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Phase IA Cultural Resources Assessment Survey of a Proposed Solar Center along Gager Hill Road in Scotland, Connecticut

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ABSTRACT

This report presents the results of a Phase IA cultural resources assessment survey for a proposed solar center along Gager Hill Road in Scotland, Connecticut. The project will include the construction of two solar arrays and associated infrastructure across two interconnected areas (Northern and Southern Areas) that are situated on a larger 87 acre parcel of land. The Northern Area encompasses 7.1 acres and the Southern Area encompasses 10.8 acres of land. They are interconnected by an access road that encompasses 0.1 acres of land. Heritage Consultants, LLC completed the Phase IA cultural resources assessment survey on behalf of Verdantas in August of 2024. The Phase IA survey revealed that 35.15 acre of the larger project parcel, none of which will be impacted by construction, is characterized by wetlands. These areas retain a no/low archaeological sensitivity and no further archaeological examination of them is recommended. The remaining 51.85 acres of land, of which 18 acres will be impacted by construction, were characterized by gently sloping topography, well drained soils, and close proximity to the freshwater sources. These areas were designated as retaining the potential to yield intact archaeological deposits. It is recommended that the 18 acres of moderate/high archaeological sensitivity located within the facility areas be subjected to Phase IB cultural reconnaissance survey prior to construction.

Pedestrian survey also led to the identification of 10 dry-laid stonewalls that were designated as Stonewalls SW-1 through SW-10. They were located throughout the parcel and ranged in condition from fair to good. They are not located within proximity to the development areas and will not be impacted by construction. Finally, a potential stone well was identified directly west of Stonewall SW-2. It is not located within proximity to the development areas and will not be impacted by construction. No further investigation of Stonewalls SW-1 through SW-10 or the potential dry-laid stone well is recommended prior to development.

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CHAPTER I
INTRODUCTION

This report presents the results of a Phase IA cultural resources assessment survey of a proposed solar facility (the Facility) along Gager Hill Road in Scotland, Connecticut. The Facility contains two areas (Northern and Southern Areas) that are interconnected by an access road. These areas encompass 18 acres of a larger 87 acre parcel of land (Figure 1). Verdantas requested that Heritage Consultants, LLC (Heritage) complete the Phase IA assessment survey as part of the planning process for the proposed Facility. Heritage completed this investigation in August of 2024. All work associated with this project was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Project Description and Methods Overview

The proposed Facility will consist of two solar arrays interconnected by an access road and associated infrastructure (Figure 2). The project parcel is situated at elevations ranging between 74 to 90 meters (242.8 to 295.3 feet) NGVD. It is situated on the western side of Gager Hill Road and to the south of Huntington Road in Scotland, Connecticut. The parcel is bounded by a mixture of forested and agricultural land. The Phase IA cultural resources assessment survey of the Facility area consisted of the completion of the following tasks: 1) a contextual overview of the region's precontact era Native American, post-European Contact period, and natural settings (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded cultural resources in the region encompassing the Facility; 3) a review of readily available maps and aerial imagery depicting the project parcel in order to identify potential post-European Contact period resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project parcel and Facility area in order to assess their archaeological sensitivity.

Project Results and Management Recommendations Overview

The review of maps and aerial images, as well as files maintained by the CT-SHPO resulted in the identification of a single previously identified archaeological site located within 0.8 kilometers (0.5 miles) of the Facility area. However, no National or State Register of Historic Places properties were identified within 0.8 kilometers (0.5 miles) of the Facility area. The proximity of this archaeological site, as well as the gently sloping nature of the Facility and its proximity to freshwater sources, indicate that portions of area may have been the location of precontact era and/or post-European Contact period settlement and use. Heritage staff considered this information during pedestrian survey of the Northern and Southern Areas and the surrounding parcel, which resulted in the stratification of the parcel into zones of no/low and moderate/high archaeological sensitivity.

The pedestrian survey of the Facility areas and surrounding parcel was completed in August of 2024. It revealed that 35.15 acres of the larger project parcel, none of which will be impacted by construction, is characterized by wetlands. These areas retain a no/low archaeological sensitivity and no further archaeological examination of them is recommended. The remaining 51.85 acres of land, of which 18 acres will be impacted by construction, were characterized by gently sloping topography, well drained soils, and close proximity to the freshwater sources. These areas were designated as retaining the potential to yield intact archaeological deposits. It is recommended that the 18 acres of moderate/high archaeological sensitivity located within the Facility areas be subjected to Phase IB cultural reconnaissance survey prior to construction.

Pedestrian survey also led to the identification of 10 dry-laid stonewalls that were designated as Stonewalls SW-1 through SW-10. They were located throughout the parcel and ranged in condition from fair to good. They are not located within proximity to the development areas and will not be impacted by construction. Finally, the pedestrian survey resulted in the identification of a potential dry-laid stone well directly west of Stonewall SW-2. It is not located within proximity to the development areas and will not be impacted by construction. No further investigation of Stonewalls SW-1 through SW-10 or the potential dry-laid stone well is recommended prior to development.

Project Personnel

Key personnel who worked on this project included David R. George, M.A., RPA, (Principal Investigator); Linda Seminario, M.A. (Project Archaeologist); Melissa Wales, B.A., (Field Director); William Yerxa, M.A. (Report Writer); Elliot Bogue, B.A. (Historian); and Morgan Tirrell, B.A. (GIS Specialist).

CHAPTER II
NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the proposed Facility in Scotland, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both precontact era and post-European Contact period site selection. These include general ecological conditions, as well as types of fresh water sources present, degree of slopes, and soils situated within a given study area. The remainder of this chapter provides a brief overview of the ecology, hydrological resources, and soils present within Facility area and the larger region in general.

Ecoregions of Connecticut

Throughout the Pleistocene and Holocene Periods, Connecticut has undergone numerous environmental changes. Variations in climate, geology, and physiography have led to the "regionalization" of Connecticut's modern environment. It is clear, for example, that the northwestern portion of the state has different natural characteristics than the coastline. Recognizing this fact, Dowhan and Craig (1976), as part of their study of the distribution of rare and endangered species in Connecticut, subdivided the state into various ecoregions. Dowhan and Craig (1976:27) defined an ecoregion as:

> "An area characterized by a distinctive pattern of landscapes and regional climate as expressed by the vegetation composition and pattern, and the presence or absence of certain indicator species and species groups. Each ecoregion has a similar interrelationship between landforms, local climate, soil profiles, and plant and animal communities. Furthermore, the pattern of development of plant communities (chronosequences and toposequences) and of soil profile is similar in similar physiographic sites. Ecoregions are thus natural divisions of land, climate, and biota."

Dowhan and Craig defined nine major ecoregions for the State of Connecticut. They are based on regional diversity in plant and animal indicator species (Dowhan and Craig 1976). Only the Northeast Hills Ecoregion is germane to the current investigation. A summary of this ecoregion is presented below. It is followed by a discussion of hydrology and soils found within and adjacent to the Facility area.

Northeast Hills Ecoregion

The Northeast Hills ecoregion consists of a hilly upland terrain located between approximately 40.2 and 88.5 km (25 and 55 mi) to the north of Long Island Sound (Dowhan and Craig 1976). It is characterized by streamlined hills bordered on either side by local ridge systems, as well as broad lowland areas situated near large rivers and tributaries. Physiography in this region is composed of a series of north-trending ridge systems, the western-most of which is referred to as the Bolton Range and the eastern-most as the Mohegan Range (Bell 1985:45). Elevations in the Northeast Hills range from 121.9 to 243.8 m (400 to 800 ft) above sea level, reaching a maximum of nearly 304.8 m (1,000 ft) above sea level near the Massachusetts border (Bell 1985). The bedrock of the region is composed of Schist and gneiss created during the Paleozoic as well as gneiss and granite created during the Precambrian period (Bell 1985). Soils in uplands areas have been deposited on top of glacial till and in the valley they consist of stratified deposits of sand, gravel, and silt (Dowhan and Craig 1976).

Hydrology of the Study Region

The Facility area is located within close proximity of several streams, ponds and wetlands. The major fresh water in proximity to the Facility area is Merrick Brook and its various unnamed tributaries. Previously

completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for precontact era occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources. These water sources also provided the impetus for the construction of water powered mill facilities during the eighteenth and nineteenth centuries.

Soils Comprising the Facility Area

Soil formation is the direct result of the interaction of several variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to many diagenic processes. Different classes of artifacts may be preferentially protected, or unaffected by these processes, whereas others may deteriorate rapidly. Cyclical wetting and drying, freezing, and thawing, and compression can accelerate chemically and mechanically the decay processes for animal bones, shells, lithics, ceramics, and plant remains. Lithic and ceramic artifacts are largely unaffected by soil pH, whereas animal bones and shells decay more quickly in acidic soils such as those that are present within the Facility area. In contrast, acidic soils enhance the preservation of charred plant remains.

A total of two soil types were identified within the Facility area (Figure 3). Sutton soils dominate most of the Facility, whereas Canton and Charlton soils appear in the western portion of the Northern Area. When well drained soils such as Canton, Charlton, and Sutton soils remain undisturbed and on less than eight percent slope, they are generally well correlated with precontact era and post-European Contact period site locations and are considered to have higher archaeological sensitivity. Below is a summary of each specific soil type identified within the Facility area.

Sutton Series

The Sutton series consists of very deep, moderately well drained loamy soils formed in melt-out till. They are nearly level to strongly sloping soils on hills, low ridges, and ground moraines, typically on footslopes, lower backslopes and in slight depressions. Slope ranges from 0 to 15 percent. A typical profile associated with Sutton soils is as follows: **Oe**--0 to 2 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--2 to 15 cm; very dark brown (10YR 2/2) fine sandy loam; weak medium granular structure; very friable; common fine and medium roots; 5 percent gravel; strongly acid; clear wavy boundary; **Bw1**--15 to 30 cm; brown (7.5YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; 10 percent gravel and cobbles; moderately acid; gradual wavy boundary; **Bw2**--30 to 61 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; few medium roots; 10 percent gravel and cobbles; common fine and medium prominent light brownish gray (2.5Y 6/2) iron depletions and yellowish red (5YR 5/6) masses of iron accumulation; moderately acid; gradual wavy boundary; **Bw3**--61 to 71 cm; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; 10 percent gravel and cobbles; common medium prominent light brownish gray (2.5Y 6/2) iron depletions and reddish brown (5YR 4/4) and strong brown (7.5YR 5/6) masses of iron accumulation; moderately acid; gradual wavy boundary; **C1**--71 to 91 cm; brown (10YR 5/3) gravelly fine sandy loam; weak thick platy structure; firm; 15 percent gravel and cobbles; common medium distinct light brownish gray (2.5Y 6/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of iron concentrations; moderately acid; gradual wavy boundary; and **C2**--91 to 165 cm; light olive brown (2.5Y 5/4) gravelly sandy loam; massive; friable; 25 percent gravel and cobbles; moderately acid.

Canton and Charlton Soils

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are found on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. A typical profile associated with Canton soils is as follows: **Oi**--0 to 5 cm; slightly decomposed plant material; **A**--5 to 13 cm; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; common fine roots; 5 percent gravel; very strongly acid (pH 4.6); abrupt smooth boundary; **Bw1**--13 to 30 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; very strongly acid (pH 4.6); clear smooth boundary; **Bw2**--30 to 41 cm; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; strongly acid (pH 5.1); clear smooth boundary; **Bw3**--41 to 56 cm; yellowish brown (10YR 5/4) gravelly fine sandy loam; weak medium subangular blocky; friable; common fine and medium roots; 15 percent gravel; strongly acid (pH 5.1); abrupt smooth boundary; and **2C**--56 to 170 cm; grayish brown (2.5Y 5/2) gravelly loamy sand; massive; friable; 25 percent gravel; moderately acid (pH 5.6).

The Charlton series consists of very deep, well drained soils formed in loamy melt-out till. They are nearly level to very steep soils on moraines, hills, and ridges. Slope ranges from 0 to 60 percent. A typical profile associated with Charlton soils is as follows: **Oe**--0 to 4 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--4 to 10 cm; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; 5 percent gravel; very strongly acid; abrupt smooth boundary; **Bw1**--10 to 18 cm; brown (7.5YR 4/4) fine sandy loam; weak coarse granular structure; very friable; many fine and medium roots; 5 percent gravel; very strongly acid; clear wavy boundary; **Bw2**--18 to 48 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; 10 percent gravel and cobbles; very strongly acid; clear wavy boundary; **Bw3**--48 to 69 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive; very friable; few medium roots; 15 percent gravel and cobbles; very strongly acid; abrupt wavy boundary; and **C**--69 to 165 cm; grayish brown (2.5Y 5/2) gravelly fine sandy loam with thin lenses of loamy sand; massive; friable, some lenses firm; few medium roots; 25 percent gravel and cobbles; strongly acid.

Summary

A review of mapping, geological data, ecological conditions, soils, slopes, and proximity to freshwater suggests that portions of the Facility area appear to be amenable to both precontact era and post-European Contact period occupations. This includes areas of low to moderate slopes with well-drained soil located near freshwater sources. The types of precontact sites that may be contained in these areas include task specific, temporary, or seasonal base camps, which may include areas of lithic tool manufacturing, hearths, post-molds, and storage pits.

CHAPTER III
PRECONTACT ERA SETTING

Introduction

Prior to the late 1970s and early 1980s, very few systematic archaeological surveys of large portions of the State of Connecticut had been undertaken. Rather, the precontact period of the region was studied at the site level. Sites chosen for excavation were highly visible and they were in such areas as the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the precontact period of Connecticut was developed. It was suggested that the upland portions of the state, i.e., the northeastern and northwestern hills ecoregions, were little used and rarely occupied by precontact Native Americans, while the coastal zone, i.e., the eastern and western coastal and the southeastern and southwestern hills ecoregions, were the focus of settlements and exploitation in the precontact era. This interpretation remained unchallenged until the 1970s and 1980s when several town-wide and regional archaeological studies were completed. These investigations led to the creation of several archaeological phases that subsequently were applied to understand the precontact period of Connecticut. The remainder of this chapter provides an overview of the precontact setting of the region encompassing the project parcel.

Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.])

The earliest inhabitants of the area encompassing the State of Connecticut, who have been referred to as Paleo-Indians, arrived in the area by ca., 13,000 B.P. (Gramly and Funk 1990; Snow 1980). Due to the presence of large Pleistocene mammals at that time and the ubiquity of large fluted projectile points in archaeological deposits of this age, Paleo-Indians often have been described as big-game hunters (Ritchie and Funk 1973; Snow 1980); however, as discussed below, it is more likely that they hunted a broad spectrum of animals. While there have been over 50 surface finds of Paleo-Indian projectile points throughout the State of Connecticut (Bellantoni 1995), only three sites, the Templeton Site (6-LF-21) in Washington, Connecticut, the Hidden Creek Site (72-163) in Ledyard, Connecticut, and the Brian D. Jones Site (4-10B) in Avon, Connecticut have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980; Singer 2017a; Leslie et al. 2020).

The Templeton Site (6-LF-21) is in Washington, Connecticut and was occupied between 10,490 and 9,890 years ago (Moeller 1980). In addition to a single large and two small, fluted points, the Templeton Site produced a stone tool assemblage consisting of gravers, drills, core fragments, scrapers, and channel flakes, which indicates that the full range of stone tool production and maintenance took place at the site (Moeller 1980). Moreover, the use of both local and non-local raw materials was documented in the recovered tool assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant stone sources, the use of which likely occurred during movement from region to region. More recently, the site has undergone re-investigation by Singer (2017a and 2017b), who has determined that most tools and debitage are exotic and were quarried directly from the Hudson River Valley. Recent research has focused on task-specific loci at the Templeton Site, particularly the production of numerous Michaud-Neponset projectile points, as identified through remnant channel flakes.

The Hidden Creek Site (72-163) is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut (Jones 1997). While excavation of the Hidden Creek Site produced evidence of Terminal Archaic and Woodland Period components (see below) in the upper soil horizons, the lower levels of the site yielded artifacts dating from the Paleo-Indian era.

Recovered Paleo-Indian artifacts included broken bifaces, side-scrapers, a fluted preform, gravers, and end-scrapers. Based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represented a short-term occupation, and that separate stone tool reduction and rejuvenation areas were present.

The Brian D. Jones Site (4-10B) was identified in a Pleistocene levee on the Farmington River in Avon, Connecticut; it was buried under 1.5 m (3.3 ft) of alluvium (Leslie et al. 2020). The Brian D. Jones Site was identified by Archaeological and Historical Services, Inc., in 2019 during a survey for the Connecticut Department of Transportation preceding a proposed bridge construction project. It is now the oldest known archaeological site in Connecticut at +12,500 years old. The site also provides a rare example of a Paleo-Indian site on a river rather than the more common upland areas or on the edges of wetlands. Ground-penetrating radar survey revealed overbank flooding and sedimentation that resulted in the creating of a stable ancient river levee with gentle, low-energy floods. Archaeological deposits on the levee were therefore protected.

Excavations at the Brian D. Jones Site revealed 44 soil anomalies, 27 of which were characterized as cultural features used as hearths and post holes, among other uses. One hearth has been dated thus far (10,520 ± 30 14C yr BP; charred Pinus; 2-sigma 12,568 to 12,410 CAL BP) (Leslie et al. 2020:4). Further radiocarbon testing will be completed in the future. Artifact concentrations surrounded these features and were separated in two stratigraphic layers represented at least two temporally discrete Paleo-Indian occupations. The recovered lithic artifacts are fashioned from Normanskill chert, Hardyston jasper, Jefferson/Mount Jasper rhyolite, chalcedony, siltstone, and quartz (Leslie 2023). They include examples of a fluted point base, preforms, channel flakes, pièces esquillées, end scrapers, side scrapers, grinding stones, bifaces, utilized flakes, gravers, and a drilled stone pendant fragment. Lithic tools numbered over 100, while toolmaking debris was in the thousands. The channel flakes represent the production of spear points used in hunting. Scrapers, perforators, and grinding stones indicate animal butchering, plant food grinding, the production of wood and bone tools, and the processing of animal skins for clothing and tents. Other collected cultural materials included charred botanicals and calcined bone. Botanicals recovered in hearth features included burned remains of cattail, pin cherry, strawberry, acorn, sumac, water lily, and dogwood (Leslie 2023). Approximately 15,000 artifacts were collected from the site.

The scarcity of identified Paleo-Indian sites suggests a low population density during this period. The small size of most Paleo-Indian sites, their likely inundation by rising sea levels, and the high degree of landscape disturbance over the past 10,000 years likely contribute to poor site visibility, although the presence of two deeply alluvially buried Paleo-Indian sites in Connecticut suggests that other sites may be located along stable rivers (Leslie et al. 2021).

Archaic Period (10,000 to 2,700 B.P.)

The Archaic Period, which succeeded the Paleo-Indian Period, began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980), and it has been divided into three subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). These periods were devised to describe all non-farming, non-ceramic producing populations in the area. Regional archeologists recently have recognized a final “transitional” Archaic Period, the Terminal Archaic Period (3,400-2,700 B.P.), which was meant to describe those groups that existed just prior to the onset of the Woodland Period and the widespread adoption of ceramics into the toolkit (Snow 1980; McBride 1984; Pfeiffer 1984, 1990; Witthoft 1949, 1953).

Early Archaic Period (10,000 to 8,000 B.P.)

To date, very few Early Archaic sites have been identified in southern New England. As a result, researchers such as Fitting (1968) and Ritchie (1969), have suggested a lack of these sites likely is tied to cultural discontinuity between the Early Archaic and preceding Paleo-Indian Period, as well as a population decrease from earlier times; however, with continued identification of Early Archaic sites in the region, and the recognition of the problems of preservation, it is difficult to maintain the discontinuity hypothesis (Curran and Dincauze 1977; Snow 1980).

Like their Paleo-Indian predecessors, Early Archaic sites tend to be very small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions of the United States are represented by projectile points of the Kirk series (Ritchie and Funk 1973) and by Kanawha types (Coe 1964), sites of this age in southern New England are identified on the basis of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by the presence of their characteristic bifurcated base, and they generally are made from high quality raw materials. Moreover, the recovery of these projectile points has rarely been in stratified contexts. Rather, they occur commonly either as surface expressions or intermixed with artifacts representative of later periods. Early Archaic occupations, such as the Dill Farm Site and Sites 6LF64 and 6LF70 in Litchfield County, are represented by camps that were relocated periodically to take advantage of seasonally available resources (McBride 1984; Pfeiffer 1986). In this sense, a foraging type of settlement pattern was employed during the Early Archaic Period.

Another localized cultural tradition, the Gulf of Maine Archaic, which lasted from ca. 9,500 to 6,000 14C BP, is beginning to be recognized in Southern New England (Petersen and Putnam 1992). It is distinguished by its microlithic industry, which may be associated with the production of compound tools (Robinson and Peterson 1993). Assemblages from Maine (Petersen et al. 1986; Petersen 1991; Sanger et al. 1992), Massachusetts (Strauss 2017; Leslie et al. 2022), and Connecticut (Forrest 1999) reflect the selection of local, coarse-grained stones. Large choppers and hoe-like forms from southeastern Connecticut's Sandy Hill Site likely functioned as digging implements. Woodworking tools, including adzes, celts, and gull-channeled gouges recovered at the Brigham and Sharrow sites in Maine (Robinson and Petersen 1993:68) may have been used for dugout canoe manufacture. The deeply stratified Sandy Hill (Forrest 1999; Jones and Forrest 2003) and Sharrow sites (Petersen 1991), with their overlapping lenses of "black sand" floor deposits, suggest intensive site re-occupations according to an adaptation that relied, in part, on seasonally available wetland resources. Thus far, sites from this tradition have only been identified within coastal and near-coastal territories along the Gulf of Maine, in southeastern Connecticut, and in Massachusetts.

Middle Archaic Period (8,000 to 6,000 B.P.)

By the onset of the Middle Archaic Period modern deciduous forests had developed in the region (Davis 1969). Increased numbers and types of sites associated with this period are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site in Manchester, New Hampshire studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between 7,700 and 6,000 years ago. In fact, Dincauze obtained several radiocarbon dates from the Middle Archaic component of the Neville Site associated with the then-newly named Neville type projectile point, ranging from 7,740±280 and 7,015±160 B.P. (Dincauze 1976).

In addition to Neville points, Dincauze (1976) described two other projectile points styles that are attributed to the Middle Archaic Period: Stark and Merrimac projectile points. While no absolute dates

were recovered from deposits that yielded Stark points, the Merrimac type dated from 5,910±180 B.P. Dincauze argued that both the Neville and later Merrimac and Stark occupations were established to take advantage of the excellent fishing that the falls situated adjacent to the site area would have afforded Native American groups. Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of tool types and resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

Late Archaic Period (6,000 to 3,700 B.P.)

The Late Archaic Period in southern New England is divided into two major cultural traditions that appear to have coexisted. They include the Laurentian and Narrow-Stemmed Traditions (Funk 1976; McBride 1984; Ritchie 1969a and b). Artifacts assigned to the Laurentian Tradition include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights, and scrapers. The diagnostic projectile point forms of this time period in southern New England include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a; Thompson 1969). In general, the stone tool assemblage of the Laurentian Tradition is characterized by flint, felsite, rhyolite, and quartzite, while quartz was largely avoided for stone tool production.

In terms of settlement and subsistence patterns, archaeological evidence in southern New England suggests that Laurentian Tradition populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been studied, sites of this age generally encompass less than 500 m^2 (5,383 ft^2). These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1978, 1984:252). Finally, subsistence strategies of Laurentian Tradition focused on hunting and gathering of wild plants and animals from multiple ecozones.

The second Late Archaic tradition, known as the Narrow-Stemmed Tradition, is unlike the Laurentian Tradition, and it likely represents a different cultural adaptation. The Narrow-Stemmed Tradition is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). Other tools found in Narrow-Stemmed Tradition artifact assemblages include choppers, adzes, pestles, antler and bone projectile points, harpoons, awls, and notched atlatl weights. Many of these tools, notably the projectile points and pestles, indicate a subsistence pattern dominated by hunting and fishing, as well the collection of a wide range of plant foods (McBride 1984; Snow 1980:228).

The Narrow-Stemmed Tradition also marks one of the most prevalent manifestations of the archaeological record in southern New England, narrow-stemmed projectile points, often untyped, or typed as Lamoka, Wading River, or Squibnocket Stemmed forms. These are generally attributed to a form of projectile technology, but some (Boudreau 2008), have suggested that these tool forms might not be related to projectile technology, and may instead relate to graver or drill functions. Boudreau (2008) also drew important connections to the forms of these narrow-stemmed points with later Woodland era forms, such as Rossville points, which are nearly identical. Others (Lavin 2013; Zoto 2019) have similarly suggested a continuation of the Narrow-Stemmed Tradition into the Woodland era, with most of this evidence originating at coastal sites in southern New England. The vast majority of Narrow-Stemmed projectile points that are associated with cultural features suitable for radiocarbon dating, particularly Lamoka style projectile points, are associated with Late Archaic date ranges (Lavin 2013).

Terminal Archaic Period (3,700 to 2,700 B.P.)

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 BP, is perhaps the most interesting, yet confusing of the Archaic Periods in southern New England precontact periods. Originally termed the "Transitional Archaic" by Witthoft (1953) and recognized by the introduction of technological innovations, e.g., broadspear projectile points and soapstone bowls, the Terminal Archaic has long posed problems for regional archaeologists. While the Narrow-Stemmed Tradition persisted through the Terminal Archaic and into the Early Woodland Period, the Terminal Archaic is coeval with what appears to be a different technological adaptation, the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is recognized in southern New England by the presence of a new stone tool industry that was based on the use of high-quality raw materials for stone tool production and a settlement pattern different from the "coeval" Narrow-Stemmed Tradition.

The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. There are several local sequences within the tradition, and they are based on projectile point type chronology. Temporally diagnostic projectile points of these sequences include the Snook Kill, Susquehanna Broadspear, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). The initial portion of the Terminal Archaic Period (ca., 3,700-3,200 BP) is characterized by the presence of Snook Kill and Susquehanna Broadspear projectile points while the latter Terminal Archaic (3,200-2,700 BP) is distinguished by Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic that interior cord marked, grit tempered, thick-walled ceramics with conoidal (pointed) bases made their initial appearance in the Native American toolkit. These are the first ceramics in the region, and they are named Vinette I (Ritchie 1969a; Snow 1980:242); this type of ceramic vessel appears with much more frequency during the ensuing Early Woodland Period. In addition, the adoption and widespread use of soapstone bowls, as well as the implementation of subterranean storage, suggests that Terminal Archaic groups were characterized by reduced mobility and longer-term use of established occupation sites (Snow 1980:250).

Finally, while settlement patterns appeared to have changed, Terminal Archaic subsistence patterns were analogous to earlier patterns. The subsistence pattern was still diffuse in nature, and it was scheduled carefully. Typical food remains recovered from sites of this period consist of fragments of white-tailed deer, beaver, turtle, fish, and various small mammals. Botanical remains recovered from the site area consisted of *Chenopodium* sp., hickory, butternut, and walnut (Pagoulatos 1988:81). Such diversity in food remains suggests at least minimal use of a wide range of microenvironments for subsistence purposes.

Woodland Period (2,700 to 350 B.P.)

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery; however, as mentioned above, early dates associated with pottery now suggest the presence of Vinette I ceramics appeared toward the end of the preceding Terminal Archaic Period (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been divided into three subperiods: Early, Middle, and Late Woodland. The various subperiods are discussed below.

Early Woodland Period (ca., 2,700 to 2,000 B.P.)

The Early Woodland Period of the northeastern United States dates from ca., 2,700 to 2,000 B.P., and was thought to have been characterized by the advent of farming, the initial use of ceramic vessels, and increasingly complex burial ceremonialism (Griffin 1967; Ritchie 1969a and 1969b; Snow 1980). In the

Northeast, the earliest ceramics of the Early Woodland Period are thick walled, cord marked on both the interior and exterior, and possess grit temper. Archaeological investigations of Early Woodland sites in southern New England resulted in the recovery of narrow stemmed projectile points in association with ceramic sherds and subsistence remains, including specimens of white-tailed deer, soft and hard-shell clams, and oyster shells (Lavin and Salwen: 1983; McBride 1984:296-297; Pope 1952). McBride (1984) has argued that the combination of the subsistence remains and the recognition of multiple superimposed cultural features at various sites indicate that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

Middle Woodland Period (2,000 to 1,200 B.P.)

The Middle Woodland Period is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). The latter suggests that regional exchange networks were established, and that they were used to supply local populations with necessary raw materials (McBride 1984; Snow 1980). The Middle Woodland Period is represented archaeologically by narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types that are indicative of the Middle Woodland Period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a:200).

In terms of settlement patterns, the Middle Woodland Period is characterized by the occupation of village sites by large co-residential groups that utilized native plant and animal species for food and raw materials in tool making (George 1997). These sites were the principal place of occupation, and they were positioned close to major river valleys, tidal marshes, estuaries, and the coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains. The use of temporary and task-specific sites to support large village populations indicates that the Middle Woodland Period was characterized by a resource acquisition strategy that can best be termed as logistical collection (McBride 1984:310).

Late Woodland Period (ca., 1,200 to 350 B.P.)

The Late Woodland Period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of corn in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1974; McBride 1984; Snow 1980).

Stone tool assemblages associated with Late Woodland occupations, especially village-sized sites, are functionally variable and they reflect plant and animal resource processing and consumption on a large scale. Finished stone tools recovered from Late Woodland sites include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools. These tools were used in activities ranging from hide preparation to

plant processing to the manufacture of canoes, bowls, and utensils, as well as other settlement and subsistence-related items (McBride 1984; Snow 1980). Finally, ceramic assemblages recovered from Late Woodland sites are as variable as the lithic assemblages. Ceramic types identified include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised (Lavin 1980, 1988a, 1988b; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947). These types are more stylistically diverse than their predecessors with incision, shell stamping, punctation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Precontact Period

The precontact period of Connecticut spans from ca. 13,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. Much of this era is characterized by local Native American groups who practiced a subsistence pattern based on a mixed economy of hunting and gathering plant and animal resources. It is not until the Late Woodland Period that incontrovertible evidence for the use of domesticated species is available. Further, settlement patterns throughout the precontact period shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region that includes the proposed Facility area, a variety of precontact site types may be expected, ranging from seasonal camps utilized by Paleo-Indian and Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV
POST-EUROPEAN CONTACT PERIOD OVERVIEW

Introduction

The proposed project parcel contains approximately 87 acres of land, of which 18 acres will be used for construction of the Facility; this land is located to the west of Gager Hill Road in the town of Scotland, Connecticut. This chapter provides an overview of the towns of Scotland and Windham County, as well as details relating to the project parcel and Facility area. As with most Connecticut towns, present-day Scotland originated as a Native American settlement originally known as *Mamosqueage*. Settlement began in the area of present-day Scotland in 1700 as part of the town of Windham. Scotland eventually separated from Windham and was incorporated in 1857. Throughout the nineteenth century, Scotland remained a primarily agricultural community, with some small-scale industry centered around the Merrick Brook. In the twentieth century, new interstate roads, highways, and suburbanization did not have a dramatic impact on Scotland's population or industry, and even in the present-day, Scotland remains a rural, agricultural community, with the lowest population of any town in Windham County.

