



Cultural Resources Reconnaissance Survey
Greenwood Genetic Center Partnership Campus
Greenwood County, South Carolina
S&ME Project No. 4226-18-102
SHPO Project No. 18-KL0292

PREPARED FOR:

Greenwood Partnership Alliance
104 Maxwell Avenue, 6th Floor
Greenwood, South Carolina 29646

PREPARED BY:

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

November 2018



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Authors: Joseph A. DeAngelis, M.A. and Heather Carpini, M.A.

November 2018



Management Summary

On behalf of Greenwood Partnership Alliance (GPA), S&ME, Inc. (S&ME) has completed a cultural resources reconnaissance survey of the proposed approximately 191.75-acre project area associated with the Greenwood Genetic Center Partnership Campus in Greenwood, Greenwood County, South Carolina (Figures 1.1 and 1.2). The project area is made up of two separate areas; Area A is roughly 171.63-acres and is located to the southwest of an existing railroad line and north of W. Alexander Road. Area B is roughly 20.12-acres and is located east of the existing railroad line and west of Spring Street.

The majority of Area A was subject to a cultural resource assessment in 2003 under the project name Greenwood Biotechnology Park (Covington and Southerland 2003) and Area B has not been previously surveyed; approximately four acres of Area A was not included in the project area examined in 2003. During the 2003 survey of Area A, three archaeological sites were identified (38GN0541 through 38GN0543) and an intensive survey was recommended for the project tract (Appendix A). The State Historic Preservation Office (SHPO) agreed with the recommendations for an intensive survey (Appendix B) and the survey was completed in 2006 (Trinkley and Southerland 2006) (Appendix C). During the survey, the three archaeological sites identified during the cultural resource assessment were re-located; 38GN0541 and 38GN0543 were determined to be not eligible for inclusion in the National Register of Historic Places (NRHP), while 38GN0542 remained unevaluated for inclusion in the NRHP and avoidance of the site was recommended; a 50-foot buffer was to be established around the site before construction commences, this buffer is depicted on a plat map that was submitted to SHPO in 2007.

The purpose of the current survey was to assess the project area's potential for containing significant cultural resources and to make recommendations regarding additional work that may be required under Section 106 of the National Historic Preservation Act, as amended, and other pertinent federal, state, or local laws. This work was done in anticipation of federal funding or federal permitting and was carried out in general accordance S&ME Proposal Number 42-1800739 rev.2, dated August 2, 2018.

Fieldwork for the project was conducted on August 15, 2018. This work included the excavation of five shovel tests in Area B and a limited architectural survey. As a result of the investigations, one historic cemetery was re-located and recorded as an above ground resource (38GN0542/0165), one archaeological site was identified (38GN0852), two previously recorded historic resources were revisited (0089 and 0094), and nine previously unrecorded structures (0166 through 0174) were identified within or adjacent to the project area (Figures 1.1 and 1.2; Table 1.1).

The two previously recorded structures that were revisited during the current survey (0089 and 0094) were determined to be not eligible for inclusion in the NRHP and S&ME agrees with these recommendations. Archaeological site 38GN0852 is a twentieth century house site and unidentified prehistoric lithic scatter that is recommended as not eligible for inclusion in the NRHP and the nine newly recorded structures (0166 through 0174) are also recommended not eligible for inclusion in the NRHP.

Previously recorded archaeological site 38GN0542, an early nineteenth century cemetery, was re-located and appears to remain intact; S&ME recorded the cemetery as an above ground resource, per the current site/structure recordation guidelines, and the resource is now named 38GN542/0165. S&ME recommends avoidance of the cemetery through the establishment of a 50-ft buffer and the resource remain unevaluated for NRHP eligibility. The 50-ft buffer can consist of orange construction fencing that should be established prior to construction and can be removed once construction is complete; the buffer has been recorded on the plat map

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and SHPO has this information on file. Please note that cemeteries are protected from disturbance and desecration under South Carolina state law (South Carolina Code of Laws 16-17-600) and avoidance is recommended and public ingress and egress to cemeteries on private property needs to be maintained per S.C. Code of Laws, Section 27-43-310.

It is the opinion of S&ME that Area B has a low probability for containing significant archaeological sites. The tract consists of heavily eroded soils and has been disturbed by the construction of a transmission line and a sewer line. Given the results of this survey and the previously completed investigation on the project area, it is the opinion of S&ME that the project area has a low potential for containing significant resources, and that no further cultural resources investigations should be required for the current project area. If the cemetery cannot be avoided cemetery law is enforced by county and municipal law enforcement and SC Code 27-43-10 through 27-43-40 establishes a legal framework for moving abandoned cemeteries when necessary.

Table 1.1. Cultural resources identified and revisited during the current survey.

Resource	Description	NRHP Eligibility	Recommendation
0089	Residence, ca. 1920	Not Eligible	No Further Work
0094	Culvert, ca. 1890	Not Eligible	No Further Work
0166	Charleston and Western Railroad, 1882	Not Eligible	No Further Work
0167	Charleston and Western Railroad Bridge, ca. 1925	Not Eligible	No Further Work
0168	Georgia and Florida Railroad, 1906	Not Eligible	No Further Work
0169	Residence, ca. 1963	Not Eligible	No Further Work
0170	Residence, ca. 1964	Not Eligible	No Further Work
0171	Residence, ca. 1965	Not Eligible	No Further Work
0172	Residence, ca. 1900	Not Eligible	No Further Work
0173	Residence, ca. 1954	Not Eligible	No Further Work
0174	Franklin Subdivision, ca. 1950	Not Eligible	No Further Work
0174.1	Residence, ca. 1958	Not Eligible	No Further Work
0174.2	Residence, ca. 1955	Not Eligible	No Further Work
0174.3	Residence, ca. 1953	Not Eligible	No Further Work
0174.4	Residence, ca. 1955	Not Eligible	No Further Work
38GN0542/0165	Early 19th century cemetery	Unevaluated	Avoidance
38GN0852	20 th century house site; Unidentified prehistoric lithic scatter	Not Eligible	No Further Work



Table of Contents

Management Summary	i
Table of Contents	iii
1.0 Introduction	1
2.0 Environmental Setting	4
2.1 Location	4
2.2 Geology and Topography	4
2.3 Hydrology	4
2.4 Soils	4
2.5 Climate and Vegetation	4
3.0 Cultural Context	10
3.1 Prehistoric Context	10
3.1.1 Paleoindian Period (ca. 13,000–10,000 B.P.)	10
3.1.2 Archaic Period (ca. 10,000–3000 B.P.)	11
3.1.3 Woodland Period (ca. 3000–1000 B.P.)	13
3.1.4 Mississippian Period (ca. 1000–350 B.P.)	14
3.2 Historic Context	15
3.2.1 Early Settlement	15
3.2.2 Eighteenth Century Conflicts	16
3.2.3 Nineteenth Century	18
3.2.4 The Civil War and Reconstruction	19
3.2.5 Greenwood County	20
3.3 Previously Recorded Cultural Resources	21
3.4 Potential for Archaeological Resources	28
4.0 Methods	30
4.1 Archaeological Field Methods	30
4.2 Laboratory Methods	30
4.3 Architectural Field Methods	31
4.4 National Register Eligibility Assessment	31



5.0	Results	32
5.1	Archaeological Survey Results	32
5.1.1	Area A	32
	Site 38GN0542/SHPO Site No. 0165	32
5.1.2	Area B	37
	Site 38GN0852	41
5.2	Architectural Survey Results	43
5.2.1	Structure 0089	43
5.2.2	Resource 0094	44
5.2.3	Resource 0166	44
5.2.4	Resource 0167	46
5.2.5	Resource 0168	46
5.2.6	Structure 0169	48
5.2.7	Structure 0170	49
5.2.8	Structure 0171	49
5.2.9	Structure 0172	51
5.2.10	Structure 0173	51
5.2.11	Resource 0174	53
6.0	Conclusions and Recommendations	58
7.0	References Cited.....	60
8.0	Appendix A – 2003 Report for the Greenwood Biotechnology Park	67
9.0	Appendix B – SHPO Correspondence from 2003	68
10.0	Appendix C – 2006 Report for the Greenwood Biotechnology Park	69
11.0	Appendix D – Artifact Catalog	70
12.0	Appendix E – SHPO Correspondence 2018	71

List of Figures

Figure 1.1. Topographic map showing project area and 0.5-mile search radius.....	2
Figure 1.2. Aerial map showing project area and 0.5-mile search radius.	3



Figure 2.1. Aerial map showing soil types within the project area.....	5
Figure 2.2. Area of planted pine and sewer line corridor in previously surveyed Area A, facing northeast.....	6
Figure 2.3. Area of mixed hardwoods in previously surveyed Area A, facing northwest.....	7
Figure 2.4. Typical vegetation in Area B, facing southwest.....	7
Figure 2.5. Sewer line in Area B, facing southwest.	8
Figure 2.6. Transmission line corridor in Area B, facing southwest.....	8
Figure 2.7. Dirt road in Area B, facing southwest.	9
Figure 2.8. Drainage ditch in Area B, facing southwest.	9
Figure 3.1. ArchSite map showing 0.5-mile search radius.	22
Figure 3.2. Portion of Mouzon’s map (1775), showing vicinity of project area.....	23
Figure 3.3. Portion of Mills’ Atlas map of Abbeville District (1825), showing vicinity of project area.....	24
Figure 3.4. Portion of 1929 USDA soil survey map of Greenwood County, indicating vicinity of the project area.....	24
Figure 3.5. Portion of 1938 SCDOT map of Greenwood County, indicating vicinity of the project area...25	
Figure 3.6. Portion of <i>Greenwood</i> 1949 7.5-minute USGS topographic map, showing vicinity of the project area.....	25
Figure 3.7. Portion of 1957 SCDOT map of Greenwood County, indicating vicinity of the project area...26	
Figure 3.8. Portion of 1965 SCDOT map of Greenwood County, indicating vicinity of the project area...26	
Figure 3.9. Portion of <i>Greenwood</i> 1978 7.5-minute USGS topographic map, showing vicinity of the project area.....	27
Figure 3.10. Aerial map showing probability areas within the project area.....	29
Figure 5.1. Aerial map showing transect locations within the project area.....	33
Figure 5.2. Typical vegetation in Area A, facing north.....	34
Figure 5.3. Overview of cemetery and vegetation, facing northeast.	35
Figure 5.4. Example of a grave marker within site 38GN0542/0165.	35
Figure 5.5. Grave marker with a hand carved Freemasons symbol.	36
Figure 5.6. View of a row of depressions at site 38GN0542/0165, facing south.	36
Figure 5.7. Example of possible footstone of field markers on the surface.....	37
Figure 5.8. Typical soil profile throughout Area B.....	38
Figure 5.9. Typical vegetation through Area B, facing southwest.	38
Figure 5.10. Sewer line in Area B, facing northeast.....	39
Figure 5.11. Transmission line corridor in Area B, facing northwest.	39



Figure 5.12. Dirt road in the northeastern portion of Area B, facing northeast.	40
Figure 5.13. Drainage ditch within Area B, facing southeast.....	40
Figure 5.14. Site map for 38GN0852.	42
Figure 5.15. Overview of site 38GN0852, facing southwest.....	43
Figure 5.16. Structure 0089, facing southwest.....	44
Figure 5.17. Resource 0094, facing north.	45
Figure 5.18. Resource 0166, facing west.....	45
Figure 5.19. Resource 0167, facing north.	47
Figure 5.20. Resource 0168, facing north.	47
Figure 5.21. Resource 0168, facing south.	48
Figure 5.22. Structure 0169, facing northwest.....	49
Figure 5.23. Structure 0170, facing east.....	50
Figure 5.24. Structure 0171, facing northwest.....	50
Figure 5.25. Structure 0172, facing northwest.....	52
Figure 5.26. Structure 0172, facing southwest.....	52
Figure 5.27. Structure 0173, facing southeast.....	53
Figure 5.28. Franklin Subdivision boundary and representative structures.	54
Figure 5.29. Structure 0174.1, facing southwest.....	54
Figure 5.30. Structure 0174.2, facing northeast.	56
Figure 5.31. Structure 0174.3, facing west.....	56
Figure 5.32. Structure 0174.4, facing east.....	57

List of Tables

Table 1.1. Cultural resources identified and revisited during the current survey.....	ii
Table 2.1. Specific soil types within the project area.....	6
Table 3.1. Previously recorded cultural resources within a 0.5-mile search radius.....	22
Table 5.1. Summary of transects within the project area.....	32



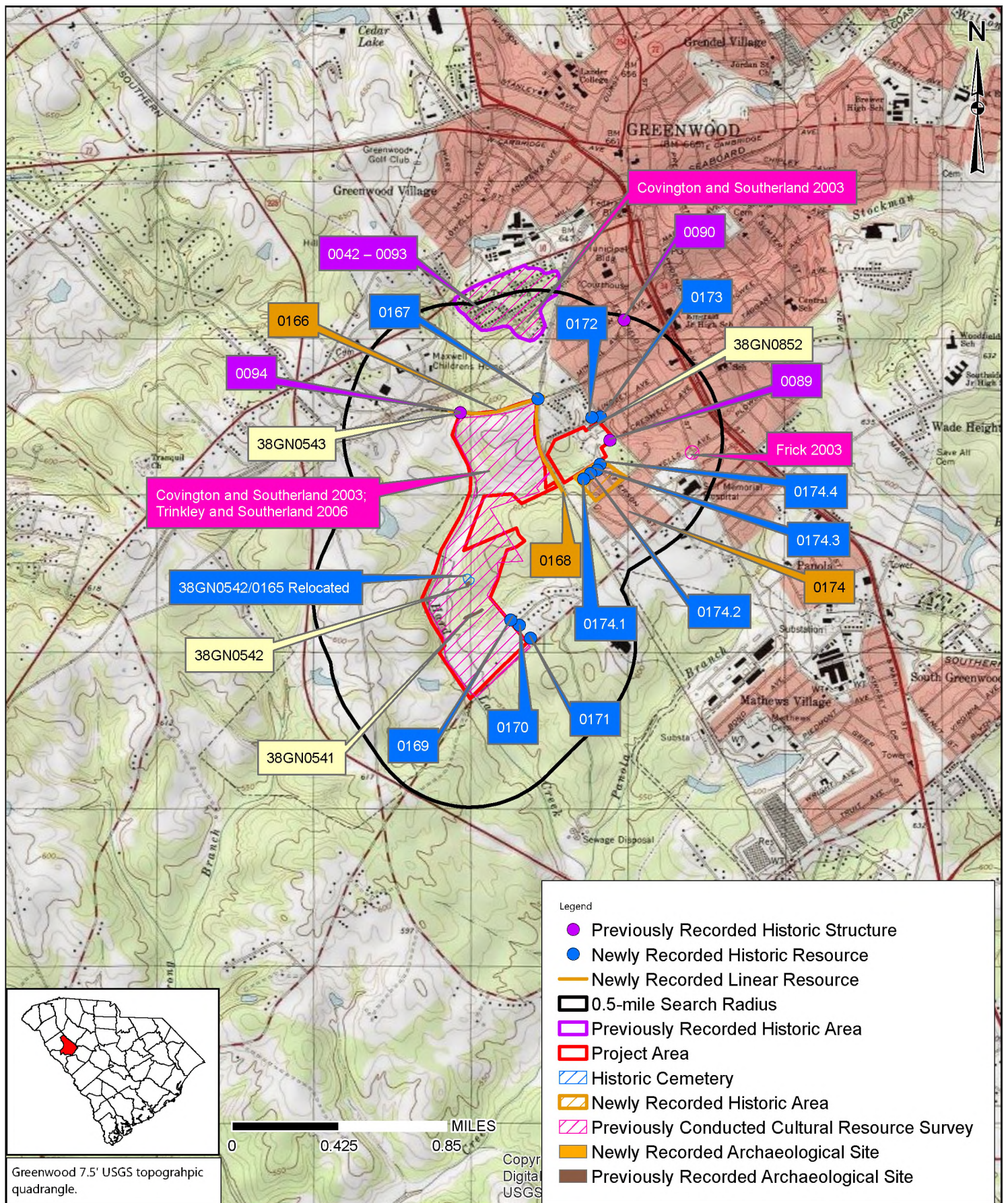
1.0 Introduction

On behalf of GPA, S&ME has completed a cultural resources reconnaissance survey of the proposed approximately 191.75-acre project area associated with the Greenwood Genetic Center Partnership Campus in Greenwood, Greenwood County, South Carolina (Figures 1.1 and 1.2). The project area is made up of two separate areas; Area A is roughly 171.63-acres and is located to the southwest of an existing railroad line and north of W. Alexander Road. Area B is roughly 20.12-acres and is located east of the existing railroad line and west of Spring Street.

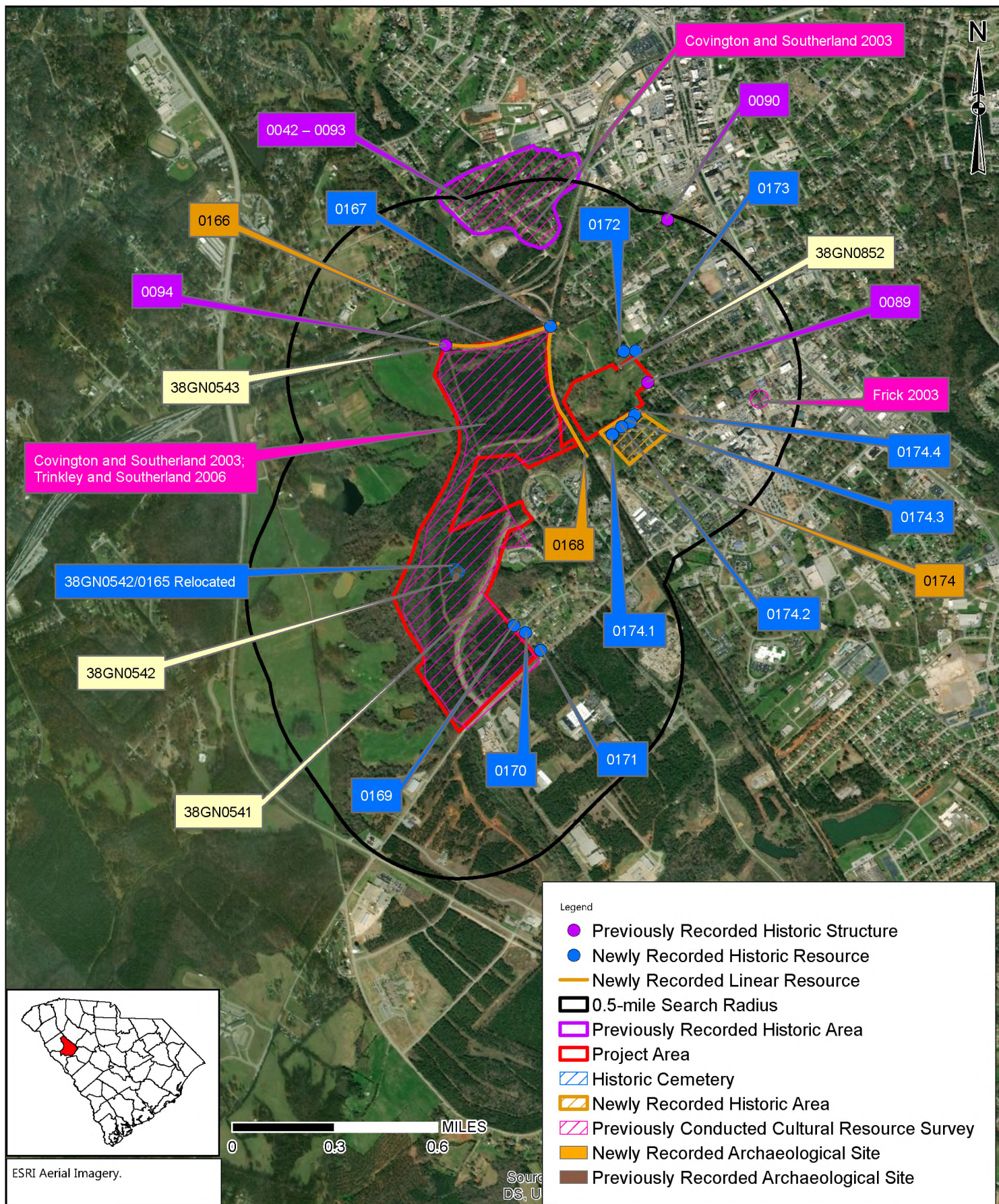
The majority of Area A was subject to a cultural resource assessment in 2003 under the project name Greenwood Biotechnology Park (Covington and Southerland 2003) and Area B has not been previously surveyed. During the 2003 survey of Area A, three archaeological sites were identified (38GN0541 through 38GN0543) and an intensive survey was recommended for the project tract (Appendix A). The SHPO agreed with the recommendations for an intensive survey (Appendix B) and the survey was completed in 2006 (Trinkley and Southerland 2006) (Appendix C). During the survey, the three archaeological sites identified during the cultural resource assessment were re-located; 38GN0541 and 38GN0543 were determined to be not eligible for inclusion in the NRHP, while 38GN0542 remained unevaluated for inclusion in the NRHP and avoidance of the site was recommended; a 50-foot buffer was to be established around the site before construction commences, this buffer is depicted on a plat map that was submitted to SHPO in 2007.

The purpose of the current survey was to assess the project area's potential for containing significant cultural resources and to make recommendations regarding additional work that may be required under Section 106 of the National Historic Preservation Act, as amended, and other pertinent federal, state, or local laws. This work was done in anticipation of federal funding or federal permitting and was carried out in general accordance S&ME Proposal Number 42-1800739 rev.2, dated August 2, 2018.

S&ME carried out background research and field investigation tasks in August 2018. The fieldwork was conducted by Field Director Joseph A. DeAngelis, M.A. and consisted of excavating shovel tests and photo documenting the project area. Graphics, GIS maps, and photographs were prepared by Mr. DeAngelis and Senior Architectural Historian/Historian Heather Carpini, M.A. Architectural evaluations and historic research for the project was conducted by Ms. Carpini. Artifact analysis was conducted by Mr. DeAngelis. The report was senior reviewed by Senior Archaeologist Kimberly Nagle, M.S., RPA.



	SCALE: 1:32,442	Topographic Map Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina	FIGURE NO. 1.1
	PROJECT NO: 4226-18-102		
	DRAWN BY: JAD, KJN		
	DATE: 10/30/2018		



	SCALE: 1:24,000	Aerial Map Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina	FIGURE NO. 1.2
	PROJECT NO: 4226-18-102		
	DRAWN BY: JAD, KJN		
	DATE: 10/30/2018		



2.0 Environmental Setting

2.1 Location

The project area is located in the central portion of Greenwood County directly west of the corporate limits of Greenwood, South Carolina. Greenwood County, which covers approximately 463 square miles is bounded by Laurens County to the north, Newberry County to the northeast, Saluda and Edgefield counties to the southeast, McCormick County to the south, and Abbeville County to the west.

2.2 Geology and Topography

The project area is located in the Piedmont physiographic province of South Carolina (Kovacik and Winberry 1989). The Piedmont is a 100 mile wide belt that encompasses most of the northwest portion of the state (Kovacik and Winberry 1989:16). The Piedmont physiographic province, which is underlain by soils weathered in place from the parent crystalline bedrock material. Rocks found in the Piedmont are generally metamorphic, with igneous granite intrusions (Kovacik and Winberry 1989). Topography in the project area ranges from 620 ft above mean sea level (AMSL) in the northeastern portion of the project area, to 550 ft AMSL in the southwestern portion of the project area (Figure 1.1).

2.3 Hydrology

The project area is located within the Savannah River drainage basin, which covers approximately 4,900 square miles and consists of approximately 16 percent of the state's area (South Carolina Department of Natural Resources [SCDNR] 2013). The closest permanent water source is Hard Labor Creek, which is located along the western boundary of the project area (Figure 1.1). Hard Labor Creek meanders south and joins Cuffytown Creek to form Stevens Creek to the southeast of McCormick; Stevens Creek continues southeast and empties into the Savannah River, roughly 41 miles southeast of the project area.

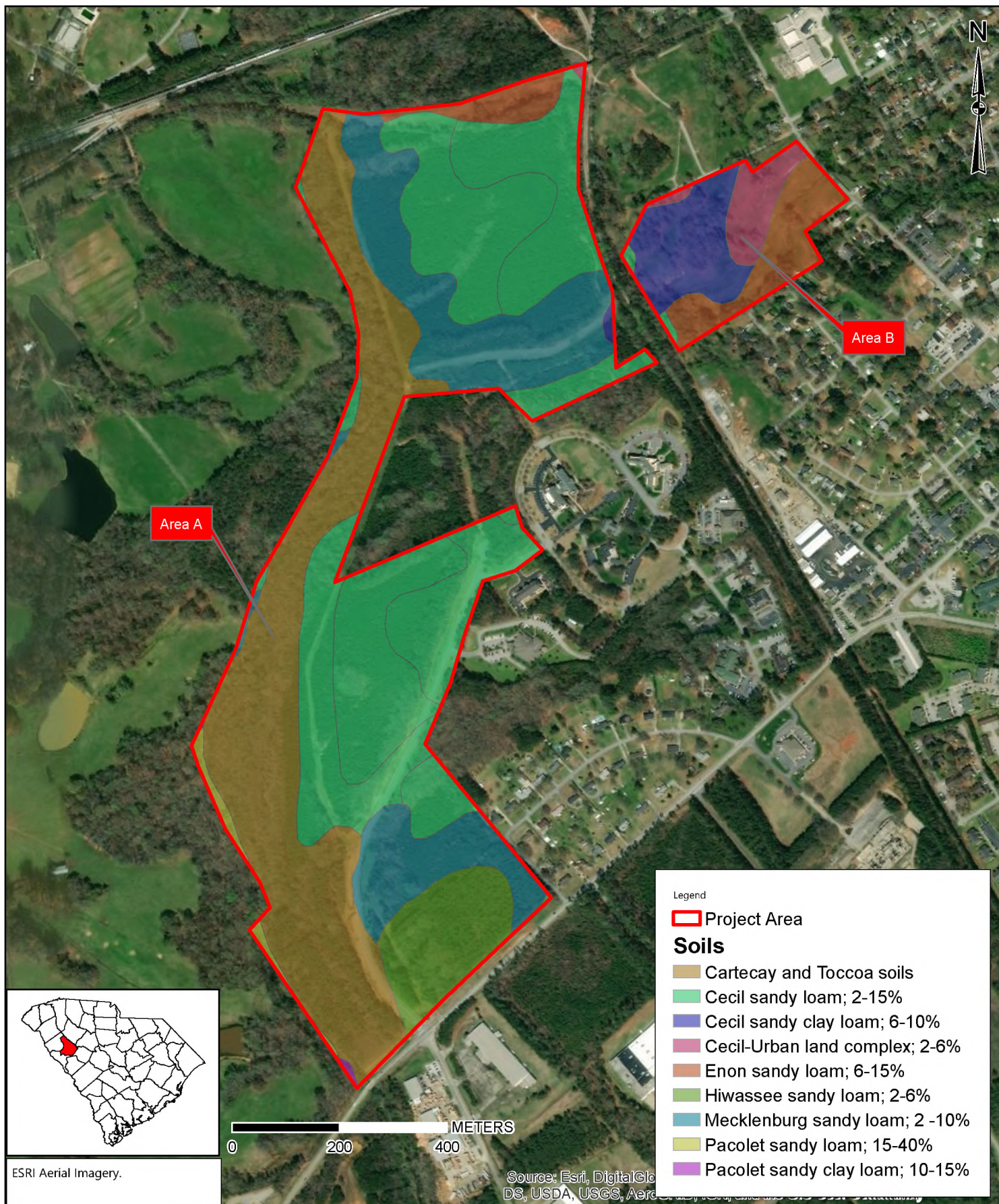
2.4 Soils

The project area is located in the Cecil-Hiwassee soil association, which consists of gently sloping to strongly sloping, well drained soils (Camp and Herren 1980). There are nine specific soil types located within the project area (Figure 2.1); their descriptions can be found in Table 2.1 (United States Department of Agriculture [USDA] Web Soil Survey, Accessed August 13, 2018).

2.5 Climate and Vegetation

The climate of Greenwood County is subtropical. It is characterized by long, warm summers and short, relatively mild winters. The average daily temperatures range from 47.8° Fahrenheit in winter to 72.6° Fahrenheit in summer. Precipitation is relatively evenly distributed throughout the year, averaging 46.29 inches annually. Rainfall is adequate for most crops during the peak-growing season of April through October. Snowfall is uncommon and averages only 1.5 inches per year (Camp and Herren 1980). Vegetation in Area A consists predominately of planted pine forest along with areas of mixed pine and hardwoods; disturbances in Area A include two sewer lines and an asphalt road for commercial development (Figures 2.2 and 2.3). Area B is predominately grassy field with stands of hardwood trees (Figure 2.4). Disturbances in Area B include a sewer line running northeast to southwest, a transmission line corridor that runs approximately northwest to southeast, a dirt road in the northeastern corner, and several drainage ditches throughout the area (Figures 2.5 through 2.8).

Drawing Path: T:\Projects\2018\ENV\Other Office Jobs\4226-18-102 Greenwood Genetics Center CRIS\Phase 440 Cultural Resources\GIS\Figures\Figure 2.1 Soils.mxd plotted by jadeangelis 08-24-2018



	SCALE:	1:9,500	Aerial map showing soil types Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina	FIGURE NO. 2.1
	PROJECT NO:	4226-18-102		
	DRAWN BY:	JAD		
	DATE:	8/24/2018		

Table 2.1. Specific soil types within the project area.

Soil Name	Type	Drainage	Location	Slope
Cartecay and Toccoa soils		Somewhat poorly drained	Flood plains	0–2%
Cecil	Sandy loam	Well drained	Interfluves	2–15%
Cecil	Sandy clay loam	Well drained	Interfluves	6–10%
Cecil-Urban land complex		Well drained	Hillslopes	2–6%
Enon	Sandy loam	Well drained	Hillslopes	6–15%
Hiwassee	Sandy loam	Well drained	Stream terraces	2–6%
Mecklenburg	Sandy loam	Well drained	Hillslopes	2–10%
Pacolet	Sandy loam	Well drained	Interfluves	15–40%
Pacolet	Sandy clay loam	Well drained	Hillslopes	10–15%



Figure 2.2. Area of planted pine and sewer line corridor in previously surveyed Area A, facing northeast.



Figure 2.3. Area of mixed hardwoods in previously surveyed Area A, facing northwest.



Figure 2.4. Typical vegetation in Area B, facing southwest.



Figure 2.5. Sewer line in Area B, facing southwest.



Figure 2.6. Transmission line corridor in Area B, facing southwest.



Figure 2.7. Dirt road in Area B, facing southwest.



Figure 2.8. Drainage ditch in Area B, facing southwest.



3.0 Cultural Context

The cultural context of the region is reviewed below for two purposes: first, to outline previous research in the region and the nature of historic and prehistoric resources that might be expected in the project area and second, to provide a comparative framework in which to place resources identified within the project area and APE in order to better understand their potential significance and NRHP eligibility. The cultural context of the project area, for the purposes of the Cultural Resources Survey, includes the prehistoric record and the historic past, which are discussed in this section of the report.

3.1 Prehistoric Context

Over the last three decades there has been much debate over when humans first arrived in the New World. The traditional interpretation is that humans first arrived in North America via the Bering land bridge that connected Alaska to Siberia at the end of the Pleistocene, approximately 13,500 years ago. From Alaska and northern Canada, these migrants may have moved southward through an ice-free corridor separating the Cordilleran and Laurentide ice sheets to eventually settle in North and South America.

Some researchers have suggested that initial colonization of the New World began well before Clovis, with some dates going back more than 35,000 years (Dillehay and Collins 1988; Goodyear 2005). Evidence for pre-Clovis occupations are posited for the Meadowcroft Rockshelter in Pennsylvania, the Cactus Hill and Saltville sites in Virginia, and 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). A number of sites providing better evidence for a presence in the New World dating between 15,000 and 13,500 years ago have been discovered. Although far from numerous, these sites are scattered across North and South America, including Alaska, Florida, Missouri, Oregon, Tennessee, Texas, Wisconsin, and southern Chile. Despite this, the earliest definitive evidence for occupation in the Southeastern United States is at the end of the Pleistocene, approximately 13,000 years ago (Anderson and O'Steen 1992; Bense 1994).

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

Unfortunately, most information about Paleoindian lifeways in the Southeast comes from surface finds of projectile points rather than from controlled excavations. However, the Tree House site (38LX531), located along the Saluda River near Columbia, has shed light on Paleoindian lifeways in the area. The Tree House site is a multi-component, stratified site containing occupations ranging from the Early Paleoindian to Mississippian periods (Nagle and Green 2010). Evidence from the site, which yielded an *in-situ* Clovis point, indicated short-term use by relatively mobile populations. The tools found at the Tree House site could have been used for hunting and butchering, and it is likely that the site was used as a hunting camp during the Early and Late Paleoindian subperiods. Lithic raw materials associated with the Paleoindian component tended to be higher quality stone such as Black Mingo chert, Coastal Plain chert, and crystal quartz, although lesser quality local materials such as quartz were used as well (Nagle and Green 2010:264).

The limited information we have for the Paleoindian Period suggests 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. Paleoindian artifacts have been found in both riverine and inter-riverine contexts (Charles and Michie 1992:193). Paleoindian projectile points appear 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).

Paleoindian tools are typically well-made and manufactured from high-quality, cryptocrystalline rock such as Coastal Plain and Ridge and Valley chert, as well as Piedmont metavolcanics such as rhyolite (Goodyear 1979). Paleoindians traveled long distances to acquire these desirable raw materials, and it is likely that particularly favored quarries were included in seasonal rounds, allowing them to replenish their stock of raw material on an annual basis.

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, although they tend to be clustered in the eastern United States (Anderson and Sassaman 1996:222). Paleoindian artifact assemblages typically consist of diagnostic lanceolate projectile points, scrapers, graters, unifacial and bifacial knives, and burins. Projectile point types include fluted and unfluted forms, such as Clovis, Cumberland, Suwanee, Quad, and Dalton (Anderson et al. 1992; Justice 1987:17–43).

In South Carolina, the Clovis sub-period is generally thought to date from 11,500 to 11,000 B.P. (Sassaman et al. 1990:8). Fairly recent radiocarbon data indicate that a more accurate time frame for the Clovis period in North America may be 11,050 to 10,800 B.P. (Waters and Stafford 2007); however, this has yet to gain widespread acceptance. Suwanee points, which are slightly smaller than Clovis points, are dated from 11,000 to 10,500 B.P. This is followed by Dalton points, which are found throughout the Southeast from about 10,500 to 9900 B.P.

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. Much of the Southeast during the early part of this period consisted of a mixed oak-hickory forest. Later, during the Hypsithermal interval, between 8000 and 4000 B.P., southern pine communities became more prevalent in the interriverine uplands and extensive riverine swamps were formed (Anderson et al. 1996a; Delcourt and Delcourt 1985).

The Archaic Period typically has been 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 are presumed to reflect a fairly high degree of mobility, making use of seasonally available resources in the changing environment across different areas of the Southeast. The 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 in the Late Archaic.

Early Archaic (10,000–8000 B.P.)

During the Early Archaic, there was a continuation of the semi-nomadic hunting and gathering lifestyle seen during the Paleoindian Period; however, there was a focus on modern game species rather than on the megafauna, which had become extinct by that time. During this time there also appears to have been a gradual,



but steady increase in population and a shift in settlement patterns. In the Carolinas and Georgia, various models of Early Archaic social organization and settlement have been proposed (Anderson et al. 1992; Anderson and Hanson 1988). In general, these models hypothesize that Early Archaic societies were organized into small, band-sized communities of 25 to 50 people whose main territory surrounded a portion of a major river (Anderson and Hanson 1988: Figure 2). 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 1,500 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 were moving between major drainages just as easily as they were moving along them. In contrast to earlier models, group movements were 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.

Diagnostic markers of the Early Archaic include a variety of side and corner notched projectile point types such as Hardaway, Kirk, Palmer, Taylor, and Big Sandy, and bifurcated point types such as Lecroy, McCorkle, and St. Albans. Other than projectile points, tools of the Early Archaic subperiod include end scrapers, side scrapers, graters, 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 Tennessee (Chapman and Adovasio 1977).

Middle Archaic (8,000–5000 B.P.)

