verified, as wetlands. The remaining 577.05 acres of uplands are marginally higher in elevation, and large areas of the mapped uplands were covered in standing water at the time of the current investigations. Investigators noted large piles of wood debris and tall/deep (approximately two feet) silviculture furrows and troughs in recently timbered areas. Forested areas also are covered in the silviculture furrows and troughs and are wooded in planted pines of varied maturity.

Soil conditions, historic maps and aerial photographs were utilized to define areas of high potential for archaeological resources within the Project. HDR used the following criteria to determine which areas of the site have high potential to contain archaeological resources:

- Proximity to former facilities identified on historic plats and maps

Areas of known historic activity (based on archival research) also were considered to have a high potential to contain cultural resources. Review of several historic maps and aerial photographs of the area showed no structures on the project tract.

- Presence of anhydric soils, which are defined as soils that are well drained, somewhat well drained, and moderately well drained. Areas with hydric soils away from mapped facilities have a low potential to contain archaeological materials.

HDR defined the soils as anhydric (dry) within our model. All of these soils are well drained to somewhat poorly drained and rarely flood. In the Lambert Solar Project Tract, soils are quite marginal, and the best-drained soils are only moderately well drained. These areas, which include Yauhannah loamy fine sand (0 to 2 percent slopes), Eulonia loamy fine sand (0 to 2 percent slopes), and Eulonia loamy fine sand (2 to 6 percent slopes) make up only seven percent (149.66 acres) of the 2,082-acre Project. The other soils are all defined as hydric (wet). All areas covered by hydric soils are defined as low-potential areas. Some of these are

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 6 of 12

extensive wetlands with observed standing water. It should be noted that at the time of the current investigations, the Project area was experiencing above-average rainfall.

There are no high potential areas in the western portion of the Project. This portion is nearly entirely wetlands. There are several areas of moderately well drained soils (12A, 26A, and 26B-see Figure 8) in the eastern portion of the Project. These areas were considered to have a high potential for archaeological sites. Shovel tests were placed in these areas, as well as other marginally upland locations that were slightly higher than surrounding areas, based on topographic maps.

Prior to field investigations, the Senior Archaeologist (Josh Fletcher) selected 16 shovel test locations based on the factors described above (see Figure 8). All shovel test locations were pre-plotted on ArcGIS Collector. An effort was made to place a shovel test within each area of uplands, regardless if soil drainages defined it as a high potential area. The majority of these shovel tests were placed in the eastern portion of the Project. There are only five true high potential areas (moderately well drained soils), and six shovel tests (Shovel Tests 4, 5, 11, 12, 13, and 14) were excavated in these areas.

The archaeological reconnaissance (shovel testing and ground surface inspection) was completed by the Senior Archaeologist and an Archaeological Technician (Miles Spenrath) on August 19, 2021. The archaeological reconnaissance followed the *South Carolina Standards and Guidelines for Archaeological Investigations* (Council of South Carolina Professional Archaeologists [COSCAPA] et al. 2013).

During the field investigations, several areas previously considered to be high potential/higher elevation were found to be inundated with water. Standing water was present at four of the 16 shovel test locations; no shovel tests were excavated in areas with standing water. The ground surface was inspected at each of the shovel test locales, as well as exposed areas along unpaved roads, ditches, and unwooded silviculture furrows. Each shovel test measured approximately 30 centimeters (cm) in diameter and was excavated into sterile subsoil (typically 20+ cm below surface [bs]). Soils typically consist of a disturbed 10YR5/2 grayish brown sandy clay loam at 0-20 cm bs over a 10YR6/8 brownish yellow clay subsoil at 20-40+ cm bs. Investigators sifted the fill of every shovel test through ¼-inch mesh hardware cloth. All shovel tests were carefully backfilled upon completion. Figures 9 through 18 present representative views of the visited locations.

The Senior Archaeologist recorded information relating to each shovel test in a field notebook and recorded photographs on ArcGIS Collector. This information included the content (e.g., presence or absence of artifacts) and context (e.g., soil color, texture, stratification) of each test. Table 2 presents a summary of the shovel tests. No archaeological resources were identified in the archaeological APE.