Windham County

Windham County was established in 1726 by an act of the Connecticut General Court with lands from Hartford and New London Counties. Located in northeastern Connecticut, it is bounded to the north by the State of Massachusetts, to the east by the State of Rhode Island, to the south by New London County, and to the west by Tolland County. Windham County is 521.5 square miles with a population of 116,418 individuals, and the most populous town is Windham (Connecticut 2023; United States Census Bureau [USCB] 2023a). Often referred to as the Quiet Corner, Windham County is the least populous county in Connecticut. The topography of Windham County includes parallel rides of hills, aligned primarily north-to-south (Eves 2022). The landscape included terrain that is "rugged and broken" but with numerous streams and falls, thus limiting large scale agriculture except for in the fertile valleys but providing a strong basis for early industrial development on waterways (Bayles 1889:2). Important waterways associated with Windham County include the Quinebaug, Moosup, Five Mile, Willimantic, Shetucket, and Natchaug River (Bayles 1889).

Woodland Period to the Seventeenth Century

During the Woodland Period of northeastern North American history (ca., 3,000 to 500 years ago), the Indigenous peoples who resided along the shoreline in central Connecticut were part of the greater Algonquian culture of northeastern North America (Lavin 2013). They spoke local variations of Southern New England Algonquian languages and lived in extended kinship groups on lands they maintained for a variety of horticultural and resource extraction purposes (Goddard 1978). Indigenous people in the region practiced subsistence activities including hunting, fowling, and fishing, along with the cultivation of various crops, the most important of which were maize, squash, and beans. They supplemented these foods seasonally by collecting shellfish, fruits, and plants during warmer periods, and gathering nuts, roots, and tubers during colder times.

In addition, these communities came together in large groups to hunt deer in the fall and winter. Indigenous peoples lived with their immediate or extended families in large settlements, often concentrated along rivers and/or wetlands. Some villages were fortified by wooden palisades. Their habitation, known as a *weetu* or wigwam, was usually constructed of a tree-sapling frame and covered in

reed matting during warm months and tree bark throughout the winter. These varied in size from a small, individual dwelling, to an expansive "long house," which could accommodate several families. Native communities commonly traded among their immediate neighbors and often maintained long-distance networks (Lavin 2013). At the time of the arrival of Europeans the Nipmuc were the most prominent Native nation within the present-day bounds of Windham County, although the present-day town of Scotland included part of the Mohegan territory known as Mamosqueage (Lavin 2013; Scotland 2017).

Seventeenth Century through Eighteenth Century

As Indigenous communities maintained oral traditions rather than a written record, most surviving information of the Indigenous people of present-day Connecticut was recorded by European observers (Lavin 2013). The earliest Europeans known to have sailed along Long Island Sound and the Connecticut River were the Dutch around 1614 (Love 1903). The Dutch developed trade relationships with local Indigenous communities. By the early 1620s, Dutch traders entered into an agreement with the Pequot of present-day southeastern Connecticut in which the Pequot supplied wampum (polished shells) and furs in return for European goods. In 1624, the Dutch West India Company formally established New Netherland Colony centered around Manhattan and the Hudson River with its eastern bounds extending as far as Cape Cod, including much of present-day Connecticut (Jacobs 2009). Through their relationship with the Dutch, the Pequot accessed a variety of trade goods they distributed to tributaries and traded with other groups in the region. The Pequot extended their dominance over the region, bringing all the Native nations in the area into a tributary relationship under their leadership (Hauptman and Wherry 2009; McBride 2013).

In 1633, the Pequot allowed the Dutch to build a fortified trading post, the *Huys de Hoop*, on the Connecticut River at the site of present-day Hartford to further cement both parties' domination over the flow of wampum, fur, and trade goods. To break from the Pequot, several Connecticut River sachems invited the English to the valley who then settled Windsor (1633), Wethersfield (1634), and Hartford (1635), as well as Saybrook Colony (1635) at the mouth of the river (Trumbull 1886; Van Dusen 1961). Increased European interaction resulted in exposure to diseases and epidemics Indigenous people had never encountered and to which they had no natural immunity. Illnesses such as smallpox, measles, tuberculosis, and cholera devastated Native communities. In 1633, an epidemic spread from Plimoth Colony to Connecticut, impacting the Pequot and the people of the Connecticut River Valley in 1634 (Trumbull 1886). Tensions between Native and European groups in the region resulted in the death of several English traders in 1634 and 1636, which were blamed on the Pequot. In retaliation, English forces from Massachusetts Bay destroyed Pequot and Niantic villages on the Pequot (Thames) River in August of 1636, which began the Pequot War (1636-1638). The Pequot laid siege to Saybrook Fort at the mouth of the Connecticut River during the winter of 1636-1637 and attacked Wethersfield in April of 1637. Connecticut Colony declared war on the Pequot and was joined by Native warriors from the Connecticut River and Mohegans under the Sachem Uncas (Oberg 2006). In May of 1637, English allied forces destroyed the fortified Pequot village at Mistick and in July they pursued refugees west. The Pequot were defeated in present-day Fairfield and the war soon ended (Cave 1996). Afterwards, the English considered Pequot territory, including land in the Connecticut River Valley, to be conquered lands and they were claimed by Connecticut Colony (Trumbull 1886).

In January of 1639, the Connecticut River towns adopted the "fundamental orders" which outlined the framework for Connecticut Colony, a self-governed colony separate from Massachusetts Bay or Plimoth (Trumbull 1886). In the aftermath of the Pequot War, the Sachem Uncas claimed much of northeastern Connecticut colony, the lands of former Pequot tributaries, as Mohegan lands through both right of

conquest and hereditary claims (Larned 1874; Oberg 2006). This included Wabbaquasset and Quinebaug lands and Uncas' sons were sent to live in the respective communities. The Mohegan pushed back against proselytizing efforts of the Reverend John Eliot who established English-styled "Praying Towns" in Wabbaquasset country in the 1670s (Larned 1874; Oberg 2006). During the upheaval of King Philip's War (1675-1676) much of present-day Windham County was depopulated of Native communities. The Narragansett settlements at Egonk Hill were removed during the war and the Nipmuc peoples at Wabbaquasset either fell in with the Mohegan or sided with the greater Nipmuc nation that fought alongside Metacom's Native coalition against the English (Bowen 1926; Oberg 2006). Connecticut Colony recognized the Mohegan Sachem Uncas's claims to the Wabbaquassett territory, and when Uncas died his lands were divided between his two sons, Attawanhood (Joshua) and Owaneco. Joshua received the land between the Willimantic and Appaquage Rivers, and when he died in 1676 the Mamosqueage land was contested but ultimately sold to John Clark and Thomas Buckingham by Joshua's son, Abimileck, although this transaction was contested by Daniel Mason (Larned 1874). By 1692, the Connecticut General Court chartered the town of Windham, which at that time included present-day Scotland, which was incorporated into Hartford County in 1694.

The first European settler noted in present-day Scotland was Isaac Magoon, a native of Scotland who named the emerging settlement after his home country (Scotland 2017). Due to the large geographic size of Windham, initial proposals to subdivide it into further towns began as early as 1703 with the township of Mansfield (Bayles 1889). Nathaniel Huntington was an early leader in the settlement of Scotland who granted land for the first church, gristmill, roads, and other important components of community life (Scotland 2017). In 1732 Scotland received permission from the Connecticut General Assembly to form its own ecclesiastical society centered near Merrick Brook (The Last Green Valley 2016).

Slavery existed in the region since the seventeenth century, and by the eighteenth century it was primarily practiced by wealthy families, merchants, and ministers in larger towns. As of the first colonial census in 1756, the town of Windham reported 2,446 residents (Connecticut 2024a). By the time of the 1774 Connecticut colonial census, Windham, which included Scotland, recorded a "white" population of 3,437, and African American population of 72 and 19 Native Americans in town, but it is unclear what proportion of the figure was enslaved (Hoadly 1887). In 1784, the State passed a gradual manumission law, but slavery was not fully abolished until 1848 (Normen 2013). During the American Revolution (1775-1783), the state of Connecticut played an important role in the process of recruiting soldiers, supplying food stores, and providing a variety of military goods for the war effort. Throughout the war, Connecticut was a leader in sourcing provisions for American forces, due to a rationing system set up by individual towns, including in Windham and the parish of Scotland, which contributed 159 men in service (Van Dusen 1961; Bayles 1889). Sameul Huntington, who signed the Declaration of Independence and served in the Continental Congresses as well as in the role of governor of Connecticut, was from Scotland (Scotland 2017). Additionally, General Rochambeau's troops marched through Scotland in 1781 on their way to rendezvous with General Washington in Virginia; Rochambeau's engineers documented this march on a map of Windham (Eves 2022). Following the war, on January 9, 1788, Connecticut ratified the U.S. Constitution to become the fifth state (Van Dusen 1961).

Nineteenth Century through the Twenty-First Century

Following the Revolutionary War, Scotland remained primarily an agricultural community with limited early industries along the Merrick Brook (Connecticut 2024a). In 1800, a turnpike was proposed connecting Woodstock to New London that would have passed through Scotland, but this proposal was opposed by those in Windham and relocated further eastward (Larned 1874). In 1857 Scotland was

incorporated as a town, following the early ecclesiastical boundaries (Scotland 2024). Like many Connecticut towns, Scotland provided men and materials to aid the Union during the Civil War (Hines 2002; Niven 1965). Following the Civil War, the New York and New England Railroad passed through the southwest portion of the town (Scotland Historical Society 2024). Scotland's population continued to decline in the post-war era, and by 1870 there were 643 residents and only 506 residents by 1890 (Connecticut 2024a-b; Table 1).

At the turn of the century, Scotland's population had dropped to 471 individuals (Connecticut 2024c; Table 1). This low population continued, and the town hit a record low population of 391 individuals in 1930. Slowly, the population began to grow following World War Two and the expansion of the suburbs. Unlike other Connecticut towns, the expansion of major infrastructure, such as Route 6 to the north of Scotland and Interstate 395 to the east had little impact on Scotland. True to its origins in the nineteenth century, Scotland has remained a rural agricultural community into the present-day. Top industries included state government, transportation, and manufacturing. Key employers in town are Savino Transportation Inc. and Scotland Hardwoods (AdvanceCT 2023). Despite Scotland's small population and rural character, transportation, residential, and commercial improvements are anticipated in Scotland. According to the town's Plan of Conservation and Development, one goal is that "Scotland's infrastructure will be compatible with the town's goals for responsible growth, consistent with its rural nature, citizen needs, and economic sustainability" (Scotland 2017:45). As of 2016, roughly 89 percent of Scotland's land was open and undeveloped (The Last Green Valley 2016).

Table 1: Population of Scotland, Connecticut 1790-2022 (Connecticut 2024a-d; AdvanceCT 2023)

Town	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
Scotland, Hartford County	-	-	-	-	-	-	-	720	643	590	506	471
	1910	**1920**	**1930**	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**	**2022**
	476	391	402	478	513	684	1.022	1,072	1,215	1,556	1,726	1,542

History of the Project Area

The proposed project parcel encompasses approximately 87 acres of land, with the Facility composing approximately 18 acres of it. Woodford's 1856 map shows the project parcel as mostly cleared, although what is present-day Gager Road is depicted crossing through the southeastern area of the project parcel. Much of the present-day road alignment was in place on Woodford's 1856 map, though it appears the present-day Gager Road earlier passed through the southern portion of the project parcel (Figure 4). In addition, Woodford's 1856 county map depicts one residence, labeled J.P. Gager, and two mills, a saw and grist mill, both adjacent to the outer boundary of the southern portion of the project parcel (Figure 4). The sawmill is labeled J.P. Gager Jr's Saw Mill, and the grist mill is labeled J. Parkis Grist Mill (Figure 4).

Gray's subsequent1869 county map shows a similar distribution of residential structures as Woodford's 1856 county map. Present-day Gager Road was still depicted as carrying through the southern area of the project parcel in, and J.P. Gager's residence was in its approximate location consistent with Woodford's 1856 map, as well as the previously mentioned and grist and sawmills (Figure 5). A single new structure appeared in the southwestern corner of the project parcel in Gray's 1869 map. The structure, labeled T.H., could possibly stand for toll house, and given the frequency of structures labeled

T.H. in the vicinity of the project parcel and the presence of multiple roads and turnpikes meeting in the area, the label likely refers to a toll house (Figure 5).

J.P. Gager refers to John Peck Gager, the father of the above-referenced J.P. Gager Jr., was born in 1782 and aged 67 at the time of the 1850 federal census. John P. Gager was a farmer and notable resident of Scotland, present at Scotland's first town meeting on July 4th after incorporation in 1857 (Bayles 1889). At that first town meeting, John P. Gager, along with two other town residents, was elected as a selectman, and Gager's son, John P. Gager Jr., was also elected as an acting selectman (Bayles 1889). John P. Gager married Chloe Baker Gager in 1802 and they had seven children, four of whom lived to adulthood, including John P. Gager Jr., owner of the previously mentioned sawmill visible on both Woodford's and Gray's county maps (United States Census Bureau [USCB] 1860). Besides being a farmer and owning a profitable sawmill, John P. Gager Jr. represented Scotland in the state legislature (Bayles 1889). The 1850 federal census does not list John P. Gager Jr.'s real estate and personal estate value, but a decade later, the 1860 federal census lists his real estate value as $4,000.00 and his personal estate value as $4,300.00, a substantial sum for that era (United States Census Bureau [USCB] 1850; United States Census Bureau [USCB 1860). John P. Gager Jr.'s wealth is evident in his will, wherein he bequeaths large acreages of land he owned in Scotland and Tolland to his sons, along with generous sums of his personal and real estate to his daughters and grandchildren (Ancestry.com 2015; Gager 1985). Further evidence of John P. Gager Jr.'s wealth persists to the present day in the form of his gravestone in New Scotland Cemetery South. His gravestone is a column with his family name cut in relief at the base. Relief carving depicting flowers and adorn the base and head of the column (Findagrave.com n.d.). Present-day Gager Hill Road, which carries along the southern boundary of the project parcel, is named for the Gager family that lived in that area of Scotland.

The first aerial photography of the project parcel dates from 1934. The photograph from this year shows the project parcel and Facility area as a composition of mostly cleared fields and young wooded vegetation (Figure 6). The wooded vegetation appears mostly in the northwest portion of the project parcel, and both Facility areas are represented by cleared fields. The road depicted in the earlier maps had likely been rerouted as aerial photography does not show a road crossing through the southeastern portion of the project parcel, instead showing the road along the boundary of the parcel (Figure 6). Gager Hill Road can be seen adjacent to the outer boundary of the southeastern corner of the project parcel. Two residential structures, likely farmsteads, were located approximately 50 m (164 ft) to the north of southeastern corner of the project parcel and 25 m (82 ft) to the south of the southern boundary of the project parcel (Figure 6). Aerial photography dating from 1951 shows a landscape in and around the project parcel as being largely consistent with the landscape photographed in 1934 (Figure 7). The Facility areas remained as cleared agricultural fields, and the position and amount of wooded vegetation within the project parcel remained consistent with amount and position photographed in 1934. No new residential structures appear in the 1951 aerial photography; however, three new barns appear in association with the residential structure 25 m (82 ft) to the south of the southern boundary of the project parcel (Figure 7).

By 1970, the land composition within and around the proposed project parcel was largely consistent with the landscape pictured in aerial photography from the previous decades. The aerial photography from 1970 shows that the Facility area within the project parcel had lost most of their subdividing lines, and the position of the previously mentioned barns approximately 25 m (82 ft) south of the southern boundary of the project parcel had been changed slightly. Other than these discrepancies the land within and around the project parcel remained consistent with the landscape pictured in previous decades (Figure 8). Aerial photography from 1990 shows only one subdividing vegetation line in the

northcentral portion of the project parcel (Figure 9). The previously mentioned residential structure approximately 25 m (82 ft) to the south of the southern boundary of the project parcel was absent in aerial photography from 1990. Access roads carrying from the eastern boundary to the northwestern boundary of the project parcel were clearly visible at this time (Figure 9). Both project areas within the project parcel were cleared with no subdividing vegetation lines. Aerial photography from 1990 shows that the forested area approximately 50 m (164 ft) to the west of the project parcel had been cleared for agricultural use and/or residential development (Figure 9).

Aerial photography from the twenty-first century shows the composition of the land within and around the proposed project parcel as largely consistent with the images from the twentieth century. An aerial photo from 2004 shows the project parcel and Facility areas as consisting of the same composition of cleared fields and forested land as aerial photography from 1990 (Figure 10). The image also shows two residential structures approximately 25 m (82 ft) and 50 m (164 ft) to the south of the southern boundary of the project parcel. There was little increase in residential or commercial growth in the vicinity of the project parcel at that time, and this trend remained true of the project parcel as indicated by aerial photography from 2019 (Figure 11). Aerial photography from 2019 shows the proposed project parcel as consisting of a similar composition of cleared fields and forested land seen in aerial photography from 2004 (Figure 11). A man-made body of water appears approximately 150 m (492 ft) to the east of the southern boundary of the project parcel, but beyond this discrepancy no major alterations have occurred in the land within and outside of the proposed project parcel in the twenty-first century (Figure 10; Figure 11).

Conclusions

The documentary review indicates that the project parcel and Facility areas have the potential to be associated with cultural resources. In areas near where agricultural activities occurred there is the possibility of encountering evidence of post-European Contact farming activities that may be important as a component of a rural historic landscape (*sensu* McClelland et al. 1999).

CHAPTER V
PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previously identified cultural resources in the vicinity of the Facility in Scotland, Connecticut. This discussion provides the comparative data necessary for assessing the results of the Phase IA cultural resources assessment survey, and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the proposed Facility are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, National/State Register of Historic Places properties (NRHP/SRHP), and previously identified standing structures over 50 years in age within 0.8 kilometers (0.5 miles) of the Facility. The discussions presented below are based on information currently on file at the Connecticut State Historic Preservation Office (CT-SHPO) in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site forms are reflected below.

Previously Recorded Archaeological Sites and National/State Register of Historic Places Districts/Properties in the Vicinity of the Facility Area

A review of data currently on file at the CT-SHPO, as well as the electronic files maintained by Heritage resulted in the identification of one post-European contact era archaeological site (123-12) within 0.8 kilometers (0.5 miles) of the proposed Facility (Figure 12). No National or State Register of Historic Places properties were identified within 0.8 kilometers (0.5 miles) of the Facility area (Figure 13). This resource is reviewed below and provides context with which to assess the Facility area for containing additional intact cultural resources.

Site 123-12

Site 123-12, which is also known as Gagger's Grist Mill, is a post-European contact period industrial site in Scotland, Connecticut (Figure 12). The site consists of standing ruins and surface finds from a gristmill that was active from ca., 1830 to 1870. The site was subjected to surface collection by Public Archaeology Survey Team, Inc., (PAST) in 1980. This investigation led to the identification of a stone wall and rubble; however, little information pertaining to the site's significance is listed on the state site form. The site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Gagger's Grist Mill is located approximately 0.23 kilometers (0.14 miles) to the east of the parcel and will not be impacted by the proposed construction.

CHAPTER VI
METHODS

Introduction

This chapter describes the research design and field methods used to complete the Phase IA cultural resources assessment survey of the proposed Facility in Scotland, Connecticut. The following tasks were completed during this investigation: 1) study of the region's precontact era Native American, post-European Contact period, and natural settings, as presented in Chapters II through IV; 2) a literature search to identify and discuss previously recorded cultural resources in the region; 3) a review of historical maps, topographic quadrangles, and aerial imagery depicting the Facility in order to identify potential historical resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project parcel and Facility area in order to determine their archaeological sensitivity.

Research Design

The current Phase IA cultural resources reconnaissance survey was designed to identify all precontact era Native American and post-European Contact period cultural resources located within and near the Facility area in Scotland, Connecticut. The undertaking was comprehensive in nature and considered the distribution of previously recorded cultural resources located within the larger region, local soil conditions, and a visual assessment of the proposed Facility area. The methods used to complete this investigation were designed to provide coverage of all portions of the Facility area and considered both below and above ground resources. The fieldwork portion of this undertaking entailed pedestrian survey, photo-documentation, and mapping.

Archival Research & Literature Review

Background research for this survey included a review of a variety of maps depicting the proposed preject parcel and Facility area; an examination of USGS 7.5' series topographic quadrangles; an examination of aerial images dating from 1934 through 2019; and a review of all archaeological sites and NRHP/SHRP properties/districts, and previously identified standing structures over 50 years old on file with the CT-SHPO, as well as electronic cultural resources data maintained by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within and immediately adjacent to the project parcel, and to provide a natural and cultural context for the proposed Facility. This information then was used to develop the archaeological context of the Facility area, and to assess its sensitivity with respect to the potential for producing intact cultural resources.

Background research materials, including maps, aerial imagery, and information related to previous archaeological investigations, were gathered from the CT-SHPO. Finally, electronic databases and Geographic Information System files maintained by Heritage were employed during the course of this survey, and they provided valuable data related to the Facility area, as well as data concerning previously identified archaeological sites, NRHP/SHRP properties/districts, and previously identified standing structures over 50 years old within the general vicinity of the development area.

Field Methodology and Data Synthesis

Heritage personnel performed pedestrian survey, photo-documentation, and mapping of the Facility area, as well as the surrounding parcel. During the pedestrian survey, Heritage staff members visually reconnoitered the Facility area, and noted the locations of all above-ground cultural features, standing

structures over 50 years old, previous disturbances, wetlands, topographic relief, and locations of freshwater sources within and immediately adjacent it. These natural and cultural landscape features were recorded on a project base map. Any identified cultural resources were recorded using a GPS unit so that their locations could be transferred into the project GIS. In addition, during the pedestrian survey, the field crew photo-documented the proposed Facility location and the surrounding areas, including previously identified standing structures over 50 years old and any other historic buildings on the property. The locations from which all photos were taken, as well as directional indications, were recorded on a base map of the Facility area. The photo-documentation portion of the survey was completed using color digital media. The pedestrian survey was useful to stratify the Facility area into zones of no/low and moderate/high archaeological sensitivity.

CHAPTER VII
RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IA cultural resources assessment survey associated with the proposed Facility along Gager Hill Road in Scotland, Connecticut (Figure 14 and Photos 1 through 7). As stated in the introductory section of this report, the goals of the investigation included completion of the following tasks: 1) a contextual overview of the region's precontact era Native American, post-European contact period, and natural settings (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded cultural resources in the project region; 3) a review of readily available maps and aerial imagery depicting the project parcel and Facility area to identify potential post-European Contact period resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the Facility area to determine its depositional integrity, historical associations, and archaeological sensitivity.

Determining Archaeological Sensitivity

The field data associated with soils, slopes, aspect, distance to water, and previous disturbance collected during the pedestrian survey and presented above was used in conjunction with the analysis of maps, aerial images, and data regarding previously identified archaeological sites NRHP/SRHP properties/districts, and previously identified standing structures over 50 years old to stratify the project parcel into zones of no/low and/or moderate/high archaeological sensitivity. In general, post-European Contact period archaeological sites are relatively easy to identify on the current landscape because the features associated with them tend to be relatively permanent constructions that extend above the ground surface (i.e., stone foundations, pens, wells, privies, etc.). Archaeological sites dating from the precontact era, on the other hand, are less often identified during pedestrian survey because they are buried, and predicting their locations relies more on the analysis and interpretation of environmental factors that would have informed Native American site choices.

With respect to the potential for identifying precontact archaeological sites, the Facility area was divided into areas of no/low and/or moderate/high archaeological potential by analyzing the landform types, slope, aspect, soils contained within them, and their distance to water. In general, areas located less than 300 meters (1,000 feet) from a freshwater source and that contain slopes of less than 8 percent and well-drained soils possess a high potential for producing precontact archaeological deposits. Those areas located between 300 and 600 meters (1,000 and 2,000 feet) from a freshwater source and well drained soils are considered moderate probability areas. This is in keeping with broadly based interpretations of precontact settlement and subsistence models that are supported by decades of previous archaeological research throughout the region. It is also expected that there may be variability of precontact site types found in the moderate/high sensitivity zones. For example, large Woodland period village sites and Archaic period seasonal camps may be expected along large river floodplains and near stream/river confluences, while smaller temporary or task specific sites may be expected on level areas with well-drained soils that are situated more than 300 meters (1,000 feet) but less than 600 meters (2,000 feet) from a water source. Finally, steeply sloping areas, poorly drained soils, or areas of previous disturbance are generally deemed to retain a no/low archaeological sensitivity with respect to their potential to contain precontact archaeological sites.

In addition, the potential for a given area to yield evidence of post-European Contact period archaeological deposits is based not only on the above-defined landscape features but also on the presence or absence of previously identified post-European Contact period archaeological resources as identified during previous archaeological surveys, recorded on historical maps, or captured in aerial images of the region under study. In this case, portions of a proposed Facility area that are situated within 100 meters (328 feet) of a previously identified post-European Contact period archaeological site or a National or State Register of Historic Places district/individually listed property also may be deemed to retain a moderate/high archaeological sensitivity. In contrast, those areas situated over 100 meters (328 feet) from any of the above-referenced properties would be considered to retain a no/low post-European Contact period archaeological sensitivity.

Results of Phase IA Survey and Management Summary

As noted above, the proposed Facility will encompass approximately 18 acres of land across two separate areas (Northern and Southern Areas) situated on a larger 87 acre parcel located to the northwest of Gager Hill Road and to the south of the Huntington Road in Scotland, Connecticut. The Northern Area covers 7.1 acres and the Southern Area encompasses 10.8 acres of land. An access road that will connect both areas encompasses 0.1 acres of land. The development parcel is positioned to the west of Merrick Brook. It is situated at elevations ranging between 74 to 90 meters (242.8 to 295.3 feet) NGVD. The desktop portion of the Phase IA survey revealed that one previously identified archaeological site was located within 0.8 kilometers (0.5 miles) of the Facility. The identification of this previously identified cultural resource, as well as its close proximity to Merrick Brook, suggested that the Facility area may have the potential to yield intact archaeological deposits from both the precontact era and post-European Contact period. Therefore, pedestrian survey was completed, the results of which are discussed below.

Heritage personnel conducted pedestrian survey of the project parcel and the Facility area in August of 2024 (Photos 1 through 8). The development parcel is situated on gently sloping southern facing topography. At that time, the project parcel was characterized by planted agricultural fields surrounded by deciduous forested land (Photos 1 through 3). The majority of the wooded land was located in the south-central portion of the development parcel and consisted of wetlands and saturated soils (Photo 4). The edges of the fields also contained standing water and some wetlands (Photo 5). Soil cores were taken throughout the project parcel and revealed the presence of intact soils horizons.

The results of the pedestrian survey indicated that 35.15 acres of the parcel, none of which will be impacted by construction, is characterized by wetlands. These areas retain a no/low archaeological sensitivity and no further archaeological examination of them is recommended. The remaining 51.85 acres of land, of which 18 acres will be impacted by construction, were characterized by gently sloping topography, well drained soils, and close proximity to the freshwater sources. These areas were designated as retaining the potential to yield intact archaeological deposits. It is recommended that the 18 acres of moderate/high archaeological sensitivity located within the Northern and Southern Areas be subjected to Phase IB cultural reconnaissance survey prior to construction.

Pedestrian survey also led to the identification of 10 dry-laid stonewalls within the development parcel. These were designated as Stonewalls SW-1 through SW-10 (Figure 14; Photos 6 and 7). These walls are present in the southwestern areas of the project parcel and along the northern boundary, mostly near the edges of the parcel or between the fields and forested land. These stonewalls are in good condition, with Stonewalls SW-1 and SW-3 appearing in excellent condition (Table 2). All 10 stonewalls that are

within or abutting the development parcel are outside of the area of impact. Therefore, no further investigation of Stonewalls SW-1 through SW-10 is recommended prior to construction.

Table 2. Overview of Stonewalls located within the development parcel.

Stone Wall Number	Length m (Ft)	Condition
SW-1*	623 m (2,044 ft)	Excellent
SW-2	283 m (928.5 ft)	Good
SW-3	100 m (328.1 ft)	Excellent
SW-4	154 m (505.2 ft)	Good
SW-5	240 m (787.4 ft)	Fair
SW-6**	100 m (328.1 ft)	Good
SW-7**	31 m (101.7 ft)	Good
SW-8	103 m (337.9 ft)	Fair
SW-9	197 m (646.3 ft)	Good
SW-10	75 m (246.1 ft)	Good

*= Represents portion of wall abutting development parcel
**= Represents portion visible through vegetation

Finally, a dry-laid stone well was identified approximately 8 meters (26.2 feet) to the west of Stonewall SW-2 (Figure 14 and Photo 8). It measured approximately 1 meter (3.3 feet) in diameter and remains in good condition. The possible dry-laid stone well feature lies outside of the Facility areas and will not be impacted by construction. Therefore, no further investigation of the well is recommended prior to construction.

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APPENDIX A

FIGURES

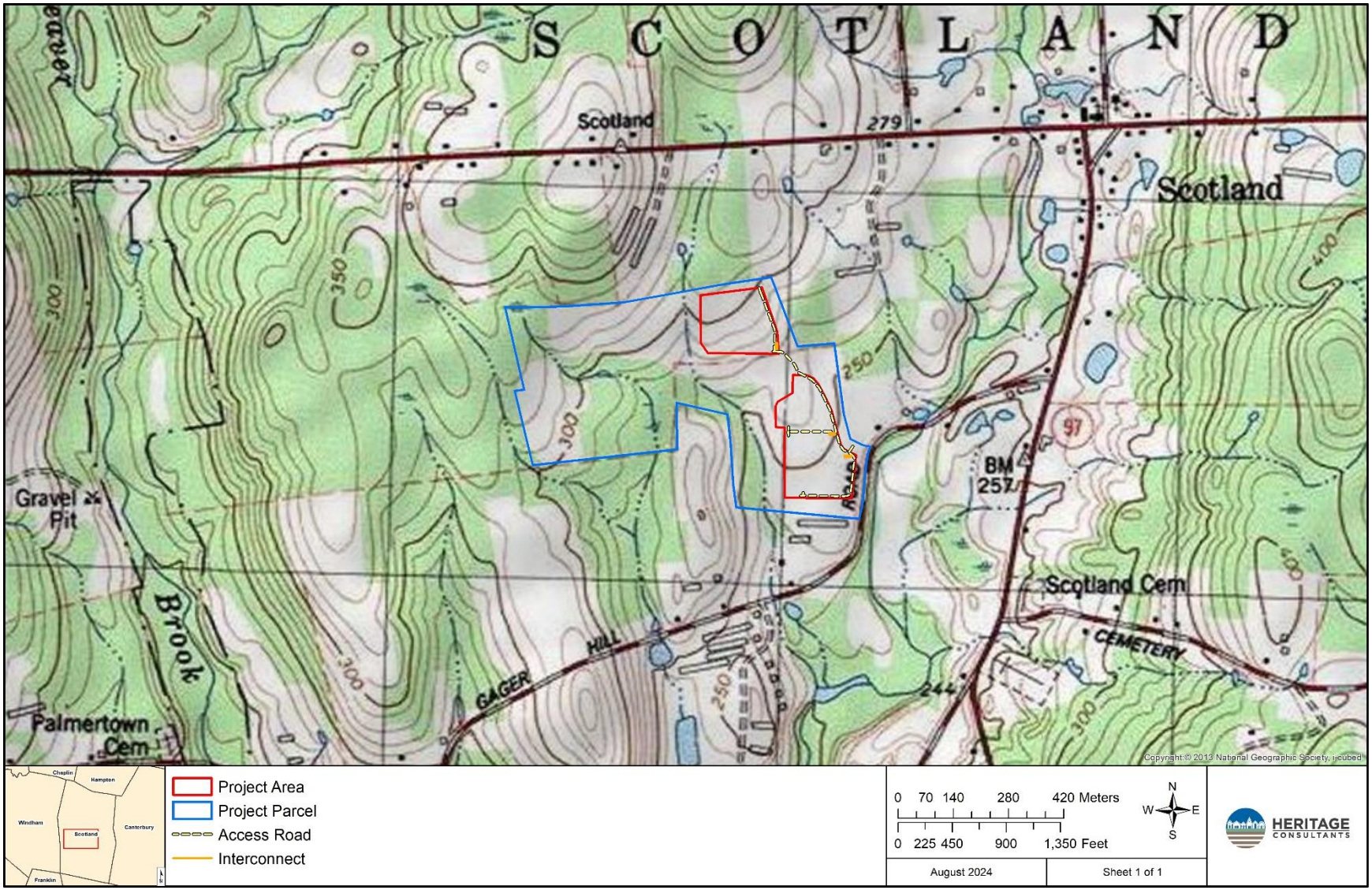

Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project parcel in Scotland, Connecticut.