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 periods. By approximately 6000 B.P., extensive riverine and coastal swamps were formed by rising water tables as the sea level approached modern elevations (Whitehead 1972). It was during this subperiod that river and estuary systems took their modern configurations. The relationship between climatic, environmental, and cultural changes during this period, however, is still poorly understood (Sassaman and Anderson 1995:5–14). 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 and numerous small, upland lithic scatters dot the interriversine 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, groundstone tools such as axes, atlatl weights, and grinding stones became more common, while flaked stone tools became less diverse and tend to be made of locally available raw materials (Blanton and Sassaman 1989). Middle Archaic tools tend to be expediently manufactured and have a more rudimentary appearance than those found during the preceding Paleoindian and Early Archaic periods. The most common point type of this subperiod is the ubiquitous Morrow Mountain, but others such as Stanly, Guilford, and



Halifax also occur, as well as transitional Middle Archaic-Late Archaic forms such as Brier Creek and Allendale/MALA (an acronym for Middle Archaic Late Archaic) (Blanton and Sassaman 1989; Coe 1964). The major difference in the artifact assemblage of the Stanly Phase seems to be the addition of stone atlatl weights. The Morrow Mountain and Guilford phases also appear during the Middle Archaic, but Coe (1964) considers these phases to be without local precedent and views them as western intrusions.

Late Archaic (5000–3000 B.P.)

The Late Archaic 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 allowed humans to occupy strategic locations for longer periods of time. 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 formation 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.

The most common diagnostic biface of this subperiod is the Savannah River Stemmed projectile point (Coe 1964), a broad-bladed stemmed point found under a variety of names from Florida to Canada. There are also smaller variants of Savannah River points, including Otter Stemmed and Small Savannah River points that date to the transitional Late Archaic/Early Woodland. Other artifacts include soapstone cooking discs and netsinkers, shell tools, grooved axes, and worked bone.

The earliest pottery in the New World comes from the Savannah River Valley and coastal regions of South Carolina and Georgia. 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). 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).

3.1.3 Woodland Period (ca. 3000–1000 B.P.)

Like the preceding Archaic Period, the Woodland is traditionally divided into three subperiods—Early Woodland (3000–2300 B.P.), Middle Woodland (2300–1500 B.P.), and Late Woodland (1500–1000 B.P.)—based on technological and social advances and population increase. Among the changes that occurred during this period were a widespread adoption of ceramic technology, an increased reliance on native plant horticulture, and a more sedentary lifestyle. There is also an increase in sociopolitical and religious interactions as evidenced by an increased use of burial mounds, increased ceremonialism, and expanded trade networks (Anderson and Mainfort 2002). In addition, ceramics became more refined and regionally differentiated, especially with regard to temper.



Early Woodland (3000–2300 B.P.)

The Early Woodland subperiod is generally marked by the intensification of horticulture, an increased use of ceramics in association with a semisedentary lifeway, and the introduction of the bow and arrow. The earliest expression of the Early Woodland subperiod in the Piedmont is the Badin phase (Ward and Davis 1999). Representative cultural material includes sand-tempered cordmarked or fabric-impressed ceramics and large, crude triangular projectile points (Ward and Davis 1999). Differences between the southern and northern Piedmont traditions became more pronounced through time and by the Late Woodland subperiod ceramics were quite diversified (Ward 1983).

Middle Woodland (2300–1500 B.P.)

In some areas of the Piedmont, the Middle Woodland subperiod is characterized by the Yadkin phase, whose ceramics are similar to the previous Badin type except they are tempered with crushed quartz rather than sand (Ward and Davis 1999). However, as Webb and Leigh (1995:29) point out, there is no clear, linear relationship between the development of the two phases. In some areas, Yadkin may represent the earliest ceramics, whereas in other areas Badin may be the earliest type. The Yadkin Large Triangular Point is the diagnostic point of the Early and Middle Woodland subperiods throughout much of North and South Carolina. Although substantial regional differences appear during this time, the Piedmont region was relatively unaffected by the elaborate Hopewell and Swift Creek cultures.

Late Woodland (1500–1000 B.P.)

The Late Woodland subperiod is one of the least understood prehistoric subperiods, both in the South Carolina Piedmont and in the Southeast as a whole. Few diagnostic artifacts are known that can definitively date occupations to this subperiod. The few diagnostic artifacts associated with the Late Woodland subperiod in the South Carolina Piedmont include small triangular and pentagonal projectile points, as well as Swift Creek, Napier, and Woodstock ceramics (Benson 2006:53–54).

3.1.4 Mississippian Period (ca. 1000–350 B.P.)

The Mississippian Period saw dramatic changes across most of the Southeast. Mississippian societies were complex sociopolitical entities that were based at mound centers, usually located in the floodplains along major river systems. The flat-topped platform mounds served as both the literal and symbolic manifestation of a complex sociopolitical and religious system that linked chiefdoms across a broad network stretching from the Southeastern Atlantic Coast, to Oklahoma (Spiro Mounds) in the west, to as far north as Wisconsin (Aztalan). Mound centers were surrounded by outlying villages that usually were built along major rivers to take advantage of the rich floodplain soils. Smaller hamlets and farmsteads dotted the landscape around villages and provided food, tribute, and services to the chief in return for protection and inclusion in the sociopolitical system. While Mississippian subsistence was focused to a large extent on intensive maize agriculture, the hunting and gathering of aquatic and terrestrial resources supplemented Mississippian diets (Anderson 1994).

Mound centers have been found along most major river systems in the Southeast, and South Carolina is no exception. Major Mississippian mounds in the area include the Belmont and Mulberry sites along the Wateree River in central South Carolina; Santee/Fort Watson/Scotts Lake on the Santee River; the Irene site near Savannah; Hollywood, Lawton, Red Lake, and Mason's Plantation in the central Savannah River Valley; and Town Creek along the Pee Dee River in North Carolina (Anderson 1994).



Diagnostic artifacts of the Mississippian Period include small triangular projectile points and sand-tempered Lamar, Savannah, and Etowah pottery types (Anderson and Joseph 1988; Elliot 1995). These types are primarily identified by their complicated stamped designs, although simple stamped, check stamped, cordmarked, and other surface treatments also occur. Various ceremonial items made from stone, bone, shell, copper, and mica were used as symbolic markers of chiefly power and status.

There is increasing evidence that territorial boundaries between chiefdoms were closely maintained during the Mississippian Period. Within the South Carolina Piedmont, Judge (2003, see also DePratter and Judge 1990) has identified six phases of Mississippian occupation within the Wateree Valley: Belmont Neck (A.D. 1200–1250), Adamson (A.D. 1250–1300), Town Creek (A.D. 1300–1350), McDowell (A.D. 1350–1450), Mulberry (A.D. 1450–1550), and Daniels (A.D. 1550–1675). Cable (2000) adds a Savannah phase (A.D. 1200–1300) to this list, between the Belmont Neck phase (which he puts at A.D. 1100–1200) and Adamson phase (which he places between A.D. 1300–1350). Meanwhile, groups living in the southern part of the North Carolina Piedmont were part of the Pee Dee culture, which includes the Teal (A.D. 950–1200), Town Creek (A.D. 1200–1400), and Leak (A.D. 1400–1600) phases (Ward and Davis 1999:123–134).

3.2 Historic Context

3.2.1 Early Settlement

Although settlers of European descent began arriving in South Carolina's backcountry, following the rivers inland, during the mid-eighteenth century, the area containing the project area was sparsely settled during the mid- to late 1700s. It was near the boundary with Cherokee territory, as established in 1766, making it remote and somewhat dangerous territory. However, there were still a handful of white families living on both sides of the Indian land boundary in the mid-1700s (Edgar 1998:275).

The area was distinctly different from the Lowcountry, where the plantation system had already developed to produce rice and indigo as cash crops (Klein 1981:662). Geographically, this northwestern region of South Carolina is part of the Piedmont, which did not contain the soils or rainfall needed to produce these early staple crops, thus delaying the adoption of the plantation system in this region (Kovacik and Winberry 1989:41).

As early as the 1500s, Spanish explorers traveled through the inland regions of North and South Carolina in their quest for land and gold, although they never entered present day Greenwood County (Edgar 1998:23). Other Europeans had ventured into the Piedmont throughout the 1700s, seeking to trade with the local Indians, with at least four traders living among the Cherokee by 1714, but these men were only transitory and did not establish permanent settlements in the area (Edgar 1998). Although Governor Robert Johnson instituted a plan in 1730 to encourage settlement in the backcountry, as a protective buffer for Lowcountry plantations, this had little effect on the project area because of its location near Indian territory.

During the mid-eighteenth century, some Lowcountry South Carolina residents did migrate to the backcountry, lured by the large unclaimed expanses of land, but the majority of the earliest white settlers came from more northern areas, including Pennsylvania, Virginia, and North Carolina. By the 1760s and 1770s, some of these colonists had begun to push their settlements near the boundary of the Cherokee lands, into territory in present day Greenwood County. Once the Cherokee ceded a portion of its southern hunting lands to the colony of South Carolina, at the conclusion of the Cherokee War, settlers began to apply for individual land grants within present day Greenwood County, settling first along the major rivers and creeks in the area (Landrum 1900; Leonard 1986).



Land claims in these areas during the 1700s tended to be small, encompassing much less area than the massive Lowcountry plantations, although some early grants to Indian traders were extensive.

3.2.2 *Eighteenth Century Conflicts*

The second half of the eighteenth century was a period of unrest in the South Carolina backcountry, including the Greenwood County area. The beginnings of the instability occurred during the 1750s, as the Cherokee became frustrated by the unfulfilled promises of the British colonies and began attacking settlements along the Carolina frontiers. The attacks increased and grew continually worse, eventually inaugurating the French and Indian War, which is generally recognized as lasting from 1754 to 1763 (Edgar 1998:205–206). During this period, settlers in the backcountry established small forts for protection, which were essentially stockades where families in the area could go in times of imminent danger. In the vicinity of the project area, a handful of these forts appeared, although the locations of most of them are unknown. A description of Fort Prince in nearby Spartanburg County gives an idea of their construction details. John Prince's fort was "circular and about 150 feet in diameter—with upright timbers 12 to 15 feet high. Around the perimeter was a ditch...beyond the ditch was an abatis of heavy timbers. In the stockade itself were portholes for the use of the riflemen inside" (Huff 1995:19).

The most brutal of the attacks in the South Carolina backcountry came in early 1760. In February, a wagon train of refugees was massacred at Long Cane Creek, along the western edge of the colony. The French and Indian War ended in 1763 with the Treaty of Paris, but by 1761 the Cherokee had already been vanquished and had signed a treaty, essentially ending the Indian attacks on inland South Carolina settlements (Edgar 1998:206–207). From 1761 to 1776, through discussions and treaties, the Boundary Line between Indian lands and colonial territory was established (Weir 1997:275). Although this was before much of Greenwood County area was settled, the memory and threat of such attacks influenced settlers who moved on or near the Cherokee territory.

The end of the Cherokee threat did not restore order to the backcountry, however. With a growing population, backcountry residents felt that their needs were being neglected by the Charleston government. Settlers who had sought shelter within the forts during the Cherokee conflict had been victims of greed and extortion from the private fort owners. At the same time, the militiamen who were supposed to be protecting their property were raiding and squatting at the abandoned homesteads (Edgar 1998:206).

The treaty with the Cherokee and the subsequent end to the Indian threat did little to alleviate the situation. During the mid-1760s, gangs of bandits swept through the nearby Congaree and Saluda River basins, "burning and looting, torturing victims presumed to have items of value, raping wives and daughters, making off with horses, furniture and household goods" and generally terrorizing residents of established settlements (Edgar 1998:212). A lack of response from the colonial government in Charleston compelled the victims to band together and pursue vigilante justice in an attempt to protect themselves. This group of backcountry landowners became known as the Regulators, a movement which "united frontiersmen in an effort to make their region safe for planting and property [as] they struggled to establish a particular type of order consistent with the needs of hardworking farmers and rising slave owners" (Klein 1981:668). The issues of the 1760s were not limited to the conflict between gang members and the vigilante Regulators. The colonial government resented both the Regulators' tactics and their demands for backcountry equality. As a result, Regulators were arrested and tried for their actions just as often as bandits were. Ultimately, order was reestablished in the backcountry and the Regulator movement diminished in its power and influence. The Charleston government had agreed to establish circuit courts to meet the legal needs of backcountry residents; this led to the establishment of Ninety Six District



in the northwestern section of the colony. Although these courts did not begin operation until 1772, tensions between the two regions of South Carolina were lessened for the moment (Edgar 1998:215–216; Huff 1995:20).

This short period of peace would soon be ended by a more broad-reaching conflict, the third period of unrest to affect the backcountry in a quarter of a century. The residents of the Lowcountry, along with the citizens of other colonies, were becoming increasingly dissatisfied with the policies of the British. After Bostonians led a well-known protest against the Tea Act in 1773, the British government implemented harsh regulations as punishment. Seeing the situation in Boston reminded Charleston residents of their own recent struggles with the British-led colonial government—the Laurens-Leigh Controversy of 1767–1768 and the 1769 Wilkes Fund Controversy. Knowing that their own port could be easily closed by the British, Charlestonians generally supported Boston and the resolutions of the First Continental Congress (Edgar 1998:217–220).

Although the Lowcountry lent its support to the original tenants of the American Revolution, most backcountry settlers did not, highlighting the differences and tensions that still separated the two regions. Many backcountry settlers felt more slighted by the colonial government in Charleston than by the British. In Ninety Six District there was a large concentration of settlers with Loyalist feelings; many of these settlers were immigrants who had come to the colony seeking some measure of freedom. Often, these residents had acquired their lands through grants from the king and they felt a certain amount of loyalty and indebtedness to the monarchy. In 1775, William Henry Drayton negotiated with the citizens of inland South Carolina and a compromise was reached, which allowed the backcountry residents to remain neutral in the conflict in return for the provincial government basically leaving them alone. Drayton also courted Cherokee support for the Revolutionary cause during this period, arranging meetings with Indian leaders through Richard Pearis. Later, Pearis would join the Loyalist cause, along with the militia commander of the Upper Saluda Region, Colonel Thomas Fletchell. A separate force of partier militiamen was then organized in the northwest part of the colony by Captain John Thomas (Weir 1997; Gordon 2003).

While many backcountry residents remained loyal to the crown, but practiced neutrality, for the beginning years of the Revolution, Ninety Six District had a more experience with the conflict in late 1775. In an effort to subdue the district's Loyalist supporters, patriot leaders sent Colonel Richard Richardson to capture the forces of Patrick Cunningham and the Cherokee-bound ammunition that he had intercepted. At the Battle of the Great Canebreak, near Simpsonville, the patriots recaptured the ammunition and took 130 prisoners. On December 23, 1775, Loyalists signed an agreement stating that if they took up arms against the patriots again they would forfeit their estates (Weir 1997; Gordon 2003).

In 1776, fighting came again to the northwestern corner of South Carolina, as Indian attacks began anew along the frontier. To defend their homes, frontiersmen under the command of Andrew Williamson began a campaign against the Cherokee and those who supported them, including Richard Pearis. By August 22, 1776, Williamson's force had burned all of the Cherokee Lower Towns. In May 1777, the Cherokee signed the Treaty of DeWitt's Corner, formally transferring all land in South Carolina, except a small tract in Oconee and Pickens counties, to the state (Gordon 2003).

In May 1780, the capture of Charleston and the subsequent British conquest of inland South Carolina, along with the atrocities that accompanied the nearby fighting, stirred the anti-British sentiments of settlers in this area. A major battle occurred in present-day Greenwood County area at the town of Ninety-Six, southeast of the project area. The town of Ninety-Six began as a trading post in 1753 and was established as a town in 1772. By 1775 the town was a bustling commerce and government center in the backcountry along a major trade route connecting the Cherokee towns of the backcountry to the then capital city of Charlestown. In 1780, Ninety-Six was occupied



by British Loyalists under the command of Lieutenant Colonel John Cruger. At Ninety-Six, Cruger and his men built defenses including palisades and a redoubt called the Star Fort that provided the British forces the ability to protect the defenders. On May 22, 1781, Continental Army Major General Nathanael Greene led 1,000 troops against 550 Loyalists to siege the fortified village. At first, Greene's troops monitored the fort and built defense just on the outskirts of the town. On June 18, after more troops arrived, Greene decided to assault the fort. In a brutal fight that was dominated by bayonet and troops using their muskets as clubs, Greene's forces failed to take that fort and retreated. Eventually, backcountry residents aiding the Patriot Cause were soon able to assist the South Carolina troops in ousting the British from Ninety Six District in the spring of 1781 (Edgar 1998). The British eventually abandoned and burned Ninety-Six in the summer of 1781.

The ultimate result of the decades of conflict and unrest in the backcountry was the creation of a new political order. Abbeville and Edgefield counties were created in 1785, from a portion of Ninety-Six District. The development of new counties in the backcountry signaled a shift in South Carolina's social and political order, as power and influence became more concentrated in inland areas.

From the late seventeenth century into the early eighteenth century, rice and indigo were the primary cash crops for South Carolina farmers, with the largest settlements concentrated around the coast and tidal rivers. After the American Revolution, indigo underwent a sharp decline and, although rice was still grown in tidal areas, it was surpassed in importance by cotton, especially in areas further from the coast. Eli Whitney's 1793 invention of the cotton gin significantly bolstered this migration to cotton as the principal agricultural yield in South Carolina. This invention made farming of short-staple cotton in upcountry areas profitable by greatly decreasing the amount of labor needed to separate the cotton seeds from the fibers (Kovacik and Winberry 1989:83–95).

3.2.3 Nineteenth Century

At the beginning of the nineteenth century, the region encompassing the project area was primarily agricultural. Before 1800, the area's agriculture was dominated by subsistence farmers. Although tobacco was also grown by upcountry farmers, poor soils resulted in low yields and the crop was never as successful in South Carolina as it was in more northern areas such as Virginia (Edgar 1998:270).

With locally made cotton gins becoming available in the early 1800s, short-staple cotton became the primary crop in most of the upcountry. In many areas of the state, the enormous profits available from cotton growing and processing during the early nineteenth century influenced a large number of upcountry farmers to engage in this activity. These profits allowed cotton farmers to purchase more land and slaves, ultimately creating a plantation-based economy in many Piedmont counties (Edgar 1998:271). Abbeville and Edgefield counties followed the trend of many Piedmont counties during the mid-nineteenth century, with cotton as the dominant agricultural product, which subsequently increased slave population in upcountry counties, and ultimately in the state as a whole (Edgar 1998).

During the early nineteenth century the population of South Carolina grew, with an increase of nearly 100,000 people between 1790 and 1800. By 1820, the state population had grown to just over 490,000 people, with approximately 47 percent white, 51 percent slaves, and the remaining two percent free blacks. Abbeville and Edgefield counties also grew during this period, with the population increasing from 13,553 and 18,130 in 1800 to 23,167 and 25,119 in 1820, respectively (Social Explorer 2018).



As the antebellum period moved forward, the population of South Carolina grew at a slow, but steady rate. Between 1830 and 1860, the total population grew approximately 21 percent, from 581,185 to 703,708. By 1830, slavery had already been firmly entrenched in the state for many decades and the percentage of slave population remained relatively static, increasing only 2.9 percent, from 54.3 to 57.2 percent of the total state population over the three decades. During this same period, Abbeville and Edgefield counties experienced some growth, increasing from a total population of 28,149 and 30,509 in 1830 to 32,385 and 39,887 in 1860, respectively (Social Explorer 2018).

3.2.4 The Civil War and Reconstruction

By 1860, the South Carolina upcountry had developed a dual society, with plantation owners living alongside yeomen and subsistence farmers. As the questions of slavery, nullification, and secession loomed over antebellum South Carolina during the 1850s, the support of yeomen farmers in the upcountry was also important in the ultimate course that the state would take. Ford (1988) argues that these upcountry yeomen held a firm belief in their own independence and liberty, stemming from an inclusive political structure, widespread ownership of land, and a social system that encouraged white unity by holding black slaves as the lowest caste. Ultimately, yeomen could view themselves as independent and important because they were not slaves. Maintaining slavery was, therefore, an important part of affirming their independence and self-professed inherent superiority to blacks (Ford 1988:370–373). Therefore, when local governments held meetings to discuss secession in late 1860, the majority of upcountry residents favored seceding from the Union. On December 17, 1860, a statewide convention was held in Columbia and delegates from districts throughout South Carolina met and voted unanimously in favor of secession. Before the Ordinance of Secession could be drafted, a smallpox scare necessitated a change of venue, and the convention was moved to Charleston. There, on December 20, 1860, the Ordinance was presented and signed, officially declaring South Carolina as independent from the United States (Edgar 1998:360).

During most of the war, the project area was affected only indirectly as the military did not come to the region until 1865. Early in 1861, when excitement for the war was high and Southerners were rallying to the Confederate cause, many men volunteered for the army and traveled from the area to help defend Charleston, with men from the county mustering at various posts throughout the area and at least 24 Confederate companies were organized in the area, comprised of 3,000 to 4,000 area men who joined the cause. These same men, and many others of fighting age, went into battle in skirmishes throughout the South, leaving many farms to be run by wives, children, slaves, and old men. Women in the counties organized relief and aid societies, raising money and performing whatever services they could to help the war effort and the soldiers. The farms that continued to produce crops aided the war effort by supplying food to supplement shortages throughout the state and in the armies. Initially voluntary, this effort became compulsory after an 1863 state mandate required farmers to limit the amount of cotton planted and donate one-tenth of their crop yields to state government (Landrum 1900).

As the tide of the Civil War changed, and the Confederate army went on the defensive in an attempt to protect its major cities, the fighting came closer to home for residents in the project vicinity in the last weeks of the war. Although General William T. Sherman's Union army advanced through the state, looting and destroying property in a 30 mile swath along its route, including raiding and firing Columbia, it did not come close to the project area. In April and May 1865, however, the Union army rode through upstate South Carolina searching for Jefferson Davis, who was rumored to be fleeing south from Richmond through the area. The presence of the army was minimal and only lasted a day, but the most lasting legacy of the war was destruction of the slavery-based plantation system and the concomitant development of a new economic order (Edgar 1998:373).



With the collapse of the Confederacy, a struggle began between Congress and the President on how to handle the restoration of the southern states into the Union. Although the more radical policies of Congress were ultimately adopted, from 1865 to 1867 the southern states attempted to reorganize themselves under President Andrew Johnson's program. These efforts were repeatedly thwarted by Congressional policies, such as the December 1865 refusal to seat southern congressional delegates, the Fourteenth Amendment ratification, and the March 1867 Reconstruction Acts.

After the end of the Civil War, Abbeville and Edgefield counties retained many of the same characteristics it had during the antebellum period. The population of Abbeville and Edgefield counties grew steadily during the second half of the nineteenth century, from 32,385 and 39,887 in 1860 to 46,854 and 49,259 in 1890, respectively (Social Explorer 2018).

Despite the end of slavery, agriculture continued to dominate much of the region, although crop production fell during the early Reconstruction era. Cotton remained a primary crop in many areas, with farmers often planting it in lieu of food crops in an attempt to make a quick profit and pay the debts they had incurred. The market would soon become saturated with cotton, however, causing the prices to fall steadily during the 1880s, pushing the farmers further into debt (Edgar 1998:427–428). 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.

During the late nineteenth century, tenancy and sharecropping developed across South Carolina, as landless farmers, both black and white, sought arrangements that would allow them to continue farming to support their families. The newly freed 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 (Orser 1988:57).

3.2.5 Greenwood County

Greenwood County was formed in 1897 from portions of Abbeville and Edgefield counties. The 1900 census recorded Greenwood County with a population of 28,343 (Social Explorer 2018). The city of Greenwood was incorporated in 1857 on the edge of the Greenville and Columbia Railroad, which was the main line into Columbia from the backcountry.

Greenwood County's beginning, however, had a rocky start with the outbreak of the Phoenix election riot. In 1895, the South Carolina State Assembly updated the state constitution which significantly changed the means for requirements to vote. The focus of voter registration became one of "intelligence" instead of "personhood," which meant that voters would have to take a reading and writing test. The shift was meant by the constitutional framers to disenfranchise African American voters, and took effect on January 1, 1898. On November 8, 1898, white landowner Thomas Tolbert, the brother of Republican congressional candidate Robert Red Tolbert, stayed outside the polling station near the Watson and Lake general store in the small town of Phoenix where he began to take affidavits from local African Americans who felt disenfranchised by the changes made in the new state constitution. He also urged African Americans who were turned away from voting to also submit affidavits to air



their grievances. The affidavits were to be used by Tolbert to challenge the legality of changes made in the 1895 state constitution. A group of local democrats, including Democratic Party leader, J. I. "Bose" Ethridge, quickly approached Tolbert and beat and terrorized Tolbert and his allies. During the initial riot, Ethridge was killed by a shotgun blast and Tolbert also wounded by a shotgun blast and severely beaten. Additional riots then broke out which led to approximately four days of violence and led to an estimated twelve African-Americans that were fatally shot or hung, one African-American being lynched, and hundreds of additional people were injured. In aftermath of the riots, Democrats came to Greenwood County to avenge Ethridge's death by terrorizing citizens, lynching black residents and they drove Tolbert and his family from his home and burned his house and property. Two days after the Phoenix election riot, the larger Wilmington race riot occurred in Wilmington, North Carolina (Thompson and Wade 2014; Watson and Watson 1970).

One major event that occurred in city of Greenwood was the construction of the Oregon Hotel in 1898 as an upscale hotel next to the bustling railroad tracks. The Oregon Hotel became a symbol of Greenwood and served as a stopover for traveling salesmen and as a gathering place for Greenwood's social elite. The success of the Oregon Hotel convinced local businessmen to develop the adjoining area with houses, office, and retail businesses. The Oregon Hotel burned down in 1963 (Thompson and Wade 2014; *The Index-Journal* [Greenwood, South Carolina] 19 June 1929:32).

The Great Depression adversely affected the economy of Greenwood County as local farmers and textile mills struggled to survive. The New Deal helped put some Greenwood County residents back to work. The largest New Deal project in Greenwood County was the construction of the Buzzard's Roost Dam on the Saluda River. This formed Lake Greenwood that was used to generate electricity (Thompson and Wade 2014).

3.3 Previously Recorded Cultural Resources

On August 10, 2018, a background literature review and records search was conducted at the South Carolina Institute of Archaeology and Anthropology (SCIAA) in Columbia. The area examined was a 0.5-mile radius around the project area (Figure 3.1). The records examined at SCIAA include a review of ArchSite, a GIS-based program containing information about archaeological and historic resources in South Carolina. If cultural resources were noted within the 0.5-mile search radius, then additional reports and site forms contained at SCIAA and the South Carolina Department of Archives and History (SCDAH) were consulted.

A review of ArchSite indicated there are three previously recorded archaeological sites (38GN0541, 38GN0542, and 38GN0543), three previously recorded structures (0089, 0090, and 0094), one previously recorded historic area (0042–0093), and three previously conducted cultural resource surveys (Covington and Southerland 2003; Frick 2003; Trinkley and Southerland 2006) within a 0.5-mile radius of the project area (Figure 3.1, Table 3.1). Two of the previously conducted surveys were for the Greenwood Biotechnology Park and consist of the majority of the current project; the other survey conducted in 2003 was for the South Carolina Department of Transportation (SCDOT) and is located east of the project area (Frick 2003).

Table 3.1. Previously recorded cultural resources within a 0.5-mile search radius.

Resource No.	Description	NRHP Eligibility	Source
0042 – 0093	Mill village; ca. 1930s	Not Eligible	Covington and Southerland 2003
0089	Residence, ca. 1920	Not Eligible	Trinkley and Southerland 2006
0090	Residence, ca. 1925	Not Eligible	Covington and Southerland 2003
0094	Culvert, ca. 1890	Not Eligible	Trinkley and Southerland 2006
38GN0541	Middle to Late Archaic Lithic Scatter	Not Eligible	SCIAA Site Form 2006
38GN0542	18 th – 19 th Century Cemetery	Unevaluated	SCIAA Site Form 2006
38GN0543	Late 19 th to Early 20 th Century Historic Scatter	Not Eligible	SCIAA Site Form 2006

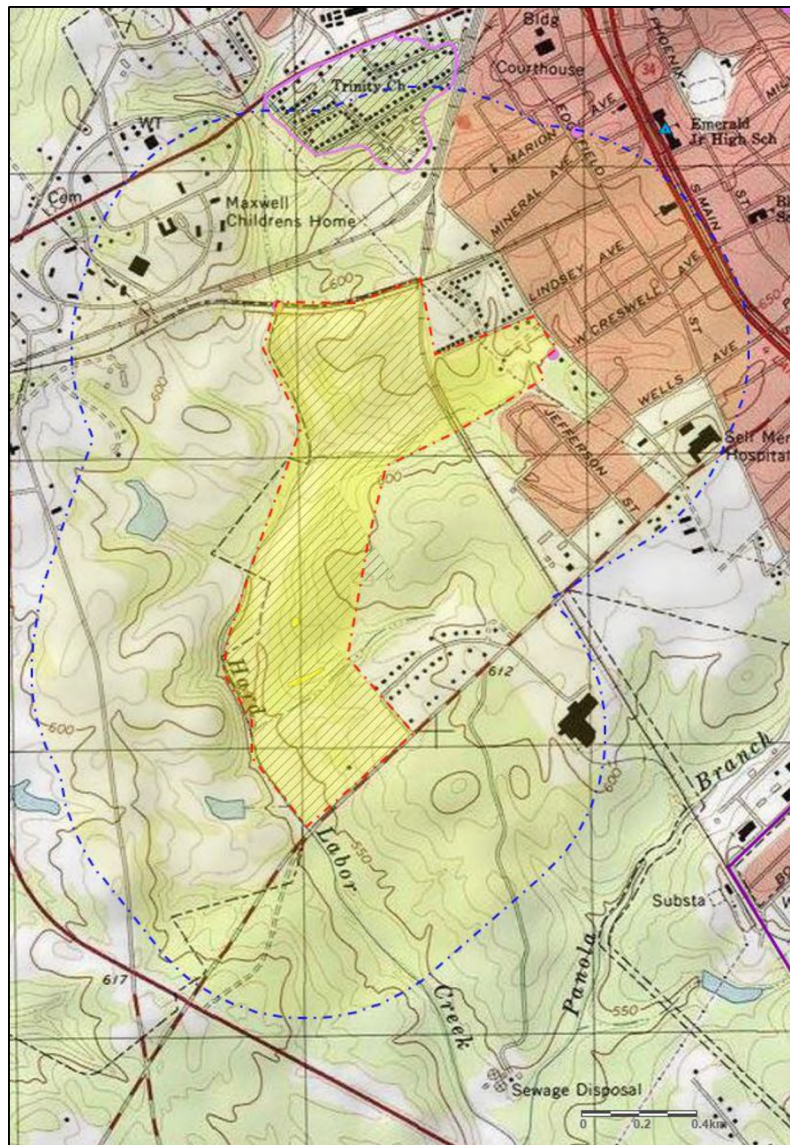


Figure 3.1. ArchSite map showing 0.5-mile search radius.

The previously recorded archaeological sites are within the project area. Sites 38GN0541 and 38GN0543 were recommended ineligible for inclusion in the NRHP; site 38GN0542 was identified as a eighteenth through nineteenth century historic cemetery that was unevaluated for inclusion in the NRHP. The two previously recorded structures were determined to be not eligible for inclusion in the NRHP (Covington and Southerland 2003; Trinkley and Southerland 2006).

As part of the background research, Henry Mouzon's (1775) map of North and South Carolina, Mills Atlas map (1825), a 1929 USDA soil survey map, SCDOT Highway maps from 1938, 1957, and 1965, and United States Geological Survey (USGS) topographic maps from 1949 and 1978 were examined. Mouzon's map indicates that the property was part of Ninety-Six Precinct and shows the area as sparsely populated with an unnamed road to the north of the project area and the community of Ninety-Six to the east (Figure 3.2). Mill's Atlas of Abbeville District also shows the project area as sparsely populated with a road labeled as 'Abbeville to Cambridge' present in the vicinity of the project area (Figure 3.3). The 1929 USDA soil survey map shows the growth and development of Greenwood to the north and east of the project area and a road in the location of Alexander Road West is present to the south; a railroad diverges into two separate lines to the northeast of the project area, one runs south through the eastern portion of the project area and the other runs west, to the north of the project area (Figure 3.4). The 1938 SCDOT map shows the growing network of roads surrounding the project area; two structures are present off of Alexander Road West and Connie Maxwell Orphanage is present to the west (Figure 3.5). The 1949 USGS topographic map shows six structures and a transmission line corridor in the northeastern corner of the project area (Figure 3.6). The 1957 and 1965 SCDOT maps are similar to the 1938 SCDOT depicting the continued growth of Greenwood; the Connie Maxwell Orphanage is not present in the 1965 map (Figures 3.7 and 3.8). The 1978 USGS topographic map shows one structure off of Alexander Road West in the southern edge of the project area (Figure 3.9).

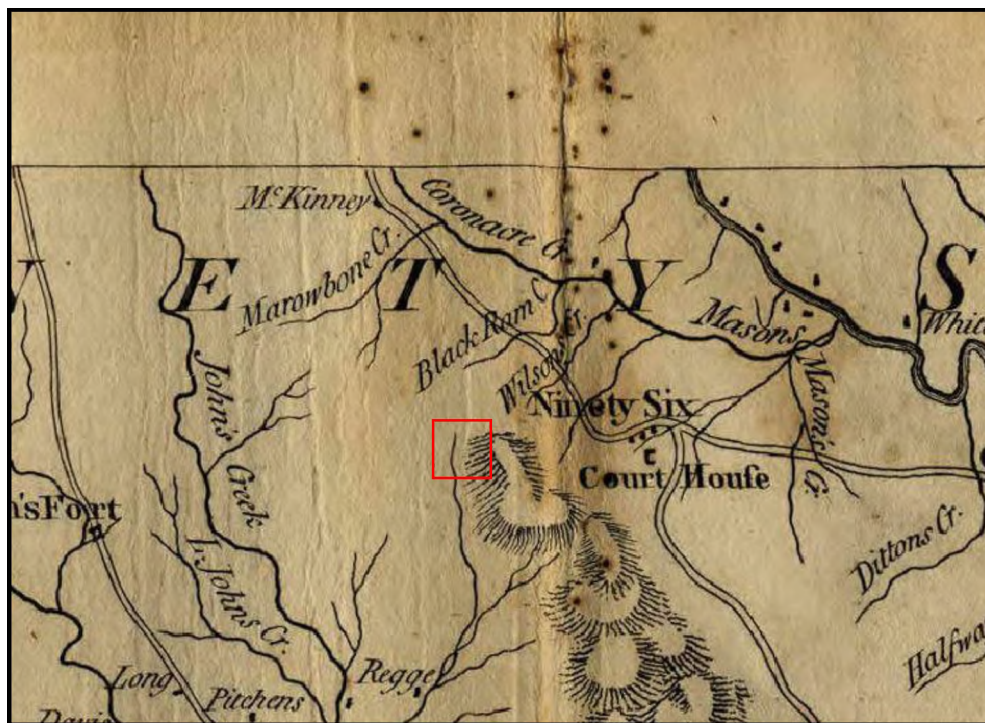


Figure 3.2. Portion of Mouzon's map (1775), showing vicinity of project area.



Figure 3.3. Portion of Mills' Atlas map of Abbeville District (1825), showing vicinity of project area.

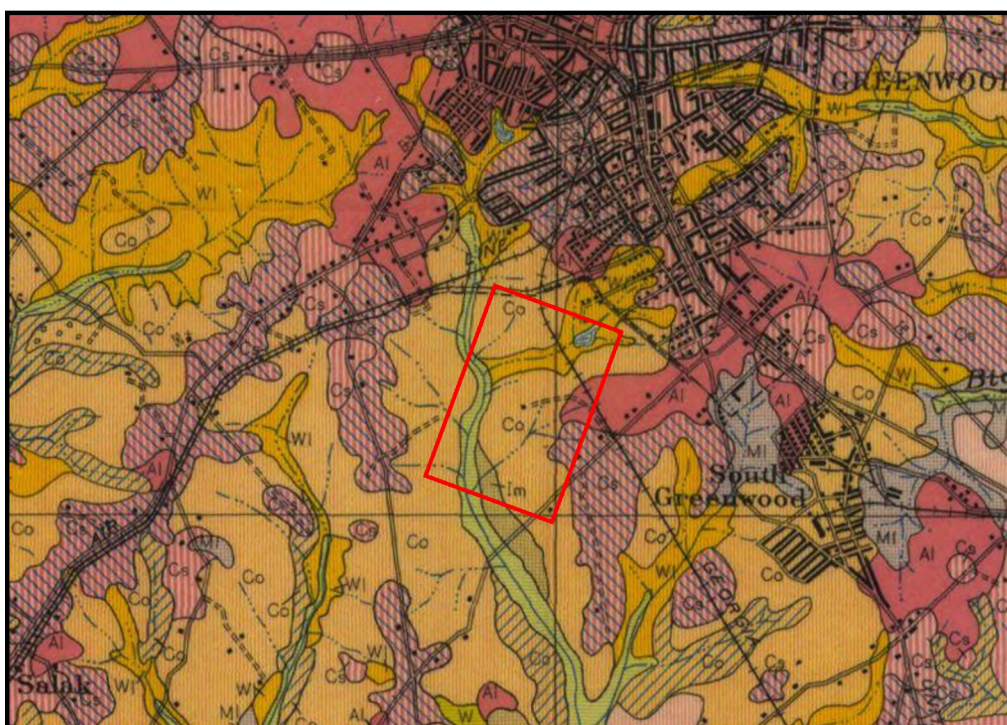


Figure 3.4. Portion of 1929 USDA soil survey map of Greenwood County, indicating vicinity of the project area.