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 7 of 12

Table 2. Shovel Tests Descriptions

Shovel Test	Soil Type	Notes
1	Bladen loam, 0 to 2 percent slopes	In planted pines; subsoil reached at 25 cm bs
2	Bladen loam, 0 to 2 percent slopes	In planted pines; subsoil reached at 25 cm bs
3	Bladen loam, 0 to 2 percent slopes	In clear cut area; subsoil reached at 20 cm bs
4	Yauhannah loamy fine sand, 0 to 2 percent slopes	In clear cut area; water-saturated clay subsoil reached at 10 cm bs
5	Yauhannah loamy fine sand, 0 to 2 percent slopes	In clear cut area; standing water
6	Bladen loam, 0 to 2 percent slopes	In clear cut area; standing water
7	Bladen loam, 0 to 2 percent slopes	In planted pines; standing water
8	Wahee fine sandy loam	In planted pines; subsoil reached at 25 cm bs
9	Bladen loam, 0 to 2 percent slopes	In planted pines; subsoil reached at 10 cm bs
10	Bladen loam, 0 to 2 percent slopes	In clear cut area; water-saturated clay subsoil reached at 20 cm bs
11	Yauhannah loamy fine sand, 0 to 2 percent slopes	In planted pines; subsoil reached at 35 cm bs
12	Eulonia loamy fine sand, 0 to 2 percent slopes	In planted pines; subsoil reached at 25 cm bs
13	Eulonia loamy fine sand, 0 to 2 percent slopes	In clear cut area; subsoil reached at 20 cm bs
14	Eulonia loamy fine sand, 2 to 6 percent slopes	In clear cut area; subsoil reached at 15 cm bs
15	Bladen loam, 0 to 2 percent slopes	In planted pines; subsoil reached at 20 cm bs
16	Very poorly drained	In planted pines; standing water

Summary and Management Recommendations

HDR identified no archaeological resources during the archaeological reconnaissance of the Project. There are no previously recorded historic properties within the Project. There are no historic architectural resources within or near the Project. The majority of the Project is covered in wetlands. Non-wetland areas are very flat, with no discernable topography. The entire Project has been intensively timbered numerous times and is currently covered in silviculture planted pines, many large areas of which have been timbered/clear cut within the past year. As a result of extensive silviculture, the soils at the Project are heavily disturbed. As such, there are no intact soils within the Project.

Based on historic map and aerial photograph research and archaeological reconnaissance investigations of areas considered to have a higher potential for archaeological resources, HDR considers the probability of this undertaking affecting any cultural resources, much less significant cultural resources, to be extremely low. HDR recommends that no additional cultural resources survey of the SR Lambert Project is necessary.