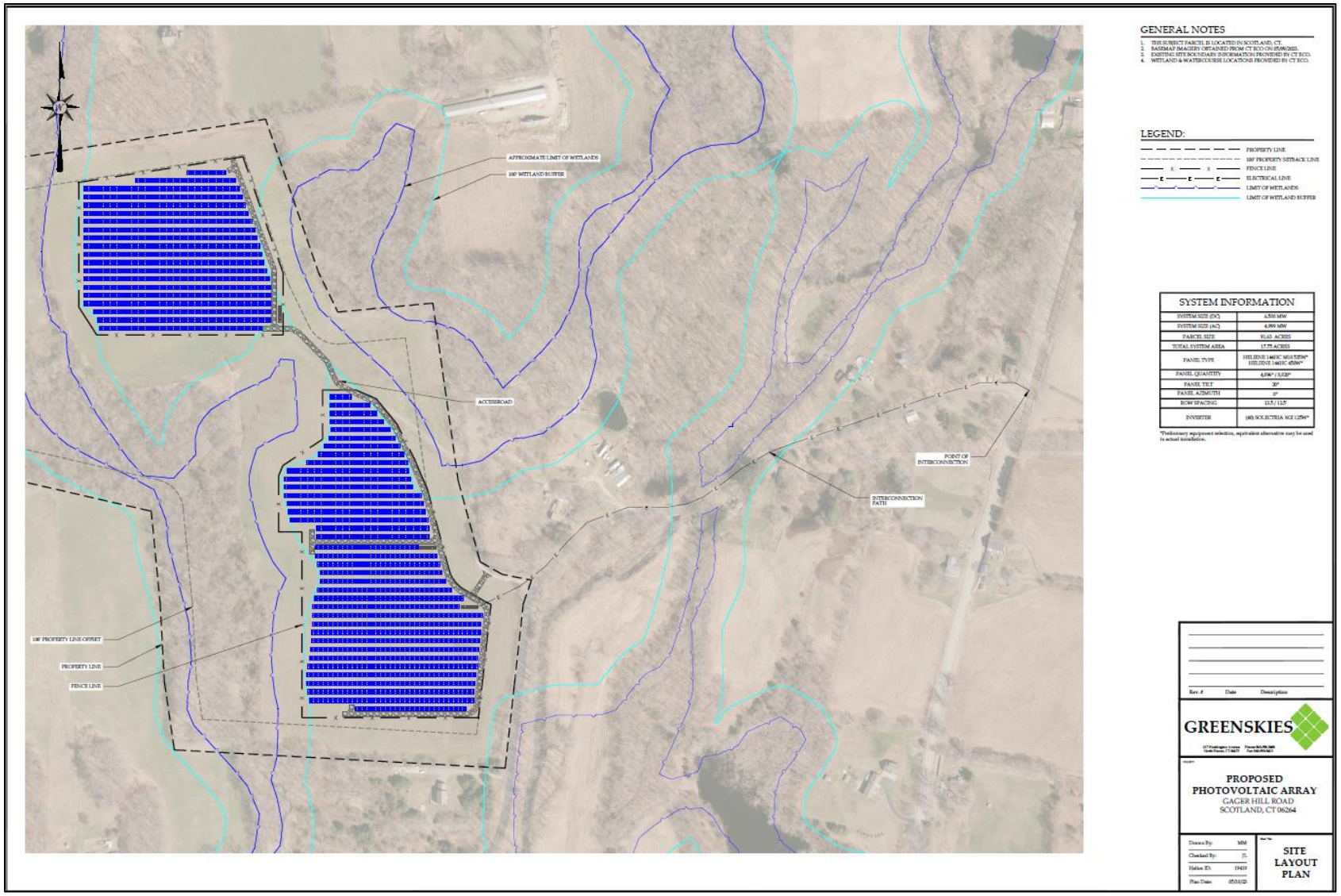

Figure 2. Digital map depicting the client's project plans for the solar facility in Scotland, Connecticut.

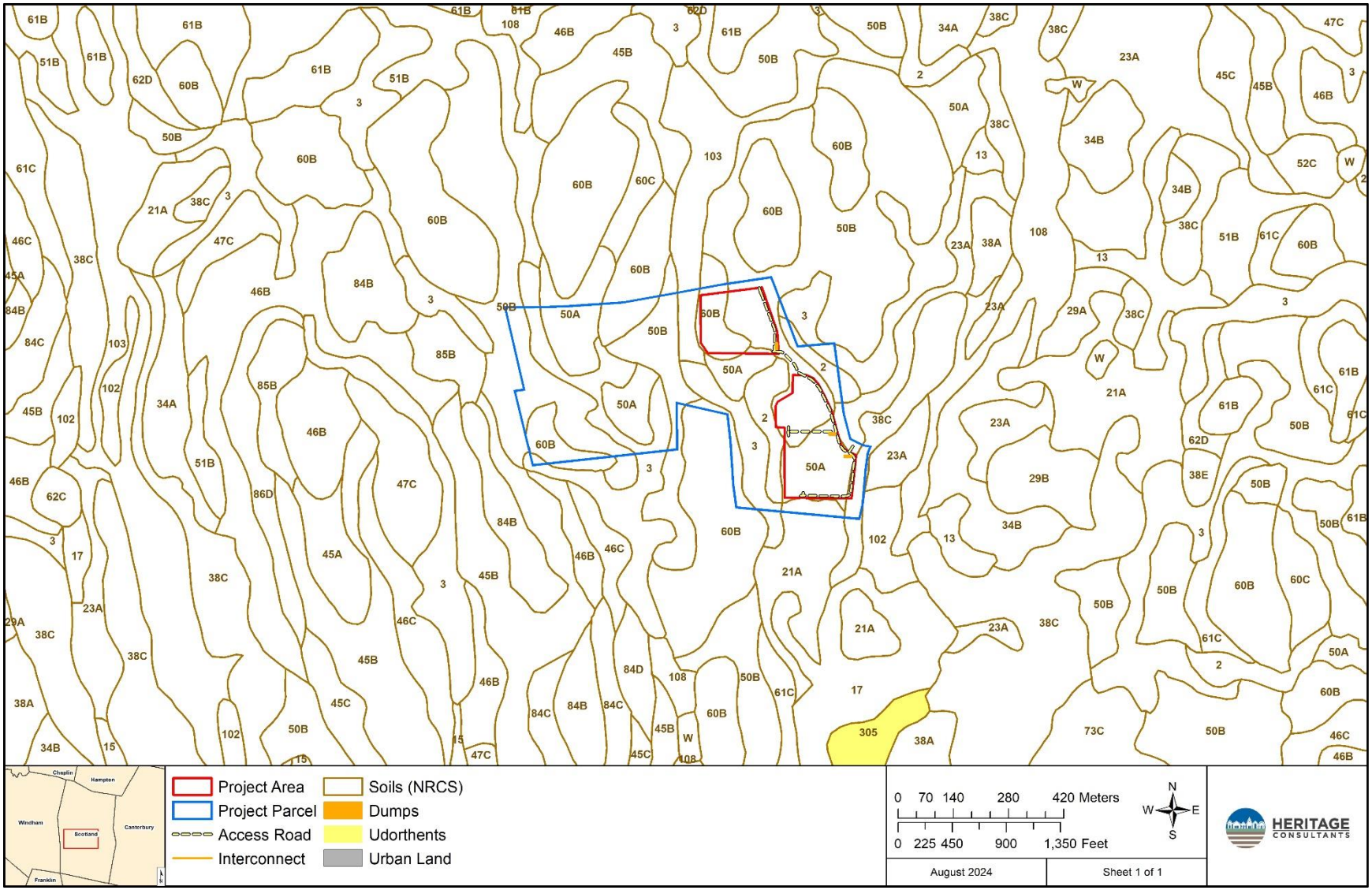

Figure 3. Digital map depicting the soil types present in the vicinity of the project parcel in Scotland, Connecticut.

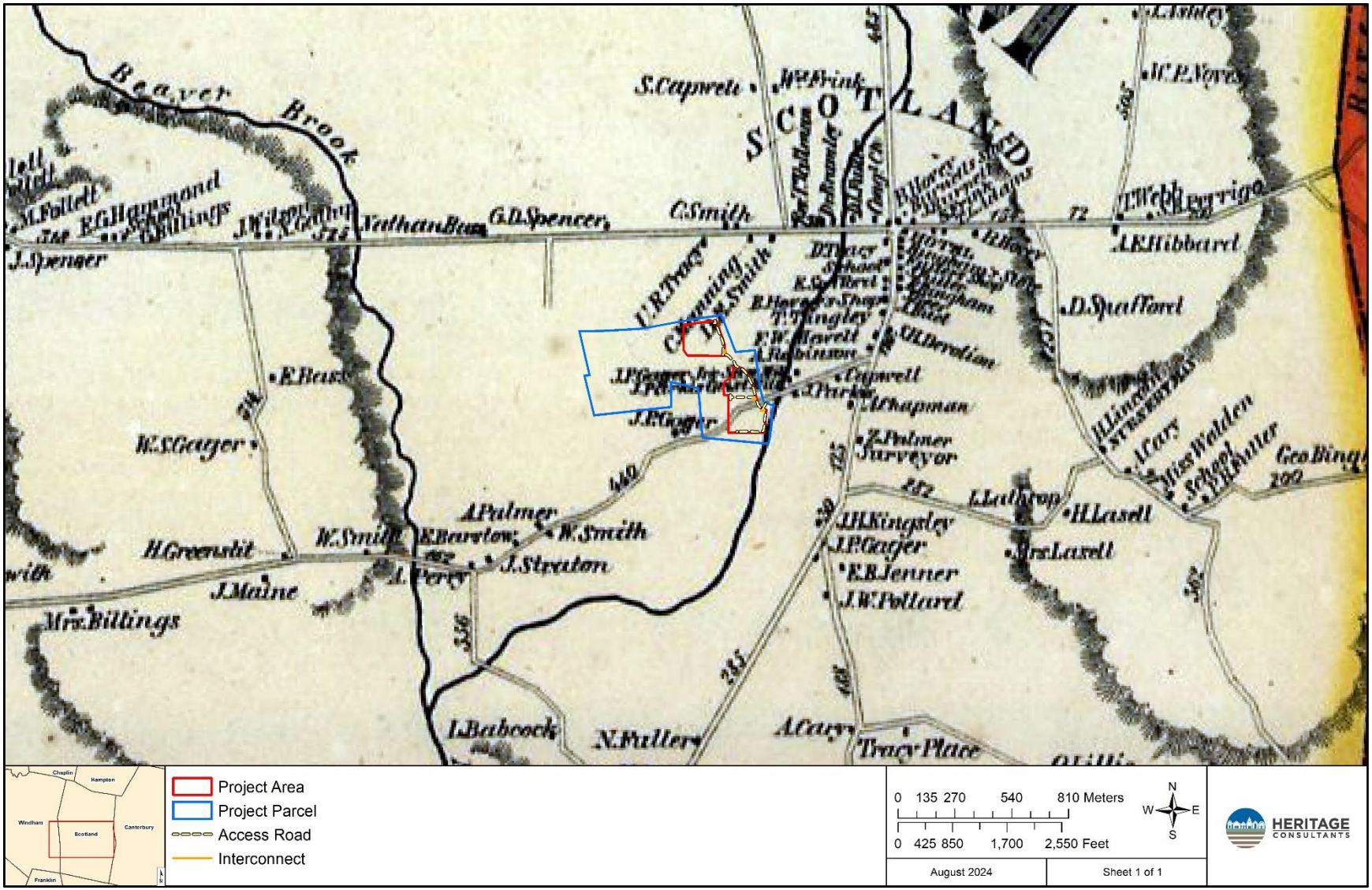

Figure 4. Excerpt from an 1856 map showing the location of the project parcel in Scotland, Connecticut.

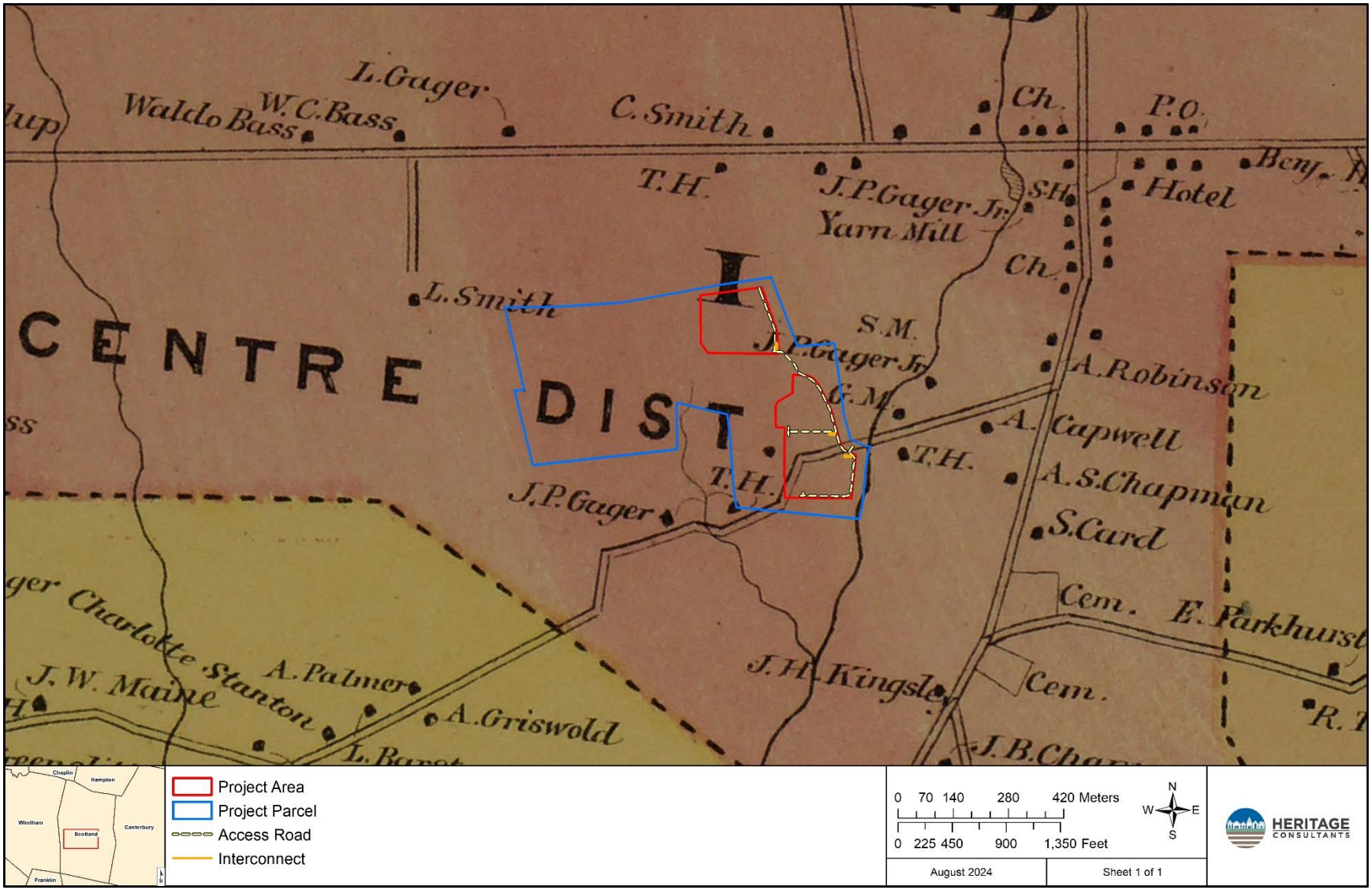

Figure 5. Excerpt from an 1869 map showing the location of the project parcel in Scotland, Connecticut.

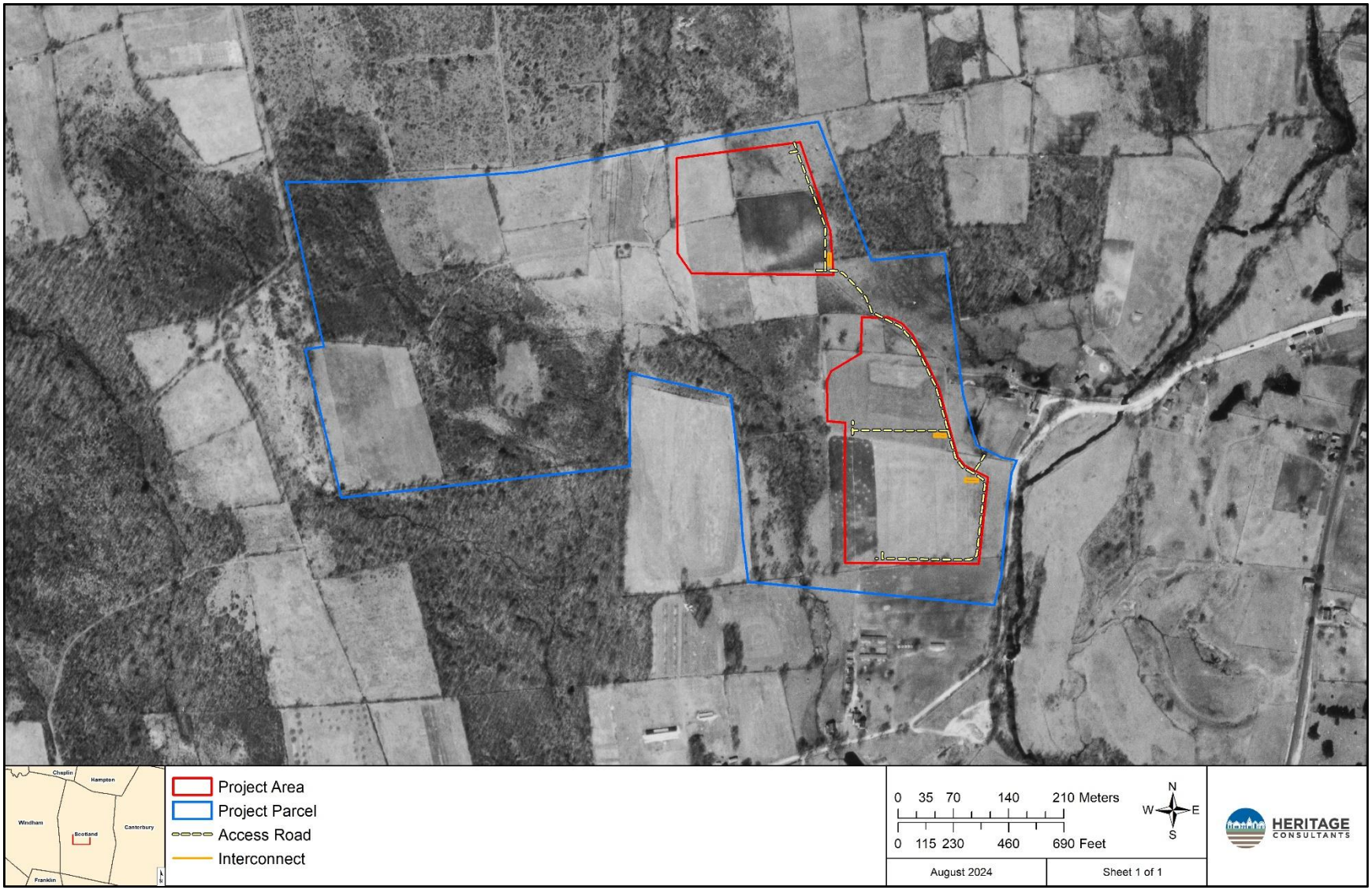

Figure 6. Excerpt from a 1934 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

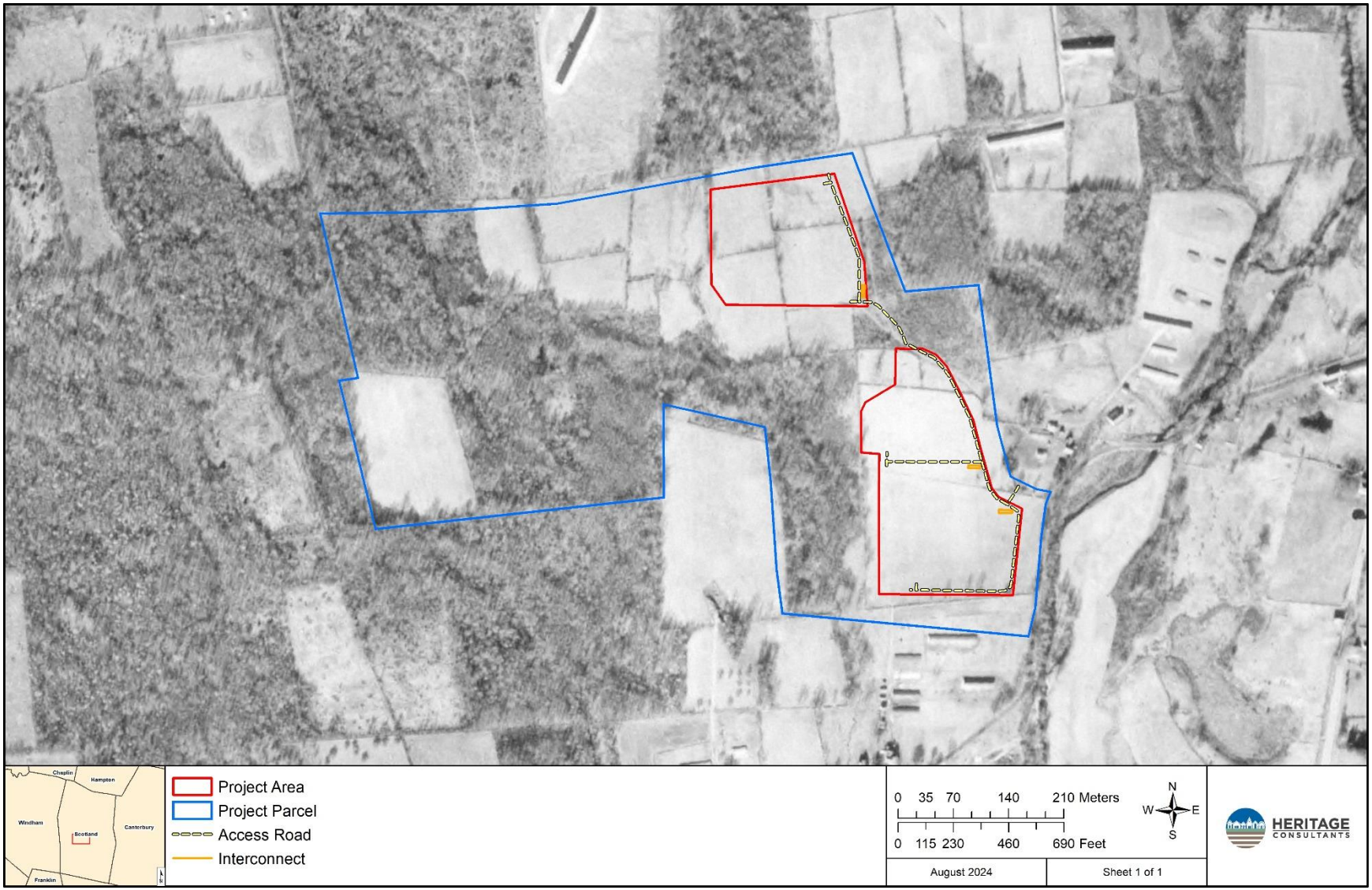

Figure 7. Excerpt from a 1951 aerial photography showing the location of the project parcel in Scotland, Connecticut.

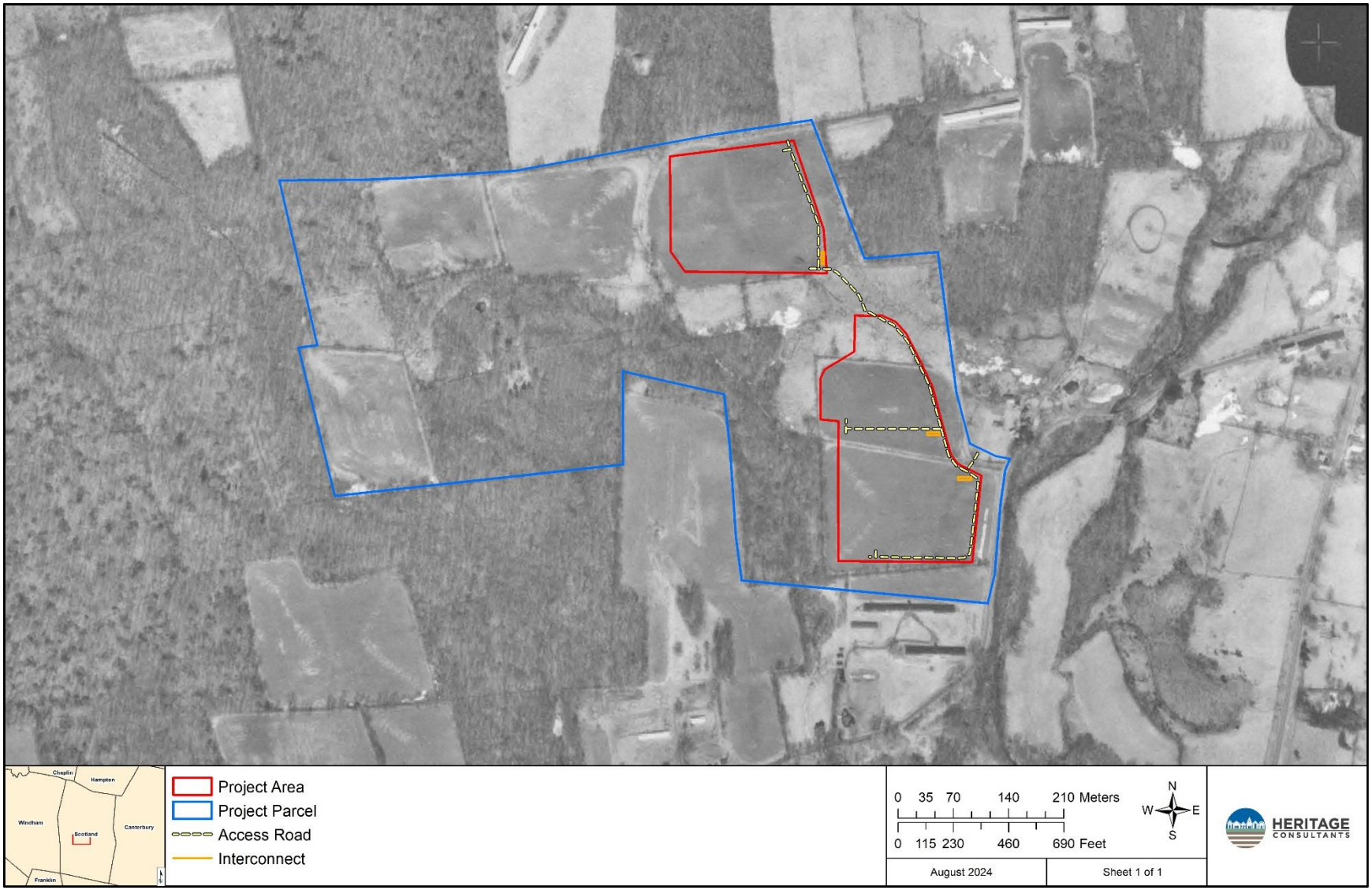

Figure 8. Excerpt of a 1970 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

Figure 9. Excerpt of a 1990 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

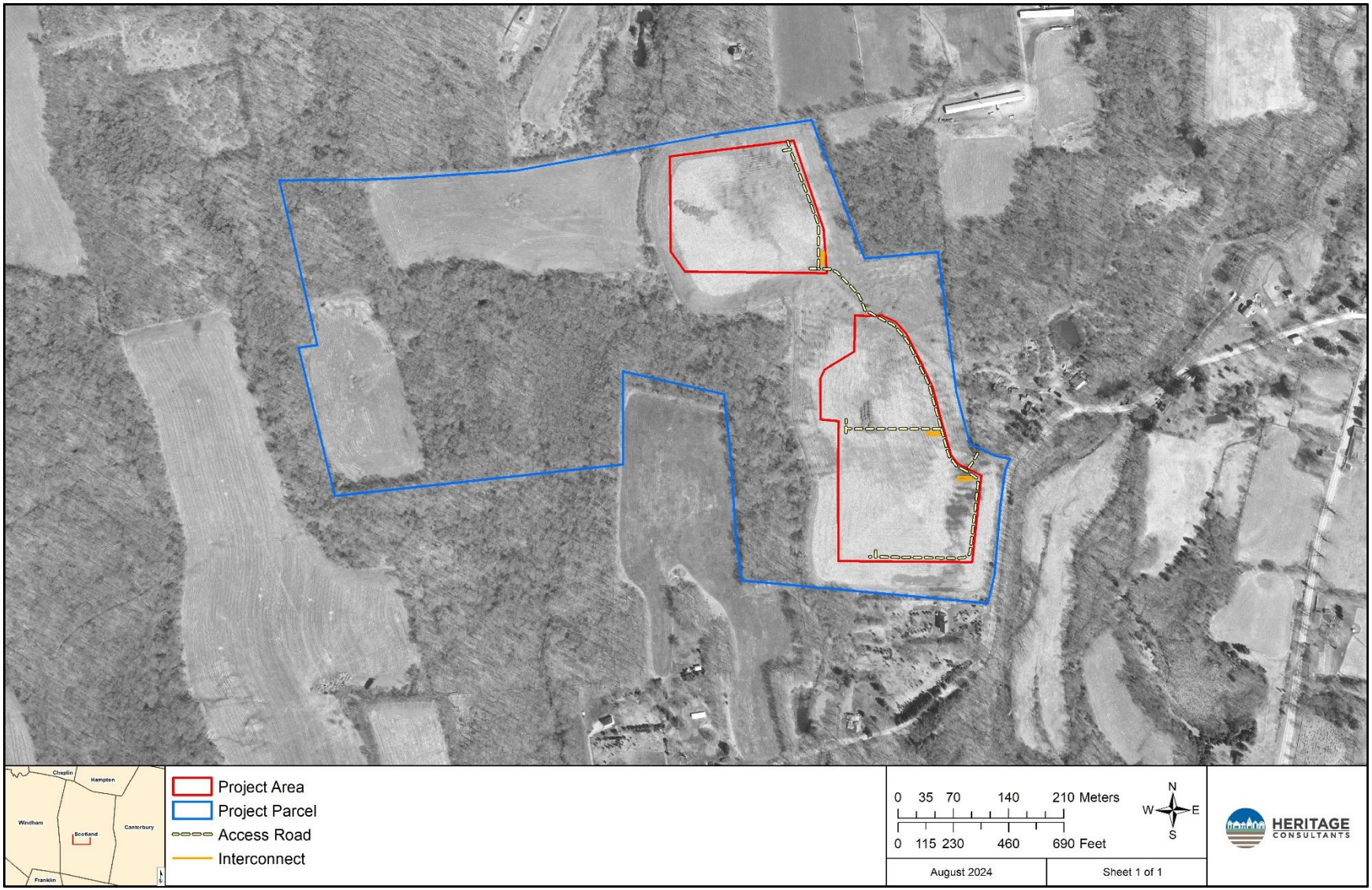

Figure 10. Excerpt of a 2004 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