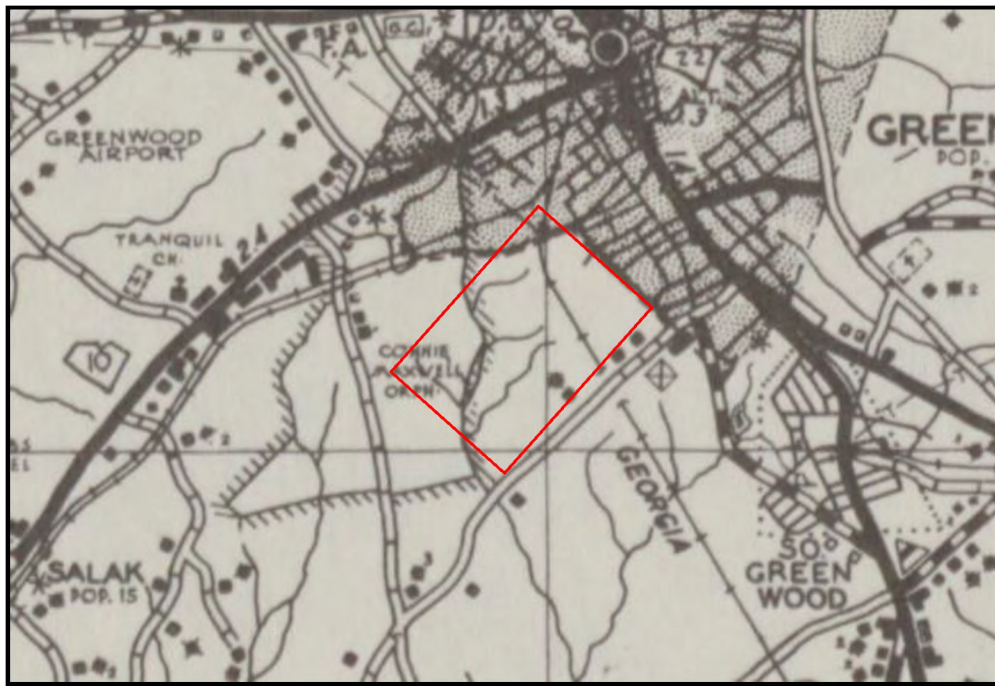


Figure 3.5. Portion of 1938 SCDOT map of Greenwood County, indicating vicinity of the project area.

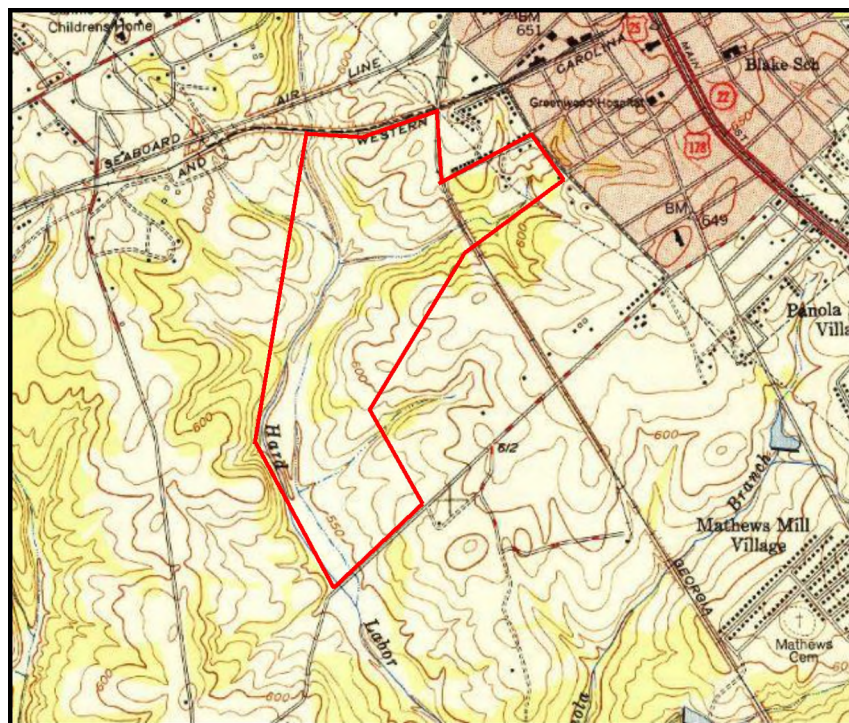


Figure 3.6. Portion of *Greenwood* 1949 7.5-minute USGS topographic map, showing vicinity of the project area.

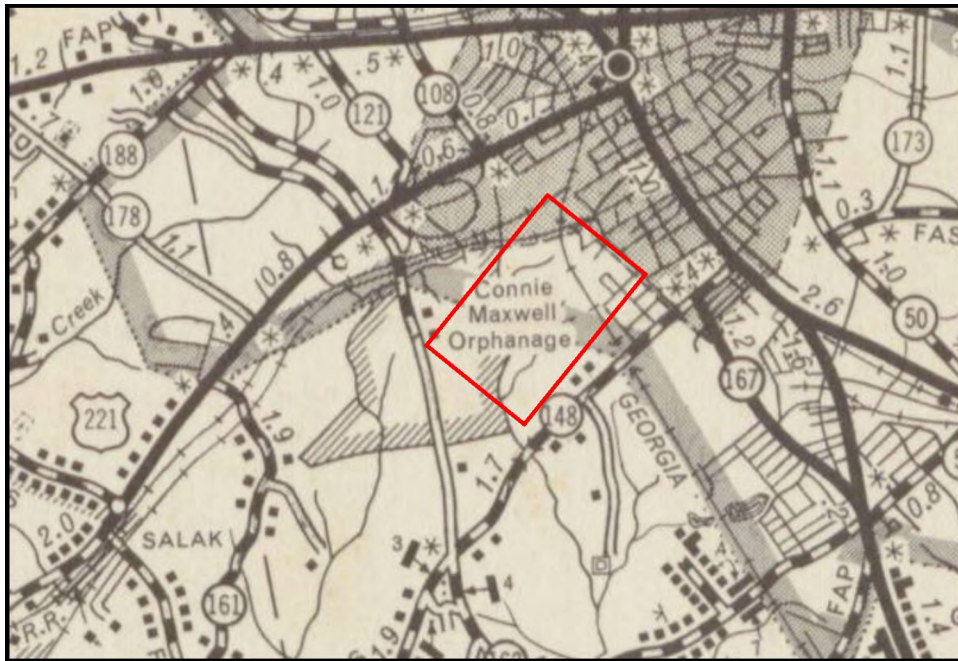


Figure 3.7. Portion of 1957 SCDOT map of Greenwood County, indicating vicinity of the project area.

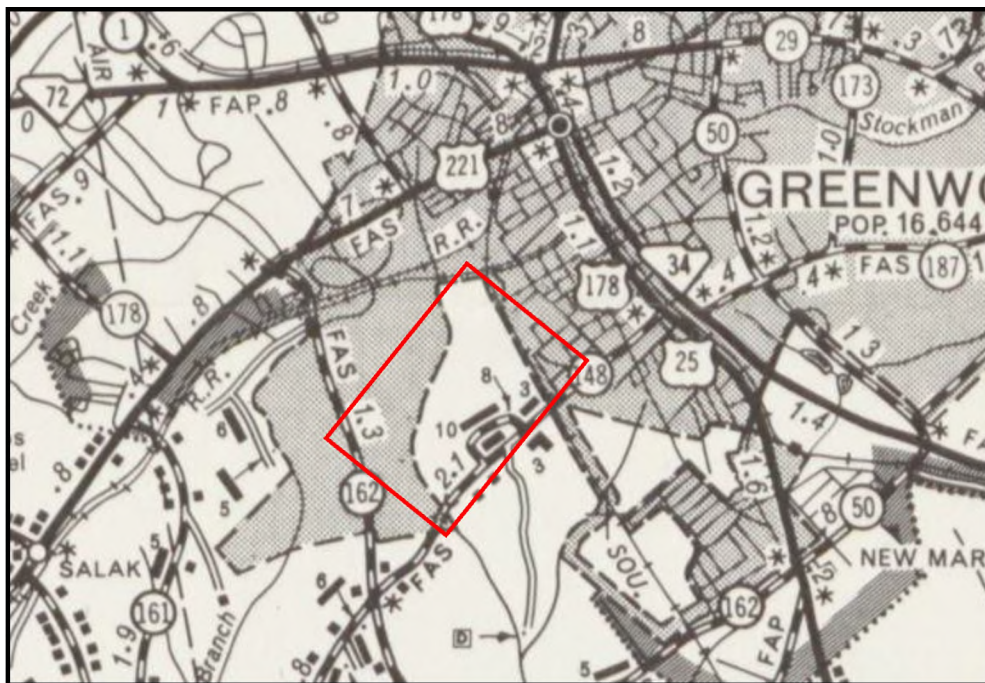


Figure 3.8. Portion of 1965 SCDOT map of Greenwood County, indicating vicinity of the project area.

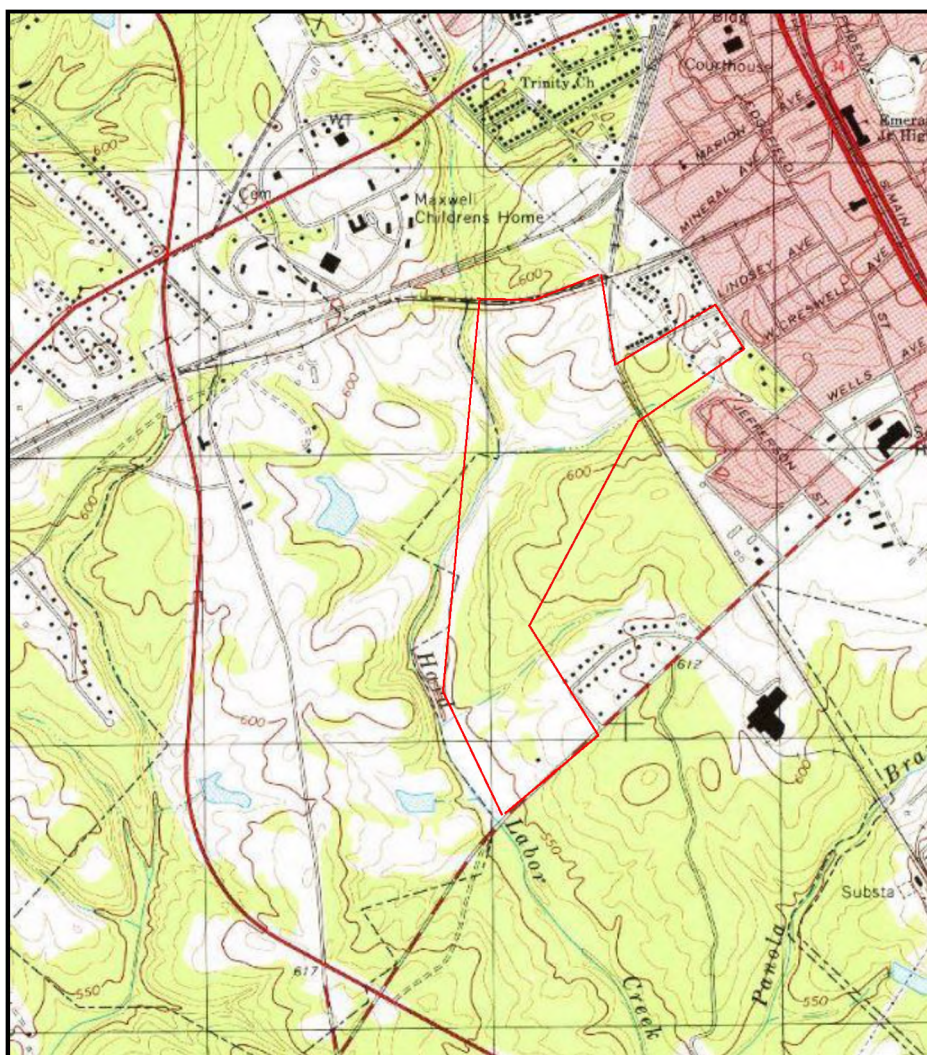


Figure 3.9. Portion of *Greenwood* 1978 7.5-minute USGS topographic map, showing vicinity of the project area.



3.4 Potential for Archaeological Resources

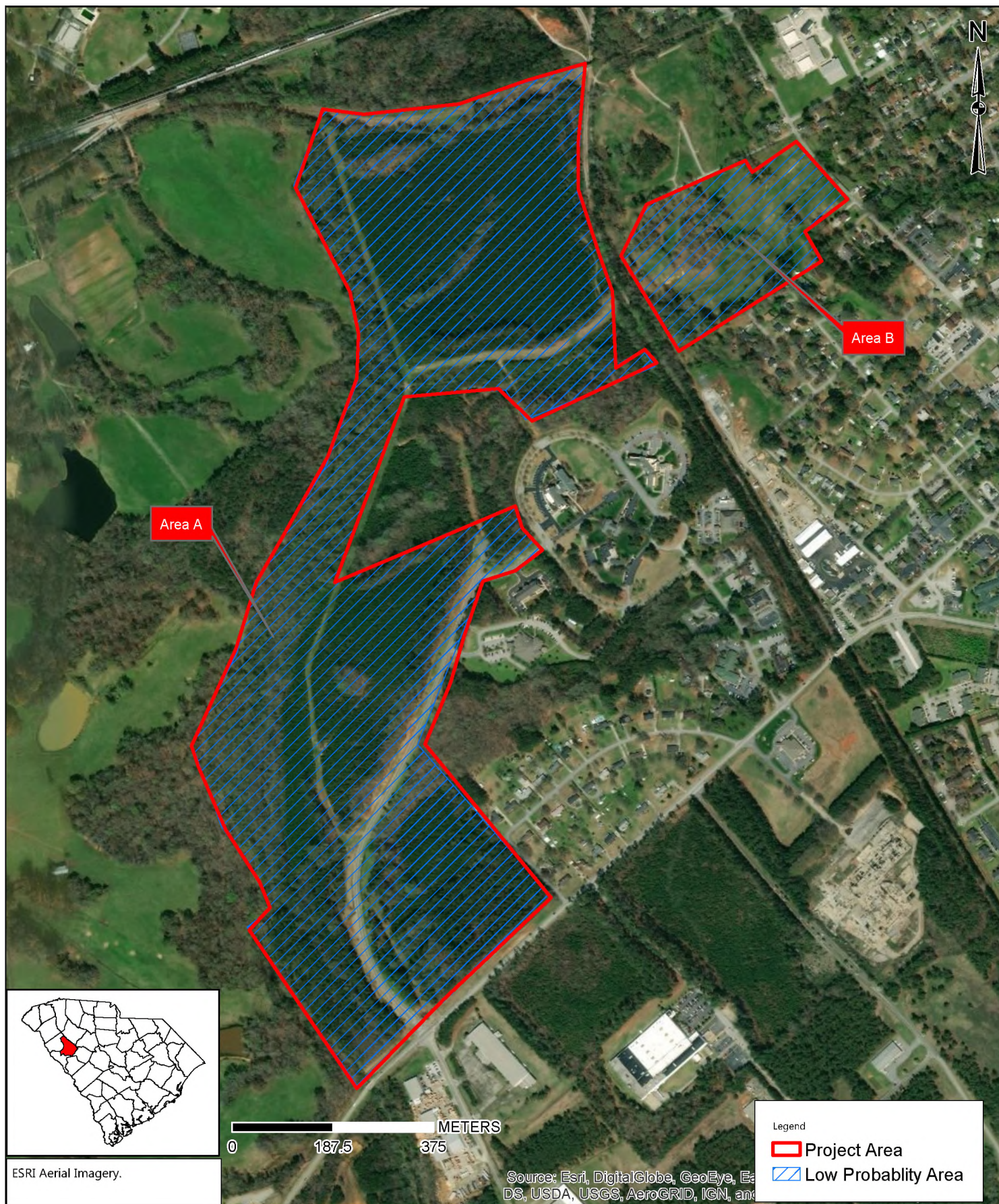
Various predictive models assist researchers in identifying areas having a high potential for containing archaeological sites (e.g., Benson 2006; Brooks and Scurry 1978; Cable 1996; Scurry 2003). In general, the most significant variables for determining site location are distance to a permanent water source, proximity to a wetland or other ecotone, slope, and soil drainage. Prehistoric sites tend to occur on relatively level areas such as ridge tops or knolls, with well drained soils that are near a permanent water source or wetland. Historic home sites tend to be located on well drained soils near historic roadways.

The South Carolina Standards and Guidelines for Archaeological Investigations outlines three site occurrence probability categories. The categories listed in South Carolina Standards and Guidelines for Archaeological Investigations (2013) are:

- A.** Indeterminate Probability. Areas that are permanently or seasonally inundated; tidal areas; and active floodplains (or other active depositional environments) where deposits are so deep that finding sites using conventional methods is unlikely.
- B.** Low Probability. Areas with slopes greater than 15 percent; areas of poorly drained soil (as determined by subsurface inspection); and areas that have been previously disturbed to such a degree that archaeological materials, if present, are no longer in context. Documentation of disturbance can include recent aerial photographs, ground views, or maps showing the disturbance (e.g., recent construction).
- C.** High Probability. Areas that do not meet any of the foregoing criteria are considered to possess high probability.

Based on the previously conducted archaeological survey, soil characteristics, topography, historic maps, distance to a permanent water source, and current site conditions, the entire project area is considered low probability for containing significant archaeological sites (Figure 3.10).

Drawing Path: T:\Projects\2018\ENV\Other Office Jobs\4226\18-102 Greenwood Genetics Center CRIS\Phase 440 Cultural Resources\GIS\Figures\Figure 3.10 Prob Areas.mxd plotted by KNagie 09-04-2018



	SCALE:	1:9,500	Aerial map showing showing probability areas Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina	FIGURE NO. 3.10
	PROJECT NO:	4226-18-102		
	DRAWN BY:	JAD		
	DATE:	9/4/2018		

4.0 Methods

4.1 Archaeological Field Methods

An archaeological survey of the project area was conducted on August 15, 2018, in areas of high and low probability for containing archaeological sites based on landform type, soil drainage, distance to water, and the results of the background research. Pedestrian survey was undertaken along dirt roads and other areas with good ground surface exposure.

Shovel tests were at least 30 x 30 cm and excavated to sterile subsoil or 80 cm below surface (cmbs), whichever was encountered first. Soil from the shovel tests was screened through 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 imagery and detailed site maps. State site forms were filled out and submitted to SCIAA once fieldwork was complete. For purposes of the project, an archaeological site is defined as an area yielding three or more historic or prehistoric artifacts and/or an area with visible or historically recorded cultural features (e.g., shell middens, rockshelters, chimney falls, brick walls, piers, earthworks, etc.). An isolated find is defined as yielding less than three historic or prehistoric artifacts.

4.2 Laboratory Methods

Artifacts recovered during the survey were cleaned, identified, and analyzed using the techniques summarized below. Following analysis, artifacts were bagged according to site, provenience, and specimen number. Acid-free plastic bags and artifact tags were used for curation purposes.

Lithic artifacts were initially identified as either debitage 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 followed those contained in Coe (1964) and Justice (1987).

Prehistoric ceramics greater than 1 cm² were sorted first by sherd type (rim or body), surface treatment, and temper (using the Wentworth scale). Once sorted, these categories were further analyzed for other diagnostic attributes such as paste texture, interior treatment, rim form, and rim/lip decoration. Where possible, this data was used to place the sherds within established regional types. Information on the ceramic typology of the project area was derived primarily from Anderson et al. (1996b), Coe (1964), DePratter (1979), Sassaman et al. (1990), Trinkley (1990), and Ward and Davis (1999). Sherds less than 1 cm² were classified as “residual sherds” and only their count and weight were recorded.

Historic artifacts were separated by material type and then further sorted into functional groups. For example, glass was sorted into window, container, or other glass. Maker’s marks and/or decorations were noted to ascertain



chronological attributes using established references for historic materials, including Noel Hume (1970), 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, South Carolina. After conclusion of the project, S&ME will transfer the artifacts back to the landowner or to a curation facility meeting the standards established in 36 CFR Part 79, *Curation of Federally-Owned and Administered Archaeological Collections*.

4.3 Architectural Field Methods

In addition to the archaeological survey, an architectural survey was conducted to determine whether the proposed project would affect aboveground National Register listed or eligible properties. Existing aboveground resources within or directly adjacent to the project area were examined for National Register eligibility using the Criteria established by the U.S. Department of the Interior and the National Park Service. Previously unrecorded resources 50 years or older were digitally photographed and marked on the applicable USGS topographic quadrangle maps. State resource forms were filled out and submitted to SCDAH once fieldwork was complete.

4.4 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). All of these factors were considered in assessing a site's potential for inclusion in the NRHP.



5.0 Results

A cultural resources reconnaissance survey for the approximately 191.75 acre project area was conducted on August 15, 2018. As a result of the investigations, one previously recorded historic cemetery (38GN0542/0165) was re-located, one archaeological site (38GN0852) was identified, two previously recorded above ground resources (0089 and 0094) were revisited, and nine above ground resources (0166 through 0174) were identified (Figures 1.1 and 1.2). The archaeological and architectural survey results are discussed in more detail below.

The 1949 and 1978 USGS topographic maps show multiple structures within Area B (Figures 3.6 and 3.9). An attempt was made to re-locate these structures. It appears that at least one of the structures on the maps was associated with site 38GN0852, which was recorded during the current investigations and is discussed in the following section. The remaining structures are no longer extent and no evidence of them remain on the surface of the project area.

5.1 Archaeological Survey Results

The project area consists of two survey areas - Area A and Area B (Figures 1.1 and 1.2); each area is discussed in more detail below and the following table summarizes the number of shovel tests excavated during the current survey, as well as the findings in each area. A total of ten shovel tests (five shovel tests and five radial shovel tests) were excavated within the project area along two transects (Figure 5.1; Table 5.1).

Table 5.1. Summary of transects within the project area.

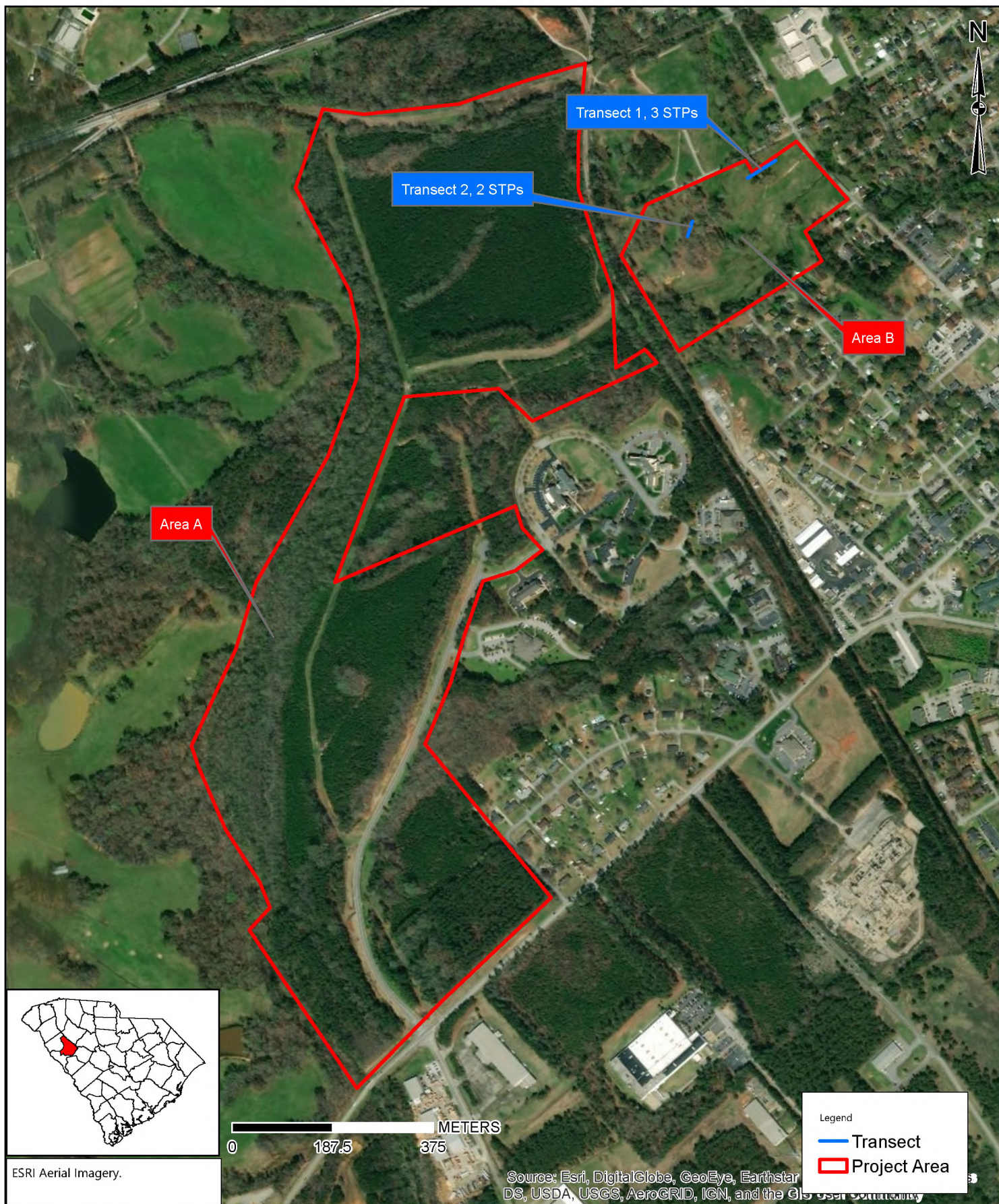
Area	Transect No.	No. of Shovel Tests	Landform	Findings
B	1	3	Hilltop	38GN0852
B	2	2	Hilltop	No Sites

5.1.1 Area A

Area A is located in the western portion of the project area and is approximately 171.63 acres in size (Figures 1.1 and 1.2). Vegetation in Area A consists predominately of planted pine with areas of mixed hardwoods along Hard Labor Creek (Figure 5.2). Area A was subject to two cultural resource surveys; a cultural resources assessment in 2003 and an intensive survey in 2006 (Covington and Southerland 2003; Trinkley and Southerland 2006). No additional shovel testing was completed during the current survey for the project area since an intensive survey was completed in 2006 and 505 shovel tests were excavated within the area. Site 38GN0542/0165 was re-located during the current investigations and is discussed in further detail below.

Site 38GN0542/SHPO Site No. 0165

Site Number: 38GN0542/0165	NRHP Recommendation: Unevaluated
Site Type: Cemetery	Elevation: 580 ft AMSL
Components: Early 19 th Century	Landform: Hillslope
UTM Coordinates: E392003, N3781671 (NAD 83)	Soil Type: Cecil sandy loam
Site Dimensions: 70 E/W x 60 N/S m	Vegetation: Hardwoods



	SCALE:	1:9,500	Aerial map showing transects Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina	FIGURE NO. 5.1
	PROJECT NO:	4226-18-102		
	DRAWN BY:	JAD		
	DATE:	8/20/2018		



Figure 5.2. Typical vegetation in Area A, facing north.

Site 38GN0542/0165 is an early nineteenth century cemetery located approximately 0.45-mile north of Alexander Road West (Figure 1.1). The cemetery was initially identified in the 2003 cultural resources assessment for the Greenwood Biotechnology Park and featured several hand-carved stones with various etchings of names, sayings, and designs carved into the stone and at least thirty depressions in the ground (Covington and Southerland 2003). In 2006, the cemetery was re-located as part of the intensive survey for the Greenwood Biotechnology Park (Trinkley and Southerland 2006). Forty-one depressions, five hand-carved stone markers, and several quartzite stones that are most likely field markers were present. A penetrometer to find additional burials was used in the survey but did not reveal additional burials. The cemetery was unevaluated for NRHP eligibility and 50-foot buffer was established and recorded on the plat map to ensure avoidance.

During the current investigations site 38GN0542 was re-located. Since SHPO recording guidelines for cemeteries have recently changed, an aboveground resource survey number (SHPO Site No. 0165) was obtained for the cemetery and a structure form was completed. The cemetery measures approximately 70 meters east/west by 60 meters north/south; there are, at a minimum, 37 individuals (three marked and 34+ unmarked graves) within the cemetery. Vegetation in the cemetery consists of mainly hardwoods with a slight understory present and a small footpath leads to the cemetery from the south (Figure 5.3).

Three headstones were noted in the cemetery, dates of birth and death were not present on the stones. The stones within the cemetery are simple stone monuments, consisting of single slabs with curved tops (Figure 5.4); one stone consisted of a hand-carved sketch of the Freemason's symbol (Figure 5.5). The remainder of the burials were identified as depressions on the surface (Figure 5.6). Several stones of quartz and quartzite are present on the surface that could have been used as field markers of footstones (Figure 5.7). None of the historic maps show a cemetery in the vicinity of the site.



Figure 5.3. Overview of cemetery and vegetation, facing northeast.



Figure 5.4. Example of a grave marker within site 38GN0542/0165.



Figure 5.5. Grave marker with a hand carved Freemasons symbol.



Figure 5.6. View of a row of depressions at site 38GN0542/0165, facing south.



Figure 5.7. Example of possible footstone of field markers on the surface.

Site 38GN0542/0165 remains unevaluated for NRHP eligibility, however, cemeteries are protected from disturbance and desecration under South Carolina state law (South Carolina Code of Laws 16-17-600) and avoidance is recommended. S&ME agrees with the established 50-foot buffer around the cemetery, which is recorded on the plate map, and avoiding disturbance within that buffer. Orange construction fencing should be placed around the cemetery prior to construction and can be removed once construction is complete. Public ingress and egress to cemeteries on private property needs to be maintained per South Carolina Code of Laws, Section 27-43-310. If the cemetery cannot be avoided cemetery law is enforced by county and municipal law enforcement and SC Code 27-43-10 through 27-43-40 establishes a legal framework for moving abandoned cemeteries when necessary.

5.1.2 *Area B*

Area B is located in the northeastern portion of the project area, is approximately 20.12 acres in size, and is bounded by Lindsey Avenue to the north, Spring Street to the east, private property to the south, and Heritage Trail to the west (Figures 1.1 and 1.2). A total of ten shovel tests were excavated in the area; a typical soil profile consisted of approximately 5 cm of dark grayish brown (10YR 4/2) sandy loam, terminating with 10+ cm (5–15+ centimeters below surface [cmbs]) of red (2.5YR 5/6) sandy clay loam subsoil (Figure 5.8). Vegetation in Area B is predominately grassy field with stands of hardwood trees (Figure 5.9). Disturbances in Area B include a sewer line, a transmission line corridor, a dirt road in the northeastern corner, and several drainage ditches (Figures 5.10–5.13). As a result of the survey, one site (38GN0852) was identified and is discussed in further detail below.



Figure 5.8. Typical soil profile throughout Area B.



Figure 5.9. Typical vegetation through Area B, facing southwest.



Figure 5.10. Sewer line in Area B, facing northeast.



Figure 5.11. Transmission line corridor in Area B, facing northwest.



Figure 5.12. Dirt road in the northeastern portion of Area B, facing northeast.



Figure 5.13. Drainage ditch within Area B, facing southeast.



Site 38GN0852

Site Number: 38GN0852

Site Type: Historic house site; lithic scatter

Components: 20th century; Unidentified prehistoric

UTM Coordinates: E392772, N3982631 (NAD 83)

Site Dimensions: 25 NW/SE x 10 NE/SW m

Artifact Depth: Surface

NRHP Recommendation: Not Eligible

Elevation: 610 ft AMSL

Landform: Hilltop

Soil Type: Cecil-Urban land complex

Vegetation: Grassy field

No. of STPs/Positive STPs: 8/1

Site 38GN0852 is a twentieth century historic house site and unidentified prehistoric lithic scatter located on a hilltop south of Lindsey Avenue (Figures 1.1 and 1.2). The site is situated in a grassy field and measures approximately 25 m northwest/southeast and 10 m northeast/southwest and is bounded by two negative shovel tests to the northeast and southeast, a drainage ditch to the southwest, and one negative shovel test and Lindsey Avenue to the northwest (Figures 5.14 and 5.15).

Eight shovel tests were excavated at the site; the artifacts were recovered from the surface around two shovel tests. A typical soil profile consisted of approximately 5 cm of dark grayish brown (10YR 4/2) sandy loam, terminating with 10+ cm (5–15+ cmbs) of red (2.5YR 5/6) sandy clay loam subsoil. A total of 19 historic artifacts and two prehistoric artifacts were recovered from the site. The prehistoric artifacts include one quartz scraper and one quartz biface (Appendix D); the prehistoric artifacts are not temporally diagnostic. The historic artifacts include 13 pieces of glass (nine window glass and five clear glass), four pieces of ironstone (three flow blue decorated and one plain), one piece of plain whiteware, one galvanized nail, and one piece of drain tile (Appendix D).

Brick, drain tile, and concrete fragments were present on the surface and was noted in field books and marked on the site map, but was not collected. The whiteware dates from 1815 to the present and the ironstone dates from 1840 to the present. The USGS topographic maps from 1949 and 1978 depict five structures in the vicinity of site 38GN0852 (Figures 3.6 and 3.9). The artifacts date from the nineteenth through twentieth centuries, the architectural materials date to the mid-twentieth century, and the maps show structures in the general area throughout the twentieth century.

Site 38GN0852 is a twentieth century historic house site and unidentified prehistoric lithic scatter with little remaining integrity. Given the low artifact density and minimal amount of architectural materials or artifacts remaining on the surface of the site, site 38GN0852 is a poor example of a very common site type in the region. Based on the information presented, 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 values; or represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C), and is unlikely to yield significant information on the history or prehistory of the area (Criterion D). As such, site 38GN0852 is recommended ineligible for inclusion in the NRHP.



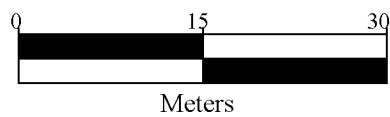
Lindsey Avenue

Grassy Field

Grassy Field

STP 1-1

STP 1-3



LEGEND

- Positive STP
- ++ Surface Scatter
- Negative STP
- × Unexcavated STP
- △ Site Datum
- Site Boundary
- - - Project Boundary
- ▨ Drainage Ditch
- == Dirt Road
- ~ Tree Line



Site Map - 38GN0852

Cultural Resources Reconnaissance Survey
Greenwood Genetic Center
Greenwood County, South Carolina

SCALE:

As Shown

DATE:

08/30/2018

PROJECT NUMBER

4226-18-102

FIGURE NO.

5.14



Figure 5.15. Overview of site 38GN0852, facing southwest.

5.2 Architectural Survey Results

An architectural survey was conducted to determine whether the proposed project would affect aboveground historic properties. Accessible public roads within and adjacent to the project area were driven and existing resources greater than 50 years old were photographed. The locations of two previously recorded historic resources (0089 and 0094) were revisited and nine previously unrecorded structures (0166 through 0174) were identified within or adjacent to the project area (Figure 1.1).

5.2.1 Structure 0089

Structure 0089 is a circa 1920 residence that was recorded as part of the 2003 Greenwood Biotechnology Park cultural resources assessment (Covington and Southerland 2003). The structure is located at 1000 Spring Street, adjacent to the southeastern corner of Area B within the current project area (Figures 1.1 and 1.2). The structure is a one and one-half story residence, with a square plan and a cross-gabled roofline (Figure 5.16). The front elevation has a partial-width, hipped roof porch that has a gabled section on its northern corner; the porch is supported by square stone columns and there is a band of aluminum siding, oriented vertically, covering the porch cornice trim. There are two entry doors beneath the porch roof and an octagonal vinyl casement window between them. Centered in the front gable is a casement window with three vertical panes; octagonal louvered vents are centered in the gable end and the porch gable. The lot on which the house sits is sloped, so the north elevation reveals a basement level that has three six-over-six windows. There are also single and double one-over-one, vinyl sash windows and single-pane vinyl casement windows on the north elevation. The house is sheathed in vinyl siding and the roof is composition shingles. The foundation appears to be stucco covered masonry, except the north elevation, which appears to have been veneered with brick. The house has lost its integrity of design, materials, workmanship, and feeling because of multiple modern alterations, including vinyl siding and windows, and the setting has been altered by the removal of surrounding residential structures and the construction of new multi-unit housing and commercial properties. Structure 0089 was previously recommended as ineligible for inclusion in the NRHP; S&ME concurs with this recommendation.