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 8 of 12

References Cited

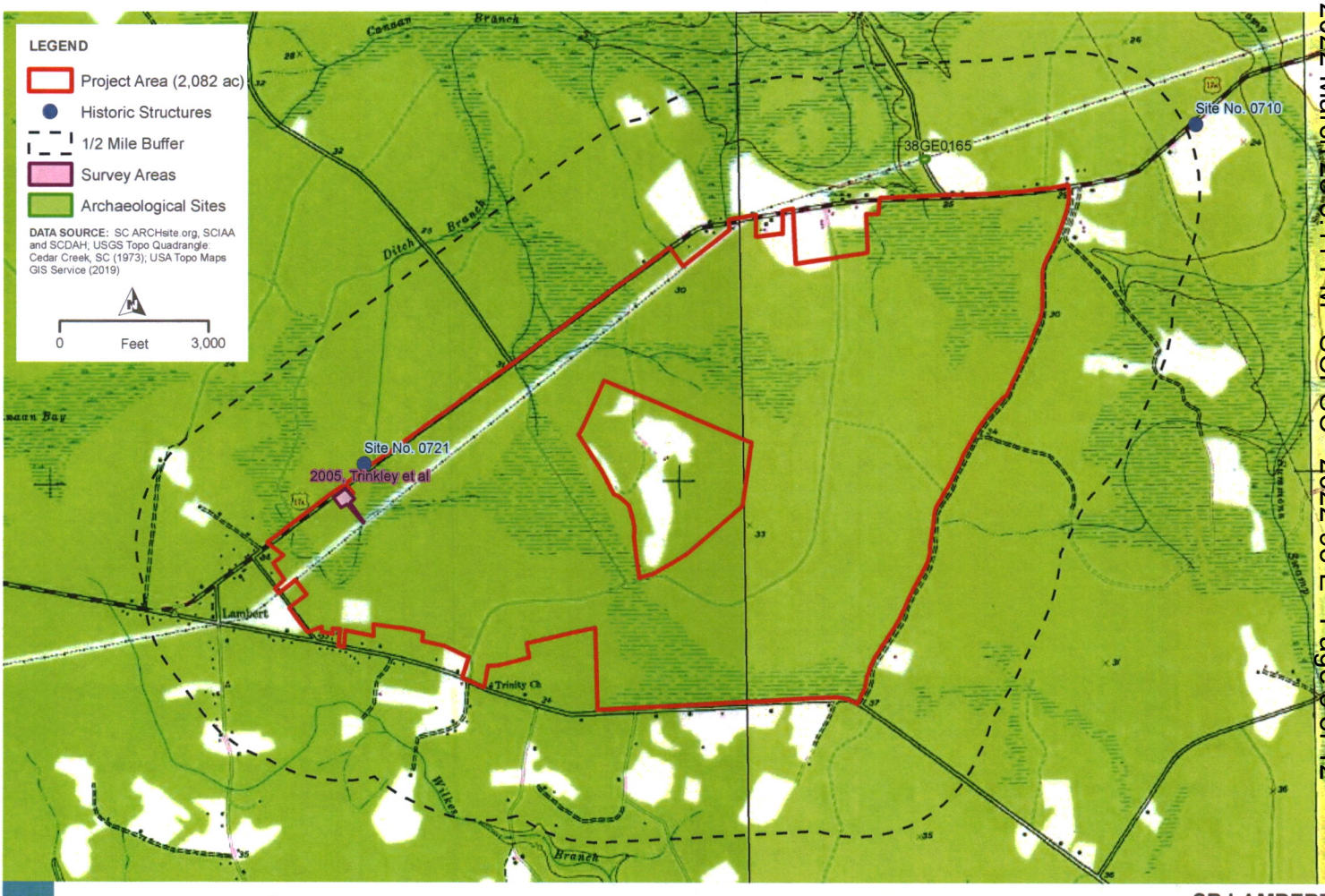
Anderson, David. 1978. *Technical Report, Cultural Resources. Winyah-Jefferies 230 kV Transmission Line Rebuild.* Prepared for South Carolina Public Service Authority, Moncks Corner, South Carolina. Prepared by Commonwealth Associates, Inc., Jackson, Michigan.

Council of South Carolina Professional Archaeologists (COSCAPA), South Carolina State Historic Preservation Office, and South Carolina Institute of Archaeology and Anthropology. 2013. *South Carolina Standards and Guidelines for Archaeological Investigations*. South Carolina State Historic Preservation Office, Columbia.

Joseph, J. W., Summer Ciomek, Brad Botwick, Karen Serio, Mary Beth Reed, and Natalie Adams. 2006. *Historic Resources Survey of Georgetown County, South Carolina*. Report submitted to Georgetown County Visitors Bureau and South Carolina Department of Archives and History. Report prepared by New South Associates, Stone Mountain, Georgia.

Trinkley, Michael and Nicole Southerland. 2005. *Cultural Resources Survey of the Lambert Town 115kV Project, Georgetown County, South Carolina.* Report prepared for Central Electric Power Cooperative. Report prepared by Chicora Foundation, Inc. Chicora Research Contribution 434.