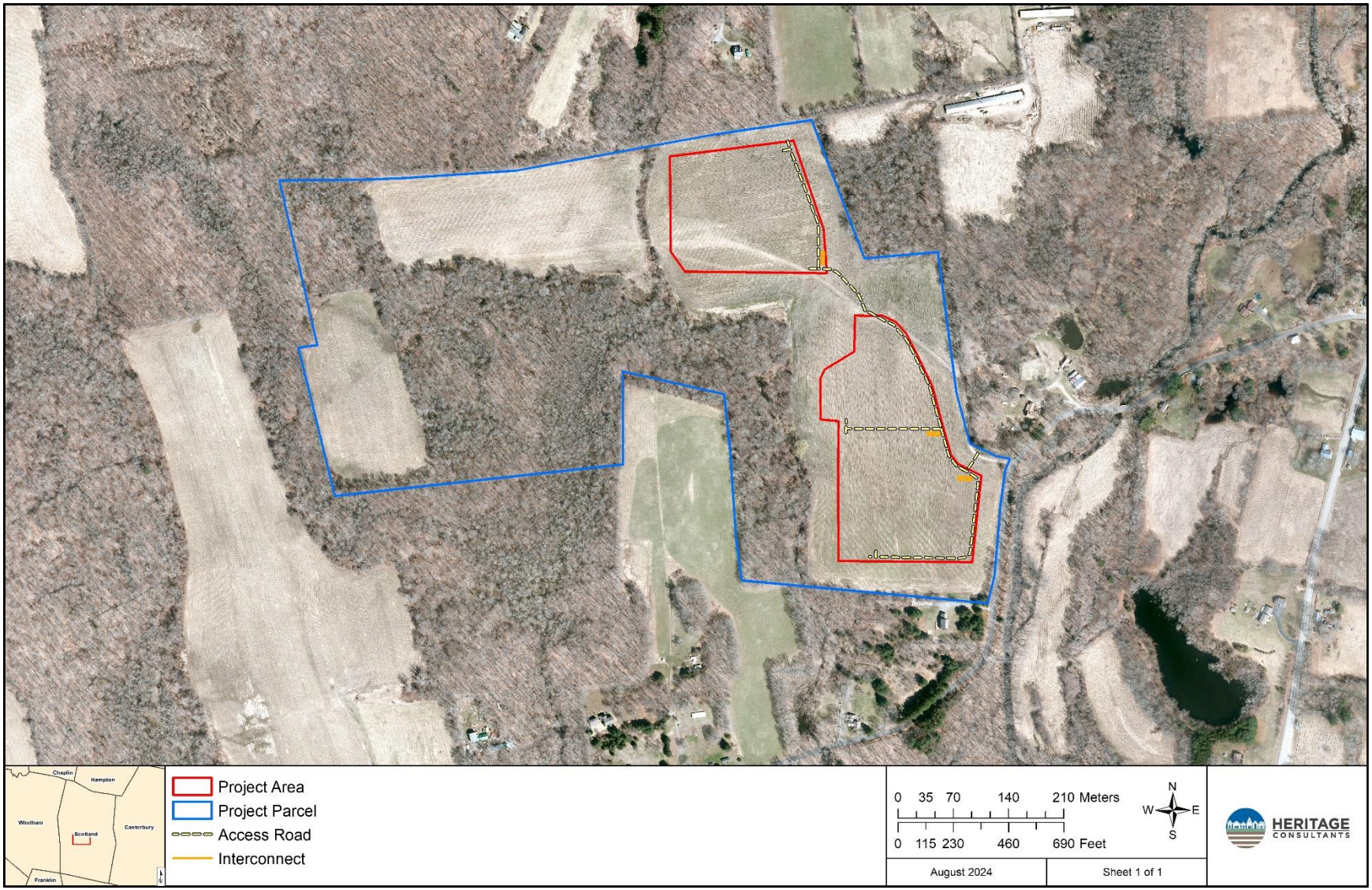

Figure 11. Excerpt of a 2019 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

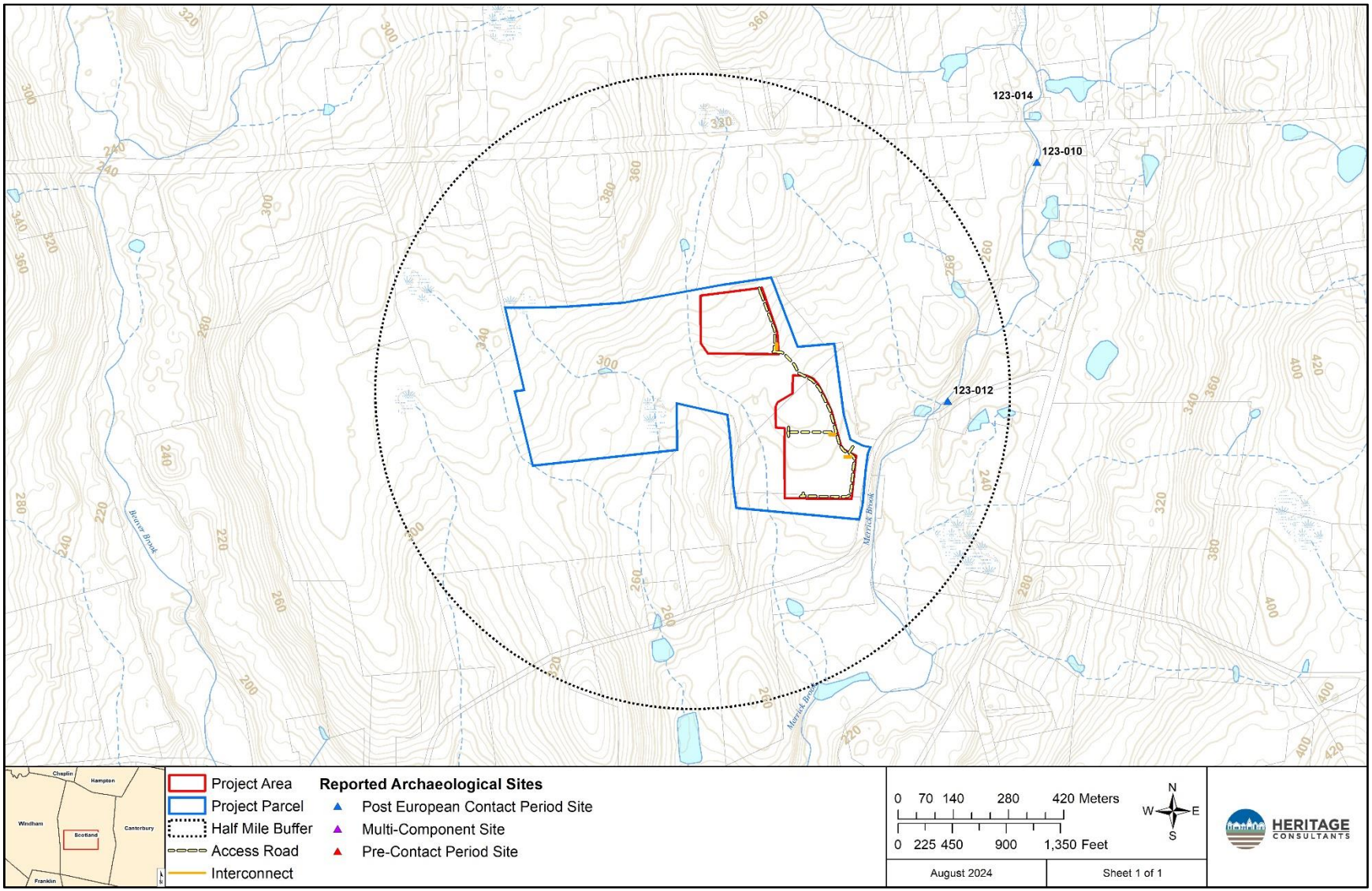

Figure 12. Digital map depicting the locations of the previously identified archaeological sites in the vicinity of the project parcel in Scotland, Connecticut.

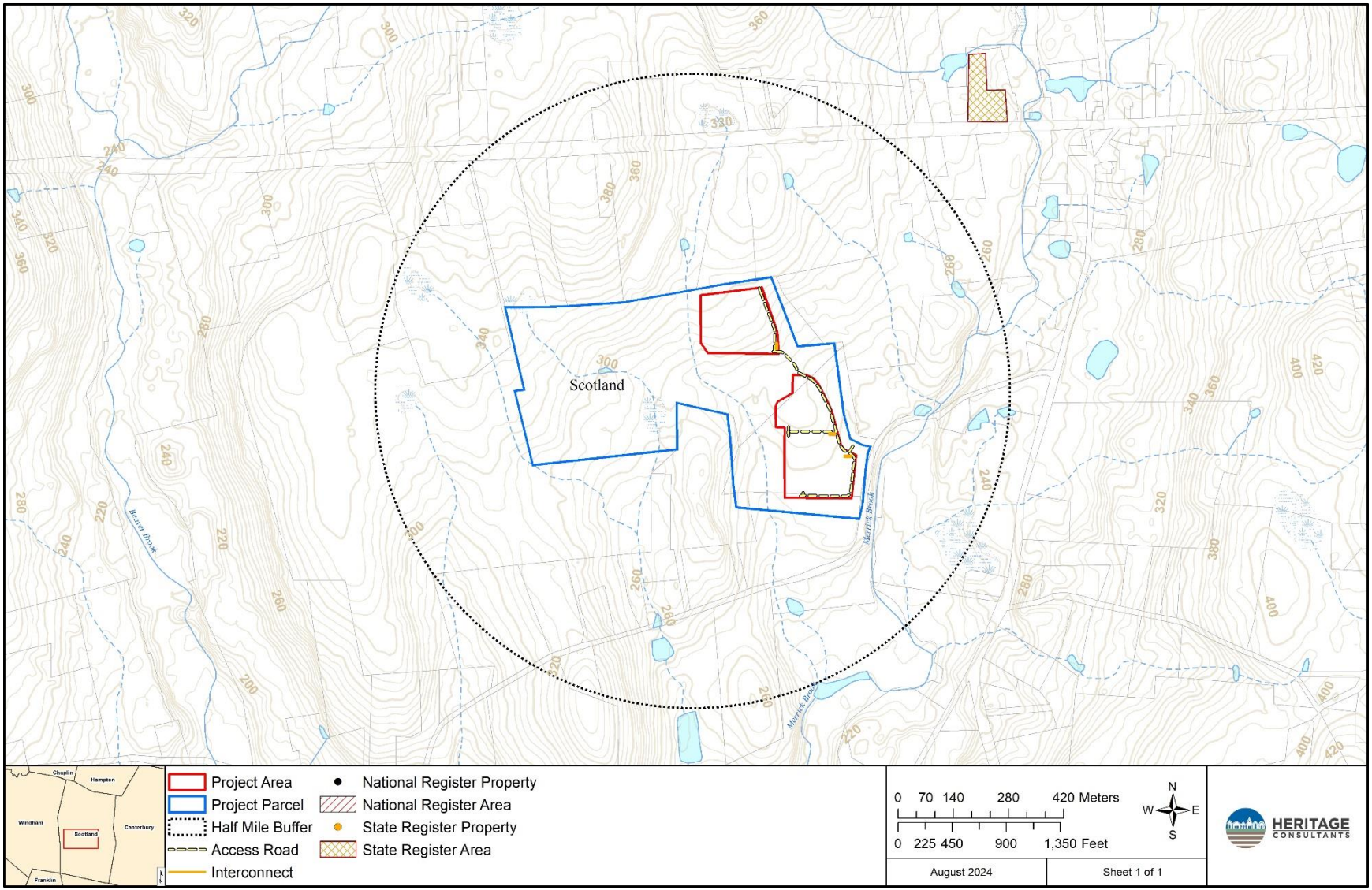

Figure 13. Digital map depicting the locations of the previously identified National Register of Historic Places and State Register of Historic Places properties in the vicinity of the project parcel in Scotland, Connecticut.

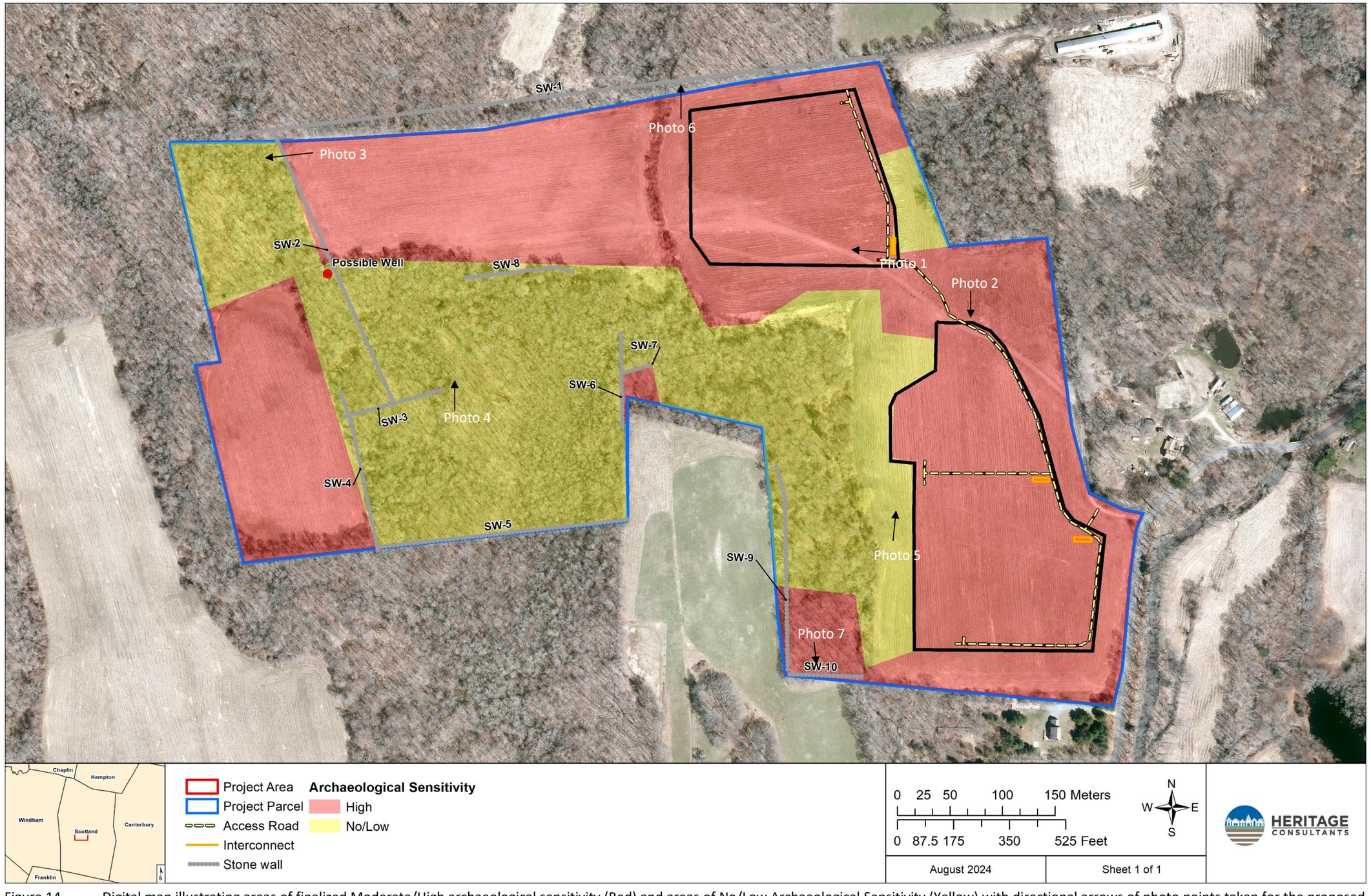

Figure 14. Digital map illustrating areas of finalized Moderate/High archaeological sensitivity (Red) and areas of No/Low Archaeological Sensitivity (Yellow) with directional arrows of photo points taken for the proposed development in Scotland, Connecticut.

APPENDIX B

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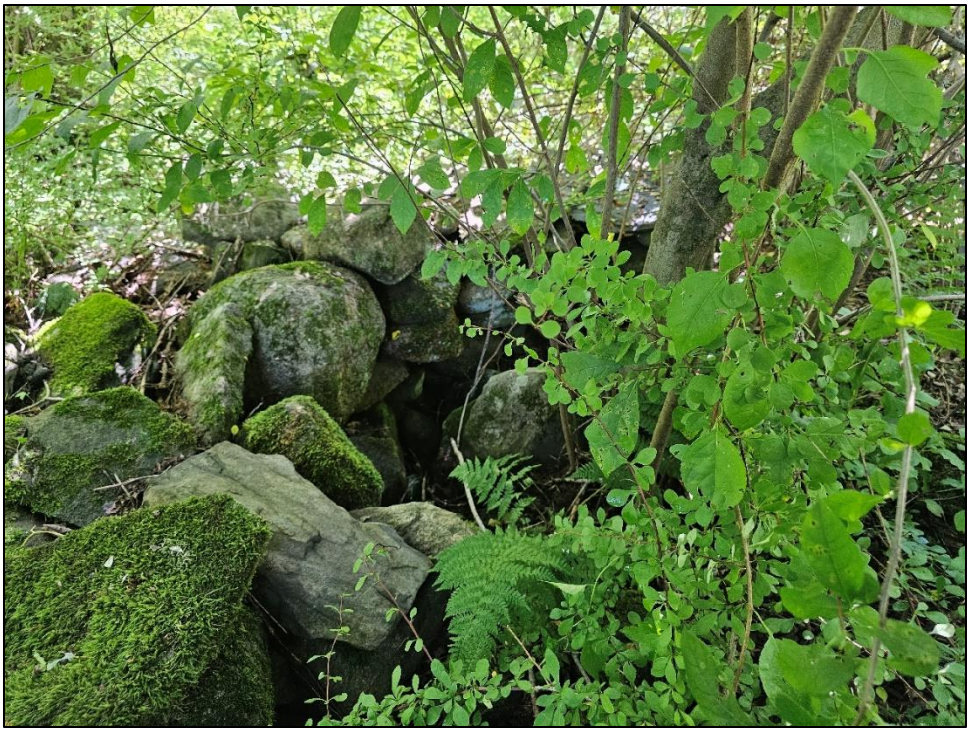

Photo 8. Overview of the possible dry-laid stone well. Photo facing to the south.

DECEMBER 2024

PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY OF A PROPOSED SOLAR CENTER ALONG GAGER HILL ROAD IN SCOTLAND, CONNECTICUT

PREPARED FOR:

verdantas

BROWNSBURG, VIRGINIA

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ABSTRACT

This report presents the results of a Phase IB Cultural Resources Reconnaissance survey of a proposed solar center along Gager Hill Road in Scotland, Connecticut. Heritage Consultants, LLC completed a previous Phase IA cultural resources assessment survey of the area and determined that the three proposed solar array areas retained moderate/high archaeological sensitivity. These areas, which were designated as Areas 1 through 3, were characterized by level to gently sloping topography that contains fallow agricultural fields. The Phase IB reconnaissance survey was completed in November of 2024. The subsurface investigation of Areas 1 through 3 resulted in the recovery of 59 post-European Contact period artifacts. The artifact assemblage consisted of ceramic sherds, glass shards, metal items, faunal specimens, and mineral fragments. They were recovered in low densities and primarily from disturbed plowzone soils throughout Areas 1 through 3. As a result, the post-European Contact period assemblage was classified as unassociated field scatter and does not retain research potential or the qualities of significance for listing to the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of these materials is recommended.

In addition, the Phase IB investigation resulted in the identification of three precontact era loci (Locus 1 through 3) and a single isolated find spot (ISO 1) from Areas 2 and 3. The precontact era assemblage consisted of 8 pieces of quartz, quartzite, and chert debitage and a single non-diagnostic projectile point base made from hornfels. Of the nine precontact era artifacts, five were recovered from disturbed plowzone soils within Locus 2, Locus 3, and ISO-1. The archaeological deposits in these three areas were assessed as not eligible applying the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]. No additional examination of them is recommended. In contrast, all of the artifacts recovered from Locus 1, including the hornfels projectile point fragment, were recovered from the intact subsoil (B1-Horizon). This suggests that the precontact era occupation of this area has not been impacted by plowing or any other later forces. Since the archaeological deposits appear to be intact and may contain other temporally or functionally diagnostic tools, Locus 1 was assessed as potentially significant applying the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). It is recommended that the Locus 1 area either be avoided during construction or that Phase II National Register of Historic Places testing and evaluation be completed prior to construction.

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CHAPTER I
INTRODUCTION

This report presents the results of a Phase IB Cultural Resources Reconnaissance survey of three development areas (Areas 1 through 3) associated with a proposed solar project (the Project) along Gager Hill Road in Scotland, Connecticut (Figure 1). A previously completed Phase IA cultural assessment survey revealed that the proposed solar array areas retained moderate/high archaeological sensitivity. Verdantas requested that Heritage Consultants, LLC (Heritage) complete a Phase IB cultural resources reconnaissance survey of these areas prior to project construction. The Phase IB survey was completed by Heritage in November of 2024. All work associated with this survey was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Project Description and Survey Methods

The proposed Project will consist of three solar arrays that will be built on approximately 18.82 acres of land along Gager Hill Road in Scotland, Connecticut. The Project area is situated at elevations ranging between 74 to 90 meters (242.8 to 295.3 feet) NGVD. It is bounded by a mixture of forest and agricultural land. At the time of the survey, Areas 1 through 3 were characterized by fallow agricultural fields and level topography. They were subjected to Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, GPS recordation, and systematic shovel testing. The field strategy was designed such that the entirety of Areas 1 through 3 was examined visually and photographed. The pedestrian survey included visual reconnaissance of all areas scheduled for impacts. The subsurface examination was completed through the excavation of shovel tests at 25 meter (82 foot) intervals along survey transects positioned 25 meter (82 feet) apart throughout Areas 1 through 3. Each shovel test measured 50 x 50 centimeter (19.7 x 19.7 inch) in size, and each was excavated until glacially derived C-Horizon or immovable object (e.g., boulders, large tree roots) were encountered. Each shovel test was excavated in 10 centimeter (3.9 inch) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635-centimeter (0.25 inch) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled after it was fully documented.

Phase IB Survey Result and Management Recommendations

A total of 117 of 117 (100 percent) of planned shovel tests were excavated throughout the Areas 1 through 3 during the Phase IB Survey. An additional 19 delineation test pits were excavated to further explore identified precontact era Native American cultural deposits. The subsurface investigation resulted in the recovery of 59 artifacts dating from the post-European Contact period. The post-European Contact period assemblage consisted of ceramic sherds, glass shards, metal items, faunal specimens, and mineral fragments. These items were recovered in low densities from across Areas 1 through 3, and primarily from disturbed plowzone soils. They were not recovered in association with any above or below ground cultural features (e.g., foundation, privies, etc.) As a result, the post-European Contact period assemblage was classified as unassociated field scatter. The recovered items do not retain research potential or the qualities of significance for listing to the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional examination of the post-European Contact period component within the Project area is recommended prior to construction.

In addition, the Phase IB investigation resulted in the identification of three precontact era loci (Locus 1 through 3) and a single isolated find spot (ISO 1) within Areas 2 and 3. Locus 1 yielded 1 quartzite flake, 1 quartzite biface retouch flake, 1 biface retouch flake, and a single untyped hornfels projectile point base fragment, all of which originated from the B1-Horizon. Locus 2 produced 1 quartz flake and 1 quartz biface retouch flake. The Locus 3 area yielded 1 quartz flake, 1 chert biface retouch flake. The ISO area contained a single artifact that was described as 1 quartzite biface thinning flake.

All of the artifacts recovered from Locus 2, Locus 3, and ISO-1 originated from disturbed plowzone deposits, and they were not found in association with any cultural features or in any significance numbers. As a result, Locus 2, Locus 3, and ISO-1 were assessed as not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional testing of Locus 2, Locus 3, and ISO-1 is recommended. In contrast, all of the artifacts recovered from Locus 1, including the hornfels projectile point fragment, were recovered from the intact subsoil (B1-Horizon) deposits. This suggests that the precontact era Native American occupation of this area has not been impacted by plowing or any other later forces. Since the archaeological deposits appear to be intact and may contain other temporally or functionally diagnostic tools, Locus 1 was assessed as potentially significant applying the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). It is recommended that the Locus 1 area either be avoided during construction or that Phase II National Register of Historic Places testing and evaluation of the be completed prior to construction.

Project Personnel

Key personnel who worked on this project included David R. George, M.A., RPA, (Principal Investigator); Brenna E. Pisanelli, M.A. (Senior Project Manager), Christopher Brouillette, B.A., (Field Director); Elliot Bogue, B.A. (Historian); and Morgan Tirrell, B.A. (GIS Specialist).

CHAPTER II
NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the proposed Project in Scotland, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both precontact era and post-European Contact period site selection. These include general ecological conditions, as well as types of freshwater sources present, degree of slopes, and soils situated within a given study area. The remainder of this chapter provides a brief overview of the ecology, hydrological resources, and soils present within Project area and the larger region in general.

Ecoregions of Connecticut

Throughout the Pleistocene and Holocene Periods, Connecticut has undergone numerous environmental changes. Variations in climate, geology, and physiography have led to the "regionalization" of Connecticut's modern environment. It is clear, for example, that the northwestern portion of the state has different natural characteristics than the coastline. Recognizing this fact, Dowhan and Craig (1976), as part of their study of the distribution of rare and endangered species in Connecticut, subdivided the state into various ecoregions. Dowhan and Craig (1976:27) defined an ecoregion as:

> "An area characterized by a distinctive pattern of landscapes and regional climate as expressed by the vegetation composition and pattern, and the presence or absence of certain indicator species and species groups. Each ecoregion has a similar interrelationship between landforms, local climate, soil profiles, and plant and animal communities. Furthermore, the pattern of development of plant communities (chronosequences and toposequences) and of soil profile is similar in similar physiographic sites. Ecoregions are thus natural divisions of land, climate, and biota."

Dowhan and Craig defined nine major ecoregions for the State of Connecticut. They are based on regional diversity in plant and animal indicator species (Dowhan and Craig 1976). Only the Northeast Hills Ecoregion is germane to the current investigation. A summary of this ecoregion is presented below. It is followed by a discussion of hydrology and soils found within and adjacent to the Project area.

Northeast Hills Ecoregion

The Northeast Hills ecoregion consists of a hilly upland terrain located between approximately 40.2 and 88.5 km (25 and 55 mi) to the north of Long Island Sound (Dowhan and Craig 1976). It is characterized by streamlined hills bordered on either side by local ridge systems, as well as broad lowland areas situated near large rivers and tributaries. Physiography in this region is composed of a series of north-trending ridge systems, the western-most of which is referred to as the Bolton Range and the eastern-most as the Mohegan Range (Bell 1985:45). Elevations in the Northeast Hills range from 121.9 to 243.8 m (400 to 800 ft) above sea level, reaching a maximum of nearly 304.8 m (1,000 ft) above sea level near the Massachusetts border (Bell 1985). The bedrock of the region is composed of Schist and gneiss created during the Paleozoic as well as gneiss and granite created during the Precambrian period (Bell 1985). Soils in uplands areas have been deposited on top of glacial till and in the valley they consist of stratified deposits of sand, gravel, and silt (Dowhan and Craig 1976).

Hydrology of the Study Region

The Facility area is located within close proximity of several streams, ponds and wetlands. The major fresh water in proximity to the Facility area is Merrick Brook and its various unnamed tributaries. Previously

completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for precontact era occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources. These water sources also provided the impetus for the construction of water powered mill facilities during the eighteenth and nineteenth centuries.

Soils Comprising the Project Area

Soil formation is the direct result of the interaction of several variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to many diagenic processes. Different classes of artifacts may be preferentially protected, or unaffected by these processes, whereas others may deteriorate rapidly. Cyclical wetting and drying, freezing, and thawing, and compression can accelerate chemically and mechanically the decay processes for animal bones, shells, lithics, ceramics, and plant remains. Lithic and ceramic artifacts are largely unaffected by soil pH, whereas animal bones and shells decay more quickly in acidic soils such as those that are present within the Project area. In contrast, acidic soils enhance the preservation of charred plant remains.

A total of two soil types were identified within the Facility area (Figure 2). Sutton soils dominate most of the Facility, whereas Canton and Charlton soils appear in the western portion of the Northern Area. When well drained soils such as Canton, Charlton, and Sutton remain undisturbed and on less than eight percent slope, they are generally well correlated with precontact era and post-European Contact period site locations and are considered to have higher archaeological sensitivity. Below is a summary of each specific soil type identified within the Facility area.

<u>Sutton Series</u>

The Sutton series consists of very deep, moderately well drained loamy soils formed in melt-out till. They are nearly level to strongly sloping soils on hills, low ridges, and ground moraines, typically on footslopes, lower backslopes and in slight depressions. Slope ranges from 0 to 15 percent. A typical profile associated with Sutton soils is as follows: **Oe**--0 to 2 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--2 to 15 cm; very dark brown (10YR 2/2) fine sandy loam; weak medium granular structure; very friable; common fine and medium roots; 5 percent gravel; strongly acid; clear wavy boundary; **Bw1**--15 to 30 cm; brown (7.5YR 4/4) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; 10 percent gravel and cobbles; moderately acid; gradual wavy boundary; **Bw2**--30 to 61 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; few medium roots; 10 percent gravel and cobbles; common fine and medium prominent light brownish gray (2.5Y 6/2) iron depletions and yellowish red (5YR 5/6) masses of iron accumulation; moderately acid; gradual wavy boundary; **Bw3**--61 to 71 cm; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; 10 percent gravel and cobbles; common medium prominent light brownish gray (2.5Y 6/2) iron depletions and reddish brown (5YR 4/4) and strong brown (7.5YR 5/6) masses of iron accumulation; moderately acid; gradual wavy boundary; **C1**--71 to 91 cm; brown (10YR 5/3) gravelly fine sandy loam; weak thick platy structure; firm; 15 percent gravel and cobbles; common medium distinct light brownish gray (2.5Y 6/2) iron depletions and common medium prominent strong brown (7.5YR 5/6) masses of iron concentrations; moderately acid; gradual wavy boundary; and **C2**--91 to 165 cm; light olive brown (2.5Y 5/4) gravelly sandy loam; massive; friable; 25 percent gravel and cobbles; moderately acid.