Figure 5.16. Structure 0089, facing southwest.

5.2.2 Resource 0094

Resource 0094 is a culvert that carried the former Charleston and Western Railroad tracks over Hard Labor Creek and is located in the northwest corner of Area A of the current project area; it was identified as part of the 2003 Greenwood Biotechnology Park cultural resources assessment and dated to around 1890 (Covington and Southerland 2003). The culvert is of stone construction, but is covered with thick vegetation and partially collapsed. The railroad corridor that was originally associated with the culvert is no longer in use. Resource 0094 is one of many late nineteenth and early twentieth century culverts built to carry railroad corridors across small creeks and drainages throughout South Carolina. Based on its state of disrepair and the abandonment of the rail corridor, it has lost integrity of design, workmanship, and association. Resource 0094 was previously recommended as ineligible for inclusion in the NRHP; S&ME concurs with this recommendation.

5.2.3 Resource 0166

Resource 0166 is the former Charleston and Western Railroad corridor, which is located along the northern boundary of Area A of the project area (Figures 1.1 and 1.2). The corridor is located on top of a berm and consists of a graded area with railroad ties; the tracks have been removed from the corridor and the area surrounding the ties has begun to become overgrown (Figure 5.18). The tracks adjacent to the project area were originally constructed as part of the Augusta and Knoxville Railroad, which was incorporated in 1880 and completed between Augusta and Greenwood by 1882. In 1886, it was included in a merger with three other railroads and became part of the Port Royal and Western Carolina Railroad. Ten years later, the state of South Carolina seized these railroad assets from the Georgia Bank and Railroad Company and reorganized them as the Charleston and Western Carolina Railway. Although the line was acquired by the Atlantic Coast Railroad in 1897, and merged into the Atlantic Coast Line Railroad system in 1900, it continued to operate under the Charleston and Western



Figure 5.17. Resource 0094, facing north.



Figure 5.18. Resource 0166, facing west.



Carolina name until 1959. In 1967, Atlantic Coast Line Railroad merged with Seaboard Air Line Railroad to form the Seaboard Coast Line Railroad; in 1982 the company became Seaboard Systems Railroad. Four years later, it merged with CSX transportation. This portion of the line was abandoned during the late twentieth century and the tracks associated with Resource 0166 were removed before 1999. The railroad first appears on the 1929 USDA soil survey map (Figure 3.4); it continues to appear on both USGS topographic maps and SCDOT maps throughout the twentieth century (Figures 3.5–3.9). The former Charleston and Western Carolina Railroad was an important developmental part of upcountry transportation and aided in the development of the area. The corridor runs along the same route as the line laid in the 1880s; however, the tracks have been removed and only the railroad berm and some wooden railroad ties remain of the line. It is one of many rail lines built in South Carolina during the mid- to late nineteenth century and, although it retains integrity of location, setting, and feeling, it has lost integrity of design, materials, workmanship, and association. Therefore, Resource 0166 is recommended ineligible for the NRHP.

5.2.4 *Resource 0167*

Resource 0167 is the Charleston and Western Railroad Bridge, which carried this rail line over the Georgia and Florida Railroad corridor; the bridge dates to around 1925 and is located near the northeast corner of Area A of the project area (Figures 1.1 and 1.2). The bridge is a steel through-plate girder bridge with riveted panels (Figure 5.19). This was a common type of railroad bridge used to cross short spans during the late nineteenth and early twentieth centuries. The supports on either side of the bridge are concrete. The bridge was associated with the Charleston and Western Railroad (0166) and was abandoned when this portion of the line was taken out of use in the late twentieth century. Although no bridge is specifically labeled or depicted on the twentieth century historic maps, the bridge was presumably built by the time the Georgia and Florida Railroad line was complete in the late 1920s. Although it retains integrity of location, setting, feeling, design, materials, and workmanship, the removal of the rail line has compromised the historic association of the bridge. This was a common type of bridge built for railroads during the late 1800s and early 1900s and there are better maintained and more significant examples of this type and style of bridge. Therefore, Resource 0167 is recommended ineligible for the NRHP.

5.2.5 *Resource 0168*

Resource 0168 is the former Georgia and Florida Railroad corridor, which is located along the eastern boundary of Area A of the project area (Figures 1.1 and 1.2). The corridor is located flush to ground level and is a graded area that has one set of railroad tracks along the western side of the northern portion, but has no tracks and has been paved along the southern portion (Figures 5.20 and 5.21). The majority of this corridor has been converted to the Heritage Trail, which is a multi-use trail that was developed by the Greenwood Parks and Trails Foundation as a rails to trails project. The tracks adjacent to the project area were originally constructed as part of the Georgia and Florida Railroad, which was incorporated in 1906 as the Georgia and Florida Railway, but was renamed the Georgia and Florida Railroad in 1926. By 1929, the line, which originally connected Georgia and Florida only, had been extended into South Carolina, terminating at Greenwood, where it connected with other railroad systems. At its longest, the Georgia and Florida Railroad boasted 501 miles of track, from Greenwood to Madison, Florida. In 1963, the line was acquired by Southern Railway, which merged with Norfolk and Western Railway in 1982 to form Norfolk Southern Railway. Portions of the line, primarily in Georgia, were abandoned in the 1930s through 1960s; in 1971, the remnants of the line were reorganized into the Central of Georgia Railway, a subsidiary of Southern Railway. This portion of the line was abandoned during the late twentieth century and the tracks associated with Resource 0168 were removed before 2005. The railroad first appears on the 1929 USDA soil survey map (Figure 3.4); it continues to appear on both USGS topographic maps and SCDOT maps throughout the twentieth century



Figure 5.19. Resource 0167, facing north.



Figure 5.20. Resource 0168, facing north.



Figure 5.21. Resource 0168, facing south.

(Figures 3.5–3.9). The former Georgia and Florida Railroad was an early twentieth century railway that linked this area to Florida. The corridor runs along the same route as the line laid in the 1920s; however, the tracks have been removed and much of the corridor has been paved over to create a multi-use trail. It is one of many rail lines built in South Carolina during the mid- to late nineteenth century and, although it retains integrity of location and setting, it has lost integrity of design, materials, workmanship, feeling, and association. Therefore, Resource 0168 is recommended ineligible for the NRHP.

5.2.6 Structure 0169

Structure 0169 is a circa 1963 house, located at 128 Hill and Dale Drive, near the southeastern boundary of Area A of the project area (Figures 1.1 and 1.2). The structure is a single story, Ranch-style residence of frame construction with brick veneer exterior (Figure 5.22). The house has a side-gabled roofline, with a front-facing cross-gable. The entry door is located beneath a small, shed-roofed portico, supported by a single Tuscan column, at the intersection of two gabled portions. East of the door are three bays: one three-sided projecting bay and two single one-over-one, double hung, vinyl sash windows; west of the door, in the front gabled section, are three single, one-over-one, double hung, vinyl sash windows. The side elevations of the house each have three one-over-one, double hung, vinyl sash windows. Attached to the northwestern corner of the house is a garage. The roof of the house is covered with composition shingles and there is an interior brick chimney visible above the roof ridge. A structure at this location first appears on the 1965 SCDOT map and there is also a structure shown on the 1979 USGS topographic map (Figures 3.8 and 3.9). The structure is a common mid-century style of residence. Although it retains integrity of location, design, feeling, and setting, its integrity of materials and workmanship has been compromised by the replacement of original windows and porch support. The house has no known historical associations. Therefore, S&ME recommends Structure 0169 as ineligible for the NRHP.



Figure 5.22. Structure 0169, facing northwest.

5.2.7 Structure 0170

Structure 0170 is a circa 1964 residence, located at 127 Hill and Dale Drive, near the southeastern boundary of Area A of the project area (Figures 1.1 and 1.2). The Ranch-style residence is a single story, side-gabled, frame building with a brick veneer exterior (Figure 5.23). The front elevation has a two bay, projecting front gabled section that creates an L-shape. Next to the front gabled section is a recessed porch, supported by brick piers, that is located beneath the main roofline of the house; the doorway is visible on the western bay beneath the porch, but the remainder of the porch has decorative screening. The front gabled section has two paired, two-over-two, double hung, metal sash windows; west of the recessed porch are two single, two-over-two, double hung, metal sash windows. The eastern elevation has three single, two-over-two, double hung, metal sash windows, while the western elevation of the house has a partially open carport located beneath the main roofline of the house. A structure at this location first appears on the 1965 SCDOT map and there is also a structure shown on the 1979 USGS topographic map (Figures 3.8 and 3.9). The structure is a common mid-century style of residence. Although it retains integrity of location, design, materials, workmanship, feeling, and setting; the house has no known historical associations. However, this structure is one of many mid-century Ranch-style homes constructed in Greenwood County during the 1960s and 1970s and it does not have the architectural value to make it individually significant, nor do the surrounding structures retain enough integrity to merit an eligible district. Therefore, S&ME recommends Structure 0170 as ineligible for the NRHP.

5.2.8 Structure 0171

Structure 0171 is a circa 1965 house, located at 718 West Alexander Road, near the southeastern boundary of Area A of the project area (Figures 1.1 and 1.2). The structure is a single story, Ranch-style residence of frame construction with brick veneer exterior (Figure 5.24). The structure has a hipped roofline, with a low-pitched,



Figure 5.23. Structure 0170, facing east.



Figure 5.24. Structure 0171, facing northwest.

pyramidal hipped section on the eastern side. The entry door is located beneath a small, portico, supported by a single Tuscan column, which is created by an overhang of the roof at the intersection of two hipped portions. West of the door are three bays: one single one-over-one, double-hung, vinyl sash window, a paired one-over-one, double hung, vinyl sash window, and a tripartite vinyl picture window; east of the door, in pyramidal hipped section, are three single, one-over-one, double hung, vinyl sash windows. The side elevations of the house each have two one-over-one, double hung, vinyl sash windows. Attached to the western elevation of the house is a carport, beneath an extension of the hipped roof that is supported by brick columns sitting on a brick knee-wall. The roof of the house is covered with composition shingles and there is an interior brick chimney visible above the roof ridge. A structure at this location first appears on the 1965 SCDOT map and there is also a structure shown on the 1979 USGS topographic map (Figures 3.8 and 3.9). The structure is a common mid-century style of residence. Although it retains integrity of location, design, feeling, and setting, its integrity of materials and workmanship has been compromised by the replacement of original windows and porch support. The house has no known historical associations. Therefore, S&ME recommends Structure 0171 as ineligible for the NRHP.

5.2.9 *Structure 0172*

Structure 0172 is a circa 1900 residence, located at 962 Spring Street, located near the northeastern corner of Area B of the project area (Figures 1.1 and 1.2). The house is a two-story, frame residence with a cross-hipped roofline (Figure 5.25). The front elevation has a one-story, hipped roof porch that wraps around both sides; it is supported by single Tuscan columns that rest on brick piers. The main entry door is roughly centered within the front elevation and is located in a front projecting section; a second story doorway leads to a balcony, which is located inset beneath the roof of the projecting section and is supported by a single column. North of the doorway is a three-sided, two-story bay that has a single two-over-two, double-hung, wooden sash window on each bay. The porch has been enclosed on the northern elevation and has a doorway and six three-over-one, double-hung, wooden sash windows (Figure 5.26). South of the main entry door is a single bay, with a single two-over-two, double hung, wooden sash window on both the first and second elevation; another three-sided, two-story bay, with two-over-two, double hung, wooden sash windows on each side, projects to the south of the house. A shed-roofed addition has been appended to the northwestern corner of the structure. There are two interior brick chimneys visible above the roof ridge. The roof, which has a wide eave overhang, is covered with composition shingles and the house is sheathed in vinyl siding. The form and porch supports suggest that this may have originally been a Queen Anne or Folk Victorian style with Colonial Revival detailing, although most of the original architectural elements have been lost through the installation of modern siding and roofing materials. A structure at this location first appears on the 1929 USDA soil survey map and continues to appear on subsequent twentieth century maps (Figures 3.4–3.9). The house has lost its integrity of design, materials, workmanship, and feeling because of multiple modern alterations, including vinyl siding and windows, and the setting has been altered by the removal of surrounding residential structures and the construction of new multi-unit housing and commercial properties. It has no known historical associations. Therefore, S&ME recommends Structure 0172 as ineligible for inclusion in the NRHP.

5.2.10 *Structure 0173*

Structure 0173 is a circa 1954 house, located at 411 Lindsey Avenue, near the northeastern corner of Area B of the project area (Figures 1.1 and 1.2). The structure is a single story, Minimal Traditional-style residence of frame construction (Figure 5.27). The house has a side-gabled roofline, with two small side-gabled extensions. The entry door is located slightly off-center, with a gabled portico that is supported by a square posts. East of the door is a paired, two-over-two, double hung, vinyl sash window; west of the door is a single, two-over-two, double hung, vinyl sash window and a smaller, paired, two-over-two, double hung, vinyl sash window. There is a small addition



Figure 5.25. Structure 0172, facing northwest.



Figure 5.26. Structure 0172, facing southwest.



Figure 5.27. Structure 0173, facing southeast.

on the northern elevation, with a small, paired, two-over-two, double hung, vinyl sash window on its front elevation; a hyphen on the western elevation, with a small, paired, two-over-two, double hung, vinyl sash window, attaches to a front gabled addition that also has a small, paired, two-over-two, double hung, vinyl sash window. The house is sheathed in vinyl siding and the roof is covered in composition shingles; a central, interior brick chimney is visible above the roofline. This location is within the shaded boundaries of the city of Greenwood on both the 1965 SCDOT map and the 1979 USGS topographic map and no specific structures are depicted (Figures 3.8 and 3.9). The structure is a common mid-century style of residence. Although it retains integrity of location, design, feeling, and setting, its integrity of materials and workmanship has been compromised by the replacement of siding and original windows. The house has no known historical associations. Therefore, S&ME recommends Structure 0173 as ineligible for the NRHP.

5.2.11 Resource 0174

Resource 0174 is the circa 1950s Franklin Subdivision, which is located south of Area B of the project area (Figures 1.1 and 1.2). This subdivision consists of three residential streets, north of Ellenburg Avenue and it was built during the early 1950s; the associated streets (Ellenburg Avenue, Jefferson Street, and Pine Forest Drive) are not depicted on the 1949 USGS topographic map, but they are shown on the 1957 SCDOT map and subsequent twentieth century maps (Figures 3.5–3.9). There are 23 residences located within the boundary of the subdivision; four representative structures (0174.1–0174.4) were recorded for the Franklin Subdivision (Figure 5.28).

Structure 0174.1, located at 1004 Pine Forest Drive, is a circa 1958 single story, Minimal Traditional-style residence with a hipped roof; it is of frame construction and has a brick veneer exterior (Figure 5.29). The front elevation has four bays and the doorway is located beneath a hipped roof portico that is supported by decorative metal posts. South of the door is a single two-over-two, double hung, wooden sash window; north of the door is a triple two-



Figure 5.28. Franklin Subdivision boundary and representative structures.



Figure 5.29. Structure 0174.1, facing southwest.



over-two, double hung, wooden sash window and a single two-over-two, double hung wooden sash window. A carport is created by an extension of the main roof that is supported by decorative metal posts. The roof is covered with composition shingles and there is a central interior chimney visible above the ridge. This later example shows the residential architecture transition toward the Ranch-style, with a longer front elevation and less prominent porch structure.

Structure 0174.2, located at 1003 Pine Forest Drive, is a circa 1955 single story, Minimal Traditional-style residence with a hipped roof; it is of frame construction and has a brick veneer exterior (Figure 5.30). The main hipped roof has a front-projecting hipped section attached, beneath which is a recessed porch that is supported by a tapered square column resting on a brick pier. The doorway is located slightly off center, next to the enclosed portion of the front projection; north of the door is a two-pane, vinyl, sliding casement window, while south is a large picture window and one-over-one, double hung, vinyl sash window. The roof is covered with composition shingles and an interior chimney is visible above the roof ridge.

Structure 0174.3, located at 1004 Jefferson Street, is a circa 1953 single story, Minimal Traditional-style residence with a side-gabled roof; it is of frame construction and has a brick veneer exterior (Figure 5.31). The front elevation has a projecting front-gabled section, which is accessed by a set of stairs on its south side and presumably contains an entry door at that location; differing colors on the brick mortar suggest that this may have once been an open porch structure that has been enclosed. There is a rectangular window-sized opening with a decorative metal screen and a single two-pane, sliding, vinyl casement window on the front projection; the gable end of this section is covered with vinyl siding. South of the front-gabled section is a shed-roofed portico, that is supported by round posts; beneath this portico is a tripartite vinyl picture window. The southernmost bay on the front elevation has a paired one-over-one, double hung, vinyl sash window.

Structure 0174.4, located at 1005 Jefferson Street, is a circa 1955 single-story residence with a hipped roofline; it is of frame construction and has a brick veneer exterior (Figure 5.32). The doorway is located off-center, within a recessed porch that is located under the main roofline of the house and is supported by turned posts and decorative brackets. The windows along the front elevation include a tripartite, projecting picture window; a single, paired, and triple, one-over-one, double hung, vinyl sash windows; and a three-sided, projecting bay with vinyl windows. The northern two bays of the front elevation appear to be an addition. The roof of the house is covered with standing-seam metal and there is an interior brick chimney visible above the roof ridge.

The Franklin Subdivision is an example of the southeastern expansion of Greenwood during the mid-twentieth century. The neighborhood was built as a suburban subdivision during the 1950s to handle the growing population of Greenwood. The houses along its three streets are single story residences, built in the Minimal Traditional style or in a transitional style that incorporates elements of the Ranch form, which was growing in popularity by 1960. The structures in this neighborhood are of frame construction and most have brick veneer exteriors. The houses have a uniform setback from the road and the lots are similar in size throughout the neighborhood. There are few mature trees and plantings and no sidewalks in the subdivision. Although the Franklin Subdivision represents a period of growth and development, and the increased residential construction that accompanied it, in the Greenwood area, many of the structures within the neighborhood have undergone modern alterations, including additions and the replacement of windows. The area surrounding the subdivision has begun to experience commercial construction, especially along the southwestern and southeastern margins, compromising the setting. A subdivision with better integrity, more cohesiveness, and fewer alterations would better represent this period in Greenwood's growth and development. Therefore, S&ME recommends resource 0174 as ineligible for the NRHP.



Figure 5.30. Structure 0174.2, facing northeast.



Figure 5.31. Structure 0174.3, facing west.



Figure 5.32. Structure 0174.4, facing east.



6.0 Conclusions and Recommendations

On behalf of GPA, S&ME has completed a cultural resources reconnaissance survey of the proposed approximately 191.75-acre project area associated with the Greenwood Genetic Center Partnership Campus in Greenwood, Greenwood County, South Carolina (Figures 1.1 and 1.2). The project area is made up of two separate areas; Area A is roughly 171.63-acres and is located to the southwest of an existing railroad line and north of W. Alexander Road. Area B is roughly 20.12-acres and is located east of the existing railroad line and west of Spring Street.

The majority of Area A was subject to a cultural resource assessment in 2003 under the project name Greenwood Biotechnology Park (Covington and Southerland 2003) and Area B has not been previously surveyed. During the 2003 survey of Area A, three archaeological sites were identified (38GN0541 through 38GN0543) and an intensive survey was recommended for the project tract (Appendix A). The SHPO agreed with the recommendations for an intensive survey (Appendix B) and the survey was completed in 2006 (Trinkley and Southerland 2006) (Appendix C). During the survey, the three archaeological sites identified during the cultural resource assessment were re-located; 38GN0541 and 38GN0543 were determined to be not eligible for inclusion in the NRHP, while 38GN0542 remained unevaluated for inclusion in the NRHP and avoidance of the site was recommended; a 50-foot buffer was to be established around the site before construction commences, this buffer is depicted on a plat map that was submitted to SHPO in 2007.

The purpose of the current survey was to assess the project area's potential for containing significant cultural resources and to make recommendations regarding additional work that may be required under Section 106 of the National Historic Preservation Act, as amended, and other pertinent federal, state, or local laws. This work was done in anticipation of federal funding or federal permitting and was carried out in general accordance S&ME Proposal Number 42-1800739 rev.2, dated August 2, 2018.

Fieldwork for the project was conducted on August 15, 2018. This work included the excavation of five shovel tests in Area B and a limited architectural survey. As a result of the investigations, one historic cemetery was re-located and recorded as an above ground resource (38GN0542/0165), one archaeological site was identified (38GN0852), two previously recorded historic resources were revisited (0089 and 0094), and nine previously unrecorded structures (0166 through 0174) were identified within or adjacent to the project area (Figures 1.1 and 1.2; Table 1.1).

The two previously recorded structures that were revisited during the current survey (0089 and 0094) were determined to be not eligible for inclusion in the NRHP and S&ME agrees with these recommendations. Archaeological site 38GN0852 is a twentieth century house site and unidentified prehistoric lithic scatter that is recommended as not eligible for inclusion in the NRHP and the nine newly recorded structures (0166 through 0174) are also recommended not eligible for inclusion in the NRHP.

Previously recorded archaeological site 38GN0542, an early nineteenth century cemetery, was re-located and appears to remain intact; S&ME recorded the cemetery as an above ground resource, per the current site/structure recordation guidelines, and the resource is now named 38GN542/0165. S&ME recommends avoidance of the cemetery through the establishment of a 50-ft buffer and the resource remain unevaluated for NRHP eligibility. The 50-ft buffer can consist of orange construction fencing that should be established prior to construction and can be removed once construction is complete; the buffer has been recorded on the plat map and SHPO has this information on file. Please note that cemeteries are protected from disturbance and



desecration under South Carolina state law (South Carolina Code of Laws 16-17-600) and avoidance is recommended and public ingress and egress to cemeteries on private property needs to be maintained per S.C. Code of Laws, Section 27-43-310.

It is the opinion of S&ME that Area B has a low probability for containing significant archaeological sites. The tract consists of heavily eroded soils and has been disturbed by the construction of a transmission line and a sewer line. Given the results of this survey and the previously completed investigation on the project area, it is the opinion of S&ME that the project area has a low potential for containing significant resources, and that no further cultural resources investigations should be required for the current project area. If the cemetery cannot be avoided cemetery law is enforced by county and municipal law enforcement and SC Code 27-43-10 through 27-43-40 establishes a legal framework for moving abandoned cemeteries when necessary.



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Cultural Resources Reconnaissance Survey
Greenwood Genetic Center Partnership Campus

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S&ME Project No. 4226-18-102; SHPO Project No. 18-KL0292



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**Cultural Resources Reconnaissance Survey
Greenwood Genetic Center Partnership Campus**

Greenwood County, South Carolina

S&ME Project No. 4226-18-102; SHPO Project No. 18-KL0292



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8.0 Appendix A – 2003 Report for the Greenwood Biotechnology Park



CHICORA FOUNDATION, INC.

PRESERVING THE PAST FOR THE FUTURE

P.O. BOX 8664
861 ARBUTUS DRIVE
COLUMBIA, S.C. 29202
803-787-6910

Project: Greenwood Biotechnology Park

Project Sponsor: Froehling & Robertson, Inc., P.O. Box 17186, Greenville, SC 29606

Agency and Permit Number: Greenwood County Economic Alliance; no permit number at present

Project Location: Western Greenwood County, just southwest of the city of Greenwood, South Carolina (Figure 1).

Field Personnel: Tom Covington and Nicole Southerland

Date of Survey: March 25-26, 2003

Objective: To identify the areas of the 100 acre tract which have the highest probability of producing archaeological and/or historical sites; to perform a reconnaissance of standing architectural sites within a 0.5 mile APE.

Survey Description: The tract is divided into three areas: (1) just south of a small creek is planted in pines; (2) between the two creeks is mixed pines and hardwoods; (3) north of a small creek is also mixed pines and hardwoods. The western boundary of the tract is Hard Labor Creek while a fence is used to designate the eastern boundary. The southern boundary is located along the Alexander Extension (S-148) while the northern boundary is a railway line. The three areas are shown in Figure 2.

According to the soil survey for Greenwood County (Camp and Herren 1980) the tract is dominated by well drained soils. Area 1 includes Hiwassee sandy loams, Mecklenburg sandy loams, and Cecil sandy loams, Area 2 has Cecil sandy loams, and Area 3 has Mecklenburg sandy loams and Cecil sandy loams. All three areas have mixed Cartecay and Toccoa soils along the Hard Labor Creek floodplain.

Area 1 had poor surface visibility due to the planted pines (Figure 3). Areas 2 and 3 had very poor surface visibility. Although a road extending from the southern portion of the tract (S-148) to the railroad line at the north does exist, fill of red clay and gravel had already been deposited at the time of this reconnaissance and no surface survey could be performed on the original soil (Figure 4). In addition, several roads for the biotechnology park had already been constructed and filled. Large piles of the fill were located in Area 2 of the project area. The only visible surface areas were along various sewer lines which appear to be native soil, although heavily disturbed from the placement of the sewer line. Area 3 did have several small wood roads that appeared to be unaltered by construction activities.

Several historic maps were referred to before beginning the field reconnaissance. These maps include:



1. Abbeville County, South Carolina Geological & Agricultural Map of 1873.
2. Mills' *Atlas* of 1825 (Figure 5)
3. Geognostic Map of Abbeville District, South Carolina of 1860
4. Gray's *New Map of Abbeville* of 1882
5. Abbeville County, State of South Carolina, Geological & Agricultural Map of 187?
6. Soil Map, South Carolina, Due West sheet of 1902
7. *General Highway and Transportation Map of Greenwood County* of 1938 (Figure 6)
8. *General Highway and Transportation Map of Greenwood County* of 1966
9. Map of the city of Greenwood, South Carolina from 1982

In addition, for the architectural survey, we consulted a 1982 Greenwood County Survey performed by John Blythe (for which no report was written). These resources included several City of Greenwood maps which were also consulted during the reconnaissance.

Results: A background check at the South Carolina Department of Archives and History GIS revealed no historic structures in a 0.5 mile radius of the tract. One structure, however, was shown on the southern portion of the tract on the most recent topographic map which dates to 1978. In fact, this is the only map on which this structure appears. The structure was no longer standing in the field and a dense layer of pine needles covered the ground with no surface visibility. Some evidence of fencing and an unused power pole were located in the vicinity of the structure location.

Investigations at the South Carolina Institute of Archaeology and Anthropology revealed no sites identified on the survey tract or within a 0.5 mile radius.

A closer investigation of the historic maps gathered revealed that maps 1, 2, 3, 5, and 9 do not show individual structures. Maps 4 and 6 are not in the project APE. Only maps 7 and 8 show structures, but none are shown in the survey area.

The examination of surface archaeological and architectural sites revealed several resources. Architectural resource 0094 is an archway located at the northwest corner of the survey tract (Area 3), where Hard Labor Creek runs north through the railway embankment (Figure 7). The river banks in this area contain many artifacts possibly dating from the eighteenth century to the present (38GN543). In an approximately five square foot area of the bank, it would be safe to say at least one hundred artifacts would be found. It is not known, however, if this is a trash dump area or if a site was eroded into the creek. Unfortunately the road running alongside the creek has been filled and no archaeological resources could be observed. Additional work should be performed to test this area.

In addition to these historic sites, one prehistoric site was found. This site (38GN541) appears to be a Middle to Late Archaic site with a lithic scatter of about 50 artifacts located on a roadway and extending about 350 feet (Area 2). This area, and several others within the survey tract, are ideal for supporting a prehistoric settlements. Generally these sites occur on ridges or ridge tops overlooking a permanent water source. Consequently, the entire survey tract has a high potential for prehistoric sites.

Ridges and ridge tops are also used by historic settlements. An historic cemetery (38GN542) was located on the property, also in Area 2, on a ridge side slope (Figure 8). Several hand-carved stones were found with various etchings of names, sayings, and designs carved into the stone (Figure 9 and 10). While no dates were noticed, some of the etchings were hard to see, and might reveal additional information if a light rubbing was done on the stone. In addition to the hand-carved stones, at least thirty depressions and/or rocks were counted, making this a definite area of research.

While no additional historic settlements were found, there are several ridge tops which would be an ideal living area including the northeast portion of the tract in Area 3, the eastern portion of the tract in Area 2, and the southern portion of the tract in Area 1 (where the 1978 topographic map shows a structure). Subsurface testing would need to be performed in these areas. In fact, all the archaeological

resources discussed have been found in all three landforms that the tract exhibits. There is a house location on a ridge top (Area 1), a cemetery and prehistoric site in a ridge side slope (Area 2), and a historic scatter in the river bed (Area 3). This would make the entire project tract have a high potential for finding other archaeological resources.

An architectural reconnaissance was performed 0.5 mile around the project area. Just outside this APE is an old mill, so almost every structure we encountered was historic. In addition, a portion of the city of Greenwood was located within the APE. For this project, the mill village located north of the project tract along the 0.5 mile boundary was recorded and a reconnaissance form was filled out for 49 houses. While these houses would probably not be eligible for the National Register individually, they have the possibility as a group to be eligible representing an intact historic mill village. The southwestern portion of Greenwood located within the APE has an additional 200-300 houses which would need to be evaluated. This large number of structures is too intensive for this level of survey. A more intensive survey should be performed for the city of Greenwood.

Summary: All three areas within the project tract contained archaeological sites. The landforms exhibited within the tract in coordination with the creek located along the western boundary of the tract and well-drained soils makes the entire 100 acres have a high potential for discovering archaeological sites. We recommend an intensive archaeological survey of the entire tract.

The architectural reconnaissance revealed that the project is located at the edge of the historic core of Greenwood and incorporates a large and intact mill village. While many of these structures are likely not individually eligible, they may be eligible as a district. As a result, we recommend that the lead federal agency more precisely identify the APE and that an intensive architectural survey be conducted.

Camp, Wallace J. and Edward C. Herren

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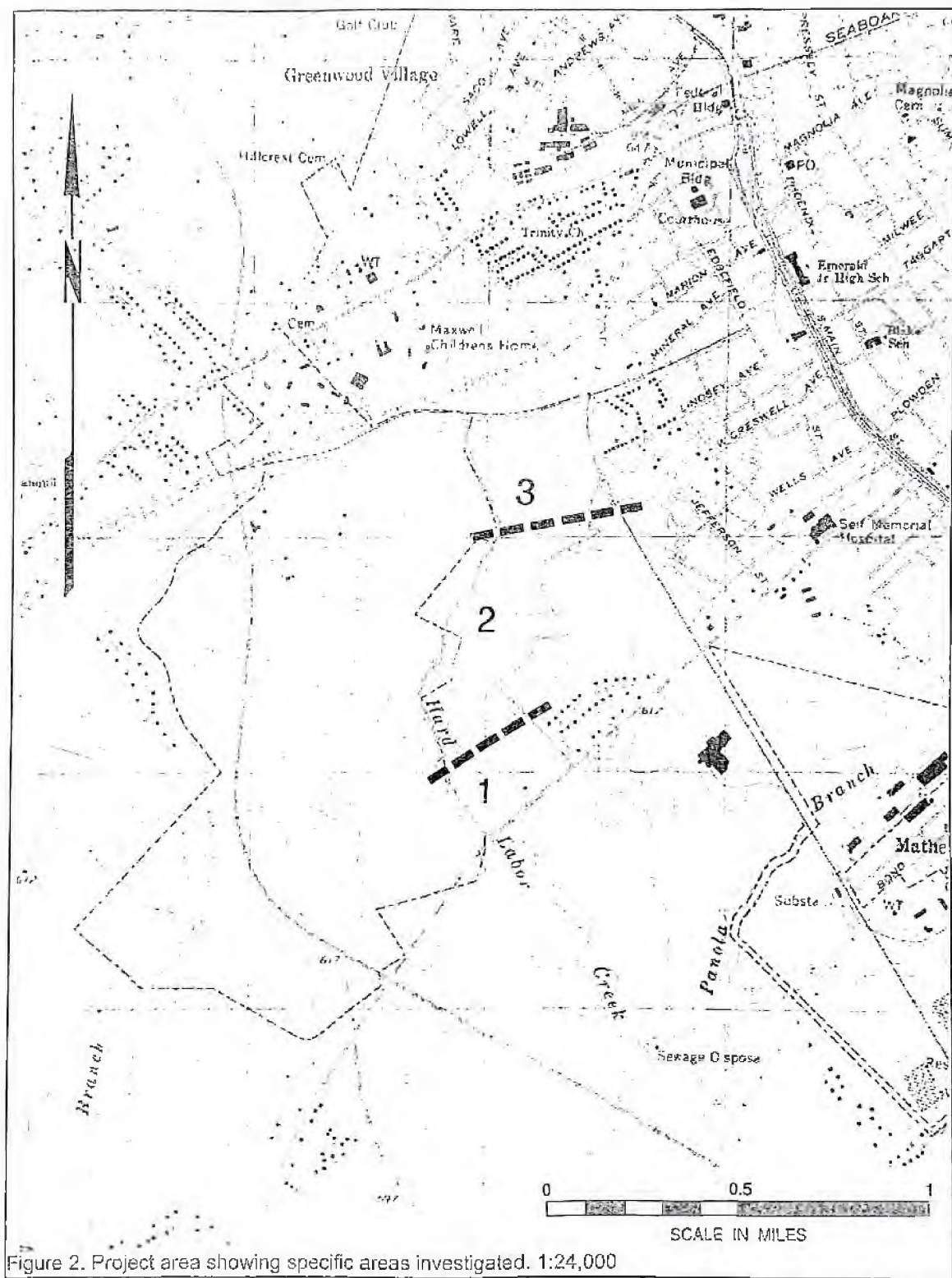


Figure 2. Project area showing specific areas investigated. 1:24,000

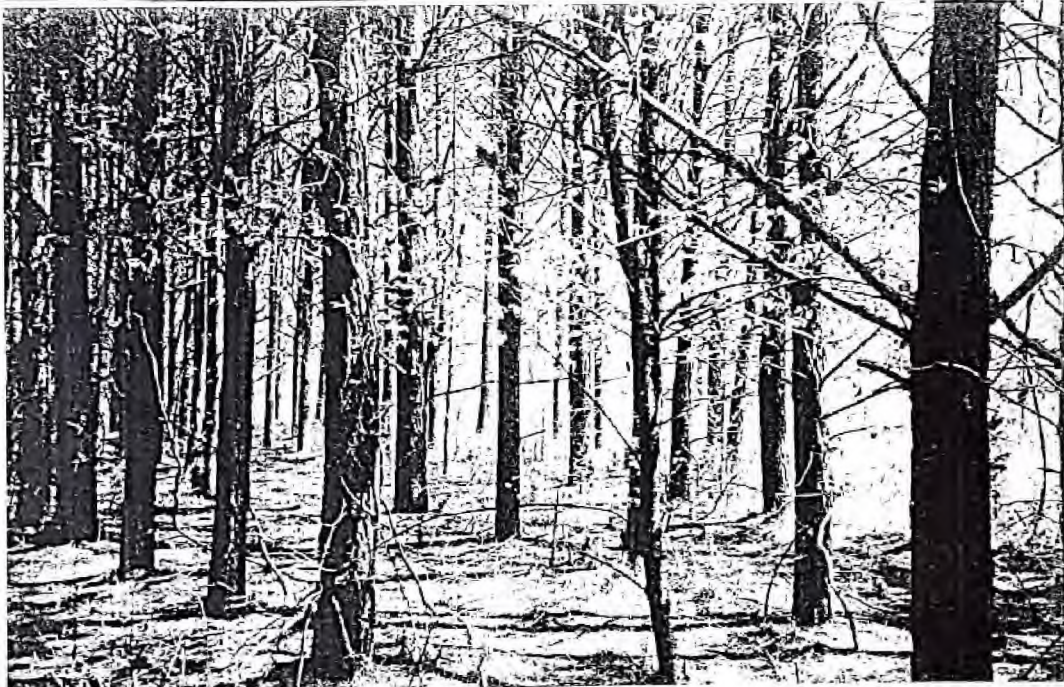
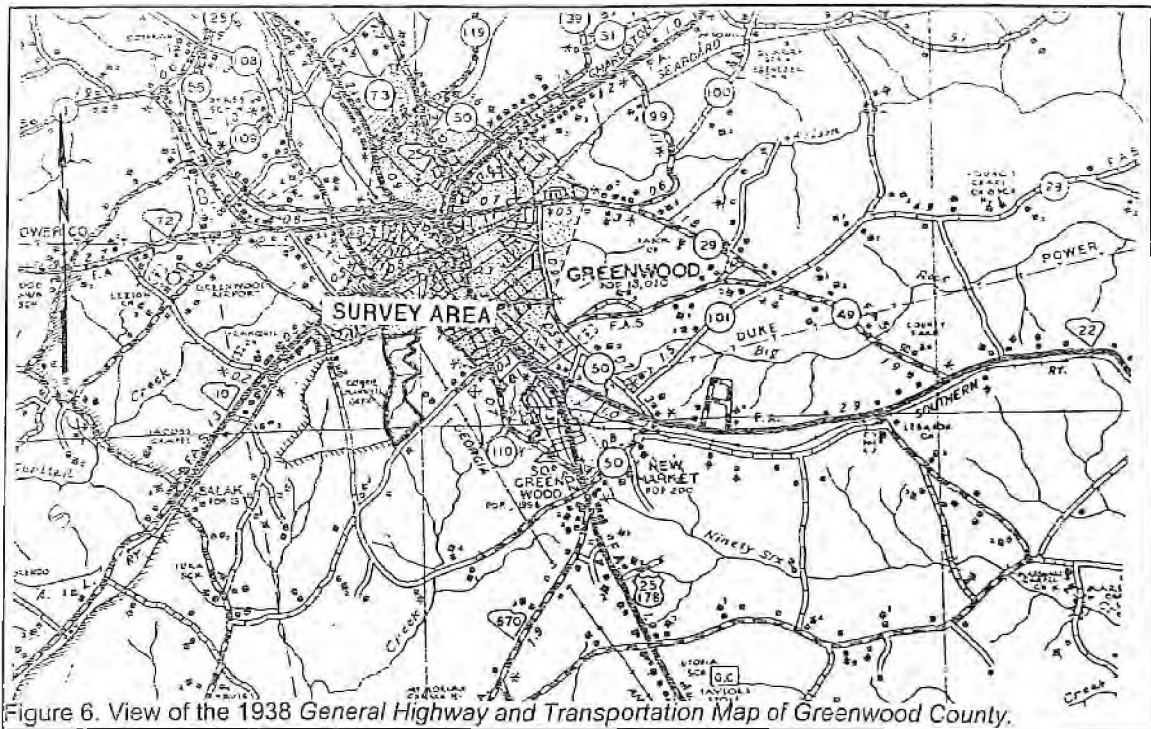
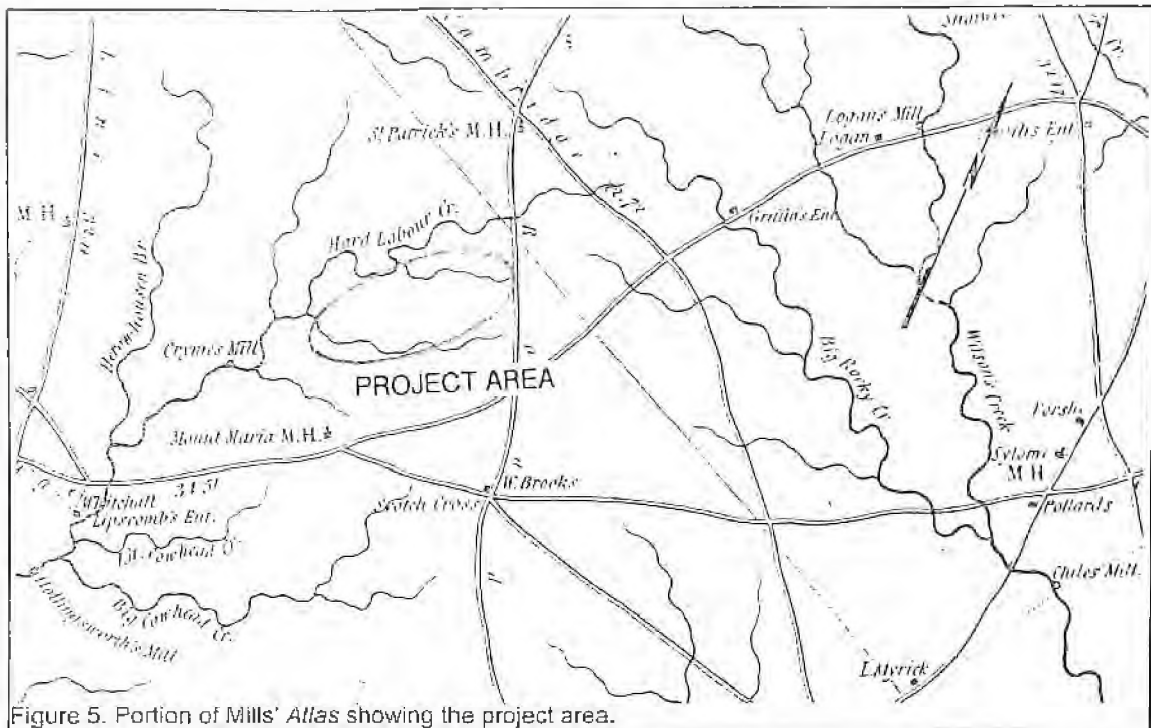


Figure 3. View of planted pines in Area 1 of the survey tract.