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 9 of 12



HDR SILICON RANCH

SR LAMBERT

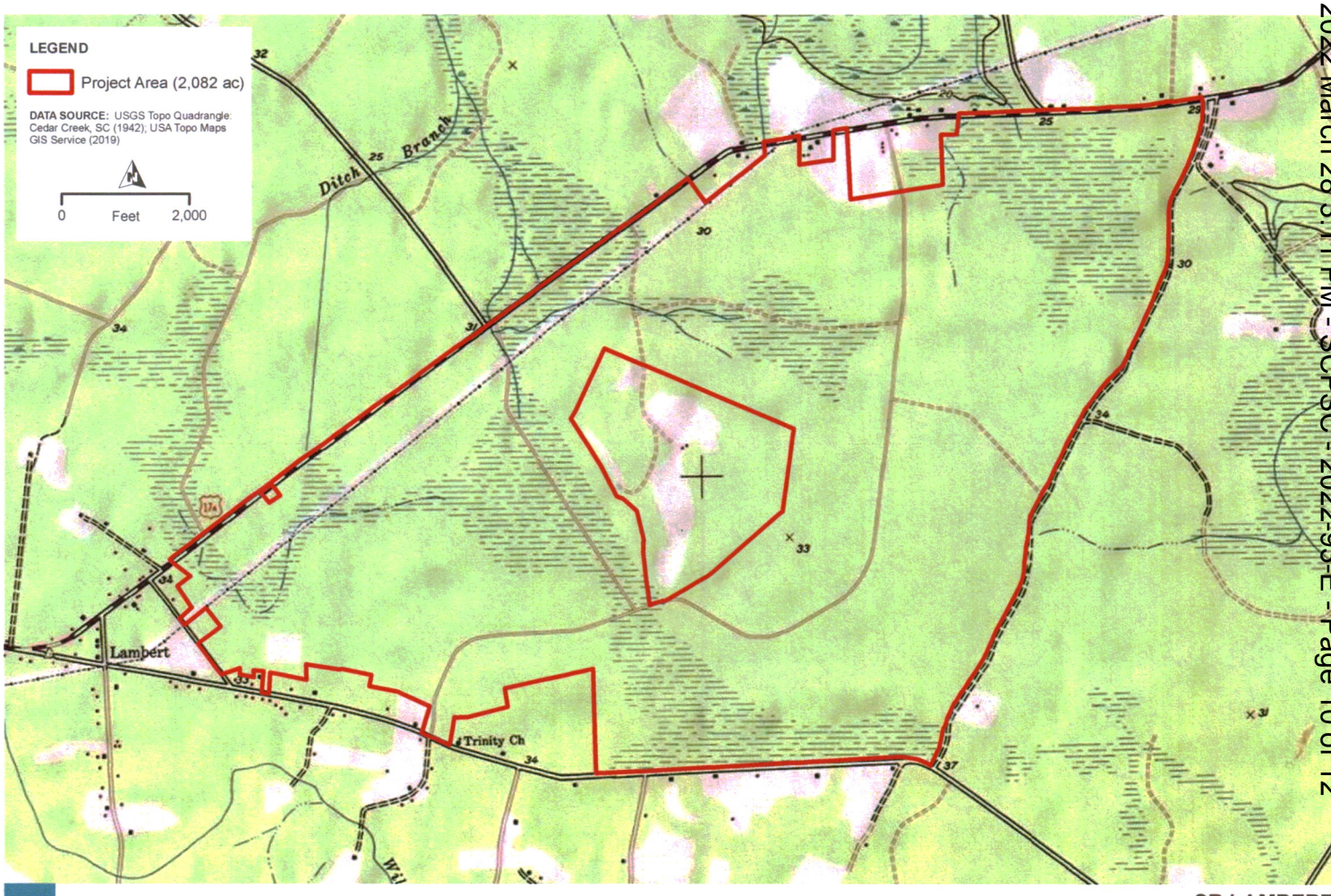
THE LOCATION OF THE SR LAMBERT PROJECT AND ALL IDENTIFIED CULTURAL RESOURCES (USGS 1973 CEDAR CREEK, SC QUADRANGLE)

FIGURE 1

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\110532_SILICONRANCHCORPORATION\110172411_LAMBERT\7.2_WIP\MAP_DOCS\MXD\CULTURAL_REPORT\01_LAMBERT_IDENTIFIEDRESOURCES.MXD - USER: GMARCHICA - DATE: 8/23/2021