Canton and Charlton Soils

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are found on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. A typical profile associated with Canton soils is as follows: **Oi**--0 to 5 cm; slightly decomposed plant material; **A**--5 to 13 cm; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; common fine roots; 5 percent gravel; very strongly acid (pH 4.6); abrupt smooth boundary; **Bw1**--13 to 30 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; very strongly acid (pH 4.6); clear smooth boundary; **Bw2**--30 to 41 cm; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; strongly acid (pH 5.1); clear smooth boundary; **Bw3**--41 to 56 cm; yellowish brown (10YR 5/4) gravelly fine sandy loam; weak medium subangular blocky; friable; common fine and medium roots; 15 percent gravel; strongly acid (pH 5.1); abrupt smooth boundary; and **2C**--56 to 170 cm; grayish brown (2.5Y 5/2) gravelly loamy sand; massive; friable; 25 percent gravel; moderately acid (pH 5.6).

The Charlton series consists of very deep, well drained soils formed in loamy melt-out till. They are nearly level to very steep soils on moraines, hills, and ridges. Slope ranges from 0 to 60 percent. A typical profile associated with Charlton soils is as follows: **Oe**--0 to 4 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--4 to 10 cm; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; 5 percent gravel; very strongly acid; abrupt smooth boundary; **Bw1**--10 to 18 cm; brown (7.5YR 4/4) fine sandy loam; weak coarse granular structure; very friable; many fine and medium roots; 5 percent gravel; very strongly acid; clear wavy boundary; **Bw2**--18 to 48 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; 10 percent gravel and cobbles; very strongly acid; clear wavy boundary; **Bw3**--48 to 69 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive; very friable; few medium roots; 15 percent gravel and cobbles; very strongly acid; abrupt wavy boundary; and **C**--69 to 165 cm; grayish brown (2.5Y 5/2) gravelly fine sandy loam with thin lenses of loamy sand; massive; friable, some lenses firm; few medium roots; 25 percent gravel and cobbles; strongly acid.

Summary

A review of mapping, geological data, ecological conditions, soils, slopes, and proximity to freshwater suggests that portions of the Project area appear to be amenable to both precontact era and post-European Contact period occupations. This includes areas of low to moderate slopes with well-drained soil located near freshwater sources. The types of precontact sites that may be contained in these areas include task specific, temporary, or seasonal base camps, which may include areas of lithic tool manufacturing, hearths, post-molds, and storage pits.

CHAPTER III
PRECONTACT ERA SETTING

Introduction

Prior to the late 1970s and early 1980s, very few systematic archaeological surveys of large portions of the State of Connecticut had been undertaken. Rather, the precontact period of the region was studied at the site level. Sites chosen for excavation were highly visible and they were in such areas as the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the precontact period of Connecticut was developed. It was suggested that the upland portions of the state, i.e., the northeastern and northwestern hills ecoregions, were little used and rarely occupied by precontact Native Americans, while the coastal zone, i.e., the eastern and western coastal and the southeastern and southwestern hills ecoregions, were the focus of settlements and exploitation in the precontact era. This interpretation remained unchallenged until the 1970s and 1980s when several town-wide and regional archaeological studies were completed. These investigations led to the creation of several archaeological phases that subsequently were applied to understand the precontact period of Connecticut. The remainder of this chapter provides an overview of the precontact setting of the region encompassing the project parcel.

Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.])

The earliest inhabitants of the area encompassing the State of Connecticut, who have been referred to as Paleo-Indians, arrived in the area by ca., 13,000 B.P. (Gramly and Funk 1990; Snow 1980). Due to the presence of large Pleistocene mammals at that time and the ubiquity of large fluted projectile points in archaeological deposits of this age, Paleo-Indians often have been described as big-game hunters (Ritchie and Funk 1973; Snow 1980); however, as discussed below, it is more likely that they hunted a broad spectrum of animals. While there have been over 50 surface finds of Paleo-Indian projectile points throughout the State of Connecticut (Bellantoni 1995), only three sites, the Templeton Site (6-LF-21) in Washington, Connecticut, the Hidden Creek Site (72-163) in Ledyard, Connecticut, and the Brian D. Jones Site (4-10B) in Avon, Connecticut have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980; Singer 2017a; Leslie et al. 2020).

The Templeton Site (6-LF-21) is in Washington, Connecticut and was occupied between 10,490 and 9,890 years ago (Moeller 1980). In addition to a single large and two small, fluted points, the Templeton Site produced a stone tool assemblage consisting of gravers, drills, core fragments, scrapers, and channel flakes, which indicates that the full range of stone tool production and maintenance took place at the site (Moeller 1980). Moreover, the use of both local and non-local raw materials was documented in the recovered tool assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant stone sources, the use of which likely occurred during movement from region to region. More recently, the site has undergone re-investigation by Singer (2017a and 2017b), who has determined that most tools and debitage are exotic and were quarried directly from the Hudson River Valley. Recent research has focused on task-specific loci at the Templeton Site, particularly the production of numerous Michaud-Neponset projectile points, as identified through remnant channel flakes.

The Hidden Creek Site (72-163) is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut (Jones 1997). While excavation of the Hidden Creek Site produced evidence of Terminal Archaic and Woodland Period components (see below) in the upper soil horizons, the lower levels of the site yielded artifacts dating from the Paleo-Indian era.

Recovered Paleo-Indian artifacts included broken bifaces, side-scrapers, a fluted preform, gravers, and end-scrapers. Based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represented a short-term occupation, and that separate stone tool reduction and rejuvenation areas were present.

The Brian D. Jones Site (4-10B) was identified in a Pleistocene levee on the Farmington River in Avon, Connecticut; it was buried under 1.5 m (3.3 ft) of alluvium (Leslie et al. 2020). The Brian D. Jones Site was identified by Archaeological and Historical Services, Inc., in 2019 during a survey for the Connecticut Department of Transportation preceding a proposed bridge construction project. It is now the oldest known archaeological site in Connecticut at +12,500 years old. The site also provides a rare example of a Paleo-Indian site on a river rather than the more common upland areas or on the edges of wetlands. Ground-penetrating radar survey revealed overbank flooding and sedimentation that resulted in the creating of a stable ancient river levee with gentle, low-energy floods. Archaeological deposits on the levee were therefore protected.

Excavations at the Brian D. Jones Site revealed 44 soil anomalies, 27 of which were characterized as cultural features used as hearths and post holes, among other uses. One hearth has been dated thus far (10,520 ± 30 14C yr BP; charred Pinus; 2-sigma 12,568 to 12,410 CAL BP) (Leslie et al. 2020:4). Further radiocarbon testing will be completed in the future. Artifact concentrations surrounded these features and were separated in two stratigraphic layers represented at least two temporally discrete Paleo-Indian occupations. The recovered lithic artifacts are fashioned from Normanskill chert, Hardyston jasper, Jefferson/Mount Jasper rhyolite, chalcedony, siltstone, and quartz (Leslie 2023). They include examples of a fluted point base, preforms, channel flakes, pièces esquillées, end scrapers, side scrapers, grinding stones, bifaces, utilized flakes, gravers, and a drilled stone pendant fragment. Lithic tools numbered over 100, while toolmaking debris was in the thousands. The channel flakes represent the production of spear points used in hunting. Scrapers, perforators, and grinding stones indicate animal butchering, plant food grinding, the production of wood and bone tools, and the processing of animal skins for clothing and tents. Other collected cultural materials included charred botanicals and calcined bone. Botanicals recovered in hearth features included burned remains of cattail, pin cherry, strawberry, acorn, sumac, water lily, and dogwood (Leslie 2023). Approximately 15,000 artifacts were collected from the site.

The scarcity of identified Paleo-Indian sites suggests a low population density during this period. The small size of most Paleo-Indian sites, their likely inundation by rising sea levels, and the high degree of landscape disturbance over the past 10,000 years likely contribute to poor site visibility, although the presence of two deeply alluvially buried Paleo-Indian sites in Connecticut suggests that other sites may be located along stable rivers (Leslie et al. 2021).

Archaic Period (10,000 to 2,700 B.P.)

The Archaic Period, which succeeded the Paleo-Indian Period, began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980), and it has been divided into three subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). These periods were devised to describe all non-farming, non-ceramic producing populations in the area. Regional archeologists recently have recognized a final “transitional” Archaic Period, the Terminal Archaic Period (3,400-2,700 B.P.), which was meant to describe those groups that existed just prior to the onset of the Woodland Period and the widespread adoption of ceramics into the toolkit (Snow 1980; McBride 1984; Pfeiffer 1984, 1990; Witthoft 1949, 1953).

Early Archaic Period (10,000 to 8,000 B.P.)

To date, very few Early Archaic sites have been identified in southern New England. As a result, researchers such as Fitting (1968) and Ritchie (1969), have suggested a lack of these sites likely is tied to cultural discontinuity between the Early Archaic and preceding Paleo-Indian Period, as well as a population decrease from earlier times; however, with continued identification of Early Archaic sites in the region, and the recognition of the problems of preservation, it is difficult to maintain the discontinuity hypothesis (Curran and Dincauze 1977; Snow 1980).

Like their Paleo-Indian predecessors, Early Archaic sites tend to be very small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions of the United States are represented by projectile points of the Kirk series (Ritchie and Funk 1973) and by Kanawha types (Coe 1964), sites of this age in southern New England are identified on the basis of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by the presence of their characteristic bifurcated base, and they generally are made from high quality raw materials. Moreover, the recovery of these projectile points has rarely been in stratified contexts. Rather, they occur commonly either as surface expressions or intermixed with artifacts representative of later periods. Early Archaic occupations, such as the Dill Farm Site and Sites 6LF64 and 6LF70 in Litchfield County, are represented by camps that were relocated periodically to take advantage of seasonally available resources (McBride 1984; Pfeiffer 1986). In this sense, a foraging type of settlement pattern was employed during the Early Archaic Period.

Another localized cultural tradition, the Gulf of Maine Archaic, which lasted from ca. 9,500 to 6,000 14C BP, is beginning to be recognized in Southern New England (Petersen and Putnam 1992). It is distinguished by its microlithic industry, which may be associated with the production of compound tools (Robinson and Peterson 1993). Assemblages from Maine (Petersen et al. 1986; Petersen 1991; Sanger et al. 1992), Massachusetts (Strauss 2017; Leslie et al. 2022), and Connecticut (Forrest 1999) reflect the selection of local, coarse-grained stones. Large choppers and hoe-like forms from southeastern Connecticut's Sandy Hill Site likely functioned as digging implements. Woodworking tools, including adzes, celts, and gull-channeled gouges recovered at the Brigham and Sharrow sites in Maine (Robinson and Petersen 1993:68) may have been used for dugout canoe manufacture. The deeply stratified Sandy Hill (Forrest 1999; Jones and Forrest 2003) and Sharrow sites (Petersen 1991), with their overlapping lenses of "black sand" floor deposits, suggest intensive site re-occupations according to an adaptation that relied, in part, on seasonally available wetland resources. Thus far, sites from this tradition have only been identified within coastal and near-coastal territories along the Gulf of Maine, in southeastern Connecticut, and in Massachusetts.

Middle Archaic Period (8,000 to 6,000 B.P.)

By the onset of the Middle Archaic Period modern deciduous forests had developed in the region (Davis 1969). Increased numbers and types of sites associated with this period are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site in Manchester, New Hampshire studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between 7,700 and 6,000 years ago. In fact, Dincauze obtained several radiocarbon dates from the Middle Archaic component of the Neville Site associated with the then-newly named Neville type projectile point, ranging from 7,740±280 and 7,015±160 B.P. (Dincauze 1976).

In addition to Neville points, Dincauze (1976) described two other projectile points styles that are attributed to the Middle Archaic Period: Stark and Merrimac projectile points. While no absolute dates

were recovered from deposits that yielded Stark points, the Merrimac type dated from 5,910±180 B.P. Dincauze argued that both the Neville and later Merrimac and Stark occupations were established to take advantage of the excellent fishing that the falls situated adjacent to the site area would have afforded Native American groups. Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of tool types and resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

Late Archaic Period (6,000 to 3,700 B.P.)

The Late Archaic Period in southern New England is divided into two major cultural traditions that appear to have coexisted. They include the Laurentian and Narrow-Stemmed Traditions (Funk 1976; McBride 1984; Ritchie 1969a and b). Artifacts assigned to the Laurentian Tradition include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights, and scrapers. The diagnostic projectile point forms of this time period in southern New England include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a; Thompson 1969). In general, the stone tool assemblage of the Laurentian Tradition is characterized by flint, felsite, rhyolite, and quartzite, while quartz was largely avoided for stone tool production.

In terms of settlement and subsistence patterns, archaeological evidence in southern New England suggests that Laurentian Tradition populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been studied, sites of this age generally encompass less than 500 m^2 (5,383 ft^2). These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1978, 1984:252). Finally, subsistence strategies of Laurentian Tradition focused on hunting and gathering of wild plants and animals from multiple ecozones.

The second Late Archaic tradition, known as the Narrow-Stemmed Tradition, is unlike the Laurentian Tradition, and it likely represents a different cultural adaptation. The Narrow-Stemmed Tradition is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). Other tools found in Narrow-Stemmed Tradition artifact assemblages include choppers, adzes, pestles, antler and bone projectile points, harpoons, awls, and notched atlatl weights. Many of these tools, notably the projectile points and pestles, indicate a subsistence pattern dominated by hunting and fishing, as well the collection of a wide range of plant foods (McBride 1984; Snow 1980:228).

The Narrow-Stemmed Tradition also marks one of the most prevalent manifestations of the archaeological record in southern New England, narrow-stemmed projectile points, often untyped, or typed as Lamoka, Wading River, or Squibnocket Stemmed forms. These are generally attributed to a form of projectile technology, but some (Boudreau 2008), have suggested that these tool forms might not be related to projectile technology, and may instead relate to graver or drill functions. Boudreau (2008) also drew important connections to the forms of these narrow-stemmed points with later Woodland era forms, such as Rossville points, which are nearly identical. Others (Lavin 2013; Zoto 2019) have similarly suggested a continuation of the Narrow-Stemmed Tradition into the Woodland era, with most of this evidence originating at coastal sites in southern New England. The vast majority of Narrow-Stemmed projectile points that are associated with cultural features suitable for radiocarbon dating, particularly Lamoka style projectile points, are associated with Late Archaic date ranges (Lavin 2013).

Terminal Archaic Period (3,700 to 2,700 B.P.)

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 BP, is perhaps the most interesting, yet confusing of the Archaic Periods in southern New England precontact periods. Originally termed the "Transitional Archaic" by Witthoft (1953) and recognized by the introduction of technological innovations, e.g., broadspear projectile points and soapstone bowls, the Terminal Archaic has long posed problems for regional archaeologists. While the Narrow-Stemmed Tradition persisted through the Terminal Archaic and into the Early Woodland Period, the Terminal Archaic is coeval with what appears to be a different technological adaptation, the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is recognized in southern New England by the presence of a new stone tool industry that was based on the use of high-quality raw materials for stone tool production and a settlement pattern different from the "coeval" Narrow-Stemmed Tradition.

The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. There are several local sequences within the tradition, and they are based on projectile point type chronology. Temporally diagnostic projectile points of these sequences include the Snook Kill, Susquehanna Broadspear, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). The initial portion of the Terminal Archaic Period (ca., 3,700-3,200 BP) is characterized by the presence of Snook Kill and Susquehanna Broadspear projectile points while the latter Terminal Archaic (3,200-2,700 BP) is distinguished by Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic that interior cord marked, grit tempered, thick-walled ceramics with conoidal (pointed) bases made their initial appearance in the Native American toolkit. These are the first ceramics in the region, and they are named Vinette I (Ritchie 1969a; Snow 1980:242); this type of ceramic vessel appears with much more frequency during the ensuing Early Woodland Period. In addition, the adoption and widespread use of soapstone bowls, as well as the implementation of subterranean storage, suggests that Terminal Archaic groups were characterized by reduced mobility and longer-term use of established occupation sites (Snow 1980:250).

Finally, while settlement patterns appeared to have changed, Terminal Archaic subsistence patterns were analogous to earlier patterns. The subsistence pattern was still diffuse in nature, and it was scheduled carefully. Typical food remains recovered from sites of this period consist of fragments of white-tailed deer, beaver, turtle, fish, and various small mammals. Botanical remains recovered from the site area consisted of *Chenopodium* sp., hickory, butternut, and walnut (Pagoulatos 1988:81). Such diversity in food remains suggests at least minimal use of a wide range of microenvironments for subsistence purposes.

Woodland Period (2,700 to 350 B.P.)

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery; however, as mentioned above, early dates associated with pottery now suggest the presence of Vinette I ceramics appeared toward the end of the preceding Terminal Archaic Period (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been divided into three subperiods: Early, Middle, and Late Woodland. The various subperiods are discussed below.

Early Woodland Period (ca., 2,700 to 2,000 B.P.)

The Early Woodland Period of the northeastern United States dates from ca., 2,700 to 2,000 B.P., and was thought to have been characterized by the advent of farming, the initial use of ceramic vessels, and increasingly complex burial ceremonialism (Griffin 1967; Ritchie 1969a and 1969b; Snow 1980). In the

Northeast, the earliest ceramics of the Early Woodland Period are thick walled, cord marked on both the interior and exterior, and possess grit temper. Archaeological investigations of Early Woodland sites in southern New England resulted in the recovery of narrow stemmed projectile points in association with ceramic sherds and subsistence remains, including specimens of white-tailed deer, soft and hard-shell clams, and oyster shells (Lavin and Salwen: 1983; McBride 1984:296-297; Pope 1952). McBride (1984) has argued that the combination of the subsistence remains and the recognition of multiple superimposed cultural features at various sites indicate that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

Middle Woodland Period (2,000 to 1,200 B.P.)

The Middle Woodland Period is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). The latter suggests that regional exchange networks were established, and that they were used to supply local populations with necessary raw materials (McBride 1984; Snow 1980). The Middle Woodland Period is represented archaeologically by narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types that are indicative of the Middle Woodland Period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a:200).

In terms of settlement patterns, the Middle Woodland Period is characterized by the occupation of village sites by large co-residential groups that utilized native plant and animal species for food and raw materials in tool making (George 1997). These sites were the principal place of occupation, and they were positioned close to major river valleys, tidal marshes, estuaries, and the coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains. The use of temporary and task-specific sites to support large village populations indicates that the Middle Woodland Period was characterized by a resource acquisition strategy that can best be termed as logistical collection (McBride 1984:310).

Late Woodland Period (ca., 1,200 to 350 B.P.)

The Late Woodland Period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of corn in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1974; McBride 1984; Snow 1980).

Stone tool assemblages associated with Late Woodland occupations, especially village-sized sites, are functionally variable and they reflect plant and animal resource processing and consumption on a large scale. Finished stone tools recovered from Late Woodland sites include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools. These tools were used in activities ranging from hide preparation to

plant processing to the manufacture of canoes, bowls, and utensils, as well as other settlement and subsistence-related items (McBride 1984; Snow 1980). Finally, ceramic assemblages recovered from Late Woodland sites are as variable as the lithic assemblages. Ceramic types identified include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised (Lavin 1980, 1988a, 1988b; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947). These types are more stylistically diverse than their predecessors with incision, shell stamping, punctation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Precontact Period

The precontact period of Connecticut spans from ca. 13,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. Much of this era is characterized by local Native American groups who practiced a subsistence pattern based on a mixed economy of hunting and gathering plant and animal resources. It is not until the Late Woodland Period that incontrovertible evidence for the use of domesticated species is available. Further, settlement patterns throughout the precontact period shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region that includes the proposed Facility area, a variety of precontact site types may be expected, ranging from seasonal camps utilized by Paleo-Indian and Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV
POST-EUROPEAN CONTACT PERIOD OVERVIEW

Introduction

The proposed Project parcel contains approximately 87 acres of land, of which 18.82 acres will be used for construction of the proposed solar development; this land is located to the west of Gager Hill Road in the town of Scotland, Connecticut. This chapter provides an overview of the towns of Scotland and Windham County, as well as details relating to the Project area. As with most Connecticut towns, present-day Scotland originated as a Native American settlement originally known as *Mamosqueage*. Settlement began in the area of present-day Scotland in 1700 as part of the town of Windham. Scotland eventually separated from Windham and was incorporated in 1857. Throughout the nineteenth century, Scotland remained a primarily agricultural community, with some small-scale industry centered around the Merrick Brook. In the twentieth century, new interstate roads, highways, and suburbanization did not have a dramatic impact on Scotland's population or industry, and even in the present-day, Scotland remains a rural, agricultural community, with the lowest population of any town in Windham County.

Windham County

Windham County was established in 1726 by an act of the Connecticut General Court with lands from Hartford and New London Counties. Located in northeastern Connecticut, it is bounded to the north by the State of Massachusetts, to the east by the State of Rhode Island, to the south by New London County, and to the west by Tolland County. Windham County is 521.5 square miles with a population of 116,418 individuals, and the most populous town is Windham (Connecticut 2023; United States Census Bureau [USCB] 2023a). Often referred to as the Quiet Corner, Windham County is the least populous county in Connecticut. The topography of Windham County includes parallel rides of hills, aligned primarily north-to-south (Eves 2022). The landscape included terrain that is "rugged and broken" but with numerous streams and falls, thus limiting large scale agriculture except for in the fertile valleys but providing a strong basis for early industrial development on waterways (Bayles 1889:2). Important waterways associated with Windham County include the Quinebaug, Moosup, Five Mile, Willimantic, Shetucket, and Natchaug River (Bayles 1889).

Woodland Period to the Seventeenth Century

During the Woodland Period of northeastern North American history (ca., 3,000 to 500 years ago), the Indigenous peoples who resided along the shoreline in central Connecticut were part of the greater Algonquian culture of northeastern North America (Lavin 2013). They spoke local variations of Southern New England Algonquian languages and lived in extended kinship groups on lands they maintained for a variety of horticultural and resource extraction purposes (Goddard 1978). Indigenous people in the region practiced subsistence activities including hunting, fowling, and fishing, along with the cultivation of various crops, the most important of which were maize, squash, and beans. They supplemented these foods seasonally by collecting shellfish, fruits, and plants during warmer periods, and gathering nuts, roots, and tubers during colder times.

In addition, these communities came together in large groups to hunt deer in the fall and winter. Indigenous peoples lived with their immediate or extended families in large settlements, often concentrated along rivers and/or wetlands. Some villages were fortified by wooden palisades. Their habitation, known as a *weetu* or wigwam, was usually constructed of a tree-sapling frame and covered in

reed matting during warm months and tree bark throughout the winter. These varied in size from a small, individual dwelling, to an expansive "long house," which could accommodate several families. Native communities commonly traded among their immediate neighbors and often maintained long-distance networks (Lavin 2013). At the time of the arrival of Europeans the Nipmuc were the most prominent Native nation within the present-day bounds of Windham County, although the present-day town of Scotland included part of the Mohegan territory known as Mamosqueage (Lavin 2013; Scotland 2017).

Seventeenth Century through Eighteenth Century

As Indigenous communities maintained oral traditions rather than a written record, most surviving information of the Indigenous people of present-day Connecticut was recorded by European observers (Lavin 2013). The earliest Europeans known to have sailed along Long Island Sound and the Connecticut River were the Dutch in ca., 1614 (Love 1903). The Dutch developed trade relationships with local Indigenous communities. By the early 1620s, Dutch traders entered into an agreement with the Pequot of present-day southeastern Connecticut in which the Pequot supplied wampum (polished shells) and furs in return for European goods. In 1624, the Dutch West India Company formally established New Netherland Colony centered around Manhattan and the Hudson River with its eastern bounds extending as far as Cape Cod, including much of present-day Connecticut (Jacobs 2009). Through their relationship with the Dutch, the Pequot accessed a variety of trade goods they distributed to tributaries and traded with other groups in the region. The Pequot extended their dominance over the region, bringing all the Native nations in the area into a tributary relationship under their leadership (Hauptman and Wherry 2009; McBride 2013).

In 1633, the Pequot allowed the Dutch to build a fortified trading post, the *Huys de Hoop*, on the Connecticut River at the site of present-day Hartford to further cement both parties' domination over the flow of wampum, fur, and trade goods. To break from the Pequot, several Connecticut River sachems invited the English to the valley who then settled Windsor (1633), Wethersfield (1634), and Hartford (1635), as well as Saybrook Colony (1635) at the mouth of the river (Trumbull 1886; Van Dusen 1961). Increased European interaction resulted in exposure to diseases and epidemics Indigenous people had never encountered and to which they had no natural immunity. Illnesses such as smallpox, measles, tuberculosis, and cholera devastated Native communities. In 1633, an epidemic spread from Plimoth Colony to Connecticut, impacting the Pequot and the people of the Connecticut River Valley in 1634 (Trumbull 1886). Tensions between Native and European groups in the region resulted in the death of several English traders in 1634 and 1636, which were blamed on the Pequot. In retaliation, English forces from Massachusetts Bay destroyed Pequot and Niantic villages on the Pequot (Thames) River in August of 1636, which began the Pequot War (1636-1638). The Pequot laid siege to Saybrook Fort at the mouth of the Connecticut River during the winter of 1636-1637 and attacked Wethersfield in April of 1637. Connecticut Colony declared war on the Pequot and was joined by Native warriors from the Connecticut River and Mohegans under the Sachem Uncas (Oberg 2006). In May of 1637, English allied forces destroyed the fortified Pequot village at Mistick and in July they pursued refugees west. The Pequot were defeated in present-day Fairfield and the war soon ended (Cave 1996). Afterwards, the English considered Pequot territory, including land in the Connecticut River Valley, to be conquered lands and they were claimed by Connecticut Colony (Trumbull 1886).

In January of 1639, the Connecticut River towns adopted the "fundamental orders" which outlined the framework for Connecticut Colony, a self-governed colony separate from Massachusetts Bay or Plimoth (Trumbull 1886). In the aftermath of the Pequot War, the Sachem Uncas claimed much of northeastern Connecticut colony, the lands of former Pequot tributaries, as Mohegan lands through both right of

conquest and hereditary claims (Larned 1874; Oberg 2006). This included Wabbaquasset and Quinebaug lands and Uncas' sons were sent to live in the respective communities. The Mohegan pushed back against proselytizing efforts of the Reverend John Eliot who established English-styled "Praying Towns" in Wabbaquasset country in the 1670s (Larned 1874; Oberg 2006). During the upheaval of King Philip's War (1675-1676) much of present-day Windham County was depopulated of Native communities. The Narragansett settlements at Egonk Hill were removed during the war and the Nipmuc peoples at Wabbaquasset either fell in with the Mohegan or sided with the greater Nipmuc nation that fought alongside Metacom's Native coalition against the English (Bowen 1926; Oberg 2006). Connecticut Colony recognized the Mohegan Sachem Uncas's claims to the Wabbaquassett territory, and when Uncas died his lands were divided between his two sons, Attawanhood (Joshua) and Owaneco. Joshua received the land between the Willimantic and Appaquage Rivers, and when he died in 1676 the Mamosqueage land was contested but ultimately sold to John Clark and Thomas Buckingham by Joshua's son, Abimileck, although this transaction was contested by Daniel Mason (Larned 1874). By 1692, the Connecticut General Court chartered the town of Windham, which at that time included present-day Scotland, which was incorporated into Hartford County in 1694.

The first European settler noted in present-day Scotland was Isaac Magoon, a native of Scotland who named the emerging settlement after his home country (Scotland 2017). Due to the large geographic size of Windham, initial proposals to subdivide it into further towns began as early as 1703 with the township of Mansfield (Bayles 1889). Nathaniel Huntington was an early leader in the settlement of Scotland who granted land for the first church, gristmill, roads, and other important components of community life (Scotland 2017). In 1732 Scotland received permission from the Connecticut General Assembly to form its own ecclesiastical society centered near Merrick Brook (The Last Green Valley 2016).

Slavery existed in the region since the seventeenth century, and by the eighteenth century it was primarily practiced by wealthy families, merchants, and ministers in larger towns. As of the first colonial census in 1756, the town of Windham reported 2,446 residents (Connecticut 2024a). By the time of the 1774 Connecticut colonial census, Windham, which included Scotland, recorded a "white" population of 3,437, and African American population of 72 and 19 Native Americans in town, but it is unclear what proportion of the figure was enslaved (Hoadly 1887). In 1784, the State passed a gradual manumission law, but slavery was not fully abolished until 1848 (Normen 2013). During the American Revolution (1775-1783), the state of Connecticut played an important role in the process of recruiting soldiers, supplying food stores, and providing a variety of military goods for the war effort. Throughout the war, Connecticut was a leader in sourcing provisions for American forces, due to a rationing system set up by individual towns, including in Windham and the parish of Scotland, which contributed 159 men in service (Van Dusen 1961; Bayles 1889). Sameul Huntington, who signed the Declaration of Independence and served in the Continental Congresses as well as in the role of governor of Connecticut, was from Scotland (Scotland 2017). Additionally, General Rochambeau's troops marched through Scotland in 1781 on their way to rendezvous with General Washington in Virginia; Rochambeau's engineers documented this march on a map of Windham (Eves 2022). Following the war, on January 9, 1788, Connecticut ratified the U.S. Constitution to become the fifth state (Van Dusen 1961).

Nineteenth Century through the Twenty-First Century

Following the Revolutionary War, Scotland remained primarily an agricultural community with limited early industries along the Merrick Brook (Connecticut 2024a). In 1800, a turnpike was proposed connecting Woodstock to New London that would have passed through Scotland, but this proposal was opposed by those in Windham and relocated further eastward (Larned 1874). In 1857 Scotland was

incorporated as a town, following the early ecclesiastical boundaries (Scotland 2024). Like many Connecticut towns, Scotland provided men and materials to aid the Union during the Civil War (Hines 2002; Niven 1965). Following the Civil War, the New York and New England Railroad passed through the southwest portion of the town (Scotland Historical Society 2024). Scotland's population continued to decline in the post-war era, and by 1870 there were 643 residents and only 506 residents by 1890 (Connecticut 2024a-b; Table 1).