Figure 4. View of roadway/sewer line.



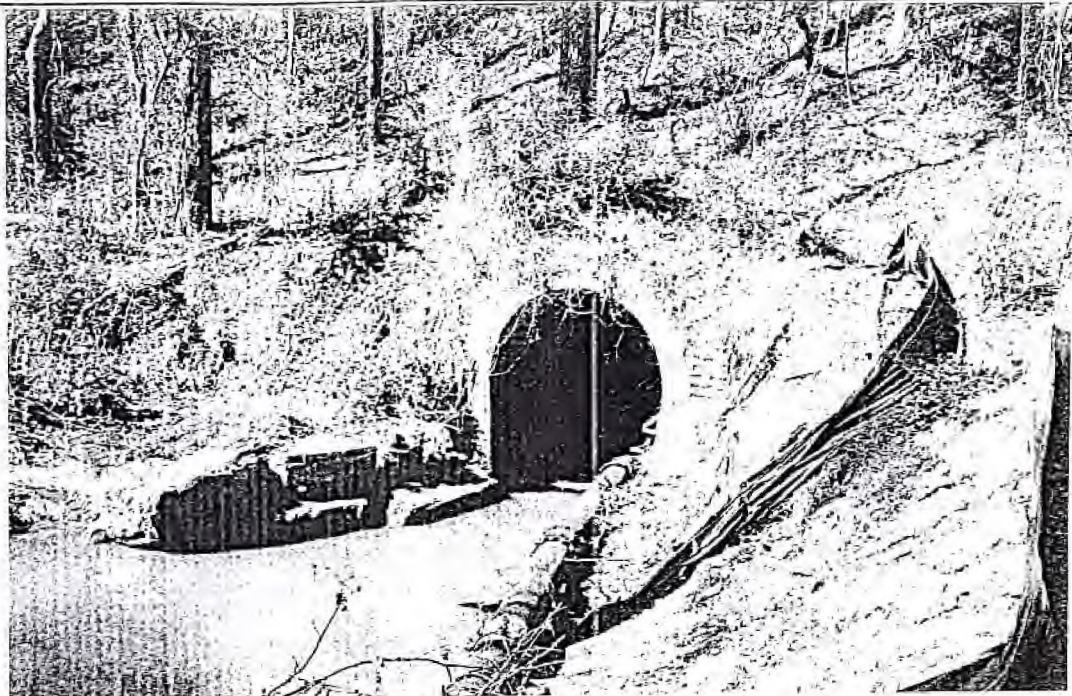


Figure 7. View of arch at the northwest corner of the tract.

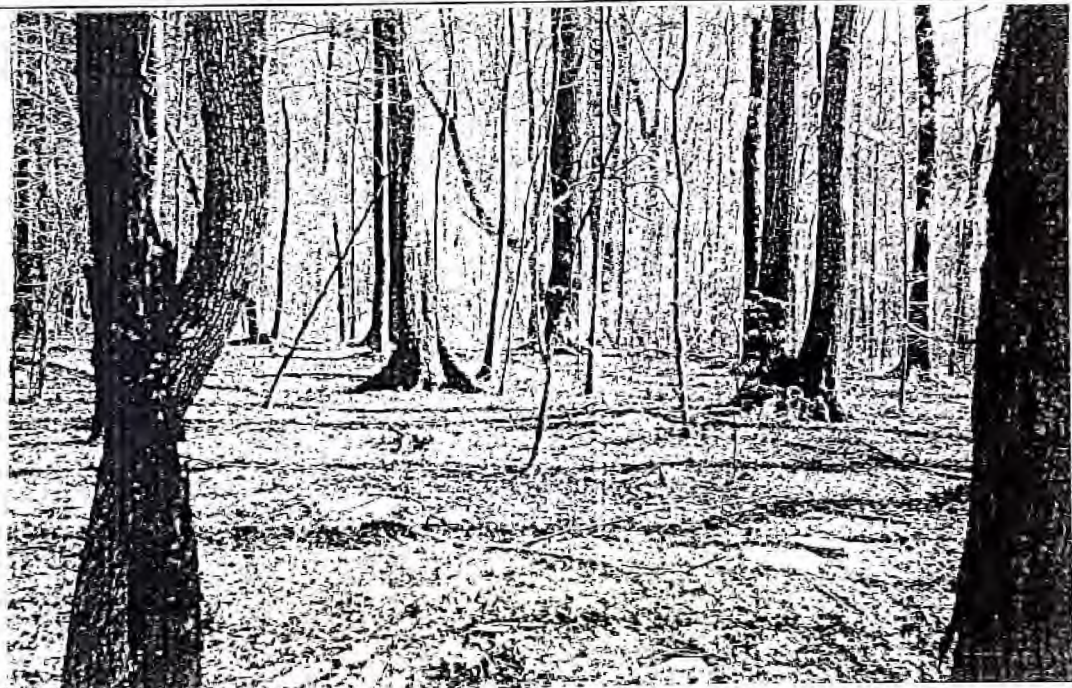


Figure 8. General view of the cemetery.

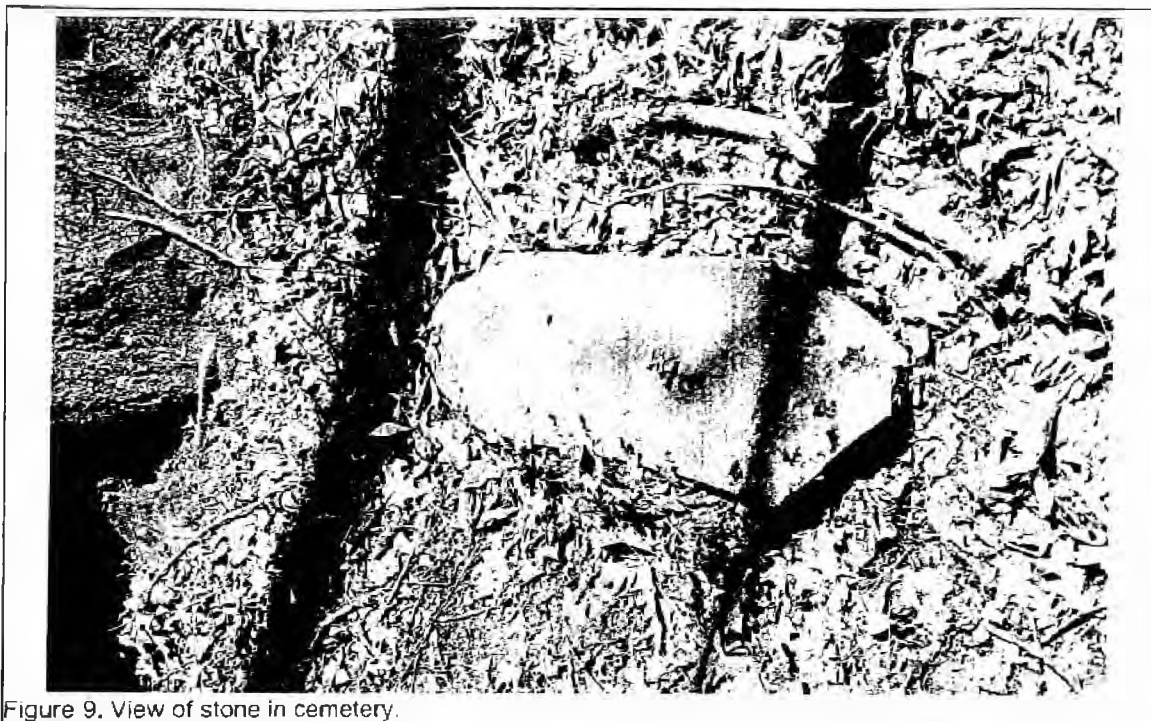


Figure 9. View of stone in cemetery.

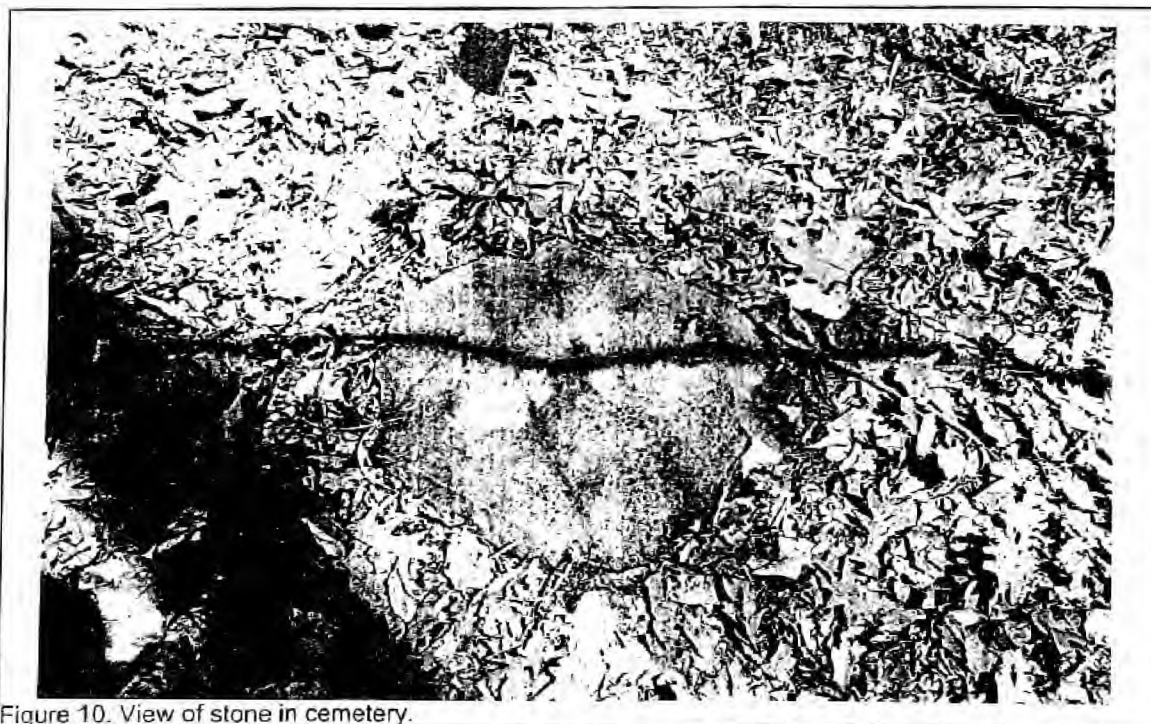
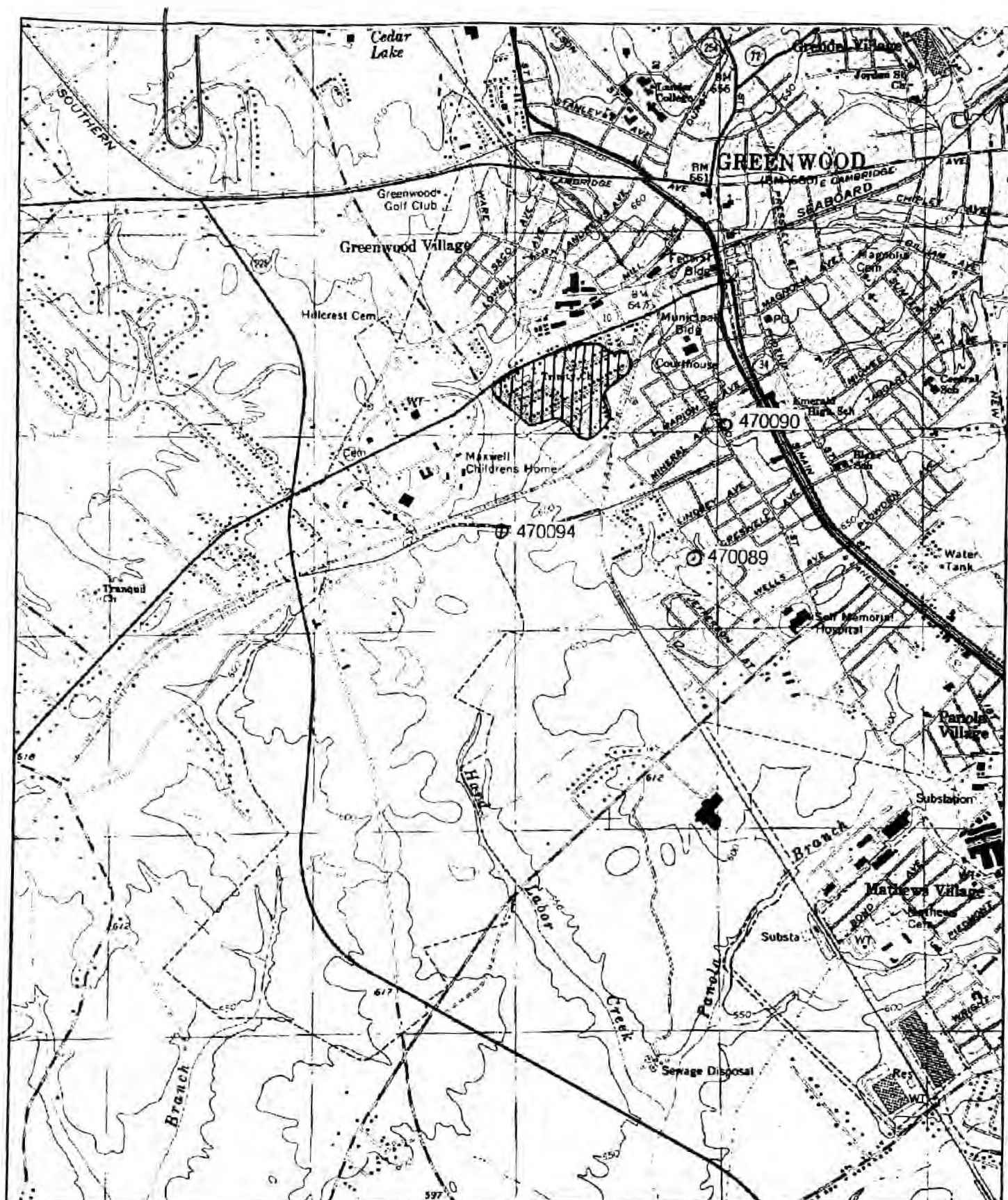


Figure 10. View of stone in cemetery.



Name: GREENWOOD
 Date: 7/3/2003
 Scale: 1 inch equals 2000 feet

Location: 17 0391974 E 3782095 N

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9.0 Appendix B – SHPO Correspondence from 2003



May 12, 2003

Mr. Lewis E. Hill, P.G.
Environmental Project Manager
Froehling & Robertson, Inc.
PO Box 17186
Greenville, SC 29606

RE: Cultural Resources Assessment
Proposed Greenwood Biotechnology Park
W. Alexander Road Extension, Greenwood [Greenwood County]

Dear Mr. Hill:

Thank you for the Cultural Resources Assessment of the Greenwood Biotechnology Park, which we received on April 17. We do not believe that the mill village neighborhood, surveyed in the vicinity of the proposed park, meets the criteria for eligibility to the National Register of Historic Places. We are able to make that determination based on the lack of a coherent and stylistic architecture and the numerous alterations that have occurred in this area. We also believe that other mill villages in Greenwood possess a higher degree of integrity and better represent the type and style of a mill village than this neighborhood.

We will, however, require a map that shows the boundaries of the mill village that was surveyed in order to place the information within our Geographic Information System (GIS). Please provide a USGS topographic quad, showing the boundaries of the area surveyed.

In reference to the archaeological potential of the development tract, we concur with the consultant's recommendation that an intensive survey be performed within the entire 100-acre project area. The purpose of the survey should be to identify and evaluate (if possible) all sites located within the project tract.

These comments have been provided to assist you with your responsibilities under Section 106 of the National Historic Preservation Act, as amended. If you have any questions or comments, please contact me at (803) 896-6181.

Sincerely,

Chad C. Long
Staff Archaeologist
State Historic Preservation Office



10.0 Appendix C – 2006 Report for the Greenwood Biotechnology Park

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**CULTURAL RESOURCES SURVEY OF THE
GREENWOOD BIOTECHNOLOGY PARK,
GREENWOOD COUNTY, SOUTH CAROLINA**



CHICORA RESEARCH CONTRIBUTION 449

CULTURAL RESOURCES SURVEY OF GREENWOOD BIOTECHNOLOGY PARK, GREENWOOD COUNTY, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D., RPA
And
Nicole Southerland

Prepared For:
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CHICORA RESEARCH CONTRIBUTION 449



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July 28, 2006

This report is printed on permanent paper ∞

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ABSTRACT

This study reports on an intensive cultural resources survey of a 186 acre tract located in Greenwood County, South Carolina, just southwest of the town of Greenwood. The work was conducted to assist Dr. Roger Stevenson and the Genetics Endowment of South Carolina comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract, which borders West Alexander Avenue to the south, a railroad line to the north, and Hard Labor Creek to the west, will be developed for a biotechnology park. The surrounding area is being quickly developed with various commercial and industrial properties.

The proposed undertaking will require the clearing of the tract, followed by construction of various infrastructure elements, such as roads, stormwater drainage, and utilities (some of which has already been constructed). Individual lot construction will involve grading, additional utility construction, and subsequent building of structures. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites that may be in the project tract. For this study an area of potential effect (APE) 0.5 mile from the proposed tract was assumed.

An investigation of the archaeological site files at the South Carolina Institute of Archaeology and Anthropology identified three previously recorded sites (38GN541-543), all of which are located on the current survey parcel and were recorded during the 2003 Cultural Resources Assessment (CRA) by Chicora Foundation. Site 38GN541 is a prehistoric lithic scatter; 38GN542 is a historic cemetery; and 38GN543 is a scatter of

historic artifacts. No eligibility determination was made on these sites at the time of the CRA.

The maps at the S.C. Department of Archives and History were also consulted to see if any National Register of Historic Places sites were in the vicinity of the project area. The 2003 CRA also recorded 0042-0093 (Greenwood Mill Village), 0089 (house), 0090 (house), and 0094 (culvert), all of which have been determined not eligible for the National Register.

The archaeological survey of the tract incorporated shovel testing at 100-foot intervals on transects which were placed at 100-foot intervals. All shovel test fill was screened through 3-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 505 shovel tests were excavated along 64 transect lines.

As a result of these investigations the three previously identified sites were relocated and assessed. Sites 38GN541 and 38GN543 are recommended not eligible for the National Register. The cemetery, 38GN542, is recommended eligible under Criteria C (distinctive elements) and D (information potential).

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until

they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

TABLE OF CONTENTS

List of Figures		iv
List of Tables		iv
Introduction		1
Natural Environment		5
<i>Physiographic Province</i>	5	
<i>Geology and Soils</i>	5	
<i>Climate</i>	8	
<i>Floristics</i>	9	
Prehistoric and Historic Background		11
<i>Previous Research</i>	11	
<i>Prehistoric Overview</i>	12	
<i>Historic Overview</i>	22	
<i>Tract Specific History</i>	30	
Methods		33
<i>Archaeological Field Methods</i>	33	
<i>Architectural Survey</i>	33	
<i>Site Evaluation</i>	33	
<i>Laboratory Analysis</i>	34	
Results of Survey		37
<i>Introduction</i>	37	
<i>Archaeological Resources</i>	37	
<i>Architectural Resources</i>	43	
Conclusions		45
Sources Cited		47

LIST OF FIGURES

Figure

1. Project vicinity in Greenwood County	2
2. Survey tract with previously identified sites	3
3. View of the project tract looking southeast into the flood plain of Hard Labor Creek	5
4. Soils in the study tract	6
5. Portion of the 1934 Erosion Survey showing the project area	7
6. Dense understory and second growth vegetation in the central portion of the tract	8
7. Old field on ridge side slope	8
8. Wetland vegetation on Hard Labor Creek	9
9. Channalized creek in the study tract	9
10. Generalized cultural sequence for the Piedmont of South Carolina	13
11. Mills' <i>Atlas</i> showing the project area	23
12. Comparison of slaves held by slaveholders in Abbeville and Anderson districts	23
13. Portion of the 1919 USGS Abbeville topographic map showing the project area	30
14. Portion of the 1938 <i>General Highway and Transportation Map of Greenwood County</i>	31
15. Comparison of African American white population in Greenwood County 1920-1930	31
16. Study tract showing transects	35
17. Topographic map showing the identified sites	37
18. Sketch map and soil profile for 38GN541	38
19. Sketch map showing the cemetery	39
20. View of a hand-carved stone at the cemetery	40
21. View of a hand-carved stone showing the Mason's symbol	40
22. Sketch map and soil profile for 38GN543	41
23. View of the culvert in 2003	42
24. View of culvert in 2003	43
25. Current view of culvert	44

LIST OF TABLES

Table

1. Cotton Mills in 1907	28
2. Changes in Greenwood Farms Between 1910 and 1940	29

INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Dr. Roger E. Stevenson, Director of the Greenwood Genetic Center, J.C. Self Research Institute of Human Genetics. The work was conducted to assist the Center comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of 186 acres bordering Hard Labor Creek on the southwest side of the City of Greenwood in central Greenwood County (Figure 1). The tract is bordered by Hard Labor Creek on the west, West Alexander Road (S-148) on the south, and the Seaboard Coast Line Railroad on the north. On the east the parcel borders a section of Southern Railroad corridor at its northeast edge and elsewhere borders portions of the Center already developed and the Hill and Dale neighborhood (Figures 2). The parcel is identified as TMS 6845-589-080 in the Greenwood County GIS.

The parcel consists primarily of a series of ridge toes and slopes overlooking Hard Labor Creek. The most significant areas of level uplands have already been developed, either by the Genetics Center or by the Hill and Dale community. Soils are primarily clays and the historic research reveals that during most of the twentieth century the tract was used as a cattle farm and was probably in pasture. Today much of the land is in planted pines. There is evidence of much erosion and some indication of previous terracing.

The parcel is intended by the Center for industrial development. This is likely to include clearing, grubbing, grading, below ground

placement of infrastructure such as water and other utilities, and above grade construction. We understand that some filling of wetlands is proposed, necessitating Army Corps permits. It is possible that construction activities will produce at least short-term increases in traffic, noise, and dust-levels. These actions all have the potential to affect above and below grade cultural resources – necessitating this survey and evaluation of cultural resources on the tract.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Greenwood County.

The project will not directly effect any historic structures (since none are located on the survey parcel), but the completed facility may detract from the visual integrity of historic properties, creating what some consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) 0.5 mile radius around the proposed 186 acre tract.

Our proposal for the intensive cultural resources survey was submitted to the Genetics Endowment of South Carolina in early June 2006 and approved on June 13. The field study was conducted by Ms. Nicole Southerland, Ms. Julie Poppell, Ms. Alyson Herbert, and Ms. Kim Igou between July 6 and July 12, 2006. Site specific historical research was conducted by Dr. Michael Trinkley on July 12 and 13 in Greenwood and at the S.C. Department of Archives and History.

Although Chicora had conducted a Cultural Resource Assessment (CRA) of this

CULTURAL RESOURCES SURVEY OF THE GREENWOOD BIOTECHNOLOGY PARK

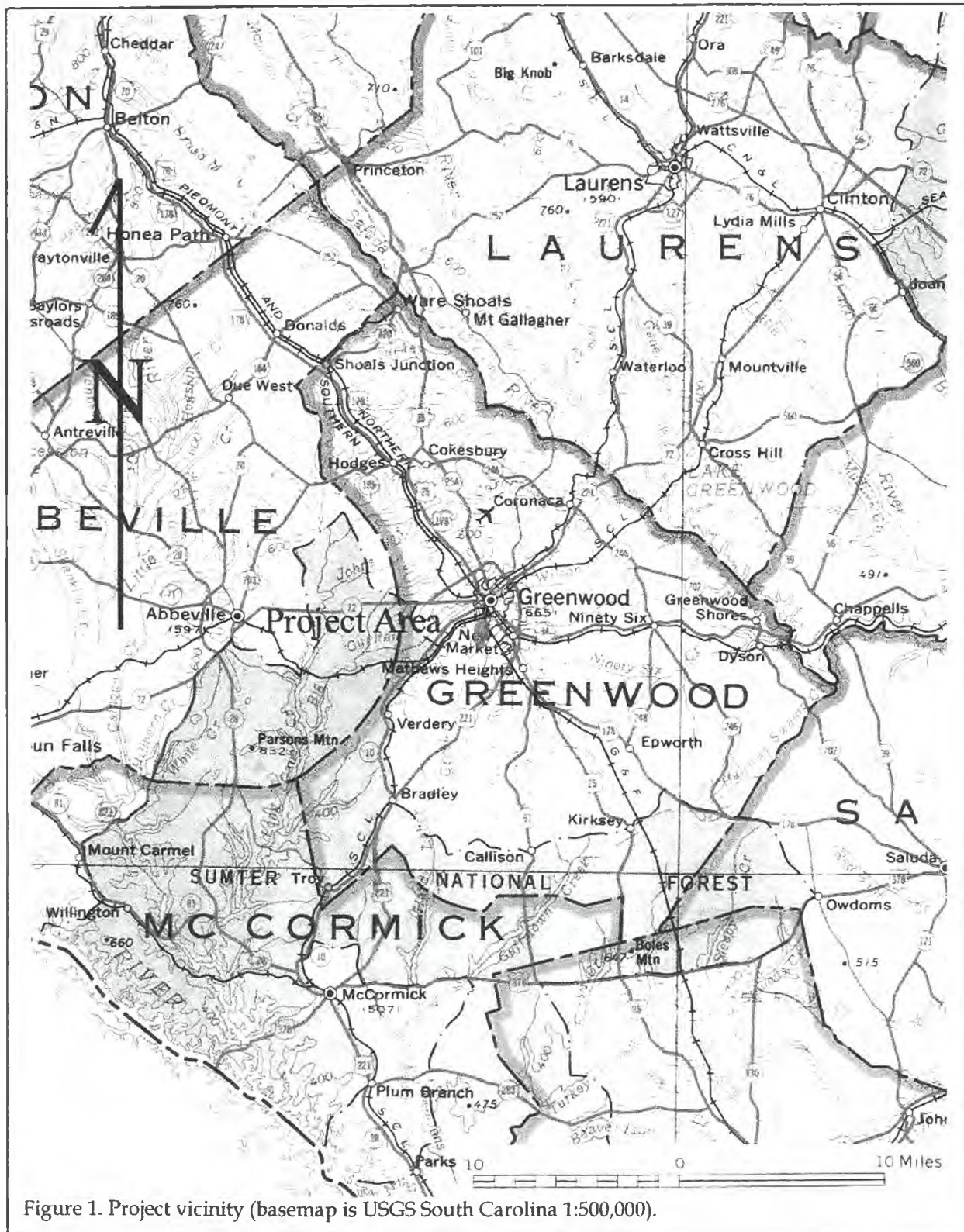


Figure 1. Project vicinity (basemap is USGS South Carolina 1:500,000).

INTRODUCTION

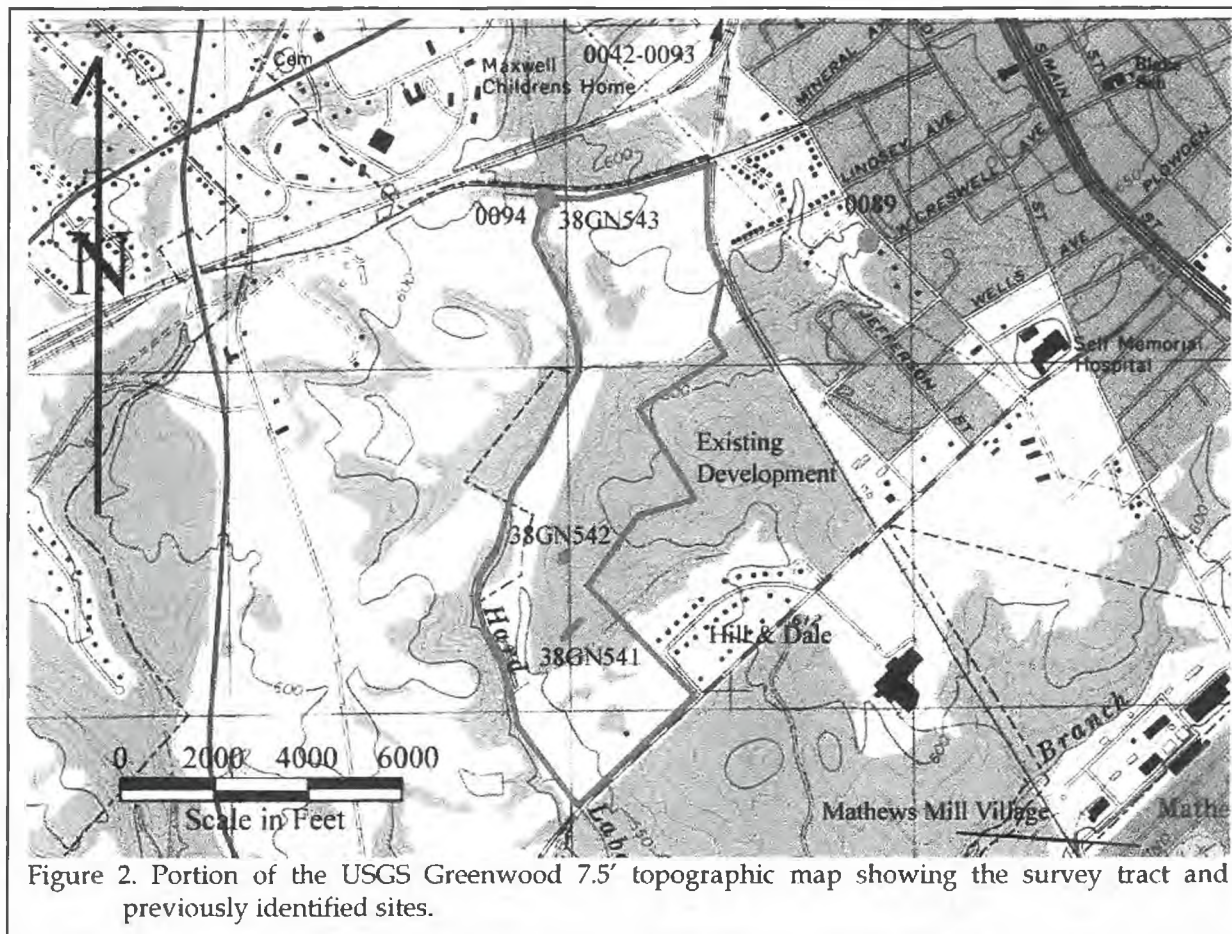


Figure 2. Portion of the USGS Greenwood 7.5' topographic map showing the survey tract and previously identified sites.

project in early 2003 (Covington and Southerland 2003), given the time lag between this initial CRA and the intensive survey, we conducted a second review of the site files at the South Carolina Institute of Archaeology and Anthropology and the GIS database at the South Carolina Department of Archives and History. For both reviews an Area of Potential Effects (APE) of 0.5 mile was used.

The SCIAA background review identified only those sites recorded by Chicora during the CRA (38GN541, 38GN542, and 38GN543) - no additional archaeological resources have been identified in the general area during the intervening 3 years.

The South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts,

structures, sites, or objects in the study area. Again, only those resources identified by the Chicora CRA were recorded (0042-0092, 0089, 0090, and 0094). All of these had been evaluated by the State Historic Preservation Office (SHPO) as not eligible, based on the CRA data. Just beyond the 0.5 mile APE are two eligible properties - the ca. 1929 Old Greenwood High School, listed on the National Register of Historic Places, and the Mathews Mill Village, determined eligible based on a Cingular Wireless architectural evaluation in 2003.