CULTURAL RESOURCES ASSESSMENT

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 10 of 12



HDR SILICON RANCH

SR LAMBERT

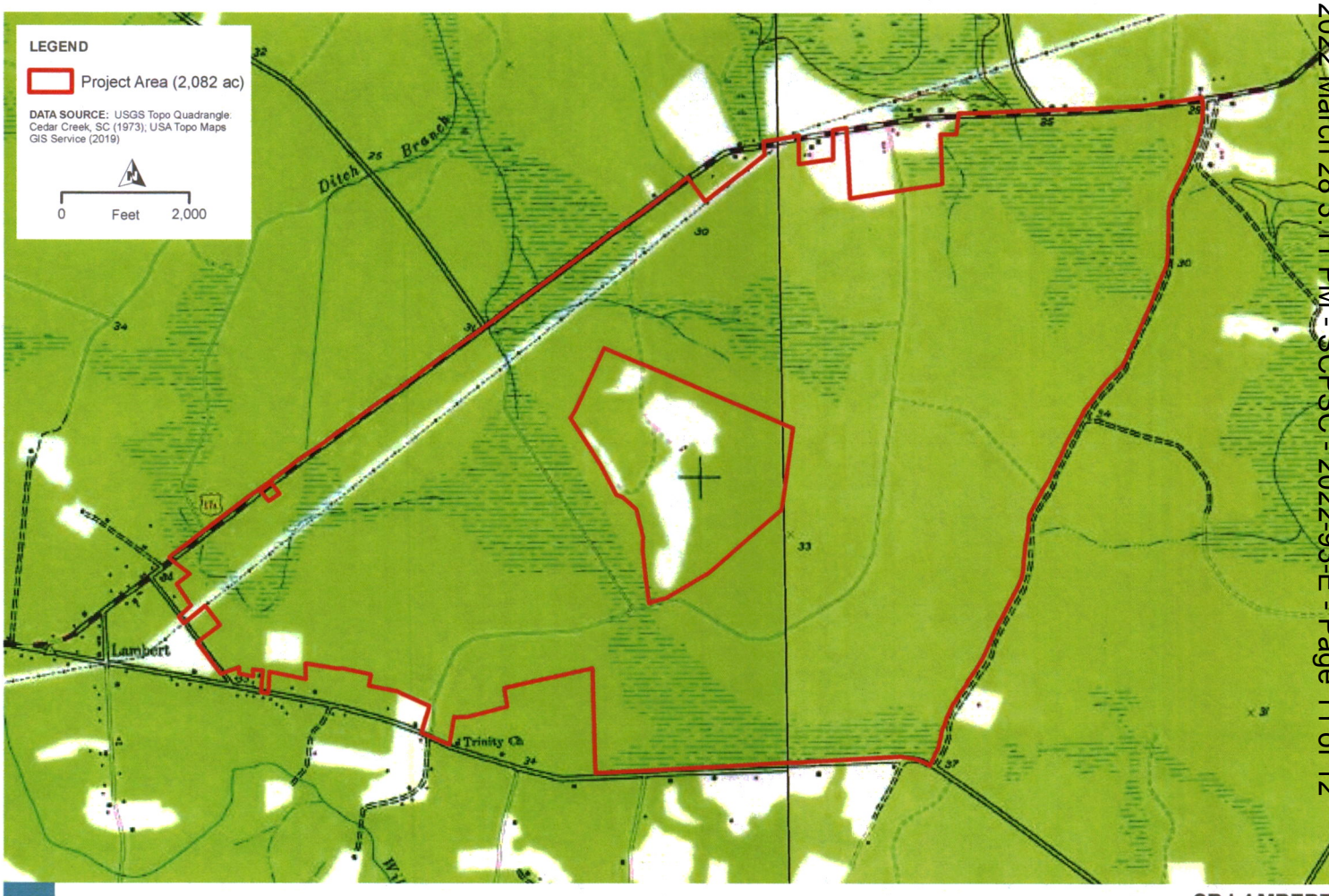
THE LOCATION OF THE SR LAMBERT PROJECT (USGS 1942 CEDAR CREEK, SC QUADRANGLE)

FIGURE 2

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\10532_SILICONRANCHCORPORATION\10172411_LAMBERT\7.2_WIP\MAP_DOCS\MXD\CULTURAL_REPORT\02_LAMBERT_1942QUAD.MXD - USER: GMARCHICA - DATE: 8/23/2021