At the turn of the century, Scotland's population had dropped to 471 individuals (Connecticut 2024c; Table 1). This low population continued, and the town hit a record low population of 391 individuals in 1930. Slowly, the population began to grow following World War Two and the expansion of the suburbs. Unlike other Connecticut towns, the expansion of major infrastructure, such as Route 6 to the north of Scotland and Interstate 395 to the east had little impact on Scotland. True to its origins in the nineteenth century, Scotland has remained a rural agricultural community into the present-day. Top industries included state government, transportation, and manufacturing. Key employers in town are Savino Transportation Inc. and Scotland Hardwoods (AdvanceCT 2023). Despite Scotland's small population and rural character, transportation, residential, and commercial improvements are anticipated in Scotland. According to the town's Plan of Conservation and Development, one goal is that "Scotland's infrastructure will be compatible with the town's goals for responsible growth, consistent with its rural nature, citizen needs, and economic sustainability" (Scotland 2017:45). As of 2016, roughly 89 percent of Scotland's land was open and undeveloped (The Last Green Valley 2016).

Table 1: Population of Scotland, Connecticut 1790-2022 (Connecticut 2024a-d; AdvanceCT 2023)

Town	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
Scotland, Hartford County	-	-	-	-	-	-	-	720	643	590	506	471
	1910	**1920**	**1930**	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**	**2022**
	476	391	402	478	513	684	1.022	1,072	1,215	1,556	1,726	1,542

History of the Project Area

The proposed project parcel encompasses approximately 87 acres of land, with the Project composing 18.82 acres of it. Woodford's 1856 map shows the Project parcel as mostly cleared, although what is present-day Gager Road is depicted crossing through the southeastern area of the Project parcel. Much of the present-day road alignment was in place on Woodford's 1856 map, though it appears the present-day Gager Road earlier passed through the southern portion of the Project parcel (Figure 3). In addition, Woodford's 1856 county map depicts a single residence, labeled J.P. Gager, and two mills, a saw and grist mill, both adjacent to the outer boundary of the southern portion of the Project parcel (Figure 3). The sawmill is labeled J.P. Gager Jr's Saw Mill and the grist mill is labeled J. Parkis Grist Mill (Figure 3).

Gray's subsequent1869 county map shows a similar distribution of residential structures as Woodford's 1856 county map. Present-day Gager Road was still depicted as carrying through the southern area of the Project parcel, and J.P. Gager's residence was still in its approximate location consistent with Woodford's 1856 map, as well as the previously mentioned and grist and sawmills (Figure 4). A single new structure appeared in the southwestern corner of the Project parcel in Gray's 1869 map. The structure, labeled "T.H.", could possibly stand for toll house, and given the frequency of structures

labeled T.H. in the vicinity of the Project parcel and the presence of multiple roads and turnpikes meeting in the area, the label likely refers to a toll house (Figure 4).

J.P. Gager refers to John Peck Gager, the father of the above-referenced J.P. Gager Jr., was born in 1782 and aged 67 at the time of the 1850 federal census. John P. Gager was a farmer and notable resident of Scotland, present at Scotland's first town meeting on July 4th after incorporation in 1857 (Bayles 1889). At that first town meeting, John P. Gager, along with two other town residents, was elected as a selectman, and Gager's son, John P. Gager Jr., was also elected as an acting selectman (Bayles 1889). John P. Gager married Chloe Baker Gager in 1802 and they had seven children, four of whom lived to adulthood, including John P. Gager Jr., owner of the previously mentioned sawmill visible on both Woodford's and Gray's county maps (United States Census Bureau [USCB] 1860). Besides being a farmer and owning a profitable sawmill, John P. Gager Jr. represented Scotland in the state legislature (Bayles 1889). The 1850 federal census does not list John P. Gager Jr.'s real estate and personal estate value, but a decade later, the 1860 federal census lists his real estate value as $4,000.00 and his personal estate value as $4,300.00, a substantial sum for that era (United States Census Bureau [USCB] 1850; United States Census Bureau [USCB 1860). John P. Gager Jr.'s wealth is evident in his will, wherein he bequeaths large acreages of land he owned in Scotland and Tolland to his sons, along with generous sums of his personal and real estate to his daughters and grandchildren (Ancestry.com 2015; Gager 1985). Further evidence of John P. Gager Jr.'s wealth persists to the present day in the form of his gravestone in New Scotland Cemetery South. His gravestone is a column with his family name cut in relief at the base. Relief carving depicting flowers and adorn the base and head of the column (Findagrave.com n.d.). Present-day Gager Hill Road, which carries along the southern boundary of the project parcel, is named for the Gager family that lived in that area of Scotland.

The first aerial photography of the Project parcel dates from 1934. This photographic shows the Project parcel as a mixture mostly cleared fields and young wooded vegetation (Figure 5). The wooded vegetation appears mostly in the northwest portion of the Project parcel, and locations of the proposed arrays are represented by cleared fields. The road depicted in the earlier maps had likely been rerouted as aerial photography does not show a road crossing through the southeastern portion of the Project parcel, instead showing the road along the boundary of the parcel (Figure 5). Gager Hill Road can be seen adjacent to the outer boundary of the southeastern corner of the Project parcel. Two residential structures, likely farmsteads, were located approximately 50 m (164 ft) to the north of southeastern corner of the Project parcel and 25 m (82 ft) to the south of the southern boundary of the Project parcel (Figure 5). Aerial photography dating from 1951 shows a landscape in and around the Project parcel as being largely consistent with the landscape photographed in 1934 (Figure 5). The array areas remained as cleared agricultural fields, and the position and amount of wooded vegetation within the Project parcel remained consistent with amount and position photographed in 1934. No new residential structures appear in the 1951 aerial photography; however, three new barns appear in association with the residential structure 25 m (82 ft) to the south of the southern boundary of the Project parcel (Figure 6).

By 1970, the land composition within and around the proposed Project parcel was largely consistent with the landscape pictured in aerial photography from the previous decades. The aerial photography from 1970 shows that the arrays areas had lost most of their subdividing lines, and the position of the previously mentioned barns approximately 25 m (82 ft) south of the southern boundary of the Project parcel had been changed slightly. Other than these discrepancies the land within and around the Project parcel remained consistent with the landscape pictured in previous decades (Figure 7). Aerial photography from 1990 shows only one subdividing vegetation line in the northcentral portion of the

Project parcel (Figure 8). The previously mentioned residential structure approximately 25 m (82 ft) to the south of the southern boundary of the Project parcel was absent in aerial photography from 1990. Access roads carrying from the eastern boundary to the northwestern boundary of the Project parcel were clearly visible at this time (Figure 8). Both project areas within the Project parcel were cleared with no subdividing vegetation lines. Aerial photography from 1990 shows that the forested area approximately 50 m (164 ft) to the west of the Project parcel had been cleared for agricultural use and/or residential development (Figure 8).

Aerial photography from the twenty-first century shows the composition of the land within and around the proposed Project parcel as largely consistent with the images from the twentieth century. An aerial photo from 2004 shows the Project area as consisting of the same composition of cleared fields and forested land as aerial photography from 1990 (Figure 9). The image also shows two residential structures approximately 25 m (82 ft) and 50 m (164 ft) to the south of the southern boundary of the Project parcel. There was little increase in residential or commercial growth in the vicinity of the Project parcel at that time, and this trend remained true of the Project parcel as indicated by aerial photography from 2019 (Figure 10). Aerial photography from 2019 shows the proposed Project parcel as consisting of a similar composition of cleared fields and forested land seen in aerial photography from 2004 (Figure 10). A man-made body of water appears approximately 150 m (492 ft) to the east of the southern boundary of the Project parcel, but beyond this discrepancy no major alterations have occurred in the land within and outside of the proposed Project parcel in the twenty-first century (Figure 10; Figure 10).

Conclusions

The documentary review indicates that the Project parcel and array areas have the potential to be associated with cultural resources. In areas near where agricultural activities occurred there is the possibility of encountering evidence of post-European Contact farming activities that may be important as a component of a rural historic landscape (*sensu* McClelland et al. 1999).

CHAPTER V
PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous cultural resources research completed within the vicinity of the proposed Project in Scotland, Connecticut. This discussion provides the comparative data necessary for assessing the results of the current Phase IB cultural resources assessment survey, and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the Project area are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, and National/State Register of Historic Places properties situated in the project region (Figures 11 and 12). The discussions presented below are based on information currently on file at the CT-SHPO in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site forms are reflected below.

Previously Recorded Archaeological Sites and National/State Register of Historic Places Districts/Properties in the Vicinity of the Facility Area

A review of data currently on file at the CT-SHPO, as well as the electronic files maintained by Heritage resulted in the identification of three post-European contact era archaeological sites (123-10, 123-12, and 123-14) within 0.8 kilometers (0.5 miles) of the proposed Project (Figure 11). In addition, a single State Register of Historic Places area, the Samuel Huntington Archaeological Preserve is situated within 0.8 kilometers (0.5 miles) of the Project area (Figure 12). These resources are reviewed below and provide context with which to assess the Project area for containing additional intact cultural resources.

Site 123-010

The Yarn Mill is located at TR 14 Scotland Center in Scotland, Windham, Connecticut (Figure 11). Occupied between 1830 and 1870, it was historically used as a textile mill that occupies approximately 2 acres near Merrick's Brook. The site consists of a stone gravity dam and mill foundation that measured approximately 60 feet by 26 feet. It was listed in fair condition as of the time of the site form submission. The cellar of the mill is currently used as a refuse dump. This site is located well away from the Project area and will not be impacted by construction of the solar arrays.

Site 123-012

Site 123-012, which is also known as Gagger's Grist Mill, is a post-European contact period industrial site in Scotland, Connecticut (Figure 11). The site consists of standing ruins and surface finds from a gristmill that was active from ca., 1830 to 1870. The site was subjected to surface collection by Public Archaeology Survey Team, Inc., (PAST) in 1980. This investigation led to the identification of a stone wall and rubble; however, little information pertaining to the site's significance is listed on the state site form. The site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Gagger's Grist Mill is located approximately 0.23 kilometers (0.14 miles) to the east of the parcel and will not be impacted by the proposed construction.

Site 123-014

The Governor Samuel Huntington Homestead is listed as the Samuel Huntington Birthplace on the National Register of Historic Places and is designated as a National Historic Landmark. It is located on

Route 14 in Scotland, Windham, Connecticut (Figure 11). The Governor Samuel Huntington Homestead is a large two-story salt-box style house with a steep gable roof and large stone central chimney constructed between 1700-1722. The house is five bays by two bays and measures roughly 42 feet wide by 29 feet deep. The roof is clad in asphalt shingles and the exterior is clad in clapboards. The house retains its original windows with projecting cornices, and rectangular transom above the center door. The house is an excellent example of a New England central chimney Georgian style house. This site is located well away from the Project area and will not be impacted by construction of the solar arrays.

Samuel Huntington Archaeological Preserve

According to the Huntington Homestead website, "The Huntington Homestead in Scotland, Connecticut, is the birthplace of Samuel Huntington, a signer of the Declaration of Independence and a distinguished statesman during the Revolutionary War and early Republic. The remarkably well-preserved site includes an eighteenth century house on its original foundation surrounded by acres of farmland, bordered by Merrick Brook. It includes old-growth trees, stone walls, an abandoned road, and other interesting features. The Huntington Homestead is a surprising discovery so late in the twentieth century, when most historic sites have already been enshrined or ravaged. It is a National Historic Landmark." The Samuel Huntington Archaeological Preserve is located well to the northeast of the proposed Project area. It will not be impacted by the construction of the proposed solar development.

CHAPTER VI
METHODS

Introduction

This chapter describes the research design and field methods used to complete the Phase IB cultural survey of the Project area in Scotland, Connecticut. In addition, the location and point-of-contact for the facility at which all cultural material, drawings, maps, photographs, and field notes generated during survey will be curated is provided below.

Research Design

The current Phase IB cultural resources reconnaissance survey was designed to identify all precontact era and post-European Contact period cultural resources located within the proposed development areas associated with the Project. Fieldwork for the survey was comprehensive in nature and planning considered the distribution of previously recorded archaeological sites located near the development area, as well as an assessment of the natural qualities of the Project parcel. The methods used to complete this investigation were designed to provide complete and thorough coverage of all portions of the development area. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation.

Field Methods

Following the completion of all background research, the development area was subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, GPS recordation, and systematic shovel testing. The field strategy was designed such that the entirety of Areas 1 through 3 was examined visually and photographed. The pedestrian survey portion of this investigation included visual reconnaissance of all of the development locations. The subsurface examination was completed through the excavation of shovel tests at 25 meter (82 foot) intervals along survey transects positioned 25 meters (82 feet) apart throughout Areas 1 through 3. Each shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size, and each was excavated until glacially derived C-Horizon or immovable object (e.g., boulders, large tree roots) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635-centimeter (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled after it was fully documented.

Post-European Contact Period Cultural Material Analysis

The analysis of the post-European Contact period cultural material recovered during the Phase II Intensive Archaeological Survey was organized by class, functional group type, and subtype. The first level, class, represented the material category, e.g., ceramic, glass, metal. The second level, functional group, e.g., architecture, kitchen, or personal was based on standard classifications. The third and fourth levels, type and subtype, described the temporally and/or functionally diagnostic artifact attributes. The identification of artifacts was aided by consulting standard reference works.

Precontact Era Cultural Material Analysis

The lithic analysis protocol used during completion of the Phase II Intensive Archaeological Survey effort was a “technological” or “functional” one designed to identify precontact reduction trajectories and lithic industries. The protocol, therefore, focused on recording technological characteristics of the recovered

lithic artifacts. The lithic artifact database was organized by lithic material group, type, and subtype. The first level described the raw material type of the artifact. Lithic materials were identified utilizing recognized geological descriptions and terminology and were placed into distinct categories based on three factors: texture, color, and translucence.

The second analysis level, type, was used to define the general class (e.g., unmodified flake, core, or perform) of lithic artifact, while the last level, subtype, was employed to specify placement within the reduction sequence (e.g., primary, secondary, and tertiary). These levels followed classifications outlined by such authors as Callahan (1979) and Crabtree (1972), among others.

Curation

Following the completion and acceptance of the Final Report of Investigations, all cultural material, drawings, maps, photographs, and field notes will be curated with:

Dr. Sarah Sportman
Office of Connecticut State Archaeology
Box U-1023
University of Connecticut
Storrs, Connecticut 06269

CHAPTER VII
RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IB Cultural Resources Reconnaissance Surveys of the proposed Project area in Scotland, Connecticut. Areas 1 through 3, which will contain three solar arrays, encompasses 18.82 acres within larger agricultural fields. As discussed in Chapters I and IV, Phase IB survey included pedestrian survey, augmented by systematic shovel testing and photo-documentation throughout the limits of the development area (Figure 14). The results of the Phase IB survey effort are presented below.

Results of Phase IB Cultural Resources Reconnaissance Survey

As stated earlier, the proposed Project area will encompass three solar arrays. They will be built within Areas 1 through 3, which are situated at elevations ranging between 74 to 90 meters (242.8 to 295.3 feet) NGVD. The larger Project parcel is bounded by a mixture of forest and agricultural land. At the time of the survey, Areas 1 through 3 were characterized by fallow agricultural fields characterized by level topography. All three areas possessed a moderate/high archaeological sensitivity as determined through a previously completed Phase IA Cultural Resources Assessment Survey. In addition, the previous Phase IA cultural assessment survey resulted in the identification of three previously identified post-European Contact period archaeological sites (Site 123-010, 123-012, and 123-014) not too far to the east of Areas 1 through 3, as well as the Samuel Huntington Archaeological Preserve to the northeast. The results of the Phase IB survey are discussed below.

At the time of survey, Areas 1 through 3 were characterized by gently sloping topography characterized by fallow agricultural fields (Photos 1 through 5). A total of 117 of 117 (100 percent) planned shovel tests were excavated throughout Areas 1 through 3 during the initial Phase IB Survey (Figure 14 and 15; Sheet 1 through 3). An additional 19 delineation test pits were excavated to further explore identified precontact era Native American cultural deposits (see below). A typical shovel test completed during the Phase IB survey extended to an average depth between 70 and 90 centimeters below surface (cmbs) (27 to 35 inches below surface [inbs]) and exhibited up to four soil horizons in profile. The uppermost soil horizon was characterized by an Ap-horizon (plowzone) that extended from the ground surface to 30 cmbs (0 to 11.8 inbs) and consisted of very dark grayish brown (10YR 3/2) sandy clay loam. The subsequent B1-Horizon reached from 30 to 53 cmbs (11.8 to 20.8 inbs) and was defined by a deposit of yellowish brown (10YR 5/4) fine sandy loam. It was underlaid by a B2-Horizon, which consisted of a layer of yellowish brown (10YR 5/4) medium sandy loam with cobble inclusions that extended from 53 to 78 cmbs (20.8 to 30.7 inbs). Finally, the glacially derived C-Horizon was defined by deposit of brownish yellow (10YR 6/6) medium sand with cobble inclusions that was encountered at 78 cmbs (30.7 inbs) and extended to the bottom of the test pit at 88 cmbs (34.6 inbs). This stratigraphy can be observed within Transect 6, STP 1 (Figure 13).

The Phase IB shovel testing resulted in the recovery of 59 artifacts dating from the post-European Contact period; these were recovered across Areas 1 through 3. As seen in Table 2 below, the post-European Contact period artifacts consisted of ceramic sherds, glass shards, metal items, faunal specimens, and mineral fragments (Photo 6). The majority of them (n=54) were recovered from the disturbed plowzone, They were recovered in low densities across Areas 1 through 3 and primarily from

disturbed plowzone soils. The remainder (n=5) originated from the B1-Horizon subsoil; however, it is possible that they fell into the subsoil during shovel testing and represent infiltrated finds. The post-European Contact period artifacts date variously from the late eighteenth through the twentieth century. In large measure, they are represented by household domestic items, including ceramic sherds, glass shards, and piece of bone. Fasteners (nails) and material used for heating (coal) are also represented, albeit in small numbers.

Table 2: Post-European Contact period artifacts recovered from Areas 1 through 3.

Area	Soil Horizon	Artifact Class	Artifact Type	Description	Total
Project area	Ap	Glass	Contact-molded	Colorless indeterminate bottle	2
				Amber indeterminate bottle	2
				Olive indeterminate bottle	1
				Uranium fluted hollow vessel	1
				Solarized indeterminate bottle	1
			Machine-Made	Amber beer bottle	1
			Indeterminate manufacture	Colorless flat glass	6
				Colorless mirror	1
		Glass Total			**17**
		Metal	Iron	Machine-cut nail	5
			Steel	Wire nail	1
			Ferrous	Wire	1
		Metal Total			**7**
		Fauna	Small mammal	Atlas Bone	1
			Bivalve	Indeterminate shell	1
			Mammal	Indeterminate bone	1
			Avian	Long bone	1
		Fauna Total			**4**
		Mineral	Coal	Fragment	1
		Mineral Total			**1**
		Ceramic	Brick	Fragment	1
			Kaolin	Smoking pipe 5/64	3
			Whiteware	Undecorated	3
				Red hand-painted	1
				Black transfer printed	1
			Pearlware	Undecorated	1
				Cobalt blue hand-painted	2
			Ironstone	Undecorated	1
			Indeterminate	-	3
			Creamware	Undecorated	7
			Porcelain	Chinese blue hand-painted	1
		Ceramic Total			**25**
	Ap Total				**54**
	B1	Metal	Steel	Wire nail	1
			Ferrous	Indeterminate	2
		Metal total			**3**
		Ceramic	Stoneware	White salt glazed scratch blue	1
			Whiteware	Undecorated	1
		Ceramic Total			**2**
	B1 Total				**5**
Project Total					**59**

Figure 14 and Figure 15; Sheets 1 through 3 show that the post-European Contact period artifacts were collected from various locations across Areas 1 through 3, and were not recovered in significant

concentrations or in association with any above or below ground cultural features such as foundation, privies, etc. As a result, the post-European Contact period materials were classified as unassociated low density field scatter. These items in and of themselves do not retain research potential or the qualities of significance for listing to the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional examination of the post-European Contact period assemblage is recommended prior to Project construction.

In addition, the Phase IB subsurface examination resulted in the identification of three precontact era Native American loci (Locus 1 through 3) and a single isolated find spot (ISO 1). They were identified within Areas 2 and 3 (Figure 14 and 15; Sheets 2-3). As seen in Table 3, below the recovered Native American artifacts included examples of lithic debitage and a single projectile point fragment. Each Loci and ISO 1 are discussed in detail below.

Table 3: Pre-contact era Native American artifacts recovered from Areas 2 and 3.

Area	Locus	Soil Horizon	Artifact Class	Material	Description	Total
Project Area	ISO 1	Ap	Debitage	Quartzite	Biface thinning flake	1
	ISO 1 Total					**1**
	Locus 1	B1	Debitage	Quartzite	Flake	1
					Biface retouch flake	1
				Chert	Biface retouch flake	1
			Flaked Tool	Hornfels	Projectile point base fragment	1
	Locus 1 Total					**4**
	Locus 2	Ap	Debitage	Quartz	Biface reduction flake	1
					Flake	1
	Locus 2 Total					**2**
	Locus 3	Ap	Debitage	Chert	Flake	1
				Quartz	Biface retouch flake	1
	Locus 3 Total					**2**
Project Total						**9**

Locus 1

Locus 1 was identified within the southwestern corner of Area 2 (see Figure 14 and 15; Sheet 2). At the time of survey, this area was comprised of a fallow agricultural field and level topography. Locus 1 was first identified within Shovel Test 2 along Survey Transect 14. This shovel test extended to a depth of 49 cmbs (19 inbs) and exhibited three soil horizons in profile. The shovel test was terminated at 49 cmbs within the B2-Horizon due to a rock impasse. The stratigraphy observed within Transect 14; STP 2 was consistent with a typical shovel test from the Project area discussed above.

The archaeological examination of Locus 1 was accomplished through the excavation of the original survey shovel test and seven delineation shovel tests, which were excavated at 5 meter (16 foot) intervals in the cardinal directions away from Shovel Test 2 along Survey Transect 14. Survey and delineation of the Locus 1 area resulted in the collection of 1 quartzite flake, 1 quartzite biface retouch flake, 1 chert biface retouch flake, and a single untyped hornfels projectile point base fragment. All of these artifacts originated from the intact B1-Horizon (Photo 7 and 8). This suggests that the precontact era occupation of this area has not been impacted by plowing or any other later forces. Since the archaeological deposits within Locus 1 appear to be intact and may contain other temporally or functionally diagnostic tools, the area was assessed as potentially significant applying the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). It is recommended that the Locus 1 area either be avoided during construction or that it be subjected to Phase II examination to determine if it is eligible for listing on National Register of Historic Places.

Locus 2

Locus 2 was identified along the western boundary of Area 2 during the Phase IB subsurface investigation (Figure 14 and 15;Sheet 2). At the time of survey, this area was comprised of a fallow agricultural field and level topography. Locus 2 was identified within Shovel Test 2 along Survey Transect 15. This shovel test extended to a depth of 70 cmbs (27.5 inbs) and exhibited four soil horizons in profile and was consistent with the typical stratigraphy observed throughout the Project area as discussed above. The excavation Transect 15; STP 2 resulted in the recovery of 1 quartz flake and a single quartz biface retouch flake (Table 3) from the Ap-Horizon (plowzone) (Photo 9 and 10). As a result, four delineation test pits were excavated at 5 meter (16 foot) intervals in each cardinal direction away the initial survey shovel test. Despite careful excavation, no additional cultural material or evidence of cultural features were recovered from Locus 2. The two artifacts originating from disturbed plowzone soils suggest that they have been removed from their original soil matrix and therefore lack cultural context. As a result, it was determined that Locus 2 did not retain research potential or eligibility for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of the Locus 2 area is recommended prior to construction of the proposed solar facility.

Locus 3

Locus 3 was identified in along the northwestern boundary of Area 2 during Phase IB subsurface investigation (Figure 14 and 15; Sheet 2). At the time of survey, this area was defined by fallow agricultural field and level topography. Locus 3 was identified within Shovel Test 3 along Survey Transect 15. This shovel test extended to a depth of 71 cmbs (27.9 inbs) and exhibited four soil horizons in profile and was consistent with the typical stratigraphy observed throughout the project area as discussed above. The excavation of Transect 15; STP 3 resulted in the recovery of a single quartz flake and one chert biface retouch flake (Table 3) from the Ap-Horizon (plowzone) (Photo 11 and 12). As a result, four delineation test pits were excavated at 5 meter (16 foot) intervals in each cardinal direction of the initial test pit. Despite careful excavation, no additional cultural material or evidence of cultural features were recovered from Locus 3. The two artifacts originating from disturbed plowzone soils suggest that they have been removed from their original soil matrix and therefore lack cultural context. As a result, it was determined that Locus 3 did not retain research potential or eligibility for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of the Locus 3 area is recommended prior to construction of the proposed solar facility.

Isolated Find 1 (ISO-1)

Isolated Find 1 (ISO-1) was identified within the southeastern portion of Area 3 (Figure 14 and 15; Sheet 3). At the time of survey, this area was also comprised of a fallow agricultural field and level topography. ISO-1 was identified within Shovel Test 1 along Survey Transect 20. This shovel test 81 cmbs (31.8 inbs) and exhibited four soil horizons in profile and was consistent with the typical stratigraphy observed throughout the Project area as discussed above. The excavation of Transect 20; STP 1 resulted in the recovery of a single quartzite biface thinning flake collected from the Ap-Horizon (plowzone) (Photo 13 and 14). As a result, four delineation test pits were excavated at 5 meter (16 foot) intervals in each cardinal direction of the initial test pit. Despite careful and through excavation, no additional cultural material or evidence of cultural features were recovered. Therefore, the single artifact was classified as an isolated find spot and determined to lack research potential or eligibility for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of the ISO-1 area is recommended prior to construction of the proposed solar facility.

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APPENDIX A

FIGURES

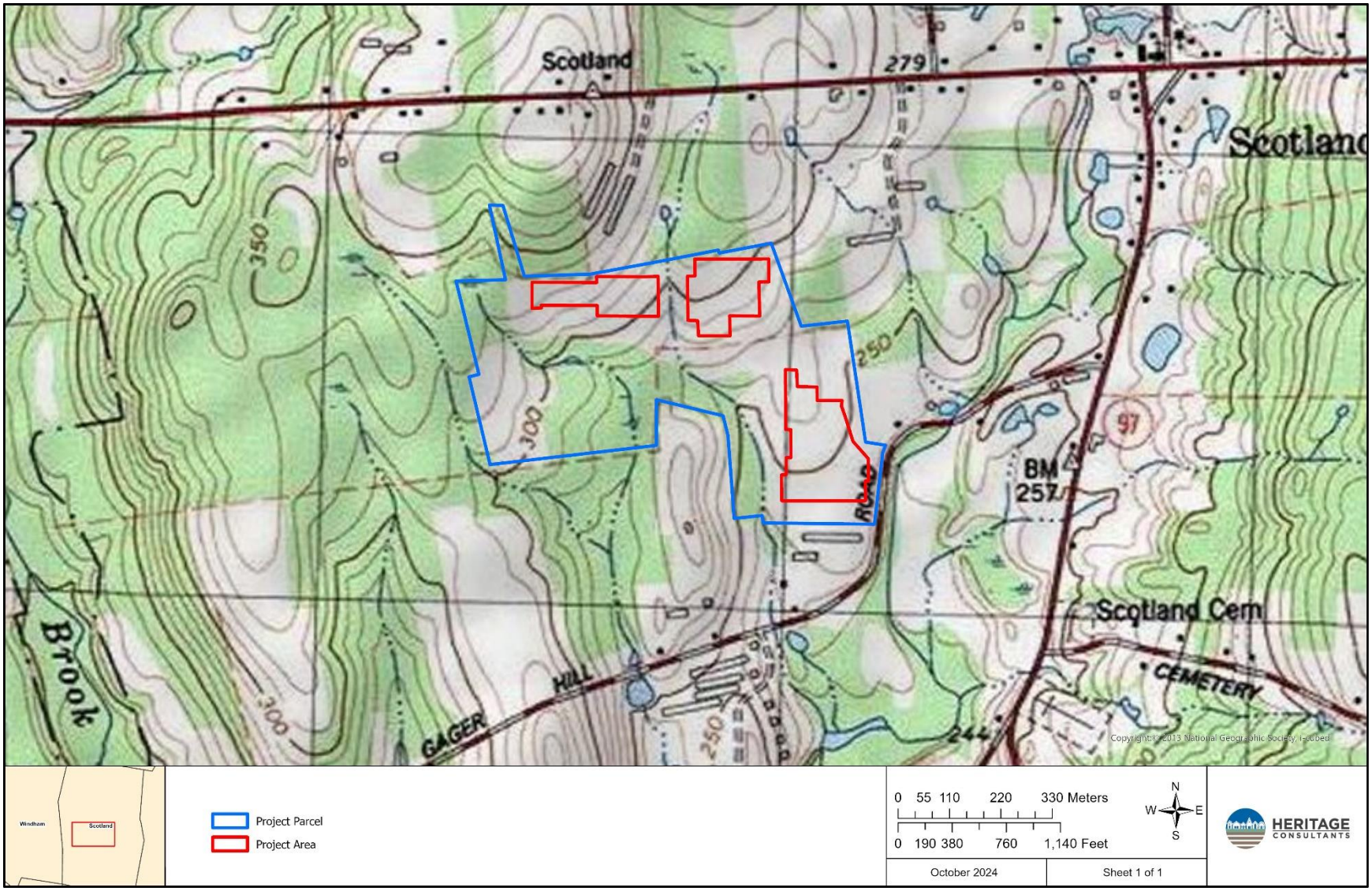

Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project parcel in Scotland, Connecticut.