Archival and historical research included a review of secondary sources available in the Chicora Foundation files and at the South Caroliniana Library, as well as tract-specific research conducted at the Greenwood County Clerk of Court and the South Carolina Department of Archives and History.

The archaeological survey did not identify any additional sites on the study tract, but did provide complete assessments of those sites previously recorded through the CRA. One site, 38GN542 - a historic cemetery - is recommended eligible for inclusion on the National Register under Criteria C (characteristic style) and D (information potential). The remaining sites, 38GN541 and 38GN543 are recommended not eligible and no further management activities are recommended, pending review by the State Historic Preservation Office and the lead federal agency.

Report production was conducted at Chicora's laboratories in Columbia, South Carolina on July 17-20. The only photographic materials associated with this project are digital images, which are not archival. All other field notes and the resulting collections will be curated at the South Carolina Institute of Archaeology and Anthropology.

NATURAL ENVIRONMENT

Physiographic Province

The project tract is situated in central Greenwood County (Figure 1) with most of the study area consisting of ridge toes and side slopes facing west, toward Hard Labor Creek (Figure 2). A small portion also occupies the narrow, well defined floodplain of Hard Labor Creek. Two additional drainages flow westward from the study tract into Hard Labor Creek.

Greenwood County is situated in the western piedmont of South Carolina, bounded to the north by Laurens County, to the east by Newberry and Saluda counties (and the Saluda River), to the south by Edgefield and McCormick counties, and to the west by Abbeville County. The western and southern boundary incorporates

Physiographically, the area is a thoroughly dissected plain. The relief ranges from nearly level to steep, but it is dominantly gently sloping to moderately steep (Herren 1979:1). Although throughout the piedmont area the elevations range from 450 feet above mean sea level (AMSL) to 1,014 feet AMSL, the elevations in the project area range from about 550 to 600 feet. In general these elevations slope downward toward the bottomlands of Hard Labor Creek.

The drainages form a dendritic pattern and throughout the Piedmont this terrain has been extensively dissected and degraded. Greenwood County is neatly divided by a ridge occupied by US 178. To the east the county is drained by Ninety Six, Wilson, and Coronaca creeks, all flowing eastward toward the Saluda River. To the

west, the county is drained by Johns, Hard Labor, and Cuffytown creeks, all flowing southward and eventually into the Savannah River.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasseltan 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia.



Figure 3. View of the project tract looking southeast into the flood plain of Hard Labor Creek.

large portions of the Sumter National Forest.

This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys.

Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). The project area is just above the Slate Belt, in an area characterized by highly metamorphosed gneisses, schists, and amphibolites (Murphy 1995:47). The bulk of the soils are formed in materials

loams with slopes ranging from 2% up to 15%. The less steeply sloping Cecil soils exhibit profiles with an Ap zone of brown (7.5YR5/4) sandy loam up to 0.4 foot in depth overlying a B horizon of red (2.5YR4/6) clay. As the slope increases the Ap horizon gives way to a sandy clay loam or clay loam (Camp and Herren 1980:12-13).



Figure 4. Soils in the study tract.

weathered from the underlying bedrock of granite, schist, or gneiss.

The study tract includes four soil series: the combined Cartecay & Toccoa, Cecil, Hiwassee, and Mecklenburg. Of these, the most common on Cecil soils, all identified as sandy

The Hiwassee soils, limited to the southern edge of the tract, have typical profiles of a dark reddish brown (5YR3/4) sandy loam Ap horizon about 0.5 foot in depth overlying B horizon soils of dark red (2.5YR3/6) clay (Camp and Herren 1980:21).

The Mecklenburg soils, found on broad ridges and breaks, may exhibit Ap horizons of dark brown (7.5YR4/4) sandy loam up to 0.4 foot in depth overlying B horizon soils of yellowish red (5YR4/6) clay (Camp and Herren 1980:26).

The Cartecay and Toccoa soils are limited to drainageways and floodplains - in this study, Hard Labor Creek. Issues of drainage, siltation, and a high water table are found throughout the association. The seasonal high water table is found from the surface to within 2 feet of the surface (Camp and Herron 1980:10, 44).

The 1976 aerial photographs of the tract reveal that much of the survey area has been wooded for a number of years, although some evidence of past logging was encountered. The area under pasture

appears to be limited to the area at the southern edge of the tract, which was used for cattle since at least the 1950s.

In 1826 Robert Mills remarked that the

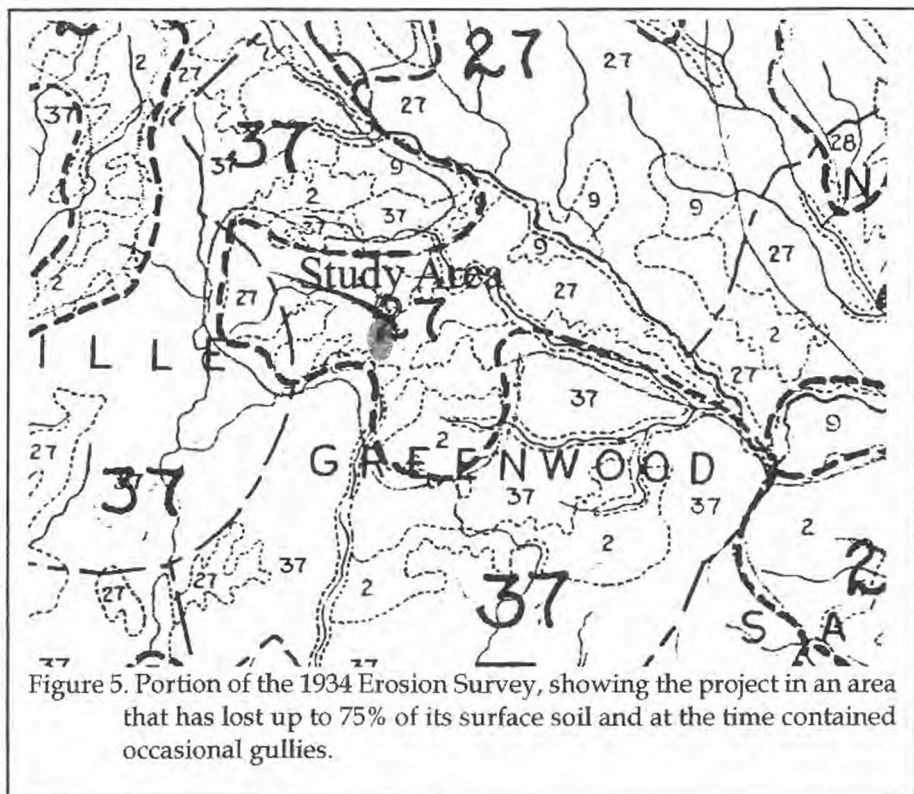
soils of the Abbeville District (of which Greenwood comprised the southern half) were primarily "most generally clay covered with a rich mould, sometimes mixed with sand and gravel" (Mills 1972 [1826]:349). Cotton dominated the agriculture of the district and Mills was already sounding an alarm, commenting that:

The deteriorating effects consequent upon the planting system, observable in other districts, should prove a lesson to this, to avoid falling into the same error. The woods will disappear fast enough, without clearing more land than can be cultivated to advantage; and, in a hilly country . . . , particular care should be taken, when the lands are left in fallow, to keep them enclosed; and to given them a vegetable coat, to guard the surface from being washed away. It is deplorable to see the neglect of many of our planters in different districts, in this respect; and the consequent destruction of some of the finest farming lands (Mills 1972 [1826]:683-684).

Fairfield planter William Ellison remarked in 1828 that "the successful cotton planter sits down in the choicest of his lands, slaughters the forest, and murders the soil" (quoted in Ford 1988:38). In 1842 agricultural reformer Edmund Ruffin warned of

impending disaster from the reliance on cotton and observed that little effort was being made to protect the land (Ruffin 1843:73).

In spite of these early warnings, the South Carolina Department of Agriculture, Commerce, and Immigration, as late as 1907, found no reason to remark on the threat of erosion, noting only that "the second best cotton lands are found in Anderson and Laurens Counties" (State Department of Agriculture, Commerce, and Immigration 1907:255). As Barry has noted:



[m]any years ago virgin areas of the Piedmont Province were highly fertile and highly productive, as demonstrated by the high degree of agricultural productivity over the past 150 years. However, mismanagement, over-cropping, erosion, and a multitude of other factors have reduced the once fertile



Figure 6. Dense understory and second growth vegetation in the central portion of the tract.

of the project tract have been logged, likely increasing soil loss originating during earlier agricultural activities. The United States Forest Service has determined that logging accounts for upwards of 0.36 tons of soil erosion per acre per year in this region, while areas of skid trails have erosion rates of about 9.91 tons per acre per year (U.S. Department of Agriculture 1980:25). This is clearly evidenced by the shovel tests conducted in the project area.

Clim

lands to eroded ridges that require high applications of fertilizers to remain productive (Barry 1980:57).

Elevation, latitude, and distance from the

The 1934 South Carolina Erosion Survey by M.W. Lowry found that this portion of the Piedmont exhibited severe sheet erosion with occasional gullies (Lowry 1934). This portion of the state has lost up to 1.1 foot of soil through erosion in the nineteenth and early twentieth centuries (Trimble 1974:3). It is part of the area classified by Trimble as having high antebellum erosion land use with postbellum continuation and belonging to his Region III – the Cotton Plantation Area (Trimble 1974:15).

Within recent times, at least some portions



Figure 7. Old field on ridge side slope.

coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses



Figure 8. Wetland vegetation on Hard Labor Creek.

which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

Consequently, the climate in this area is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of about 46 to 47.5 inches is adequate. In general, about 23 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984:16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages

throughout the state.

The average growing season is about 217 days, although early freezes in the fall and late frosts in the spring can reduce this period by as much as 10 or more days (Camp and Herren 1980: Table 11). Consequently, most cotton planting, for example, did not take place until middle May, avoiding the possibility that a late frost would damage the young seedlings.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun



Figure 9. Channalized creek in the study tract.

(1950). The potential natural vegetation of the area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadleaf deciduous

and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak. In actuality, the Piedmont is composed of a patchwork of open fields, pine woodlots, hardwood stands, mixed stands, and second growth fields. Shelford (1963) includes the Carolina Piedmont in the Oak-Hickory zone of the Southern Temperate Deciduous Forest Biome.

Today the "patchwork" is more than ever clearly visible. The survey tract includes a few areas of planted pines, hardwood stands, mixed stands, and grassed pastures (see Figures 3, 6, 7, and 8 for examples). The vegetation and landscape of some small drainages in the tract have been altered by what appears to be channalization (Figure 9).

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

The Piedmont has been the focus of considerable archaeological research. Derting et al. (1991), for example, cite 73 studies specific to Greenwood County. Virtually all of these are compliance related.

There is no single synthesis of the area's archaeology. Perhaps the most thorough overview specific to the Anderson County area is the survey of the Laurens-Anderson highway connector (Goodyear et al. 1979). In this study, the bulk of the prehistoric sites were low density Archaic Period lithic scatters found in the uplands along the larger streams. This provides a basic model for site location.

More recently the Sumter National Forest (situated to the south and west of Greenwood) has produced an overview that also includes site modeling. Three zones have been identified; Zone 1 is identified as broad floodplains and larger drainage bottoms, Zone 2 is identified as upland areas of low topographic relief, and Zone 3 is classified as areas of high relief containing slopes greater than 10%. High probability for prehistoric sites has been identified for those Zone 1 areas that are elevated, such as old levees and ridges and for Zones 2 and 3 where there are ridge tops, noses, saddles, crests, and other well-defined low slope areas within 500 feet of water sources or Zone 1 areas. Moderate probability areas are defined as Zone 1 areas of broad floodplains or bottoms and Zone 2 and 3 areas of less than 10% slope, even if greater than 500 feet from water. Finally, low probably areas include Zone 1 floodplains that are active and Zones 2 and 3 where the slopes are greater than 10% and where there is loss of soil (Benson 2006:225-226).

Although these models sound complex,

they are actually quite simple and follow what has been generally accepted among archaeologists for a number of years. Much of the study tract would be considered as evidencing high to moderate archaeological potential with no further evaluation of soil loss and erosion - there are numerous ridge tops, noses, and saddles - all in close proximity to water sources. Steep soils are limited to a band paralleling Hard Labor Creek in the southern half of the tract. There are, however, no clearly defined ridges or high areas in the Hard Labor floodplains and these areas are generally narrow, with few areas that would be classified as broad.

The bulk of archaeological research in Greenwood County consists of surveys in Sumter National Forest or S.C. Department of Highways and Public Transportation surveys which are too numerous to individually list (see Derting et al. 1991). Rodeffer and Holschlag (1979) published a reconnaissance level survey report for Greenwood reporting on 358 archaeological sites. Of these, 295 contained prehistoric components, while 167 contained historic components.

In addition, the Paleoindian and Early Archaic are carefully explored by a variety of authors in an edited volume by Anderson and Sassaman (1996). These same researchers have also explored the Middle and Late Archaic (Sassaman and Anderson 1994). The Woodland and Mississippian is less well researched for the Piedmont, although Anderson (1994) does provide a generalized overview.

Historic site location is more difficult to gauge given the scarcity of work in the area. The bulk of historical archaeology in the county has been performed at Ninety-Six, associated with the late eighteenth century use of the village of Cambridge and the star fort occupied by the

British (see, for example, Baker 1972; Holschlag and Rodeffer 1976a; 1976b; 1977; 1978). Brooks and Crass (1991) have provided synthetic information on research at the nearby Savannah River site. It is likely that their predictive model for site location can be transposed to Greenwood County. They found that the earliest occupations were located on rivers, but as the eighteenth century progressed, creeks were also a focus of settlement. During the nineteenth century settlement became more road oriented.

Of particular relevance to this study is our earlier cultural resource assessment (CRA) for the project tract (Covington and Southerland 2003). This review found no previous archaeological sites recorded in a 0.5 mile area of potential effects (APE), but did identify three sites - 38GN541, a prehistoric scatter; 38GN542, a historic scatter; and 38GN543, a historic cemetery. These were not assessed, however, since CRAs do not provide the testing and data collection necessary to allow eligibility determinations to be made.

The CRA also found no previously recorded architectural sites in the study tract or the 0.5 mile APE. Four, however, were recorded - 0042-0093, the Greenwood Mill Village to the north of the study tract; 0089, a structure at 962 Spring Street; 0090, a structure at 820 Edgefield Street; and 0094, a railroad abutment over Hard Labor Creek. All of these sites were evaluated by the State Historic Preservation Office as not eligible, based on the GIS database.

Prehistoric Overview

In the Carolina Piedmont, lithic scatters are the most common type of prehistoric site encountered. Goodyear et al. (1979:131-145) found that lithic scatter sites located in the inter-riverine Piedmont were geographically extensive and exhibited little artifact diversity. These sites have been interpreted as:

limited or specialized activity
sites which represent resource
exploitation or other distinct

functions. Nearly all investigators working in the Piedmont have related these sites to activities involving hunting, nut gathering, and procuring of lithic raw materials (Canouts and Goodyear n.d.:8).

Although the vast majority of these sites are located in eroded areas and exhibit little to no subsurface integrity, Canouts and Goodyear (1985) argue that they have analytical value. This value lies in their horizontal rather than vertical dimensions. They argue that:

[f]uture investigators of upland site must effect broad-scale spatial analyses comparable to the temporal analyses effected through excavation of deeply stratified sites. Both endeavors are necessary, and neither is sufficient for the total understanding of Piedmont prehistory" (Canouts and Goodyear 1985: 193).

One observation that Canouts and Goodyear (1985) made is that lithic raw material ratios change through time. For instance, at the Gregg Shoals site in Elbert County, Georgia, the Early Archaic assemblage reflects greater use of non-local cryptocrystalline materials and the Late Archaic, greater use of non-quartz local material (see Tippitt and Marquardt 1981). Examination of changing use of lithic resources will help archaeologists better understand issues such as the extent of seasonal rounds, trade networks, and social organization. Clearly, the discussions by Canouts and Goodyear (1985) argue strongly for a higher regard for the "lowly" lithic scatter - a very common occurrence in the Piedmont.

Figure 10 provides an overview of the cultural sequence commonly found in the Carolina Piedmont.

PREHISTORIC AND HISTORIC OVERVIEW

			Regional Phases		
Dates	Period	Sub-Period	COASTAL	MIDDLE SAVANNAH VALLEY	CENTRAL CAROLINA PIEDMONT
1715	HIST.	EARLY	Altamaha		Caraway
1650		LATE	Irene / Pee Dee	Rembert	
1100	MISS.	EARLY	Savannah	Hollywood	Dan River
				Lawton	Pee Dee
		LATE	St. Catherine's / Swift Creek	Savannah	
800	WOODLAND				Uwharrie
A.D.			Wilmington	Sand Tempered Wilmington?	
B.C.		MIDDLE	Deptford	Deptford	Yadkin
300					
		EARLY	Refuge		Badin
1000	ARCHAIC		Thom's Creek Stallings		
2000		LATE	Savannah River Halifax		
3000					
		MIDDLE	Guilford Morrow Mountain Stanly		
5000	PALEOINDIAN				
8000		EARLY	Kirk Palmer		
10,000			Hardaway		
12,000			Hardaway - Dalton		
			Cumberland	Clovis	Simpson

Figure 10. Generalized cultural sequence for the Piedmont of South Carolina.

Paleoindian Period

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleoindian occupation, while widespread, does not appear to have been intensive. Points usually

associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population

density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Very little work in the state has been able to focus on Paleoindian settlements because of the rarity of the site type. No evidence was found for Paleoindian occupation in the Laurens-Anderson inter-riverine area, which is not surprising since elsewhere in the state these sites are usually found clustered along major drainages and their tributaries which is interpreted by Michie (1977:124) to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna."

One site identified in the Sumter National Forest (Price 1992), in neighboring Laurens County, is believed to have a possible Paleoindian component (38LU317). It is situated on a ridge saddle adjacent to a spring which feeds into the Enoree River, located only about 0.3 miles to the north. This fits well with previous arguments that Paleoindian sites will be located adjacent to major drainages.

Anderson (1992:32) suggests that the comparatively low density of Paleoindian diagnostics in South Carolina may be because the state could have been on the edge of the ranges of groups centered in other areas. He suggests that permanent settlements elsewhere probably occurred later in the Paleoindian period, only when population levels had grown appreciably in these centers. This would help to explain the overlap in stylistic traditions (such as the Clovis, Suwannee, Simpson, and Dalton) observed in South Carolina which perhaps resulted from populations expanding outward from these centers.

Archaic Period

The Archaic period, which dates from 8000 to as late as 500 B.C. in the Piedmont, does

not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts (for a thorough discussion of the Early Archaic, see Anderson and Sassaman 1996, while Anderson and Joseph 1988 offer a review of prehistoric archaeology along the upper Savannah River).

Prehistoric sites in the Piedmont inter-riverine zones are for the most part characterized as "upland lithic scatters" (House and Wogaman 1978:xii). These sites are shallow deposits without stratigraphic definition, contain a diversity of artifacts, and are commonly disturbed by plowing and/or erosion (Canouts and Goodyear 1985; Trinkley and Caballero 1983:27).

Early Archaic

During the Laurens-Anderson study (Goodyear et al. 1979), four sites with Early Archaic components were identified. Each of these sites contained a single example of Dalton¹ points or probable Dalton preforms made of indigenous Piedmont quartz. The following Palmer phase was found to be very common in the area and was represented by 28 sites. While most of the specimens were manufactured from the local quartz, some were manufactured from Coastal Plain chert from the Flint River formation located in the lower coastal plain of South Carolina and Georgia. There were also examples of metavolcanic rhyolite from the Carolina Slate Belt and what may be "Ridge and Valley chert" from eastern Tennessee.

At these sites a wide range of tool types were identified including a large number of

¹ Some researchers (see, for instance, Anderson 1992) classify Dalton as Paleoindian while others (Goodyear et al. 1989) classify it as Archaic.

unifacial and flake tools believed to be associated with the Early Archaic occupation. Goodyear et al. (1979:197) found that while Early Archaic sites with unifaces were found throughout the corridor, sites on ridgetops which were large watershed divides produced higher counts. They believe that the large number of sites producing Palmer points is related to environmental changes at that time. The large diversity in lithic raw material provided information regarding their "mobility patterns and regions of interactions" (Goodyear et al. 1979:198).

Anderson and Hanson's (1988) band/macrobands model of Early Archaic settlement was formulated primarily to evaluate data from the Savannah River basin. In the Savannah River Valley, settlement organization of the Early Archaic people was "characterized by the use of a logistically provisioned seasonal base camp or camps during the winter, and a series of short-term foraging camps throughout the remainder of the year" (Anderson 1992:36). During the early spring, the groups are believed to have moved toward the coast, then back into the upper coastal plain and piedmont during the later spring, summer, and early fall. During the winter they returned to their base camp incorporating some side trips to other drainages for aggregation events by groups from two or more different drainages. These aggregation sites are believed to have been located on Fall Line river terraces (Anderson 1989a:36). One example of a postulated base camp is the G.S. Lewis site at the Savannah River Site. This site is located on a ridge adjacent to the confluence of Upper Three Runs Creek and the Savannah River. Given this scenario for the Savannah River basin (which likely applies to other river basins), Early Archaic sites in the Piedmont were likely occupied from summer until fall and don't include aggregation sites. Anderson and Hanson (1988) place the Upper Piedmont in the Saluda/Broad macroband settlement system. At the band level, they proposed "co-residential population aggregates" consisting of 50 to 150 people which occupied and moved primarily within one drainage basin. They projected that individual macroband population

was between 500 and 1500 people. They also formulated a spatial model for the distribution of individual bands over the South Atlantic Slope.

Anderson (1989b) notes that data from the Savannah River Site and the Richard B. Russell Reservoir "suggest that a decline in utilization of the Coastal Plain may have occurred at the same time as an increase in utilization of the Piedmont [and] may be a part of a trend noted in the terminal Early Archaic in the general region. Settlement patterning in any given area was thus likely shaped by a range of variables, such as local resource structure, as well as by more regional trends in climate, population density, and these patterns apparently changed appreciably over time" (Anderson 1992:39). Data from the Laurens-Anderson study and the Savannah River project suggests that inter-riverine sites will be found on hills between watershed divides and riverine sites will be located on knolls adjacent to a major confluence.

Middle Archaic

Morrow Mountain and Guilford points constituted the primary evidence for Middle Archaic (5000 to 3000 B.C.) occupation in the Laurens-Anderson corridor (Goodyear et al. 1979). Morrow Mountain constituted the vast bulk of these projectile points and were present in both the I and II varieties.² Over 95% of the 145 points were manufactured from the local quartz, which parallels other findings in Piedmont South Carolina. Guilford was not nearly as prominent and consisted of 35 finished specimens or preforms, all of which were manufactured from quartz.³

² Coe (1964) describes Morrow Mountain I as a small triangular blade with a short pointed stem, while the Morrow Mountain II is described as a long narrow blade with a long tapered stem. While he describes them as different types, he notes that many people have chosen not to distinguish between the two.

³ Preforms represent an intermediate stage between flakes from secondary cores and quarry blades.

The Middle Archaic period was found to consist of the largest number of sites. In terms of geographic distribution, Goodyear et al. (1979) found that the Morrow Mountain phase was much like the Palmer phase, with sites occurring on ridges between watersheds. However, the almost complete reliance on local quartz separates the Morrow Mountain and Guilford phase sharply from the earlier Palmer phase. They suggest that "[t]he large number of Middle Archaic sites well dispersed through the inter-riverine areas and the abundant nature of chipped quartz remains on these sites suggest frequent movement and activity throughout the Piedmont of South Carolina" (Goodyear et al. 1979:207). Data from early reservoir projects (see, for example, Wauchope 1966) as well as inter-riverine observations by Caldwell (1954; 1958) and Coe (1952) made it clear that there were sharp contrasts between riverine and inter-riverine sites in terms of artifact diversity and density, and in the use of shellfish (Sassaman and Anderson 1994:134). With the advent of cultural resource management in the 1970s, additional data was available and further emphasized these differences. All of this data indicated that the largest and densest sites were located along large rivers, and that small, sparse sites were found throughout the uplands. While these differences were clear, what remained unclear was the relationship between riverine and inter-riverine sites in a settlement-subsistence system, and how, if at all, this system changed over time (Sassaman and Anderson 1994:135).

House and Ballenger studied this issue during their survey work on the proposed Interstate 77 project in 1976. They classified

Some are worked bifacially, although most are unifacial and still retain the platform and bulb of percussion. Quarry blades are usually bifacially worked and are made to allow easy transportation of lithic materials until the time it is needed to be made into a projectile point. Some researchers have used the terms preform and quarry blade interchangeably, meaning the bifacially worked ovate blade.

riverine zones of containing only the largest rivers while inter-riverine zones consisted of smaller rivers and streams. House and Ballenger (1976) argued that streams with a ranking of 3 or higher⁴ contained resources that were not abundant in the uplands (fish, turtle, raccoon, etc.), whereas smaller streams had a higher density of deer and nut masts. The resulting archaeological assemblages from these distinct areas should, themselves, be distinct (House and Ballenger 1976; Sassaman and Anderson 1994). They divided their sites into habitation and extraction sites⁵ using a lithic tool classification scheme that would allow functional sorting of the two site types. From the information gathered using this analysis, coupled with data on the seasonal availability of resources, they created a Middle and Late Archaic settlement model:

involving spring and summer residence along major rivers; a move to seasonal base camps in upland creek valleys in September to take advantage of deer concentration in upland hardwood zones, with some exploitation of other resources as well; and then a return to riverine-located winter quarters with permanent houses in about

⁴ According to the system, based on Strahler (1964) 1st order streams are the fingertip tributaries at the head of a stream and may either be year-round or seasonally flowing streams. A 2nd order stream is formed by the confluence of two 1st order streams. A 3rd order stream is formed by the confluence of two 2nd order streams, etc. This system requires that at least two streams of a given order be joined to form a stream of the next highest order. The main stem of a river will always have the highest order.

⁵ An extraction site is an area where resources (such as fish, lithic raw material, etc.) were obtained and is often represented by lithic debitage and perhaps small camp sites. A habitation site is a seasonal or temporary camp where these resources were usually consumed, used, or worked.

December when the coldest months arrived, the deer rutting season came to an end, and the acorn mast in the hardwood forests began to be exhausted (House and Ballenger 1976:117).

The Windy Ridge site (House and Wogaman 1978), while fitting the expected upland site profile as proposed by House and Ballenger (1976), may have been used as a habitation site during the Middle Archaic. Other projects also complicated the model. Work in the Richard B. Russell Reservoir (Anderson and Schuldenrein 1985; Tippet and Marquardt 1981) examined a number of sites with Morrow Mountain components. Interestingly, none of these riverine sites produced denser or more diverse remains than did inter-riverine sites. This suggested that Middle Archaic people were not using the riverine and inter-riverine areas much differently in this part of the state (Sassaman and Anderson 1994:137).

Sassaman (1983) attempted to more closely examine Middle and Late Archaic settlement patterns by examining sites from a number of piedmont studies. He found that Middle Archaic settlement in the South Carolina Piedmont did not fit the riverine-inter-riverine model. This suggested that Middle Archaic people were much more mobile, perhaps moving residences every few weeks which fit Binford's (1980) definition of a foraging society. Binford (1980) proposed that foragers had high levels of residential mobility, moving camps often to take advantage of dispersed, but similar resource patches. Collectors stayed in one location longer, by sending out specialized work parties to exploit resources in widely dispersed and distinct resource patches. He believed that differences in environmental structure could be traced to large scale climatic factors. He further noted that a collector system could arise under any conditions that limited the ability of hunter-gatherers to relocate residences. During his work in the Haw River area of North Carolina, Cable (1982) argued

that postglacial warming at the end of the Pleistocene led to increased vegetational homogeneity which encouraged foraging.⁶

Sassaman (1983) suggests that this indicates a large degree of homogeneity of the piedmont environments. They also had a high degree of social flexibility, allowing them to pick up and move when needed. This high level of mobility did not allow them to transport much material, which in turn, alleviated the need for elaborate or specialized tools to procure and process resources at locations distant from camp. Since quartz is practically everywhere in the piedmont, tools could be easily replaced and were expedient. The high mobility and the expediency of tools help to explain the abundance of Middle Archaic sites in the piedmont without having to imply a population explosion. Sassaman called this model the "Adaptive Flexibility" model (Sassaman 1983; Sassaman and Anderson 1994).

Late Archaic

Savannah River Stemmed and Otarre⁷ stemmed points are the primary indicators of Late Archaic settlement in the Laurens-Anderson study area. Ten Savannah River phase sites and seven Otarre phase sites were identified. Quartz tools, which were found in overwhelming abundance at earlier sites, consisted only of about 57% of the Savannah River assemblage. Other materials included "silicates, volcanic slate/argillite, and unknown igneous/metamorphic" (Goodyear et al. 1979:207). The Otarre assemblage reflected a trend away from igneous/metamorphic rock, with a concentration of quartz and siliceous materials. The incorporation of more types of lithic raw

⁶ Since the vegetation was homogeneous and there were no concentrations of resources people moved from place to place foraging rather than settling near or in these resource concentrations.

⁷ According to Oliver (1981) the Otarre type is contemporaneous with the Savannah River stemmed type and fall within the category of "Small Savannah River Stemmed".

material as well as the fact that Late Archaic diagnostics are much fewer than Middle Archaic diagnostic artifacts indicates a sharp decrease in residential mobility.

Many of these Late Archaic sites produced fire cracked rock which was found on major ridges between watersheds. Goodyear et al. (1979:209-210) found that the inter-riverine picture of the Late Archaic contrasted quite sharply with river sites. Artifacts at riverine sites were diverse and included steatite vessels and netsinkers⁸, ground stone axes, rock mortars and handstones, atlatl weights, and chipped stone drills. In the upland sites, the assemblage consists almost entirely of chipped stone bifaces and debitage. Purrington (1983) also noted this trend for the mountain region of North Carolina. At the Savannah River Plant, both riverine and upland sites contained a full range of tools, but no architectural features have been located.

Soapstone became an important lithic resource in the Late Archaic period for manufacturing of cooking vessels, and a number of soapstone quarries have been identified in Spartanburg and Cherokee counties (Ferguson 1976). Unfortunately, little is known about patterns in local soapstone use, although Elliott (1981) argues that soapstone exchange in the upcountry was facilitated by local reciprocal relationships. Soapstone was also probably used as a mechanism to maintain long distance relationships through long distance trade. Sassaman et al. state that:

[c]ompared to sites in the upper and lower reaches of the Coastal Plain, a higher proportion of sites in the middle portion of the plain

contain soapstone artifacts. This may indicate that soapstone distributions were not merely the result of distance-decay from sources, but were much more dependent on the social composition of exchange alliances (Sassaman et al. 1988:90).

For the Late Archaic, John White (1982) also applied a riverine/inter-riverine dichotomy. He demonstrated that riverine sites were much more dense and diverse than inter-riverine sites, but also identified the existence of diverse and sometimes dense assemblages at upland sites. He argued that they were habitation camps during periods of seasonal dispersal from riverine aggregation bases.

Although Steven Savage (1989) has proposed a "Late Archaic Landscape" model, a number of researchers (i.e. Anderson 1989a; Cable 1994; and Rafferty 1992) have noted that his study was seriously flawed by the "misappropriation of data from the Richard B. Russell survey" (Sassaman and Anderson 1994:142). The purpose of the work was to attempt to apply the locational methods of GIS to the analysis of Late Archaic social systems in the Upper Savannah River Valley. However, he only chose to use early intensive survey data and ignored subsequent data from testing and excavation. In addition, he chose to ignore problems such as multicomponentcy and representativeness (Cable 1994). Although it was considered a noteworthy study since it was the first to use Geographic Information Systems (GIS) for the analysis of settlement distribution, "the errors detract from the potential value of Savage's approach" (Sassaman and Anderson 1994:142).

Woodland Period

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast and much later in the Carolina Piedmont,

⁸ Sassaman (1991:87-88) states that "perforated and grooved objects are common items in Late Archaic assemblages of the Savannah River Valley. Both the grooved and perforated varieties have been referred to as "netsinkers", but the more common perforated slave was apparently used as a cooking stone."

about 500 B.C. Regardless, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

Early Woodland

Brooks and Hanson (1987) noted significant changes in the density and distribution of upland tributary sites during the Woodland period in the Steel Creek area of the Savannah River Plant. Brooks proposed that as tributary associated habitats became more productive with floodplain maturation that upland tributary terraces became areas of more permanent occupation. For the Savannah River area, the data suggested to Brooks that annual settlement ranges in the Early Woodland period were restricted to tributary watersheds (Sassaman et al. 1990:315).

Artifacts typical of the Early Woodland in the Upper Piedmont consist of Dunlap and Swannanoa ceramics (similar to the Kellogg focus of Northern Georgia). The Dunlap series is characterized by a medium to coarse sand paste, fabric impressions, and vessels with a simple jar or cup form. The Swannanoa ceramics, with heavy crushed quartz temper, are cord marked or fabric impressed conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230). Early Woodland projectile point types consist of Savannah River Stemmed (and its

variants) and Swannanoa Stemmed.

Land use during the Early Woodland period in some areas of the Piedmont suggests extensive use of the inter-riverine zone. Two sites (one in Greenville County and one in Laurens County) contained dense remains and were located on the south face of a slope adjacent to springs. Goodyear et al. (1979:230) suggest that these sites "reflect a fall-winter occupation period with subsistence activities primarily related to nut gathering and deer hunting. If these two sites in fact represent fall-winter base camps it would represent a strong break with previous Archaic systems and their settlement strategies for exploiting inter-riverine biotic resources". Based on these previous studies, Early Woodland sites are most likely to be found adjacent to springs or the upland terraces of tributaries.

Middle Woodland

The Middle Woodland period is found "virtually lacking" in the Laurens-Anderson inter-riverine zone. One densely occupied site in adjacent Laurens County was found in an unusually large floodplain of a rank 2 stream. Goodyear et al. state that:

[g]iven the habitation like character of this site, plus the large number of simple stamped bearing floodplain sites along larger streams such as the Reedy River, it is tempting to see agriculture playing a role in the apparent re-orientation to floodplain environments during the middle Woodland period in the Piedmont environment. In this regard, the middle Woodland period sites and their locations would seem to presage the late prehistoric Mississippian period pattern during the latter, where large agriculturally related villages were constructed along

fertile stretches of floodplain
(Goodyear et al. 1979:230-231).

This new pattern is also reflected in the Savannah River Valley where Savannah terrace sites at the mouth of Upper Three Runs Creek were being occupied again for intensive settlement. Midden accumulations at several sites indicate long term occupation or repeated occupations of these sites by relatively large groups (Sassaman et al. 1990:315).

Pottery typical of the Middle Woodland in the Upper Piedmont consists of the Pigeon and Cartersville series. Pigeon is quartz tempered with surface treatments of check stamping, simple stamping, and brushing. The Cartersville type is characterized by sand or grit paste with the primary surface treatment being cordmarking, although there are also check stamped and simple stamped varieties. The Cartersville series is thought to be closely related to the Deptford series on the Coast. Anderson and Schuldenrein (1985:720) suggest that Cartersville continues well into the Late Woodland period. Projectile points typically found in association with this pottery are the Pigeon Side Notched and Corner Notched types.

Testing at 38LU107 (Wood and Gresham 1981) demonstrated that one of the most intensive occupations of this multicomponent site was during the Middle Woodland period. This site is located on a knoll adjacent to South Rabon Creek, near its confluence with North Rabon Creek. A number of features were encountered including a large, deep pit, post holes, and a stone hearth. This indicated that even sites on plowed knolls can and do produce subsurface features.

Since the Middle Woodland period reflects a new pattern of settlement, questions regarding how quickly this change occurred and how the transition to horticulture affected their material culture should be examined. Clearly, this change did not occur over night and perhaps examination of radiocarbon dates from upland

and riverine sites during this transition period will begin to clarify questions regarding change in lifeways.

Late Woodland

Small triangular points which are generally believed to be diagnostic of the Late Woodland and Mississippian periods consisted of 12 examples in the Laurens-Anderson study. Ten of these were manufactured from quartz while the other two were manufactured from either rhyolite or a Piedmont silicate. These projectile points were typed as "Mississippian triangulars" and included what they believed were Uwharrie or Pee Dee Triangular types and the Hamilton Incurvate Triangular type. Napier and Connestee Series pottery are typical Late Woodland types for the Upper Piedmont region. The Napier series is a fine sand tempered ware with fine complicated stamped designs. The Connestee series is a thin walled sand tempered ware with brushed or simple stamped surface decorations. There are also cordmarked, check stamped, fabric impressed, and plain varieties (Trinkley 1990).