CULTURAL RESOURCES ASSESSMENT

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 11 of 12



HDR SILICON RANCH

SR LAMBERT

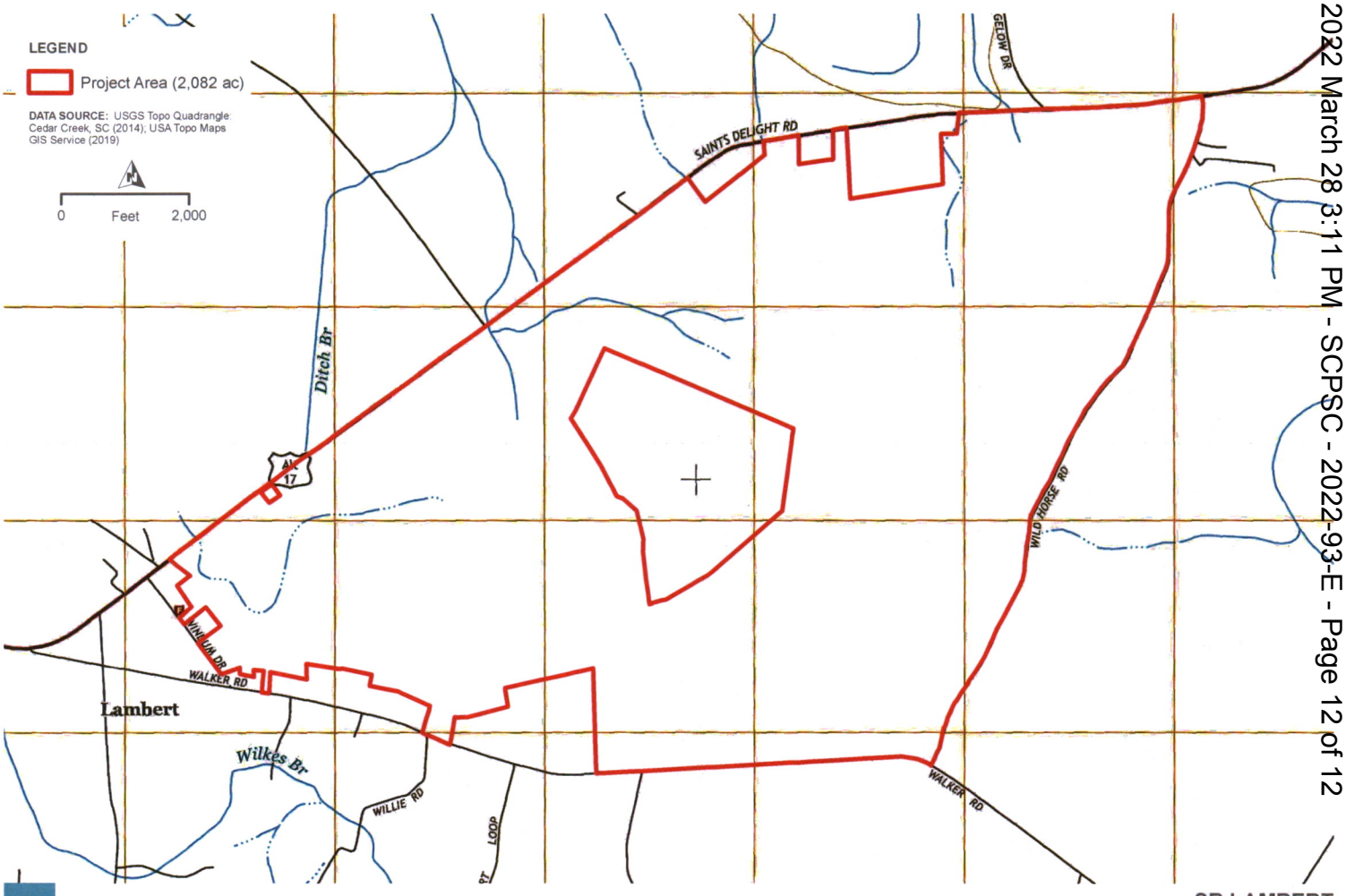
THE LOCATION OF THE SR LAMBERT PROJECT (USGS 1973 CEDAR CREEK, SC QUADRANGLE)

FIGURE 3

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\10532_SILICONRANCHCORPORATION\10172411_LAMBERT\7.2_WIP\MAP_DOCS\MXD\CULTURAL_REPORT\03_LAMBERT_1973QUAD.MXD - USER: GMARCHICA - DATE: 8/23/2021

CULTURAL RESOURCES ASSESSMENT

ACCEPTED FOR PROCESSING - 2022 March 28 3:11 PM - SCPSC - 2022-93-E - Page 12 of 12



SR LAMBERT

THE LOCATION OF THE SR LAMBERT PROJECT (USGS 2014 CEDAR CREEK, SC QUADRANGLE)

FIGURE 4

CULTURAL RESOURCES ASSESSMENT

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\110532_SILICONRANCHCORPORATION\10172411_LAMBERT\7.2_WIP\MAP_DOCS\MXD\CULTURAL_REPORT\04_LAMBERT_2014QUAD.MXD - USER: GMARCHICA - DATE: 8/23/2021