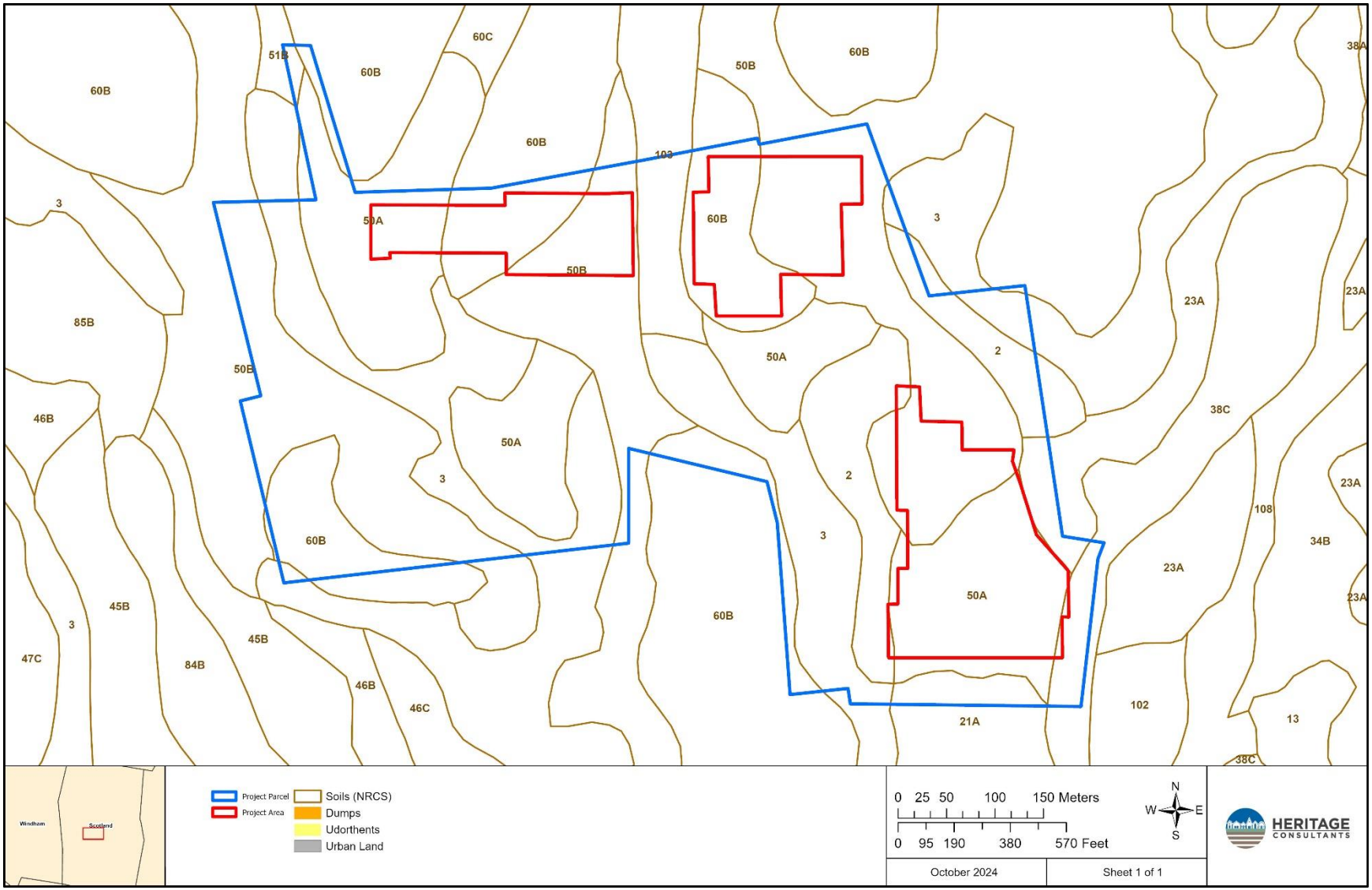

Figure 2. Digital map depicting the soil types present in the vicinity of the project parcel in Scotland, Connecticut.

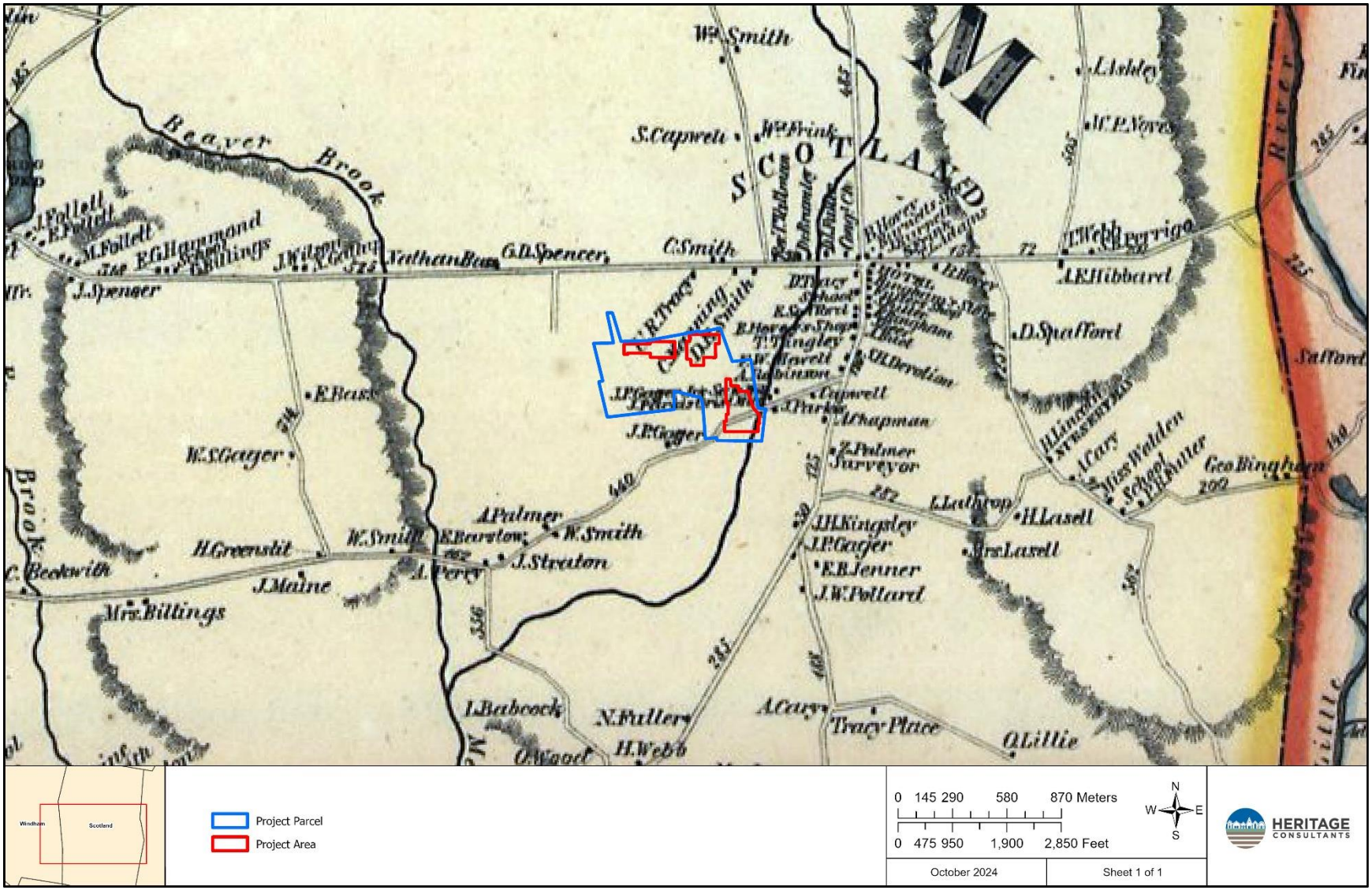

Figure 3. Excerpt from an 1857 map showing the location of the project parcel in Scotland, Connecticut.

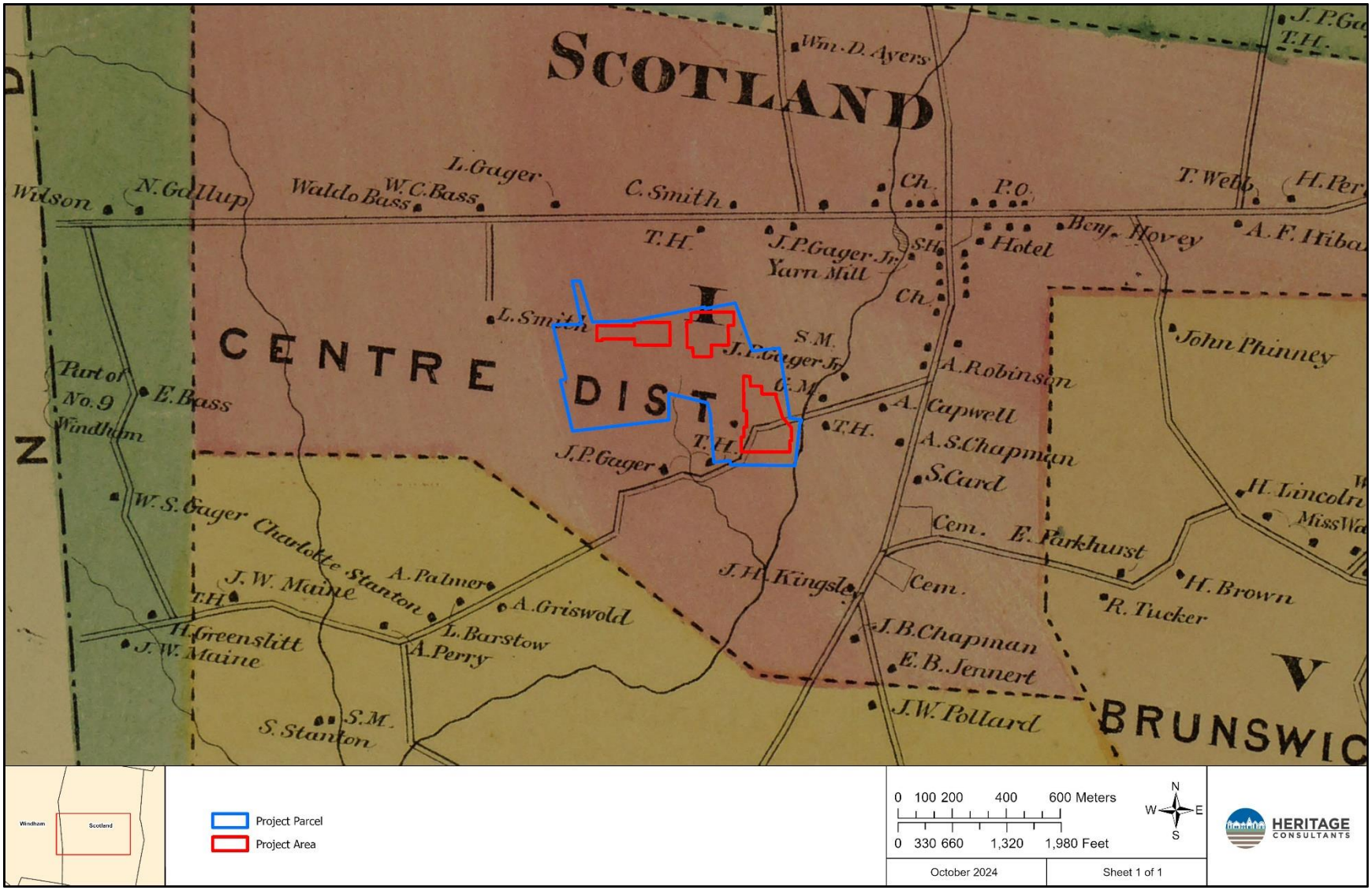

Figure 4. Excerpt from an 1869 map showing the location of the project parcel in Scotland, Connecticut.

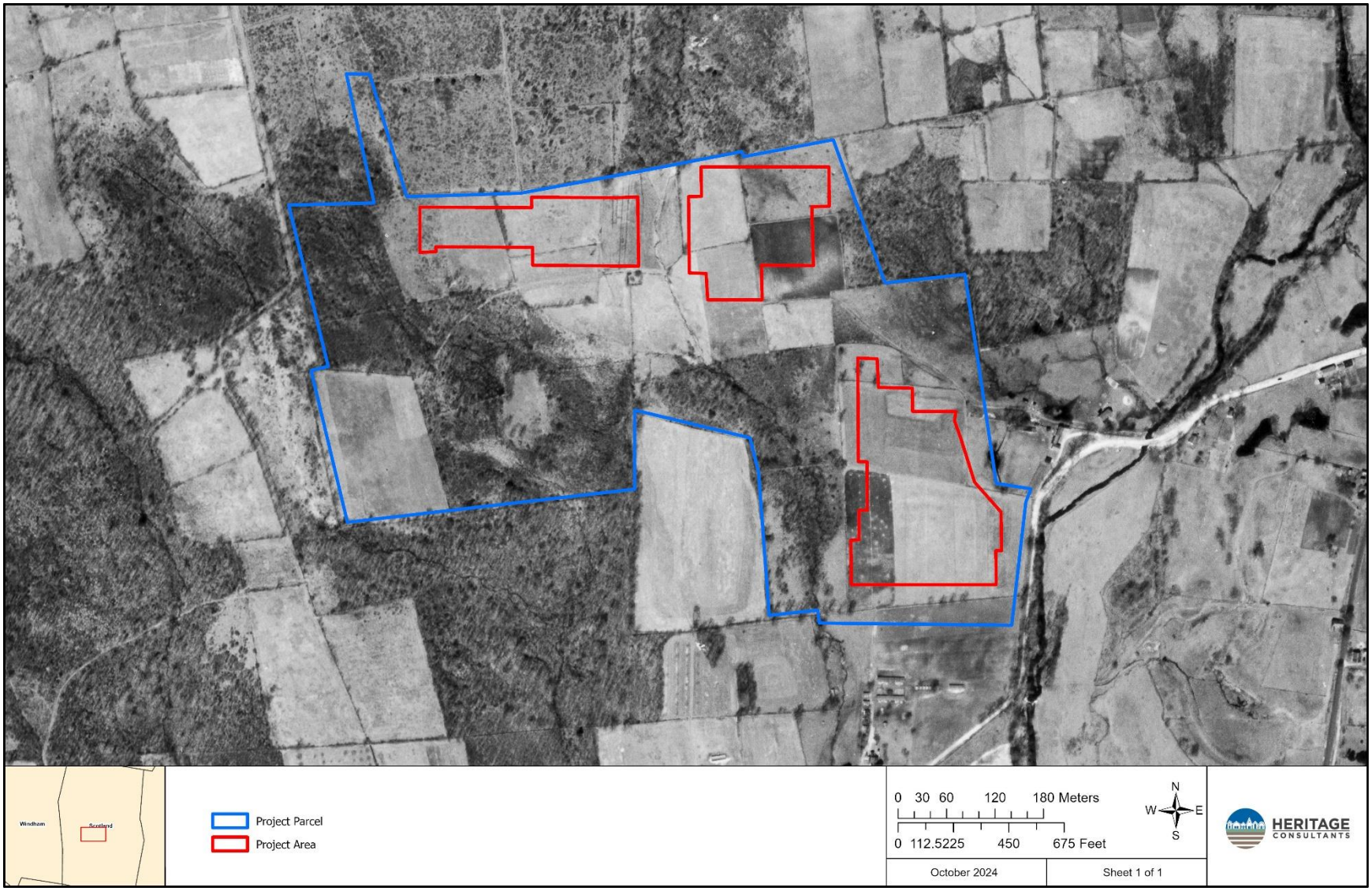

Figure 5. Excerpt from a 1934 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

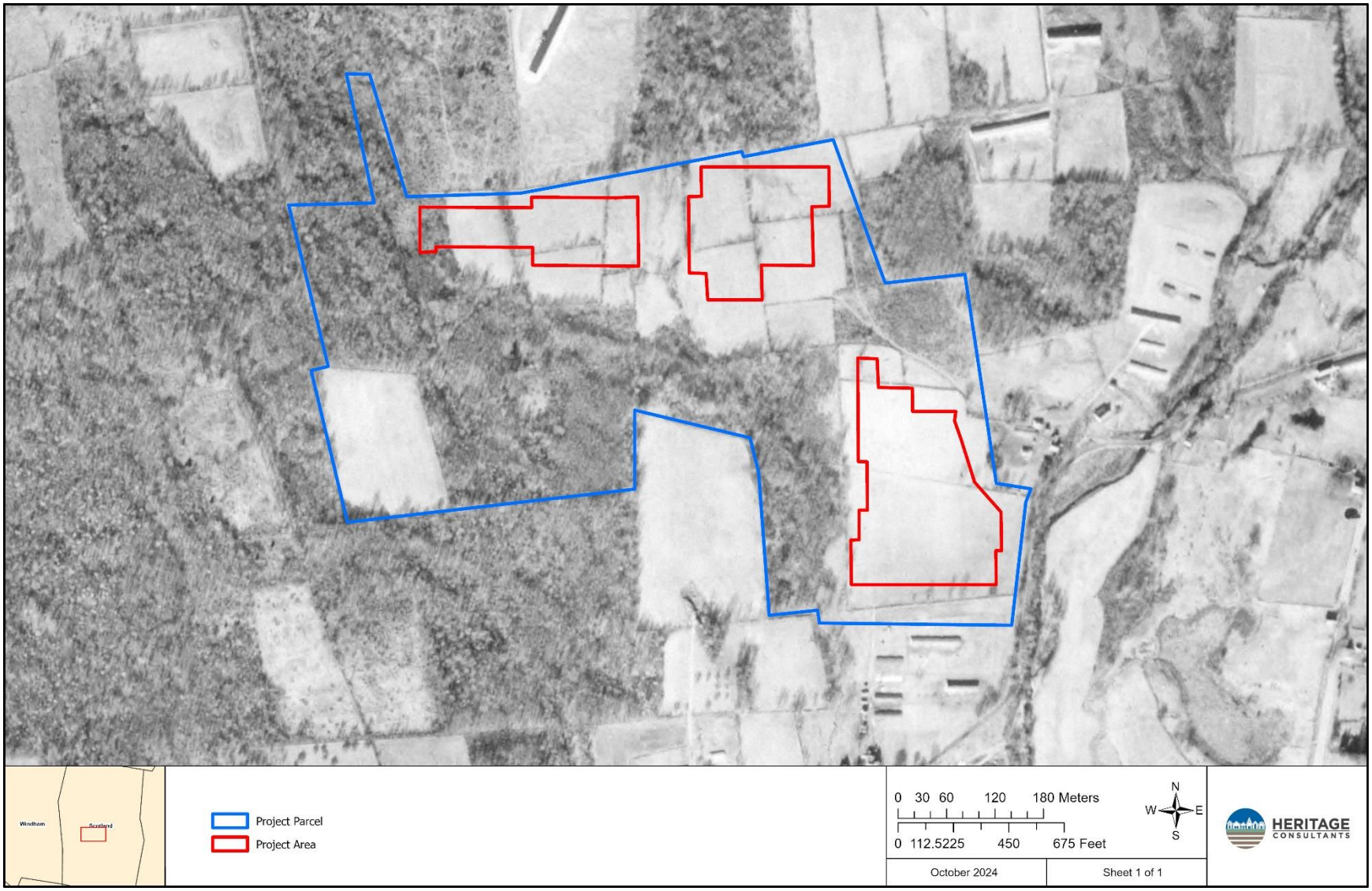

Figure 6. Excerpt from a 1951 aerial photography showing the location of the project parcel in Scotland, Connecticut.

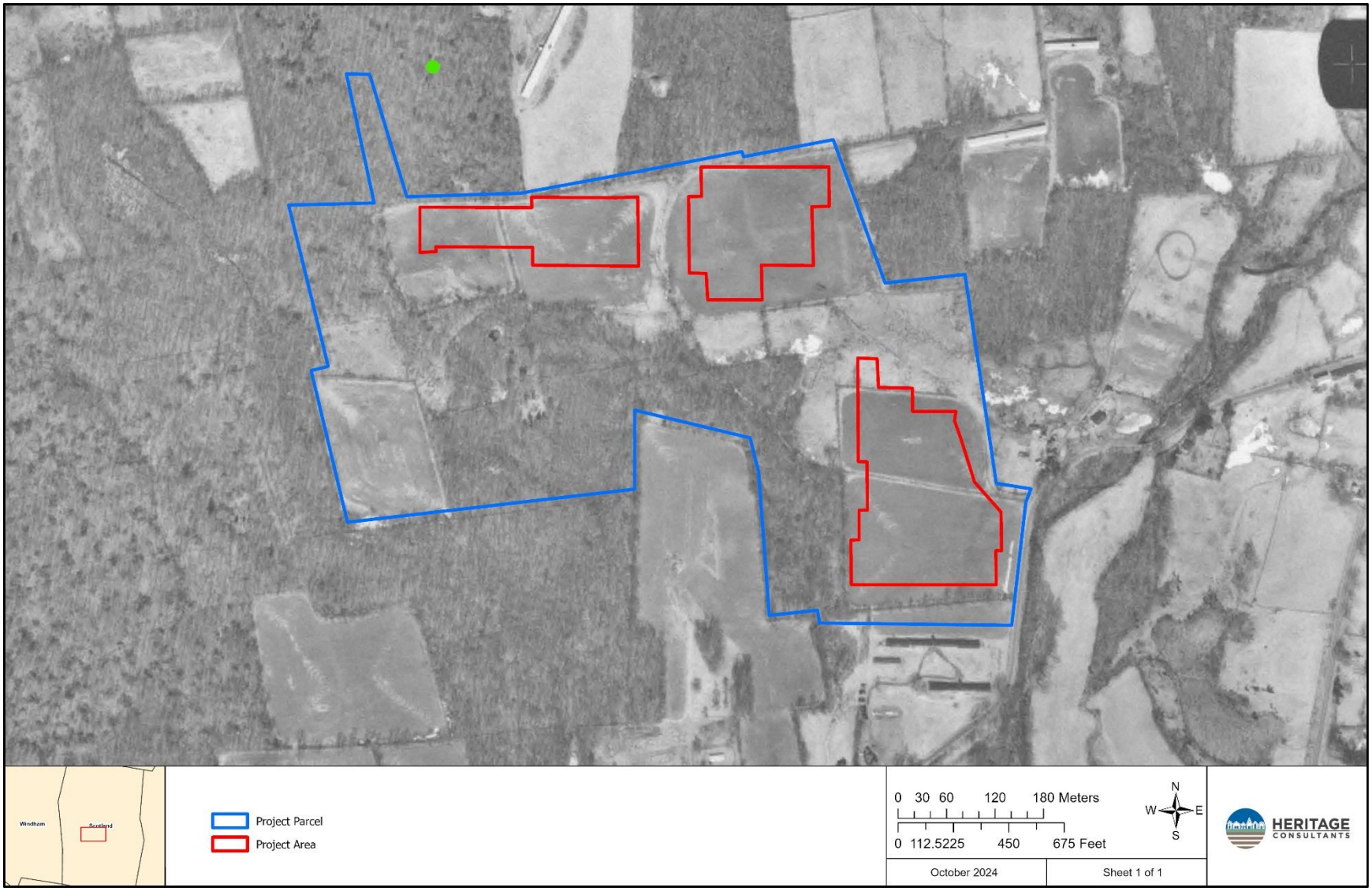

Figure 7. Excerpt of a 1970 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

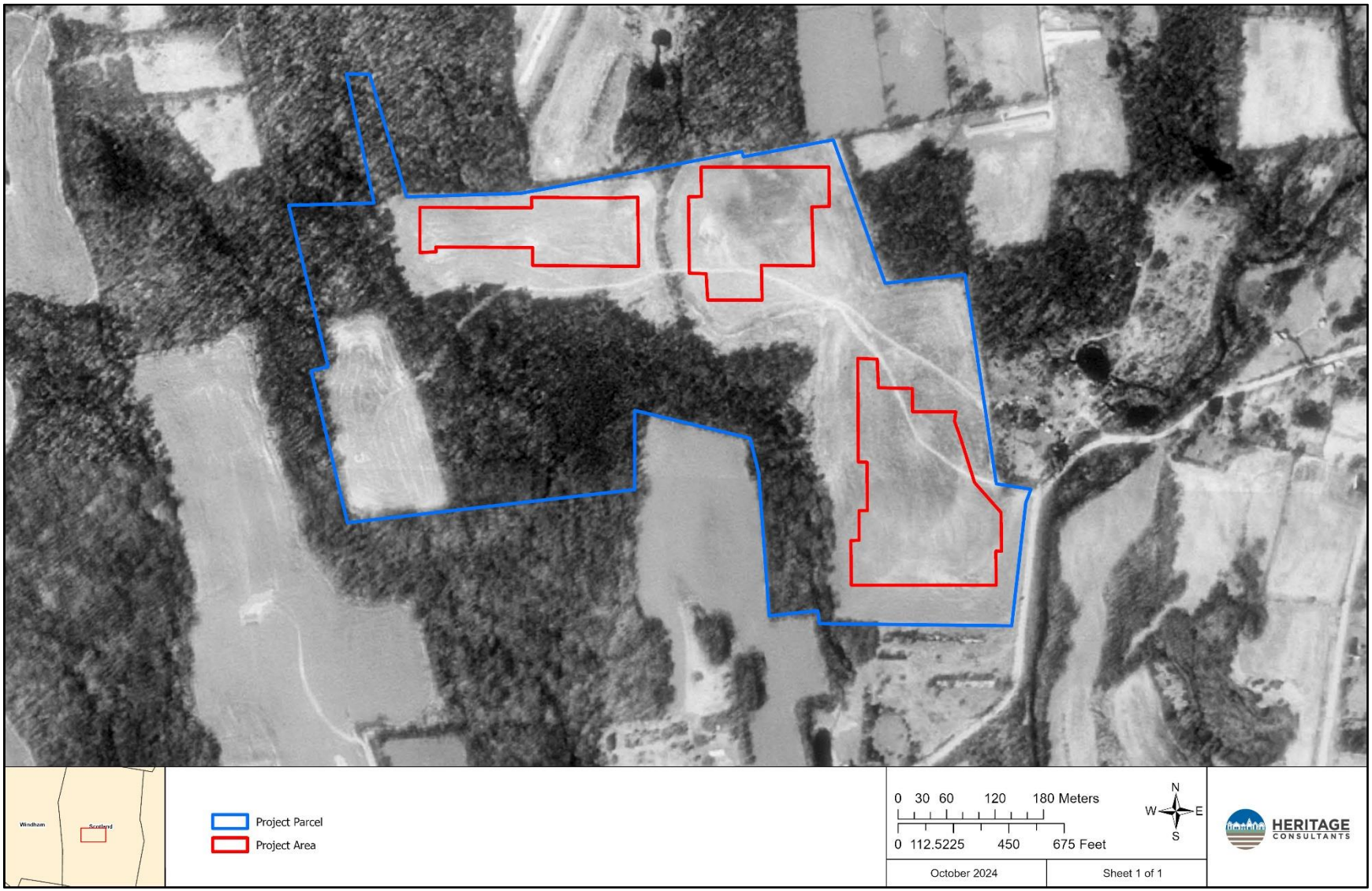

Figure 8. Excerpt of a 1990 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

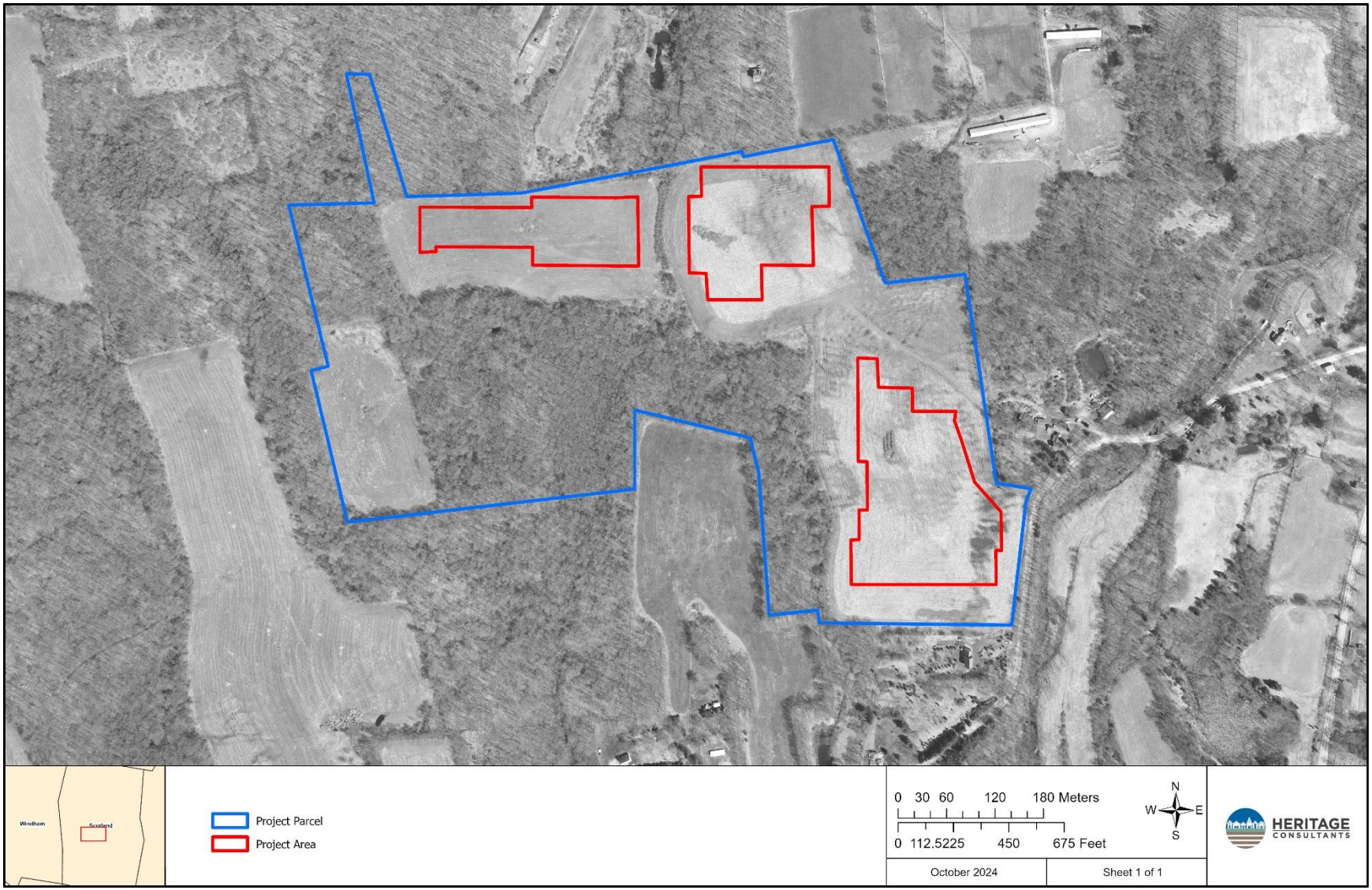

Figure 9. Excerpt of a 2004 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

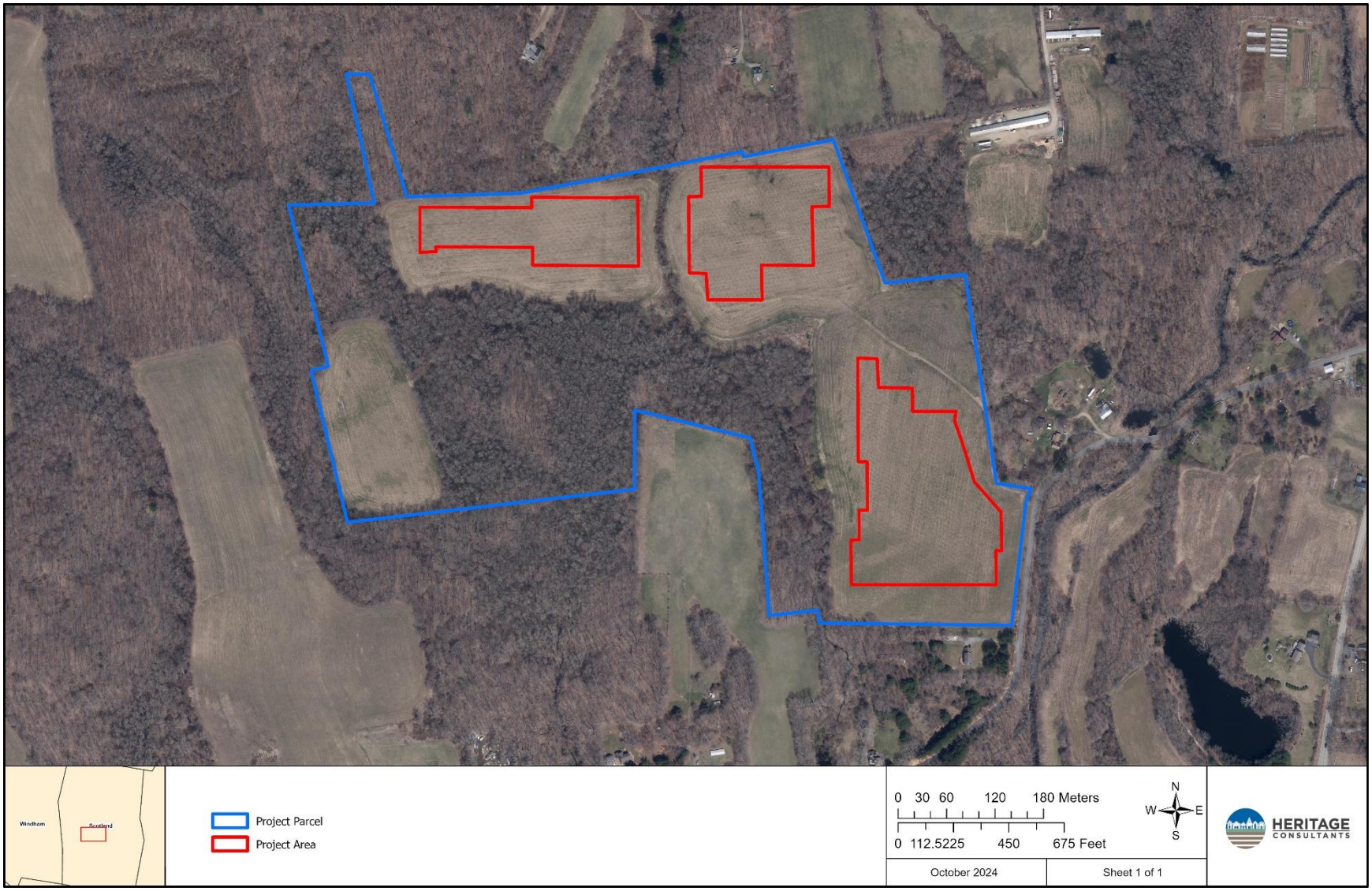

Figure 10. Excerpt of a 2019 aerial photograph showing the location of the project parcel in Scotland, Connecticut.