According to Sassaman et al. (1990:317) Late Woodland occupations in the Savannah River Valley consisted of small habitation sites along all available terrace locations of both tributaries and the Savannah River. This increasing use of low-lying terraces suggests the increased exploitation of floodplain habitats, perhaps including maize agriculture, although no direct evidence has yet been found at the Savannah River Site.

Keel (1976) reported on the Garden Creek Mound No. 3 which contained a dominant Connestee component based on George Heye's 1915 examination of the mound. Later work at Garden Creek Mound No. 2 examined a portion of a village with a large quantity of Connestee remains. A number of post holes were exposed revealing one discernable square house with rounded corners measuring about 19 by 19 feet in outline. In addition, there were a number refuse pits and hearths. The hearths included both rock

filled and surface hearths. There were also a number of burial pits (see Keel 1976:99). It is likely that Connestee sites in the Upper Piedmont will contain similar features.

Mississippian Period

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease.⁹ The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers.

In the Upper Piedmont, Mississippian pottery includes the Pisgah and Qualla series. Pisgah ceramics are tempered with unmodified river sand, although some earlier examples contain both river sand and crushed quartz. It is decorated with complicated stamping, check stamping and ladder-like rectilinear patterns (Dickens 1970; Holden 1966). It should be noted that the Qualla series extends well into the historic period (ca.1500-1908) and is characterized by complicated stamping and bold incising. Other types described by Egloff (1967) include burnished, plain, check stamped, cord marked, and corncob impressed. At Tuckasegee brushed examples were also identified (Keel 1976). Other artifacts associated with the Mississippian period include triangular projectile points, flake scrapers, microtools, gravers, perforators, drill, ground stone objects (celts, pipes, and discoids), and worked shell and mica (Keel 1976).

Very little evidence of Mississippian period occupation was found in the Laurens-Anderson inter-riverine survey area which is not

surprising given the focus on riverine resources during this time period. Very little evidence of Mississippian occupation has been documented at the Savannah River Plant and no formal settlement-subsistence model has been created for this area (Sassaman et al. 1990:317). However, Anderson (1994) has provided a detailed examination of evidence for political change at Mississippian sites in the Savannah River Valley and should be consulted for more information.

Excavations at large Mississippian sites in the Upper Piedmont include work at the I.C. Few site which was examined as a part of the Keowee-Toxaway Reservoir project sponsored by Duke Power Company (Grange 1972). Simpson's Field (38AN8) on the Savannah River was also investigated during the Richard B. Russell Reservoir studies (Wood et al. 1986). Work at the Chauga site (38OC47) in nearby Oconee County evidenced occupation in the Early and Late Mississippian period. Ten stages of mound building were found at the site along with burials and palisades. There is evidence for increasing impoverishment of the residents through time, since burials associated with the latest phases of mound building contained fewer grave goods than earlier phases in both the occupation during the Early Mississippian and the Late Mississippian (Anderson 1994:303-305). Homes Hogue Wilson (1986) examined burials from the Warren Wilson site in western North Carolina and provided some preliminary conclusions regarding social structure based on location of burials according to age and sex. For instance, she found more males than females were buried under structure floors. These males included primarily those under 25 or over 35 years old. She also found that individuals buried inside of structures were more likely to have burial goods than those buried in public areas. Burial feature types included pit burials, side-chambered burials, and central-chambered burials. Studies such as this can give great insight into the social organization of prehistoric societies.

The largest amount of regional work has taken place in the North Carolina mountains at

⁹ Small pox was a major cause of death to a large number of Native Americans during the historic period. The smallpox epidemics of 1734 and 1783 reportedly killed half of the Cherokee population (Hatley 1993).

sites such as Tuckasegee, Garden Creek, and Warren Wilson. At Tuckasegee a possible town house was uncovered measuring about 23 feet in diameter with a central hearth (Keel 1976). At Warren Wilson several roughly square structures were uncovered and they all measured on the average about 21 feet square. Burials were common inside of these houses and pit features were abundant. Artifacts at the Warren Wilson site included ceramics from the Swannanoa series up through the Pisgah series. (Dickens 1970).

Historic Overview

Although exploration of the Savannah River Valley began as early as the sixteenth century (DePratter 1989), substantial settlement of the area did not begin until after the Yamassee Indian War (1715-1718). By the mid-eighteenth century, cattle ranchers and subsistence farmers cleared land and established small farms and plantations (Kovacik and Winberry 1987:69-71), and by the eve of the American Revolution cattle ranching was well established in the area (Brooks 1981).

After the initial settlements of the 1750s the white population of the Up Country did not increase significantly until 1761, with the expulsion of the Native American population at the end of the Cherokee War. This created a second wave of immigration and settlement, spearheaded by farmers from the northern colonies of North Carolina, Virginia, Maryland, and Pennsylvania. These settlers developed a self-sufficient economy based on planting flax, tobacco, corn, wheat, and oats, and raising cattle and hogs for their own use. Slaves were relatively uncommon until the early 1800s.

In this early period of European settlement there was little connection with the legal authorities on the coast (centered in Charleston), leaving the Up Country largely autonomous. This led to the Regulator Movement of the 1760s, a vigilante organization which attempted to maintain order and provide security.

By the eve of the Revolution, two-thirds of the South Carolina population lived in the Up Country.

By the onset of the American Revolution, the population of the Up Country was quite diverse in its ethnic, religious, and political backgrounds. These differences seemed to localize the hostilities between Whigs and Tories living side by side (Wallace 1958).

Probably the most significant Revolutionary War activity in Greenwood County was at Ninety-Six, a British stronghold in the Up Country. The earthen star-shaped fort commanded by Lieutenant-Colonel John H. Cruger fell under siege by troops under the command of General Nathaniel Greene on June 18, 1781. The attempt to capture the fort failed, and Greene retreated toward Winnsboro. Later the British abandoned the fort because they were expecting the French at Beaufort.

The evacuation of Ninety-Six rendered the British hold on the middle and back country precarious and unprofitable. Partisans cut communications, seized supplies, and captured abandoned posts. No attempt was made to re-establish a British hold in the back country (Wallace 1951:317).

After the American Revolution, the village of Cambridge grew up on the site of the Ninety Six fortification. It thrived as a seat of the District Court and as an upcountry trading center until the first decade of the nineteenth century when it began to decline and finally passed out of existence in the mid-nineteenth century (Baker 1972:3).

The study tract was historically part of the Abbeville District (created by the Legislature in 1785 from the old Ninety Six District). In 1826 Mills indicated that:

[t]he first important settlement in this district occurred as early as

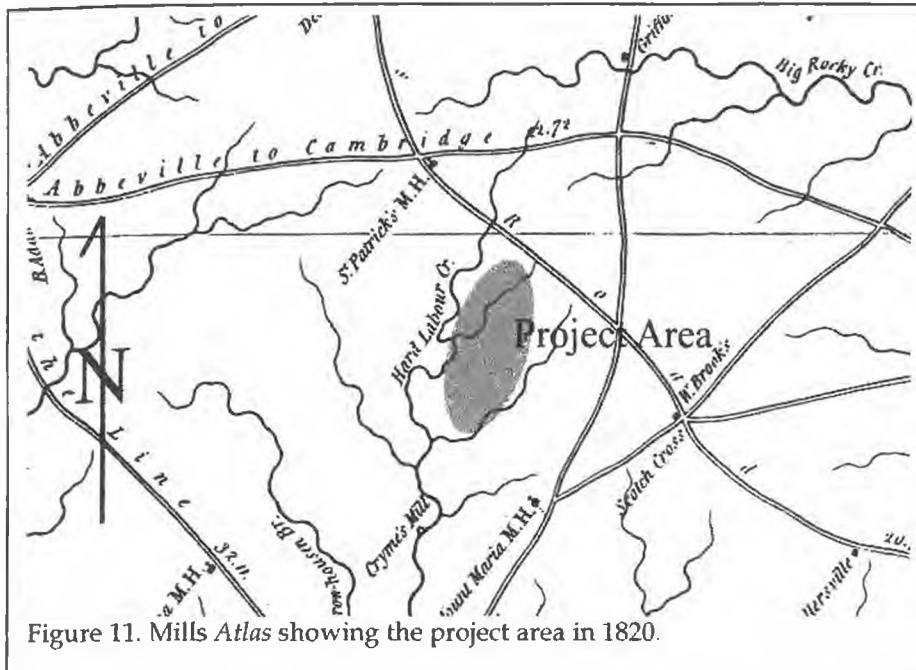


Figure 11. Mills Atlas showing the project area in 1820.

the year 1756, when Patrick Calhoun, with four families of his friends, settled at Long Cane Creek. On his arrival, there were only two families of white settlers, one named Gowdy, the other Edwards, in that northwestern extremity of the province. (Mills 1972 [1826]:348).

The 1820 *Mills' Atlas* plan of Abbeville District (Figure 11) fails to reveal any subscribers in the project area. Hard Labor Creek is clearly shown

Prior to the introduction of the cotton gin in the late eighteenth century, the area experienced only slow growth and moderate changes in its society and economy. Initially an area of small, independent and diversified farmers, the

population of 32,318 individuals, of whom 19,262 (or 60%) were slaves.

In contrast, the Anderson area never

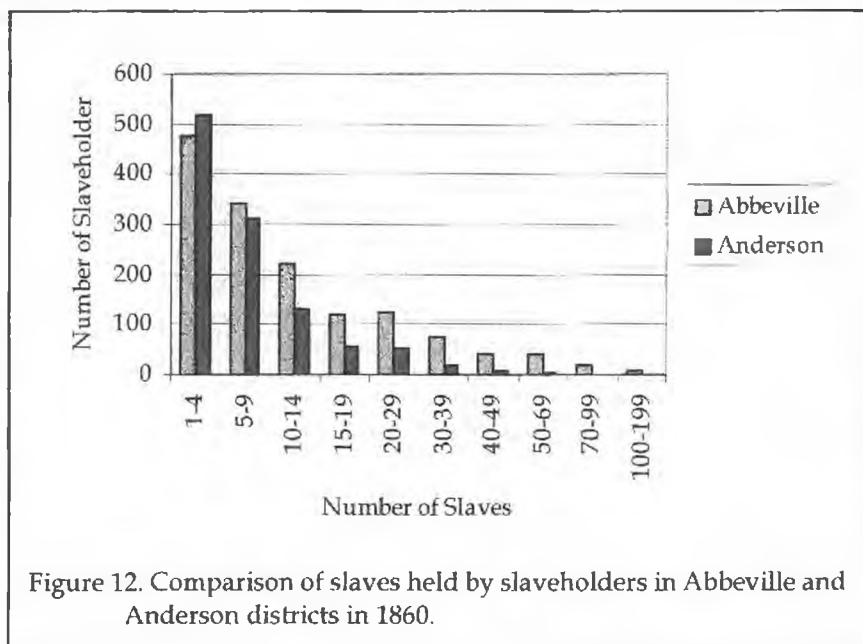


Figure 12. Comparison of slaves held by slaveholders in Abbeville and Anderson districts in 1860.

exhibited this level of slave ownership. In 1810 the Pendleton District (which included Anderson) had a population of 22,897, of whom only 3,485 (or

15%) were slaves. This percentage climbed to only 26% (4,427 of 17,169) in 1830. By 1850 there was a population of 21,475 in Anderson, with 7,514 (or only 35%) being African American slaves.

Figure 12 reveals the difference in slave ownership between Abbeville and Anderson districts by the eve of the Civil War. Abbeville had slowly become characterized by larger cotton plantations, a reliance on slavery, and a one crop system eventually ruinous to the soil. In contrast, Anderson consisted of smaller farms and a somewhat more diversified farming economy.

In 1850 Abbeville's 1,814 farms (with an average size of 351 acres) produced 27,192 bales of cotton, compared to only 6,670 bales produced by the 1,986 farms (with an average of 232 acres) in Anderson County. Perhaps because the average per farm acreage was smaller in Anderson, these farms tended have slightly more acreage (nearly 39%) in improved lands, while on Abbeville's larger holdings only an average of a third of the acreage was improved for cultivation. Perhaps more telling, the combined farm value in Abbeville was nearly double that of Anderson (\$4,740,923 compared to \$2,399,120).

While some of this difference in the prosperity of Abbeville and Anderson counties may have to do with their early settlement (Anderson was not really available for settlement until the Cherokees ceded their lands in 1776), far more has to do with the history of slavery. Edgar (1998:286) observes that the free per capita wealth of Abbeville in 1860 was \$47,771 (in 1996\$), while in Anderson the per capita wealth of freeholders was only \$22,114. In Abbeville 64.4% of the population was African American, while in Anderson the percentage of African American slaves was only 37.5%. Slavery brought wealth, yet wealth was necessary to acquire slaves.

There were other signs of the differing wealth and prosperity. In Abbeville District there were nine libraries with 6,658 volumes, while there were no libraries in Anderson County. And

while there were 48 public schools in Abbeville District with a total annual income of over \$16,000, the 39 schools in Anderson County seem to have been barely supported with an income of just under \$6,500.

In 1850, the Anderson farms, however, produced 240,277 pounds of butter and cheese, ranking just behind Abbeville County. It also produced 120,382 bushels of wheat, making it the second largest producer in the state, just behind Laurens. While relatively inconsequential compared to the coastal area, Anderson also produced nearly a million pounds of rice (compared to only 7,180 pounds in Abbeville County). Anderson was also producing far more tobacco, 18,540 pounds in 1850, than was Abbeville (where only 4,455 pounds were reported). In fact, Anderson ranked second in tobacco production, just behind Pickens County. Anderson farms also produced more bushels of peas and sweet potatoes than Abbeville, as well as more wine, cheese and flax. Home production valued \$86,795 in Anderson, compared to only \$71,774 in Abbeville, although statewide they rank second and third.

Co-existing with agriculture, Anderson also supported a thriving industry which ranked fifth in annual production behind Charleston, Edgefield, Laurens, and Richland counties. Although Abbeville ranked seventh in production, it had double the invested capital.

Westward emigration of people lured by the expanding cotton kingdom caused increased damage to the region's soils. Mills commented that, "the system of cultivation now pursued is destructive to such land, as no provision is made to prevent the washing" (Mills 1972 [1826]:357). Cotton was encouraged by the Greenville and Columbia Railroad opening a branch line running from Hodges to Abbeville in the 1850s. The railroad, linking the up country to Columbia and Charleston exported Abbeville's cotton and imported the necessary subsistence crops to feed the county (Baker 1931:13). Another branch line

linked the main route (running from Newberry to Saluda up to Greenville) with Anderson and Pendleton about the same time, helping to unify the state.

The impact of these early railroads, however, was mixed. Edgar (1998:283) reports that property values in Anderson increased fourfold between 1848 and 1860, all because the town became a stop on the Greenville and Columbia Railroad. Yet Nelson (1999:12) suggests that most followed old trading paths, generating few new villages and that often the railroad were enormously unsuccessful. While farmers needed outlets for their cotton, they bought little from outside their region. With all of the traffic flowing in one direction, most railroads found backhaul a serious economic drain. It seems unlikely that the produce brought into the region was a significant source of income. Thus, very few new towns were created along the rail lines — and none that we have identified in the project area.

Cotton also spread on the sweat of African American slaves, and caused increasing political polarization as planters more aggressively defended slavery in the first half of the nineteenth century. This led to almost unanimous citizen support in the area for nullification and secession in Abbeville.

The Civil War necessitates that the Confederate states become more self sufficient and one step toward that goal was the production of more subsistence crops, even if this meant a reduction in the planting of cotton. Although cotton production was reduced (at least partially by the blockade making it difficult or impossible to export to England), the Governor of South Carolina was still pleading with planters as late as 1863 to reduce the acreage of cotton and increase the production of food stuffs (*The Abbeville Press*, March 20, 1863). When this failed to have the desired affect, the Legislature passed a law limiting cotton production to three acres per full hand. This, however, seems only to have resulted in planters dumping what fertilizer was available

on their cotton lands, in an effort to maximize the yield of the limited acreage — at the expense of subsistence crops. In response, the Legislature reduced the allowed acreage to one acre per hand, although it is unclear if this action had any meaningful result (Baker 1931:15-16).

In spite of these efforts it seems that the Abbeville area (as well as much of the state) was always on the "verge of starvation." One Due West resident wrote, "have only as yet got 5 bu. corn and 1 bbl. of flour. I don't know what I am going to do but my trust is still in a kind providence" (quoted in Baker 1931:17). Another significant problem was that on many of the subsistence farms, especially those with few or no slaves, there were no able-bodied men to plant, tend, and harvest crops. Even those planters with slaves began to feel pressure, as the Confederate government began demanding that slaves be provided for the construction of coastal defenses. The situation in some areas was so bad that the Legislature voted for funds to help relieve the suffering on the farm-front.

There is some indication that the local planters began to once again fear slave rebellion. One white, "who dared interfere with their property" was hung in Abbeville and the district passed additional laws regulating where slaves might live and forbidding them to enter town without special permission (Baker 1931:20).

The Civil War had little military impact on Abbeville District and no significant battles were fought in the Up County. It did, however, change the region's history, destroying the basis of its wealth and creating in its place a system of tenancy — the hiring of farm laborers for a portion of the crop, a fixed amount of money, or both.

Although the Civil War disrupted labor supply, it also forced up country planters to re-examine the crops they planted. Immediately after the Civil War cotton prices peaked, causing many Southerners to plant cotton again in the hope of recouping losses from the War. In 1867 there was a

corn famine which caused considerable concern in the region. Corn was brought in from New York and Kentucky as part of the relief effort, although the region's farmers were not convinced to improve production techniques. In 1868 the caterpillar was particularly prevalent in Abbeville County and a late frost damaged a variety of crops, especially the cotton, in 1869 (Baker 1931:27-29). Coupled with long-term falling cotton prices, the region's farmers never really recovered from the devastating economic effects of the Civil War.

Gradually the region's farmers began to turn to oats as a forage crop, although the commitment in Abbeville was short-lived. In 1860, Abbeville produced over 96,000 bushels of oats, but 1900 the figure had fallen to 70,460 bushels. Only in Anderson, where there continued to be a focus on small farms and self-sufficiency, did the production of oats dramatically increase — from 28,761 bushels in 1860 to 86,690 in 1900.

In was also during this period that tobacco production fell in Abbeville, as it migrated eastward into the Pee Dee region. In 1900, for example, Abbeville reported less than one acre in tobacco, while Darlington County boasted nearly 7,000 acres and Marion over 7,300 acres. This early decline in tobacco production undoubtedly accounts for the absence of tobacco barns in the project area.

The single largest problem across the South, however, was labor. While some freedmen stayed on to work, others, apparently many others, left. An Englishman traveling through the South immediately after the war remarked that, "Thirty-seven thousand negroes, according to newspaper estimates, have left South Carolina already, traveling west" (quoted in Orser 1988:49).

The hiring of freedmen began immediately after the war, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of the Black Codes by

the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority (see Orser 1988:50). Added to the Codes were oppressive contracts which reinforced the power of the plantation owner and degraded the freedom of the Blacks. Many white planters, including those in Abbeville County, formed "Democratic Clubs," designed to counter the "radical" influence (Baker 1931:36). Members of these clubs resolved not to hire "radicals," or blacks associated with radical politics.

The freedmen found power, however, in their ability to break their contracts and move to a new plantation, beginning a new contract. With the initially high price of cotton and the scarcity of labor, this mechanism caused tremendous agitation to the plantation owners.

Gradually owners turned away from wage labor contracts, at least partially because of the scarcity of money, but also because of the prevailing belief among whites that blacks were so lazy that with money in their pockets they would not work (Baker 1931:38). In its place two kinds of tenancy — sharecropping and renting — developed. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks.

Sharecropping required the tenant to pay his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else — land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return the landlord received half of the crop at harvest. This system became known as "working on halves," and the tenants as "half hands," or "half tenants."

In share-renting, the landlord supplied the land, housing, and either one-quarter or one-third

of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash-renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

Tenancy took a variety of forms. Baker, for example, describes the system used by Col. D. Wyatt Aiken of Abbeville. He leased his fields to freedmen, typically in 20 acre increments. With the tenant providing a mule, the rent was 1,600 pounds of lint cotton. An extra 400 pounds were required if Aiken provided the mule (Baker 1931:39).

The 1870s, however, were not simply hard years for Southern planters and African Americans. By 1873 the entire country had plunged into a severe economic depression. This distracted Congress, furthered the anger of Southerners, and caused the Northern public to retreat from Reconstruction (Foner and Mahoney 1995:128). Violence in South Carolina increased, flaunting the belief that there was little to fear from Washington. In 1876 Wade Hampton, one of the state's most popular Confederate veterans (at least among white South Carolinians), was nominated for Governor. Hampton's supporter's, in red shirts and formed into "rifle clubs," disrupted Republican gatherings, drove freedmen from their homes, and made it known that they intended to carry the election. One planter remarked that they would win, even "if we have to wade in blood knee-deep" (quoted in Foner and Mahoney 1995:131).

Not only did Hampton win, but these events also affected the national Tilden-Hayes election. The election was so close that it was decided by Congress — in favor of Republican

Hayes. Nevertheless, in order to ensure inauguration, the "Bargain of 1877" was struck where by Hayes would recognize Democratic control of the Southern states, including South Carolina, and would remove the last of the federal troops. Thus, Reconstruction was officially dead in the South. Republicans did not even offer a gubernatorial candidate in 1878. Moreover, the federal government stood by silently as Southern states such as South Carolina (in 1895) passed laws stripping African Americans of their rights, including their right to vote. This formalized the ad hoc measures of the black codes developed in the 1870s (Zuckek 1996). Wallace (1951:600) notes that Abbeville was an area of considerable Klan activity, although Klan violence seems to have been centered in nearby Newberry and Union counties.

The attitude of white planters (as well as at least some difference in the attitude of those associated with large plantations as opposed to small farms) can be gleaned from a publication chronicling the "progress" of South Carolina since the Civil War. A series of similar questions were put to representatives from every county. To the question, "Efficiency of colored labor," Abbeville County responded:

Colored labor is regarded as somewhat more efficient than five years ago. This is owing to the fact that it is better controlled since the negro has entirely withdrawn from politics. The negro does not work very willingly, and renders rather poor service unless closely looked after; but when working for himself he works better than for hire unless closely looked after (Anonymous 1884).

In the 1880s nearby Anderson reported two cotton mills (one at Pelzer on the Saluda and another at Pendleton on Twenty-Three Mile Creek). Abbeville reported no cotton mills. Cotton

CULTURAL RESOURCES SURVEY OF THE GREENWOOD BIOTECHNOLOGY PARK

was, however, being produced in large amounts and it was estimated that the average cost of producing merchantable cotton was about eight cents a pound and 40 dollars to bale 500 pounds. Anderson boasted 275 cotton gins, while Abbeville had about 100 gins which moved from point to point as needed. Although a few horse powered gins were still being used, the bulk were by this time steam operated.

It appears that a large portion of the manufacturing in the region was milling grain or producing lumber and turpentine. Of the 70 manufacturing establishments in Abbeville, there were 25 flour mills, seven grist mills, and 21 lumber mills. Other manufacturers included carriage and wagon factories, brick making and printing establishments (Anonymous 1884).

In 1897 Greenwood County was created from adjacent Abbeville and Edgefield Counties, with the project area within Abbeville.

tenants was almost the same, with 63.4% in Abbeville and 62.8% in Greenwood.

When production is compared, the two counties remain very similar. Greenwood produced 21,888 bales of cotton on 70,601 acres, while Abbeville produced 28,121 bales on 94,001 acres (for both production was just under a third of a bale per acre).

While the agricultural production of Greenwood and Abbeville remained close during the first decade of the twentieth century, Greenwood quickly took a lead in industrial production. By 1907 Greenwood had four cotton mills to Abbeville's one (Table 1) (State Department of Agriculture, Commerce and Immigration 1907:571). What is perhaps most important about the rise of these mills is that they began to siphon the population off the farms. By 1907 about 12.5% of Greenwood's population was living not in the agrarian countryside, but in a mill village.

Table 1.
Cotton Mills in 1907

County	Location	Name	Date Organized	Spindles	Looms	Yearly Product	Employees	Mill Population
Abbeville	Abbeville	Abbeville Cotton Mill	1896	28,800	940	\$650,000	375	750
Greenwood	Greenwood	Greenwood Mills	1889	22,000	684	\$400,000	350	500
	Greenwood	Grendel Mills	1897	33,152	834	\$750,000	400	750
	Ninety-Six	Ninety-Six Mills	1902	20,608	474	\$285,000	150	300
	Ware Shoals	Ware Shoals Mill	1902	50,000	1,400	\$1,500,500	600	2,500

Tenancy continued to be a significant feature of the region. By 1900 there were 4,574 farms in Abbeville County and the average farm size was 76.3 acres. In newly created Greenwood County there were 3,719 farms, with an average size of 75.3 acres. The difference is the result of Abbeville's 730 square miles to Greenwood's 530. Of these farms, in Greenwood 2,694 or 72.4%, were operated by tenants, while in Abbeville 74.1% of the farms (3,389) were operated by tenants. Even the proportion of African American

Several things happened in the twentieth century that profoundly affect Greenwood and surrounding counties. In terms of agriculture, there was first the cotton panic of 1914, when the price was depressed to the lowest point most could remember — brought on an enormous crop (Wallace 1951:664). Then a long agricultural depression began in 1921 (Wallace 1951:688). Edgar (1998:481) reports cotton prices fell precipitously from around 40¢ a pound to about

Table 2.
Changes in Greenwood Farms Between 1910 and 1940

Date	# farms	Average Acres	Average Improved Acres	Average Value
1910	4,493	64.3	33.5	\$2,102
1920	4,005	54.8	32.0	\$5,188
1930	3,084	73.0	35.0	\$2,189
1940	2,099	97.1	38.8	\$2,512

13½¢, while tobacco declined from 40¢ to just over 21¢. Debts, based on the inflated value of land and produce, began piling up to extraordinary levels. Edgar observes that, "farmland and buildings had lost more than on-half their value. One-third of the state's farms were mortgaged, and 70 percent of the state's farmers survived on borrowed money" (Edgar 1998:485).

The situation in Greenwood was even a little worse with slightly over 36% of the farms mortgaged and the average farm debt was \$1,836. In Abbeville County 41.8% of the farms were mortgaged, although the average debt was only \$1,681.

South Carolina never really recovered from these earlier problems before the stock market crash of 1929 which ushered in the Great Depression. Between 1921 and 1933, 34 national banks and 283 state banks were forced to close their doors (Wallace 1951:688). This represented about two-fifths of the national banks and nearly three-quarters of the state banks.

Some indication of agriculture collapse can be seen in Table 2. The average farm size tended to decrease as part of the World War I crash, stabilize about 1930, at least partially due to government programs, and rebound by 1940 with economic recovery. One part of the government action to encourage agricultural recovery was an effort to limit the acreage in farms, especially on farms with limited economic potential. This is reflected by the drop in improved acres. But perhaps most revealing of the hard times is the decline in average value. In Greenwood County the farm price declined by nearly 43% in just the

one decade between 1920 and 1930. There was a modest increase in value between 1930 and 1940, but not nearly enough to help farmers recover from the earlier losses.

Cotton acreage, as well as production, declined from 1920 to 1930. The 1920 acres of 70,102 declined to 40,740 acres in 1930, while production declined from 30,910 bales to nearly half - 15,725. The only bright note was that the bales per acre increased from 2.3 to 2.6 - a very modest increase that probably did little to help the dire situation.

The 1930 census helps us understand something concerning the daily lives of Greenwood farmers as well. Of the 3,084 farms, only 104 (3.4%) had a telephone, only 115 (3.7%) had piped interior water and even fewer - 80 or 2.6% - had interior bathrooms. Only 141 (4.6%) of the County's farms had electricity. There were also only 1,077 automobiles on the farms - and nearly 52% of the farms were still situated on unimproved dirt roads that were probably impassable to automobiles much of the time anyway. Farms were also still largely cultivated using mules - there were only 79 tractors in the county.

On the other hand, it seems that times weren't nearly as hard for mill operators. In places like Anderson these operators were typically leading members of the business and profession community, reflecting a home-grown bourgeois elite. Carlton observes that in nearby Anderson County:

Six major corporations were organized between 1899 and 1904 to build cotton factories in or about Anderson: the forty-three seats on their boards were held by twenty-nine individuals, all of whom have been identified. Twenty-one of the directors lived in or near Anderson; of these,

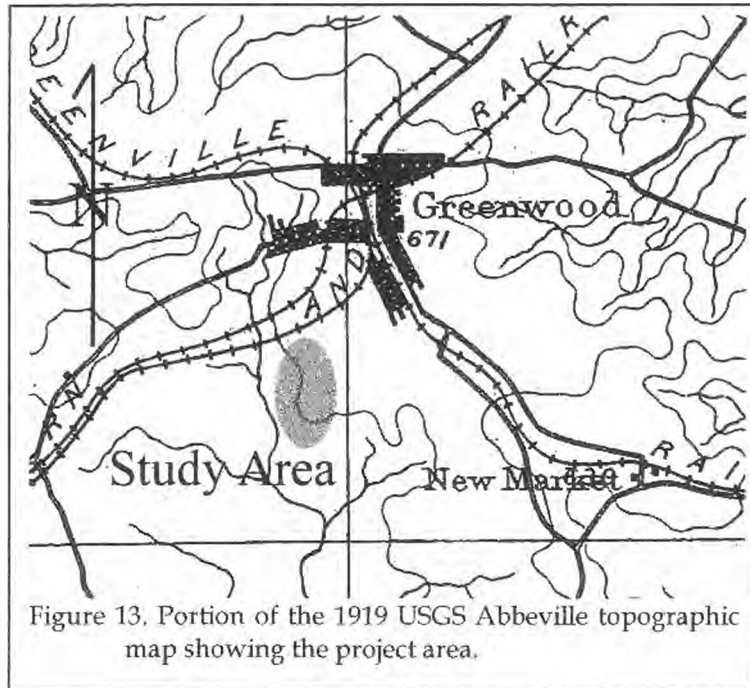


Figure 13. Portion of the 1919 USGS Abbeville topographic map showing the project area.

eleven were merchants, three bankers, three lawyers, one a physician and druggist, one a cottonseed products manufacturer, and one a career textile executive (Carlton 1982:50-51).

By 1940 the value of South Carolina manufactures, \$446,000,000, was over three and a half times the value of the crops raised by the state's farmers. In addition, we see a steady growth through the first quarter of the twentieth century, so that by 1931 there were 239 mills in the state.

Abbeville, Anderson, and Greenwood continued to boast of 24 mills with nearly 848,000 spindles and over 17,000 looms in 1915. Nevertheless, the number of mill hands employed had dropped slightly, although the proportion of the population employed by mills remained fairly steady (Watson 1916).

Wallace (1951:689) observed that the mills were a "God-send to the suffering small farmers of the early 1890's and later." Clearly this is a belief that depends on one's perspective. The mills did

provide employment, albeit for pitiful wages and oppressive working conditions. It was in Anderson County, in fact, where striking mill workers, supported by Anderson sheriff Joe M.H. Ashley, were eventually evicted from their mill houses by National Guardsmen sent in by Governor Manning in 1916 (Carlton 1982:253).

It is also important to understand the mills also felt the downswings in South Carolina's economy. With the agricultural depression of the 1920s, textile profits plummeted. With the decline in profits, wages also declined, often being reduced from record highs of around \$24/week to about \$15/week. This resulted in unprecedented suffering. Deaths in South Carolina mill villages increased by 20% between 1920 and 1921 (Beardsley 1987:60).

The study area, remained rural. Figures 13 and 14 illustrates maps from 1919 and 1938 - both showing no development in the project area.

African American had begun migrating out of South Carolina during the nineteenth century, largely in response to the oppressive political and social climate. This exodus continued through at least the mid-twentieth century. Figure 15 clearly reveals the decline in both African American farmers and general population - while the white population in Greenwood steadily increased.

Tract Specific History

The history of the parcel was taken back only to the early twentieth century since there was no evidence of earlier occupation. The property was originally part of what was known as the Blake Homestead. Around the time of Greenwood's creation, the property had been acquired by the Wells family and in 1921 150 acres - comprising the bulk of the study tract - was sold by W.J. Wells to J.S. Ellenberg and C.L. Wells



Figure 14. Portion of the 1938 General Highway and Transportation Map of Greenwood County showing the project area.

(Greenwood County Clerk of Court, DB 37, pg. 413). The parcel at that time was known as the "Wells Homestead Tract" and was bounded to the north by Edgar Blake, Pierce May, and S.B. Marshall; east by Wells Street; south by R.R. Tolbert, Sr.; and west by the Connie Maxwell Orphanage. The property is reported to be shown in an 1875 plat by B.F. Reynolds, although this plat was not identified during this study.

In 1930 Ellenberg sold his undivided one-half interest in the property to C.L. Wells, apparently in trade for the "premises" which may have explain the reduction of acreage to 104.35 acres (Greenwood County Clerk of Court, DB 47, pg. 91). A plat is referenced in the deed, although no plat book or page is provided. This may be the plat bearing the same date and surveyor that shows the portion retained by Ellenberg (Greenwood County Clerk of Court, PB 1,

pg. 252). If so, it fails to show any structures and appears to be in the northern section of the tract.

In 1944 Wells sold his 104.35 acres to Mathews Cotton Mill for \$4,500 (Greenwood County Clerk of Court, DB 68, pg. 405). The property by time was described as being bounded to the northeast by the Georgia and Florida Railroad; to the southeast by a public road (what is today W. Alexander Road, we presume); to the south by lands of J.S. Ellenberg; to the west by lands of the Connie Maxwell Orphanage and S.B. Marshall, now Mathews Cotton Mill; and to the north and northwest by Edgar Blake.

Mathews Cotton Mill merged with Greenwood Cotton Mills in July 1947 (Greenwood County Clerk of Court, DB 77, pg. 564), but retained this land. The property card for the parcel (Greenwood County Tax Assessor, Property ID 6845-589-080) reveals that in the 1950s the property was used as a cattle farm and there

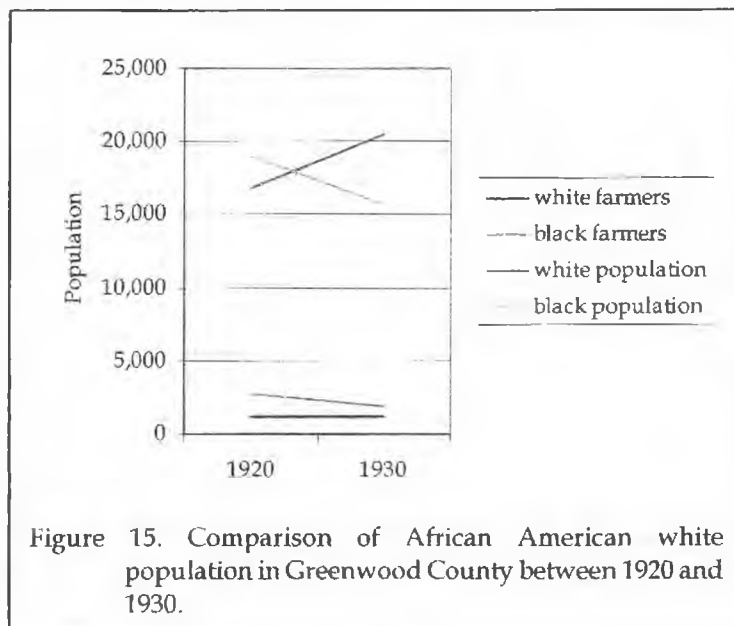


Figure 15. Comparison of African American white population in Greenwood County between 1920 and 1930.

were several barns and a single small concrete

block house.

In 2001 Greenwood Mills sold five tracts (identified as Tract 1, 2a, 2b, 3, and 3a) totaling 188.91 acres to the Genetic Endowment of South Carolina for \$10 and other consideration. This represents our study tract and of the five parcels, the largest - Tract 3 with 143.46 acres - is the parcel that was acquired from Wells. The four smaller parcels (ranging in size from 0.02 to 42.94 acres) were variously obtained from the Greenwood Family YMCA and the Connie Maxwell Children's Home (Greenwood County Clerk of Court, DB 664, pg. 271).

This suggests that at the turn of the century (and prior), the property was a family farm, operated by the Blakes and later the Wells. During the 1920s and 1930s it may have been operated by absentee owners, and by about 1944 on the property was used for cattle ranching and woodlots.

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along transects placed at 100-foot intervals. All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

The information required for completion of South Carolina Institute of Archaeology and Anthropology revisit site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These plans were modified only in that shovel tests were not excavated on slopes greater than 10% or in areas where the red clay subsoil was visible on the surface.

For the tract, a total of 62 transects were set up at 100-foot intervals along the dirt roadway bisecting the property, which ran approximately south-southwest - north-northeast. Shovel tests worked east and west off the road at 100 foot intervals. A total of 475 shovel tests were excavated in the survey area plus additional 25-foot shovel tests for the identified sites. Consequently, about 110 of the 186 acres were shovel tested; the remainder of the tract was subjected to a pedestrian survey, but was not shovel tested.

The GPS positions were taken with a WAAS enabled Garmin 76 rover that tracks up to twelve satellites, each with a separate channel that

is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. WAAS or Wide Area Augmentation System, is a system of satellites and ground stations that provide GPS signal corrections, yielding higher position accuracy - generally an accuracy of 10 feet or better 95% of the time. Both are vital concerns for the study area.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950. Typical of such projects, this survey recorded only those which have retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource, we would complete a Statewide Survey Site form and at least two representative photographs were taken. Permanent control numbers would be assigned by the Survey Staff and the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is

made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined

explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence

remains, architectural remains, or sub-surface features;

- identification of the historic context applicable to the site, providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts was

METHODS

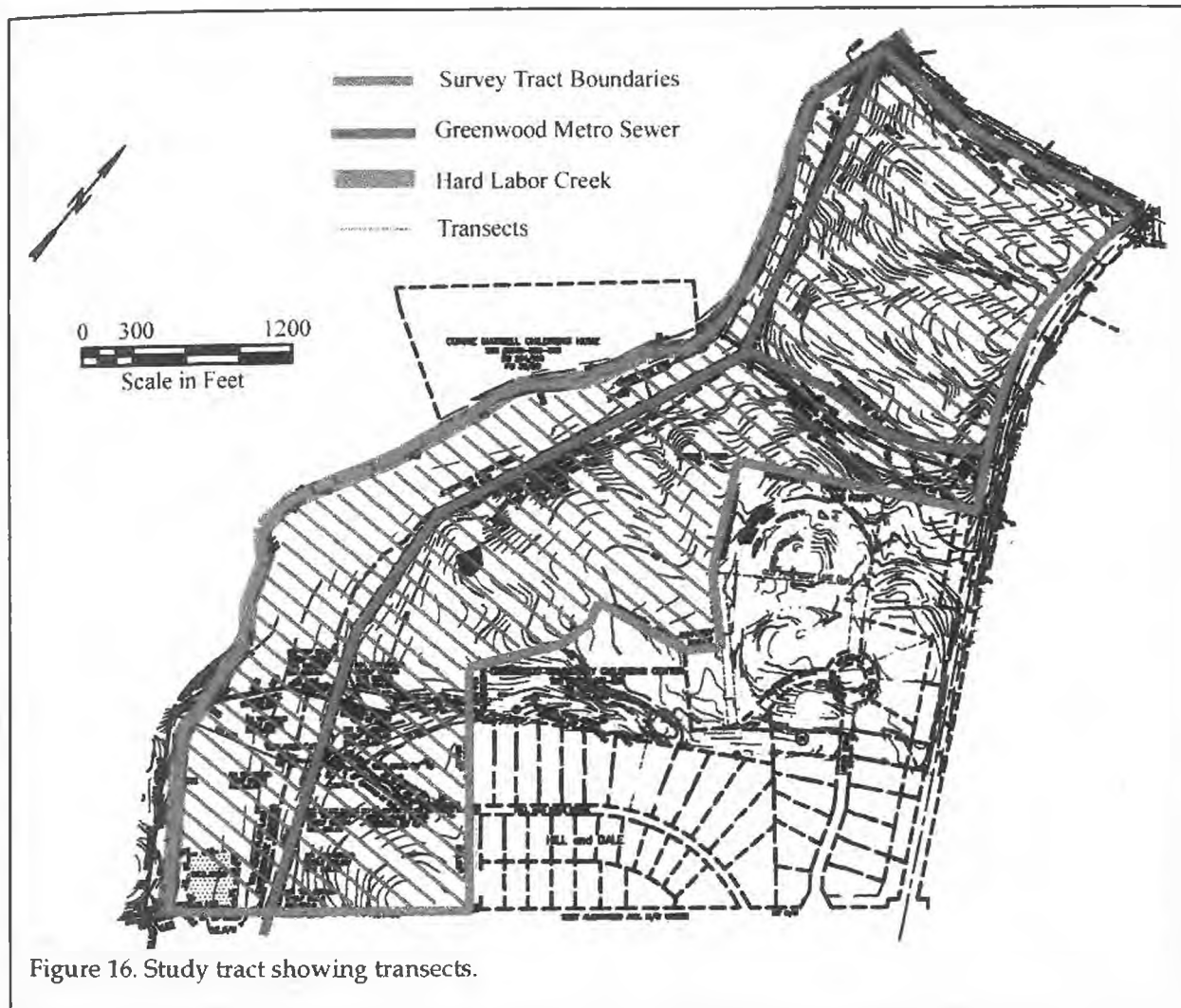


Figure 16. Study tract showing transects.

conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the

South Carolina Institute of Archaeology and Anthropology, the closest regional repository. A site form for each of the identified archaeological sites has been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed

professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1979) and South (1977).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey the three previously recorded archaeological sites (38GN541-543) were relocated and assessed (Figure 17). Site 38GN541 is a Late Archaic surface scatter that is recommended not eligible for the National Register. Site 38GN542 is a nineteenth century cemetery that is recommended eligible for the National Register. Site 38GN543 is a nineteenth to twentieth century scatter located in Hard Labor Creek. This site is recommended not eligible for the National Register.

The architectural survey revisited the architectural sites 0042-0093 (Greenville Mill Village), 0089, and 0094 the culvert supporting a railroad over Hard Labor Creek. These sites, however, have already been determined not eligible for the National Register. No additional architectural sites or structures were found that may be potentially eligible for the National Register.

Archaeological Resources

38GN541

Site 38GN541 (Figure 18) is a surface lithic scatter located in a mixed pine and hardwood forest on an eroded ridge side slope. The area where the site was observed has good surface

visibility since a sewer line had been constructed. Two GPS UTM's were obtained marking the beginning (392057E 3781270N) and the end (391958E 3781230N) of the oblong shaped site (NAD27 datum).

The site was originally recorded during a Cultural Resources Assessment (CRA) of the property in 2003, however no shovel testing was performed. The current undertaking conducted shovel testing at 25-foot intervals across the site area, running east from the access road along Hard Labor Creek. No subsurface artifacts were recovered. In fact, all the shovel tests revealed highly eroded soils. Generally soils in this area resemble the Cecil Series, which has an Ap

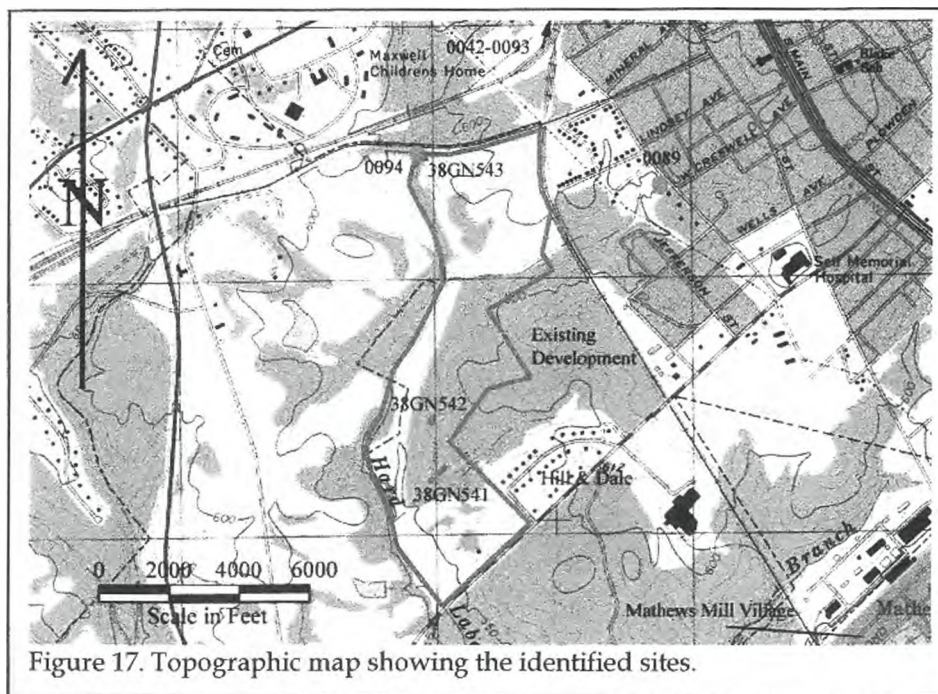


Figure 17. Topographic map showing the identified sites.

horizon of brown (7.5YR5/4) sandy loam to 0.4 foot in depth over a red (2.5YR4/6) clay to 2.3 feet in depth. The soils at 38GN541 were red (2.5YR4/8) clay, which is found over 2.3 feet in

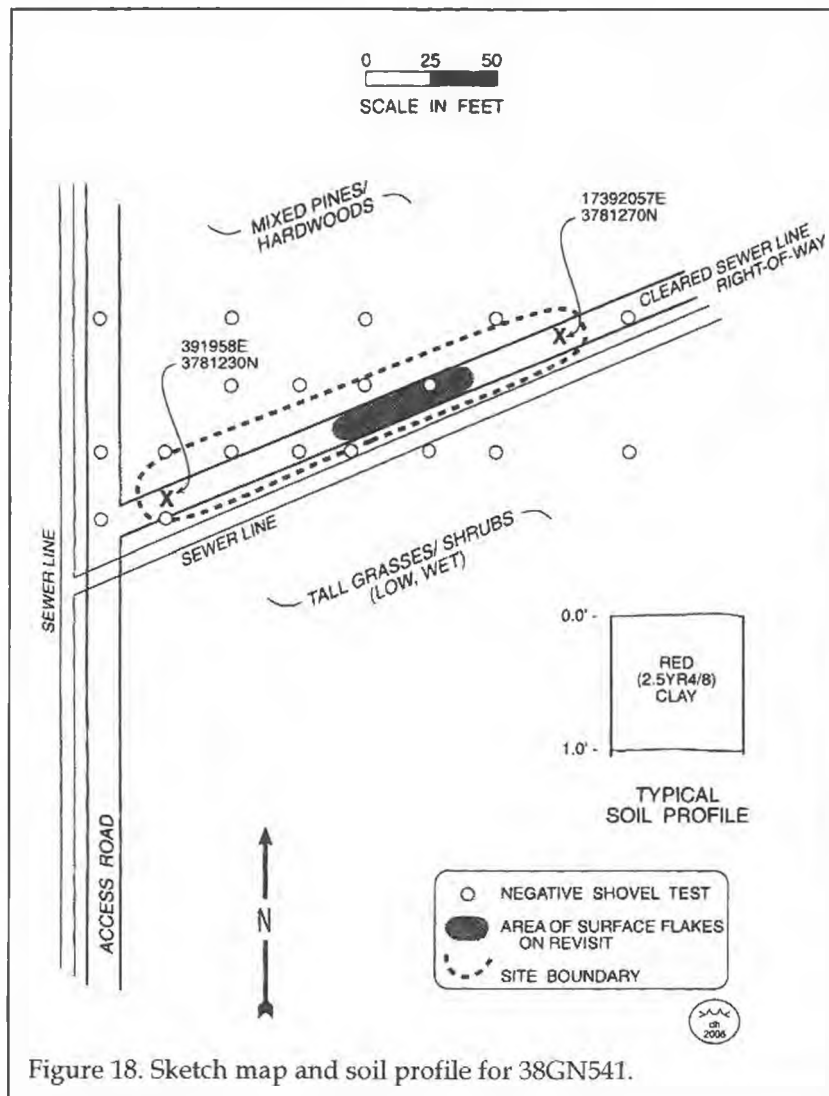


Figure 18. Sketch map and soil profile for 38GN541.

depth, showing significant erosion.

In addition, the collection of surface artifacts appears to be much smaller than was originally identified. The site form from 2003 (recorded by Tom Covington) recorded a site dimension of 20 feet north-south by 350 feet east-west. The current survey identified an area of only about 20 feet north-south by 50 feet east-west.

This discrepancy can be explained by the fact that in 2003, the area had been recently bulldozed, but by 2006 a sewer line had been constructed and the soil had probably been scattered or turned back into the earth. A low, wet

area is located to the south of the site, so erosion may have also occurred.

During the recordation of the site in 2003, at least 56 artifacts were observed including a metavolcanic flake (n=1), quartz flakes (n=45), a hammerstone (n=1), quartz biface fragments (n=9), and a chert Savannah River Stemmed Point (n=1). The current survey identified significantly fewer remains consisting of only 12 quartz flakes and two chert flakes. Only the Savannah River Stemmed Point found in 2003 is diagnostic, dating the site to the Late Archaic.

While the site may have had integrity in 2003, it no longer contains the data sets needed to be eligible for the National Register. There is no indication of stratigraphy or features and there is a high incident of erosion. Because a sewer line was constructed between site visits, the site has been significantly damaged. It is unlikely that this site will be able to address any significant research questions.

Site 38GN541 is recommended not eligible for the National Register of Historic Places. No additional management activity is recommended pending the review and concurrence by the State Historic Preservation Office.

38GN542

Site 38GN542 (Figure 19) is an early nineteenth century cemetery located on a ridge side slope at an elevation of about 570 feet AMSL. A central UTM coordinate is 391996E 3781456N (NAD27 datum).

RESULTS OF SURVEY

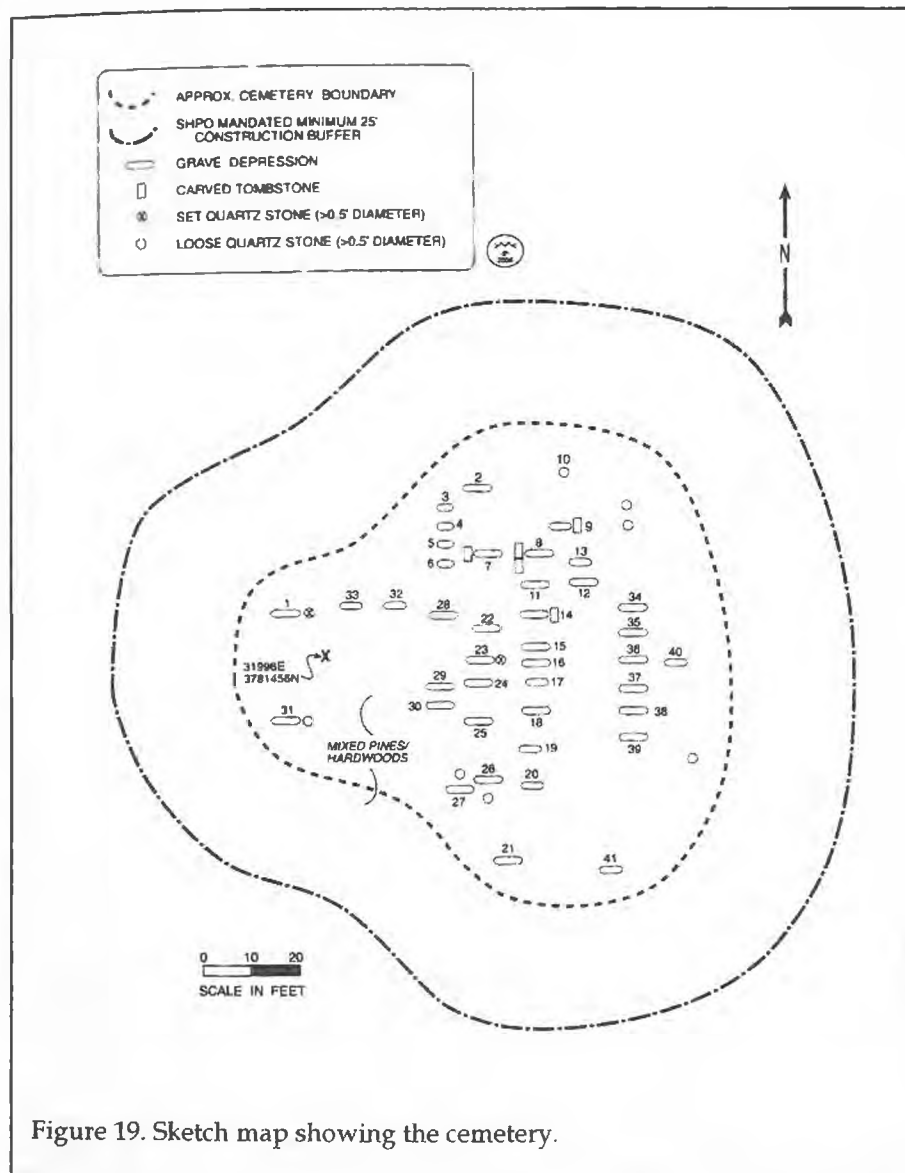


Figure 19. Sketch map showing the cemetery.

The cemetery was first identified during the 2003 CRA of the property. Several headstones and grave depressions were initially observed and the site was estimated at 100 feet by 100 feet.

No shovel testing was performed inside the cemetery, however surrounding soils resembled an eroded Cecil Series. Generally Cecil soils have an Ap horizon of brown (7.5YR5/4) sandy loam to a depth of 0.4 foot over a red (2.5YR4/6) clay to 2.3 feet in depth. At this site the

upper 2.3 feet of soil has been eroded, leaving a red (2.5YR4/8) clay.

A penetrometer was used in an effort to identify burials that may not be obviously seen. This device measures soil compaction with the idea that the site of a burial would be less compact than an area of undisturbed soils. However the hard, clay soils and lack of recent rainfall prevented accurate readings.

The site dimensions, which were the same as originally designated, were established based on the grave depressions and headstones. The current survey identified approximately 41 depressions, five hand-carved stone markers, and several quartzite stones (probably field markers).

Although the carving is difficult to read, some words could be

deciphered. For example, one stone has the name "Lucy McKenzie" who "departed this life August 14, 1804" (Figure 20). The only other stone in which a date could be obtained was from an individual with the last name of "Foster" who was born in 1800. Grave 9 had the letters "MLLY" etched into a decoratively carved stone and another stone had the compass and rule symbol (Figure 21) for the Masons, however no date could be obtained from these stones.



Figure 20. View of a hand-carved stone at the cemetery.

While cemeteries may generally provide good bioanthropological data about lifeways and give insight to diet, disease, and ethnicity, 38GN542 gives us the opportunity to study a very early and untouched cemetery. Site 38GN542 is recommended eligible under Criterion D (information potential) for its ability to contribute information on population, demographics, diet and foodways, and health. Although it has not been possible to demonstrate the condition of human remains in this cemetery, the presence of clay soils does not necessarily result in the loss of skeletal material. Rose's (1985) study found excellent preservation in silts; Atkinson (1987) recovered significant information from a cemetery on the Natchez Trace in Tennessee; and Garrow et al. (1985) identified excellent remains from a Chamblee, Georgia cemetery. In addition, even degraded bone can contribute some metric data as well as chemical studies. And there is the potential for the study of coffin shapes and mortuary artifacts in even degraded contexts.

This cemetery is also recommended eligible under Criterion C (distinctive elements) since its stones represent excellent examples of folk craft practices and grave memorialization.

With additional research to identify the individuals buried in the cemetery and their community, it may that eligibility could be extended to Criteria B.

While extreme care should always be taken by construction crews to avoid the cemetery, the State Historic Preservation Office has mandated a minimum 25-foot buffer around all cemeteries. While the cemetery dimensions are about 100 feet by 100 feet, the buffer would create an area of 125



Figure 21. View of a hand-carved stone showing the Mason's

feet square in which no construction could take place. We also recommend that a fence be erected

RESULTS OF SURVEY

around the cemetery and that the property be recorded with the Greenwood County Clerk of Court as a graveyard.

38GN543

Site 38GN543 (Figure 22) is a late nineteenth to early twentieth century scatter located in Hard Labor Creek at an elevation of about 550 feet AMSL. A central UTM coordinate for the site is 391939E 3782489N (NAD27 datum).

The site was originally recorded during the CRA in 2003, however no shovel testing was performed. The current survey shovel tested along the edge of the bank, which produced Mecklenburg soils that have an Ap horizon of dark brown (7.5YR4/4) sandy loam to a depth of 0.4 foot over a yellowish red (5YR4/6) clay to over 1.0 foot in depth. No artifacts, however, were found in these shovel tests. The soils in Hard Labor Creek resemble the Cartecay Series, which

has an Ap horizon of dark brown (10YR4/3) very fine sandy loam to 0.7 foot in depth over a strong brown (7.5YR5/6) very fine sandy loam to 1.7 feet in depth. No shovel tests, however, were performed in the creek.

No artifacts were collected from the site, which appears to have washed from upstream (with artifacts deposited in the floodzone on the surface as well as in the waters of the creek) given the eroded or smoothed surface of all remains identified. All of the artifacts seem typical from the late nineteenth to the early twentieth century including manganese glass, aqua glass, and clear glass bottle fragments, decalcomania print and undecorated whiteware, and various stoneware fragments.

During the CRA in March of 2003, the water level in the creek was up, exposing more artifacts. In July of 2006, the water level was down and it appeared as though much of the site was covered by sandy loam or had washed

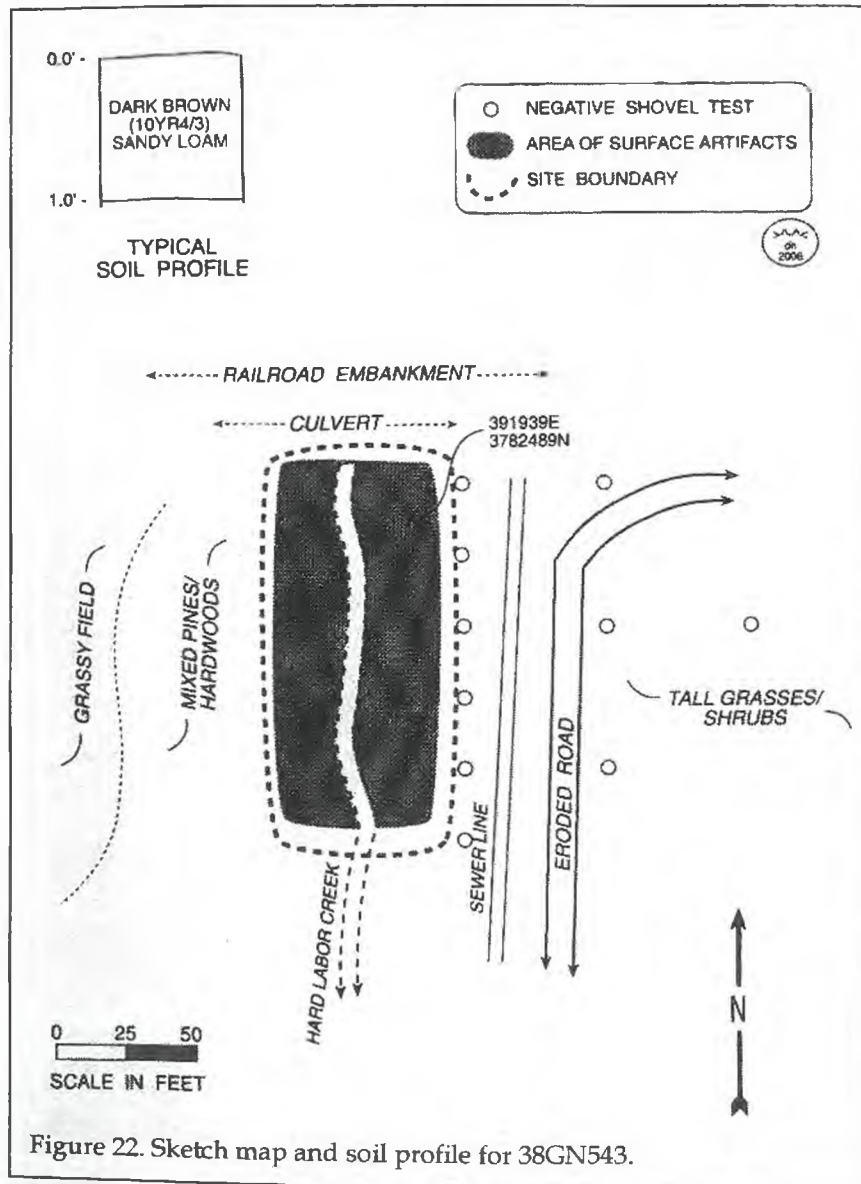


Figure 22. Sketch map and soil profile for 38GN543.



Figure 23. View of culvert in 2003.

downstream. The site still measured about 125 feet north-south by 50 feet east-west and is located adjacent to a brick culvert (0094).

This additional investigation the site is redeposited, perhaps from upstream, with the materials eroding into the waterway and being transported to their current location. Consequently, the site lacks integrity.

The artifacts themselves are common, but appear to be only glass bottles and ceramics. They lack the data sets needed to be able to address significant research questions.

Site 38GN543 is recommended not eligible for the National Register of Historic Places for its lack of integrity and inability to address significant research questions. No additional management activity is recommended pending the review and concurrence of the State Historic Preservation Office.

Architectural Resources

The previously recorded architectural features were revisited during the current survey.

The Greenwood Mill Village (0042-0093), a house at 962 Spring Street (0089), a house from 820 Edgefield Street (0090), and a culvert (0094) at Hard Labor Creek and a railroad trestle have all been determined not eligible for the National Register by the State Historic Preservation Office.

The culvert (0094) is the only feature found on the current project tract. During the CRA, photos were taken of the culvert (Figure 23 and 24). The current survey was going to reassess the condition of the



Figure 24. View of culvert in 2003.

RESULTS OF SURVEY



Figure 25. Current view of culvert.

culvert, however a thick layer of kudzu now covers the side slope down to the creek, so the culvert is completely hidden (Figure 25).

No additional architectural features were found in the APE that may be potentially eligible for the National Register of Historic Places.

CONCLUSIONS

This study involved the examination of a tract of approximately 186 acres in Greenwood County to be used for a biotechnology park. This work, conducted for Mr. Roger Stevenson of the Greenwood Genetics Center, examined archaeological sites and cultural resources found in the proposed project area and is intended to assist the company in complying with their historic preservation responsibilities.

As a result of this investigation, three archaeological sites, 38GN541-543, were evaluated from a CRA in 2003. Site 38GN541 is a prehistoric lithic scatter that is recommended not eligible for the National Register. Site 38GN542 is an early nineteenth century cemetery that is eligible under Criteria C (distinctive elements) and D (information potential). Site 38GN543 is a late nineteenth to early twentieth century scatter in Hard Labor Creek that is recommended not eligible for the National Register.

A survey of public roads within 0.5 mile

was performed that revisited sites 0042-0093 (Greenwood Mill Village), 0089 and 0090 (both houses), and 0094 (culvert). These sites had been previously determined not eligible for the National Register. No additional resources were found in the APE that may be potentially eligible for the National Register.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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11.0 Appendix D – Artifact Catalog

Appendix D - Greenwood Genetics Center Artifact Catalog

Site #	Cat. #	Provenience	Depth (cmbs)	Ct	Wt (g)	Class	Category	Sub-Category	Type/Description	Material	Portion	Notes
38GN0852	1.01	STP 1-2	Surface	1	5.8	Lithic	Chipped Stone	Scraper		Quartz		
38GN0852	1.02	STP 1-2	Surface	1	45.7	Lithic	Chipped Stone	Biface	Early Stage	Quartz		
38GN0852	1.03	STP 1-2	Surface	1	2.9	H. Ceramic	Ref. Earthenware	Whiteware	Plain		Rim	1815-Present
38GN0852	1.04	STP 1-2	Surface	2	20.6	H. Ceramic	Ref. Earthenware	Ironstone	Flow Blue		Base	1840-Present
38GN0852	1.05	STP 1-2	Surface	1	1.1	H. Ceramic	Ref. Earthenware	Ironstone	Flow Blue		Rim	1840-Present
38GN0852	1.06	STP 1-2	Surface	1	1.4	Glass	Machine Molded	Bottle	Clear		Lip	
38GN0852	1.07	STP 1-2	Surface	1	1.2	Glass	Machine Molded	Bottle	Clear		Shoulder	
38GN0852	1.08	STP 1-2	Surface	5	48.8	Glass	Window Glass					
38GN0852	1.09	STP 1-2	Surface	1	4.4	Metal	Hardware/Tools	Nail	Galvanized			
38GN0852	1.10	STP 1-2	Surface	1	43.3	Other	Masonry	Tile	Drain			
38GN0852	2.01	STP 1-2 + 15NW	Surface	1	3.9	H. Ceramic	Ref. Earthenware	Ironstone	Plain		Body	1840-Present
38GN0852	2.02	STP 1-2 + 15NW	Surface	4	6.3	Glass	Window Glass					
38GN0852	2.03	STP 1-2 + 15NW	Surface	2	2.5	Glass	Indet.		Clear			



12.0 Appendix E – SHPO Correspondence 2018



October 24, 2018

Kimberly Nagle
Senior Archaeologist
S&ME, Inc.
134 Suber Road
Columbia, SC 29210

Re: Greenwood Genetic Center Partnership Campus
Greenwood County, South Carolina
SHPO Project No. 18-KL0292

Dear Kimberly Nagle:

Our Office received the documentation dated September 13, 2018 that you submitted as due diligence for the project referenced above on September 17 2018, including the draft report, *Cultural Resources Reconnaissance Survey Greenwood Genetic Center Partnership Campus Greenwood County, South Carolina*. This letter is for preliminary, informational purposes only and does not constitute consultation or agency coordination with our Office as defined in 36 CFR 800: "Protection of Historic Properties" or by any state regulatory process. The recommendation stated below could change once the responsible federal and/or state agency initiates consultation with our Office.

The reconnaissance survey of the approximately 191.75-acre project area examined two parcels, Area A totaling approximately 171.63 acres, and Area B, totaling approximately 20.12-acres. The majority of Area A was previously surveyed (Covington and Southerland 2003; Trinkley and Southerland 2006) and Area B has not previously been surveyed. A limited architectural survey of the project tract and a reconnaissance survey of Area B was conducted. As a result of the investigations, one historic cemetery was relocated and recorded as an above-ground resource (38GN0542/SHPO Site No. 0165), one newly recorded archaeological site was identified (38GN0852), two previously recorded historic resources were revisited (SHPO Site Nos. 0089 and 0094), and nine newly recorded structures were identified (SHPO Site Nos. 0166 through 0174). Site 38GN0852, SHPO Site Nos. 0089 and 0094, and SHPO Site Nos. 0166 through 0174 are recommended as not eligible for inclusion in the National Register of Historic Places (NRHP). Our office concurs with these recommendations. Site 38GN0542/SHPO Site No. 0165 is recommended as eligible for inclusion in the NRHP with avoidance through the establishment of a 50-ft buffer marked during construction. Our office concurs with the recommendation for avoidance of the resource with a 50-ft buffer in adherence with SC State Cemetery Laws but we maintain our previous determination that Site 38GN0542/SHPO Site No. 0165 is unevaluated, requiring additional research to determine its eligibility for listing in the NRHP. Additionally a 50-ft buffer around this resource was previously recorded in a plat provided to our office. Our office recommends clarifying if the recommendation for the establishment of the 50-ft buffer corresponds with the cemetery boundary and

buffer area already recorded on the plat (See attached *Technical Comments* for additional information).

If the Greenwood Genetic Center Partnership Campus were to require state permits or federal permits, licenses, funds, loans, grants, or assistance for development, we would recommend to the federal or state agency or agencies that:

- Additional cultural resources/historic property identification survey are not needed.
- Site 38GN0542/SHPO Site No. 0165 be avoided by ground-disturbing activities with a 50-ft buffer around the established site boundaries. The buffer should be marked during construction with a plat indicating the buffer submitted to our office.

The federal or state agency or agencies will take our recommendation(s) into consideration when evaluating the project and will determine if additional work will be required.

Our office has additional technical comments on the report that we ask to see addressed (please see attached). We will accept the report as final once these comments are addressed; there is no need to send a revised draft. To complete the reporting process, please provide at least three (3) hard copies of a final report: one (1) bound hard copy and a digital copy in ADOBE Acrobat PDF format for the SHPO; one (1) bound and one (1) unbound hard copies and a digital copy in ADOBE Acrobat PDF format for SCIAA. Investigators should send all copies directly to the SHPO. The SHPO will distribute the appropriate copies to SCIAA.

Please provide final electronic copies of the survey forms and photographs for the above-ground resources following the [Electronic Submission Requirements for Planning Surveys and Review & Compliance Surveys](#).

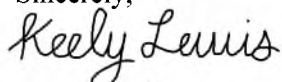
Please provide GIS shapefiles for the surveyed area (and architectural sites as applicable). Shapefiles for identified archaeological sites should be coordinated with SCIAA. Shapefiles should be compatible with ArcGIS (.shp file format) and should be sent as a bundle in .zip format. Please see our GIS Data Submission Requirements and shapefile templates, available on our website at:

<https://scdah.sc.gov/historic-preservation/historic-properties-research/archsitegis> . SHPO recommends e-mailing the shapefiles to the address link on the noted webpage or using a File Transfer Protocol website such as WeTransfer.com to send large files.

The State Historic Preservation Office will provide comments regarding historic architectural and archaeological resources and effects to them once the federal or state agency initiates consultation. Project Review Forms and additional guidance regarding our Office's role in the compliance process and historic preservation can be found on our website at: <https://scdah.sc.gov/historic-preservation/programs/review-compliance>.

Please refer to SHPO Project Number 18-KL0292 in any future correspondence regarding this project. If you have any questions, please contact me at (803) 896-6181 or at KLewis@scdah.sc.gov.

Sincerely,



Keely Lewis
Archaeologist
State Historic Preservation Office

cc: Keith Derting, SCIAA

Technical Comments

- Site 38GN0542/SHPO Site No. 0165- Our records indicate that site 38GN0542 was previously determined by our office to be “potentially eligible” or requiring additional research and/or testing to determine eligibility for listing in the National Register of Historic Places (NRHP). In our letter dated August 28, 2006, (see also Trinkley and Southerland 2006: pp.45-46) we stated:

“Regarding archaeological site 38GN542, the early 19th century cemetery/graveyard, our opinion is the cemetery is a strong candidate for National Register eligibility under Criterion “D”, but also is a good candidate under Criterion “A”, which has not been addressed by the report. We do not concur the cemetery would be eligible under Criterion “C”, but think that the potential significance of the stones is subsumed under “A” and “D”. Documentary research to establish the historic context and association of the cemetery (relevant for both Criteria “A” and “D”) and subsurface archaeological fieldwork to confirm the cemetery’s boundaries will be necessary to firmly establish the site’s eligibility under the criteria. Until such documentation is provided, the site remains potentially eligible for listing in the National Register. Please be advised that 38GN542 is protected by South Carolina Code (SCC) 16-17-600 Destruction of Graves and Graveyards, as well as by provisions of SCC 27-43-10, 27-43-20, 27-43-30, and 27-43-40.”

Our Office maintains the opinion that Site 38GN0542/SHPO Site No. 0165 should be considered unevaluated, requiring additional research to establish its historic context and association to determine its significance under Criteria A and D. Additionally, we received a copy of a recorded plat acknowledging and depicting the location of 38GN0542 with a 50-ft protective buffer on May 23, 2007. Please clarify if the recommendation for the establishment of a 50-ft buffer around the cemetery corresponds with the buffer previously recorded on the plat. Please correct the previous eligibility determination for 38GN0542 throughout the report.

- p. 1- Please specify the total new acreage within Area A that was not previously surveyed.
- p. 53- We recommend providing a more detailed map of Resource 0174 from the County GIS showing street names and lot lines and identifying the recorded resources. Please also reconcile the assigned name for this resource, as the County GIS terms this area Franklin Sub/Wells Sub/and/or Meadowgreen.

Survey Forms

- Where “House” or “Culvert” or “Franklin Subdivision” is entered under “Common Name” on the Forms, this information should be entered under “Historic Name”, leaving “Common Name” blank. A Historic Name should be entered on all survey forms provided to this office. We will try to make this clearer in our revised Survey Manual being currently finalized.
- 0094: Check the revisit box on the Form.
- Please provide the Digital Photo ID(s) on the Forms in the next submittal, as well as the images.
- Please submit all draft survey documentation in the future in accordance with our *Electronic Submission Requirements for Planning Surveys and Review & Compliance Surveys* available at <https://scdah.sc.gov/historic-preservation/programs/statewide-survey-historic-properties>. This allows us to review and make minor edits to the draft PDF survey forms, if needed, and to review the images provided.

- 0165: Please complete a survey form for this resource.
- 0167: Category should be Structure.
- 0168: We are inclined to believe the Category for this resource should be a Structure as well (we can accept 0166 as a Site).