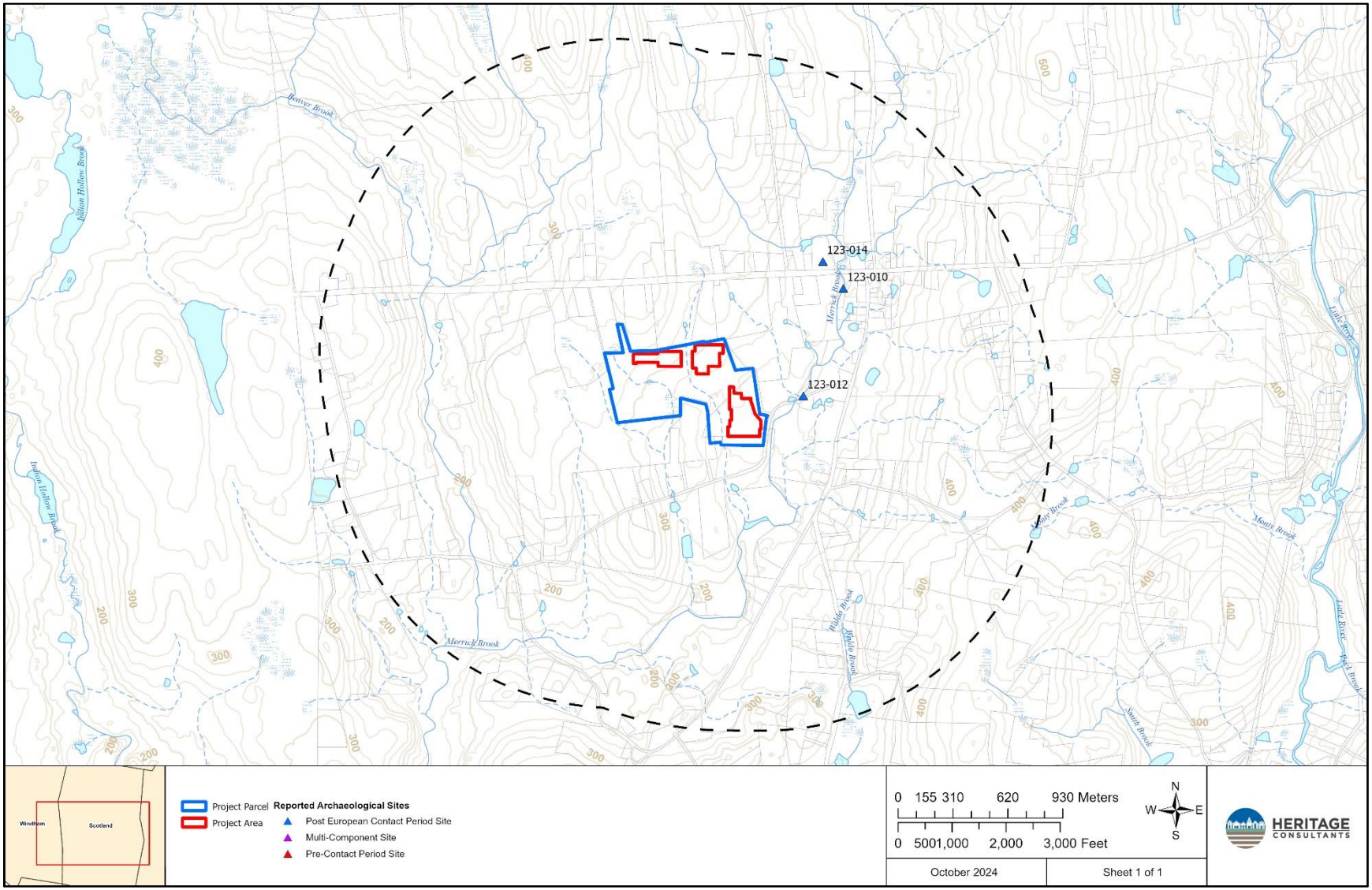

Figure 11. Digital map depicting the locations of the previously identified archaeological sites in the vicinity of the project parcel in Scotland, Connecticut.

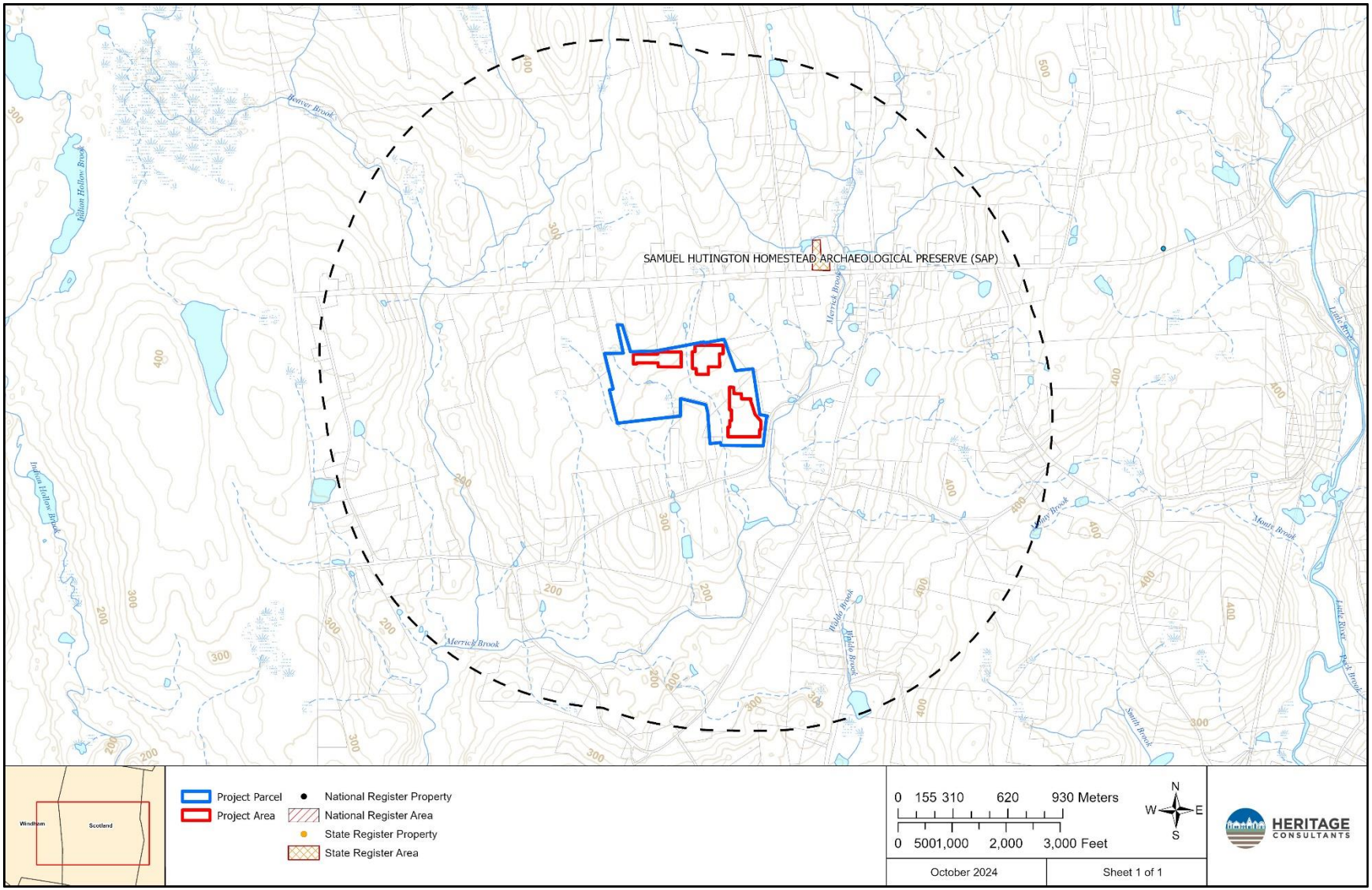

Figure 12. Digital map depicting the locations of the previously identified National Register of Historic Places and State Register of Historic Places properties in the vicinity of the project parcel in Scotland, Connecticut.

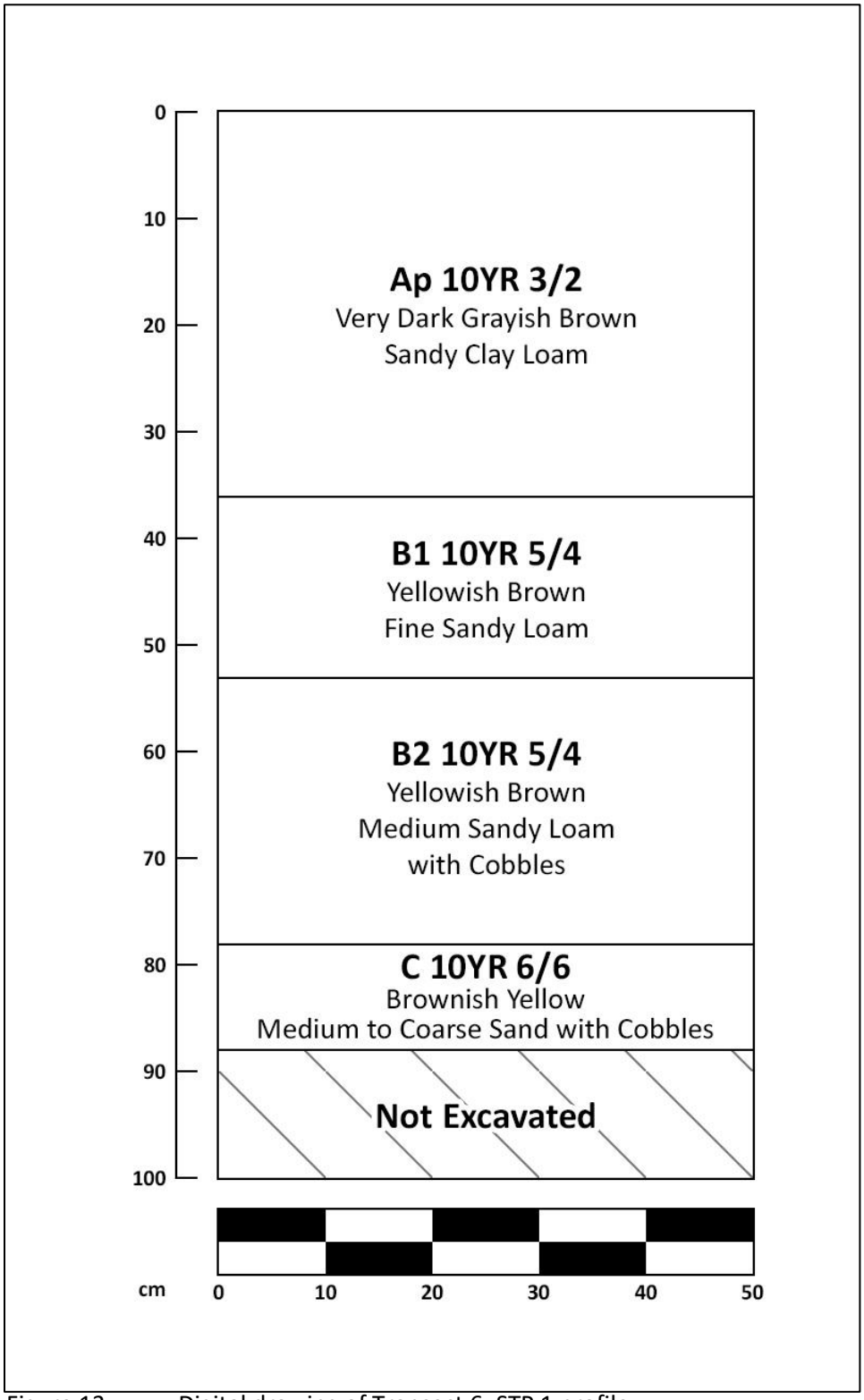

Figure 13. Digital drawing of Transect 6; STP 1 profile.

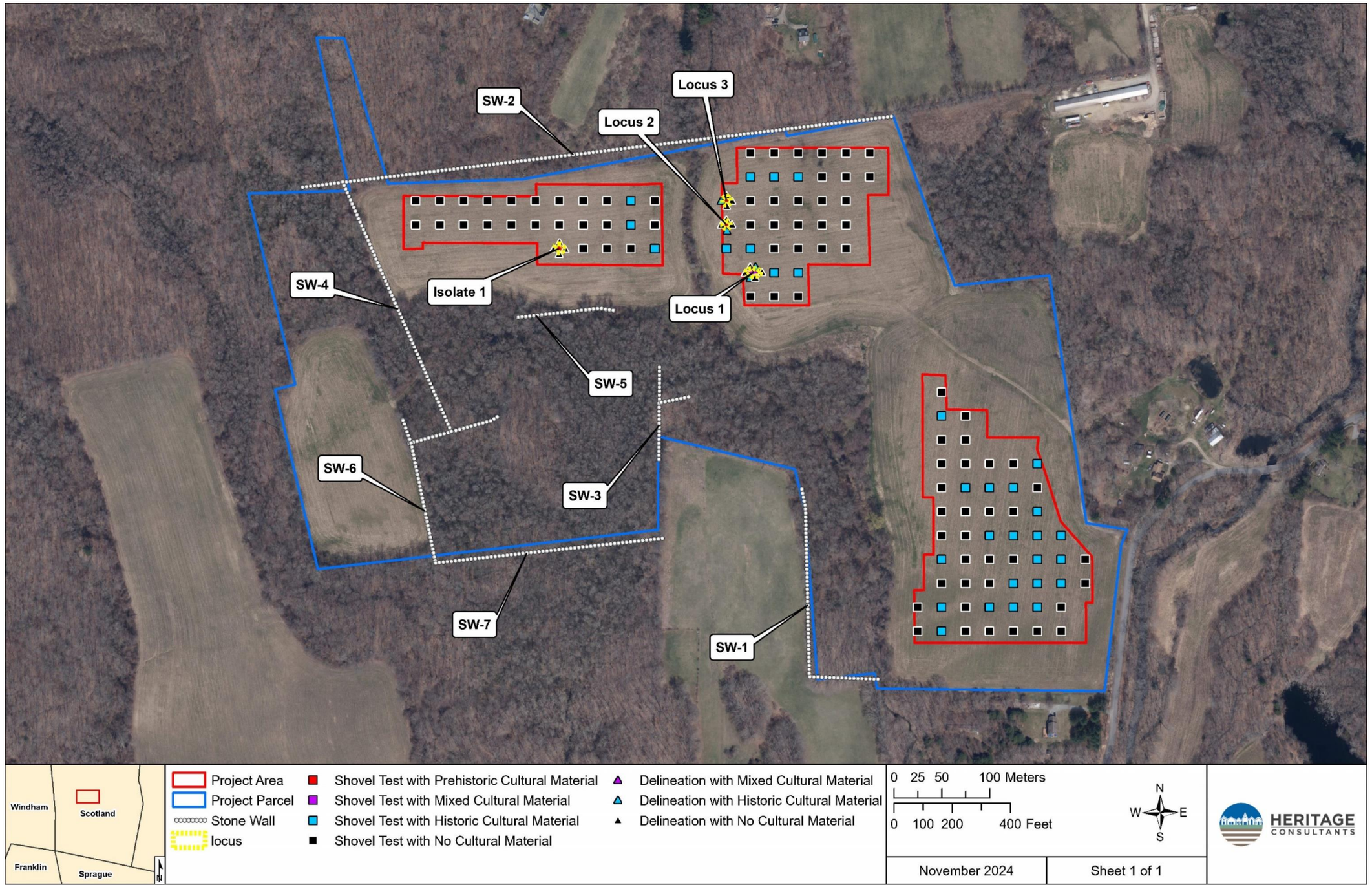

Figure 14. Digital map illustrating and overview of the Phase IB shovel testing results for the Project Area (Area 1 through 3) located in Scotland, Connecticut.

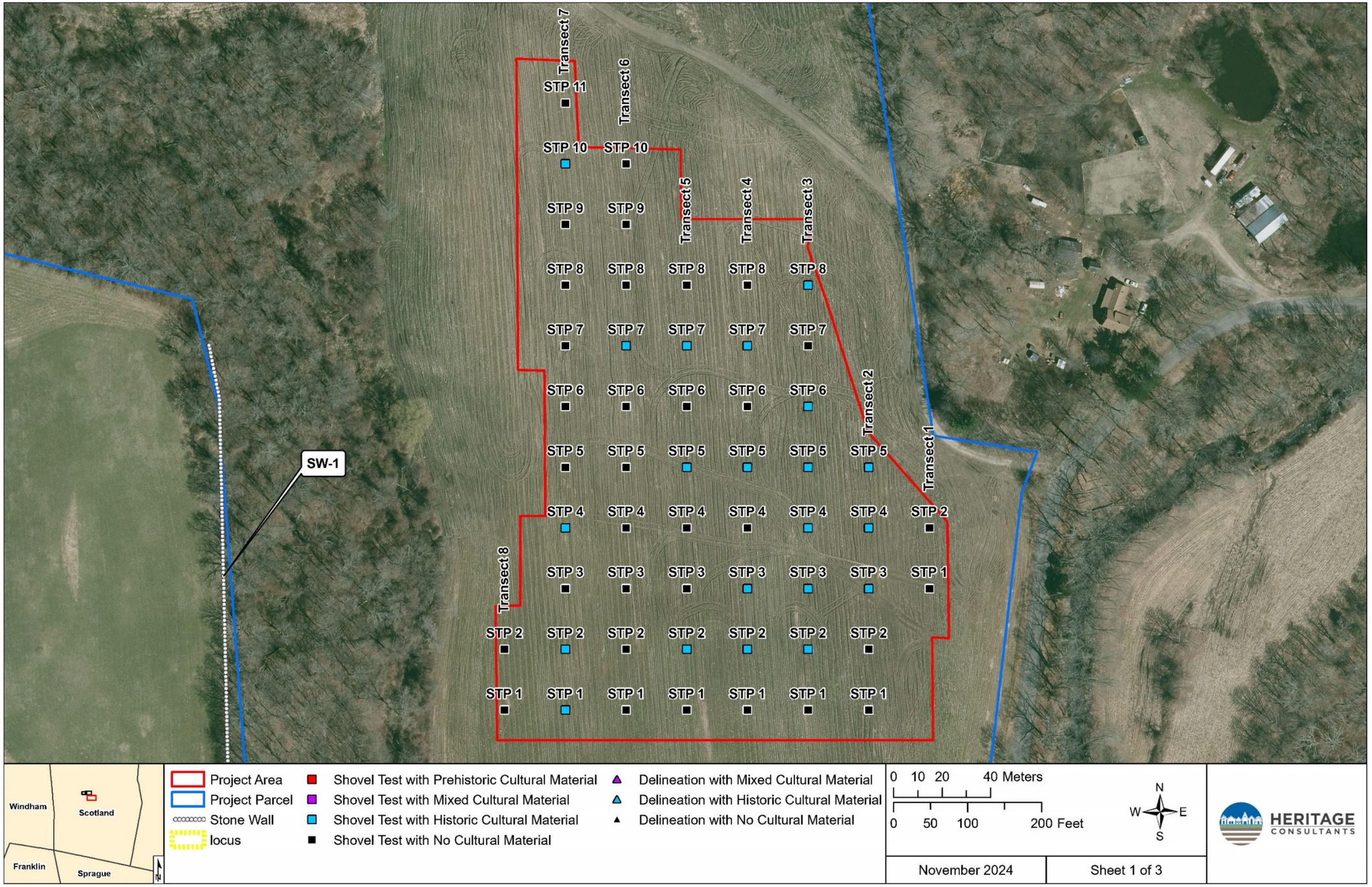

Figure 15; Sheet 1. Digital map illustrating the Phase IB shovel testing results of Area 1 located in Scotland, Connecticut.

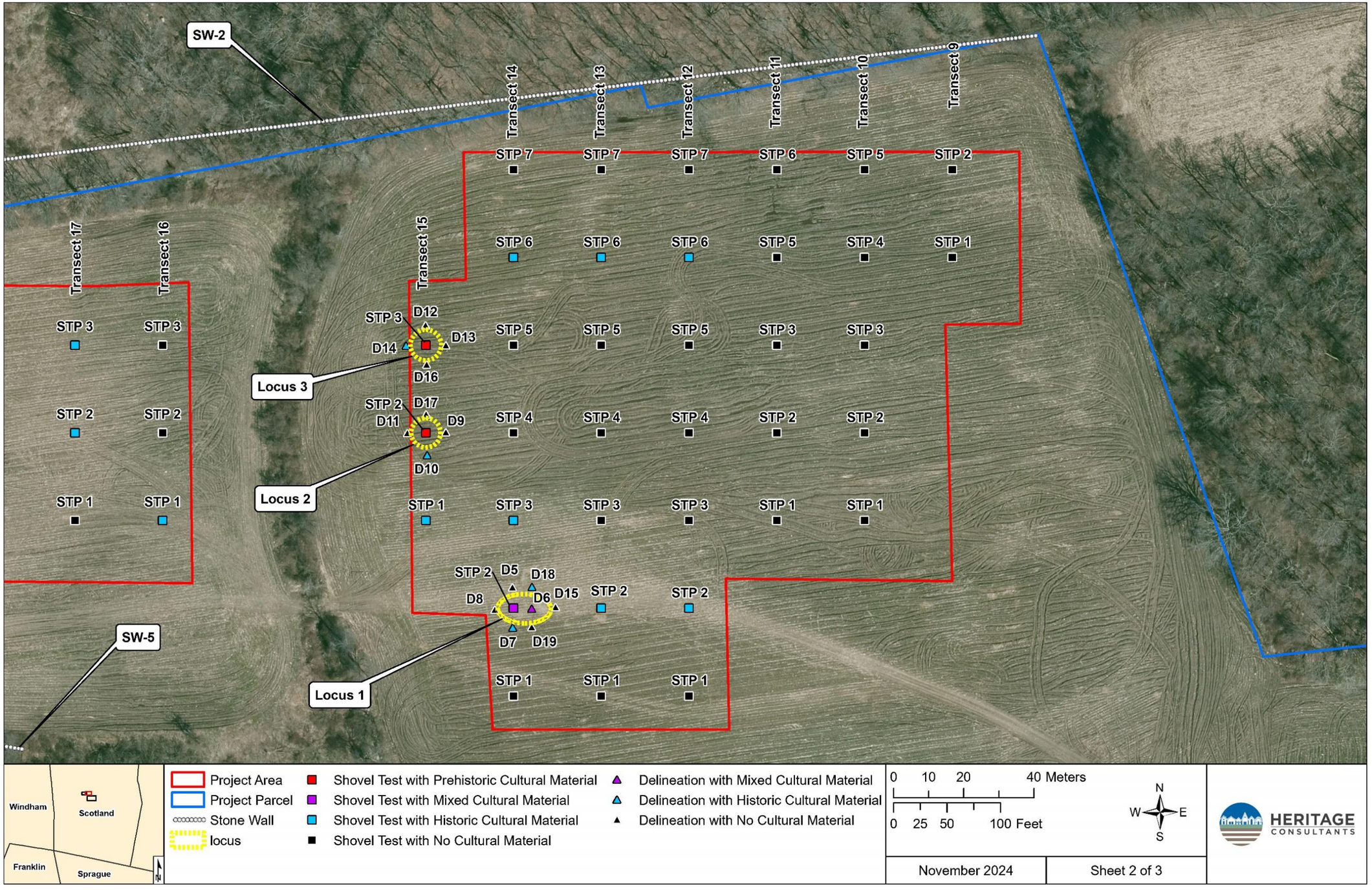

Figure 15; Sheet 2. Digital map illustrating the Phase IB shovel testing results of Area 2 located in Scotland, Connecticut.

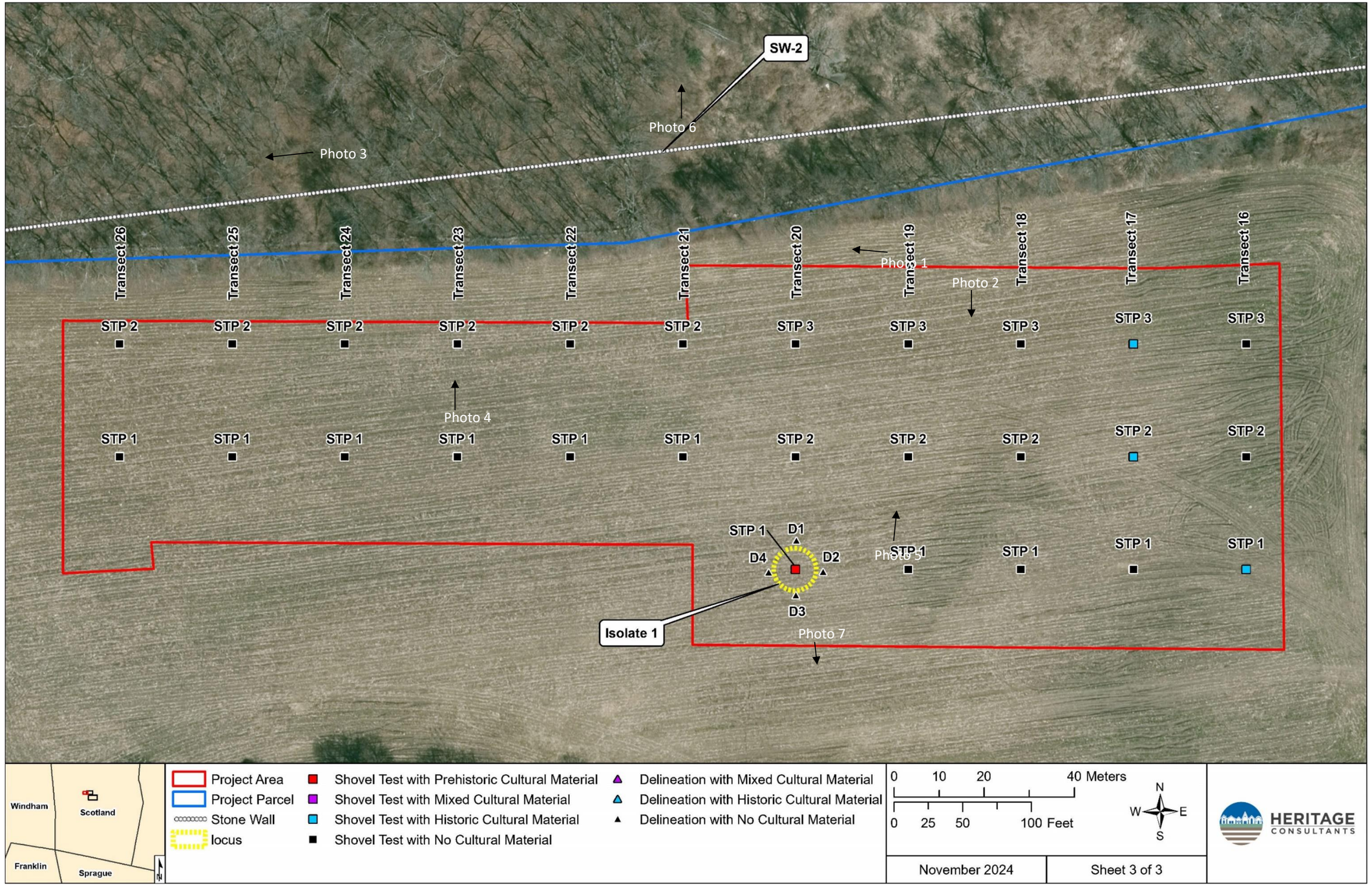

Figure 15; Sheet 3. Digital map illustrating the Phase IB shovel testing results of Area 3 located in Scotland, Connecticut.

APPENDIX B

PHOTOS

Photo 1. Overview of Area 1. Photo facing to the northwest.

Photo 2. Overview of Area 2, taken from the southeastern portion. Photo facing to the northwest.

Photo 3. Overview of Area 2 taken from the northeastern portion. Photo facing to the southwest.

Photo 4. Overview of Area 2 taken from the western portion. Photo facing to the south.

Photo 5. Overview of Area 3 taken from the southeastern portion. Photo facing to the east.

Photo 6. Selection of post-European Contact period artifacts. Left to Right: Canton porcelain sherd; white slat glazed stoneware scratch blue decoration sherd; creamware sherd; uranium glass shard.

Photo 7. Precontact artifacts recovered from Locus 1 side A. Left to Right: chert biface retouch flake; quartzite flake; biface retouch flake; hornfels projectile point base fragment.

Photo 8. Precontact artifacts recovered from Locus 1 side B. Left to Right: chert biface retouch flake; quartzite flake; biface retouch flake; hornfels projectile point base fragment.

Photo 9. Precontact era artifacts recovered from Locus 2 side A. Left to Right: quartz biface reduction flake; quartz flake.

Photo 10. Precontact era artifacts recovered from Locus 2 side B. Left to Right: quartz biface reduction flake; quartz flake.

Photo 11. Precontact era artifacts recovered from Locus 3 side A. Left to Right: quartz biface retouch flake; chert flake.

Photo 12. Precontact era artifacts recovered from Locus 3 side A. Left to Right: quartz biface retouch flake; chert flake.

Photo 13. Precontact era quartzite biface thinning flake recovered from ISO-1 side A.

Photo 14. Precontact era quartzite biface thinning flake recovered from ISO-1 side B.