

Exhibit I

SHPO Submission

**(Cover Letter and Phase IA Cultural Resource Reconnaissance Survey of the
Proposed SunJet Solar Center in Bethlehem, Connecticut)**



August 13, 2020

Mr. Brian Gaudet
Project Manager
All-Points Technology Corporation
567 Vauxhall Street Extension, Suite 311
Waterford, Connecticut 06385

RE: Proposal for Cultural Resources (Phase IA) Survey of the Proposed Sunjet Solar Project in Bristol, Connecticut

Mr. Gaudet:

In May of 2020, All-Points Technology Corporation, P.C., contracted with Heritage Consultants, LLC (Heritage) to complete a Phase IA cultural resources assessment survey of a proposed solar center located at 78 Thomson Road in Bethlehem, Connecticut. The parcel of land on which the solar center was to be built encompassed approximately 73.2 acres of land and was to be accessed from Thomson Road, which abuts the southern boundary of the property (Figure 1). The Phase IA investigation consisted of: 1) preparation of an overview of the region's prehistory, history, and natural setting; 2) a literature search to identify and discuss previously recorded cultural resources in the region; 3) a review of readily available historic maps and aerial imagery depicting the project area to identify potential historic resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project area to determine their archaeological sensitivity.

The results of the Phase IA survey completed in May of 2020 indicated that the western portion of the project area, which encompassed 9.6 acres of land, was characterized by steep slopes and possessed a low/no sensitivity for intact archaeological deposits. It was also determined that the area of the then-proposed 4.26 m (14 ft) wide crushed stone access road had visible signs of modern disturbance and held no/low sensitivity for intact archaeological deposits. The pedestrian survey portion of the investigation revealed that there were two historic standing houses near the solar facility. The first, which was identified along the northern side of Thomson Road and to the southeast of the project area would not be directly or indirectly impacted due to existing vegetation and topography, which obscured visibility of the solar array. The second, a historic residence located across the street and on the south side of Thomson Road, was visible from the then-proposed solar facility'; it was recommended that any impacts to it, including visual impacts, should be avoided. Finally, the eastern portion of the then-proposed project area, which included 4.9 acres of land, was determined to hold moderate/high sensitivity for intact archaeological deposits due to the presence of low/no slopes, well drained soils, and no visible disturbance. It was recommended that the eastern portion of the project area be subjected to a Phase IB cultural resources survey prior to the construction of the solar facility.

Since submission of Heritage's Phase IA report in May of 2020, All-Points, working with its client, Sunjet, has reconfigured the layout of the proposed solar center (Figure 2). While the entrance point

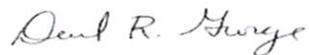
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to the facility will be at the same location, the proposed access road will follow a different path. The access road will now trend along an existing gravel driveway that leads to a modern residence to the northwest of Thompson Road. That driveway has been disturbed in the past and no longer retains any potential to produce intact cultural deposits. No additional archaeological examination of the proposed access road is recommended.

The proposed solar center itself has been shifted to the west of its original location such that all of it will now be located in the area of the open field that was previously identified as possessing a no/low archaeological potential due to the presence of steep slopes. As a result, no additional archaeological examination of the area to contain the solar array is recommended. In addition, the new location of the solar array will still not be visible from the historic house to the southeast along Thompson Road and the historic house to the immediately south of the previous location of the array and access road will now not be visible from the revised array location due to an intervening tree line along Thompson Road, the modern house at the end of the newly proposed access road, and the above-referenced slopes.

It is the professional opinion of Heritage that the revised location of the proposed Sunjet solar center at 78 Thomson Road in Bethlehem, Connecticut will have no effect on cultural resources. No additional examination of the project area is recommended. If you have any questions regarding this addendum letter, or if we can be of additional assistance with this or with any other project you may have, please do not hesitate to contact me at dgeorge@heritage-consultants.com or at (860) 299-6328. We are at your service.

Sincerely,



David R. George, M.A., R.P.A.
Heritage Consultants, LLC

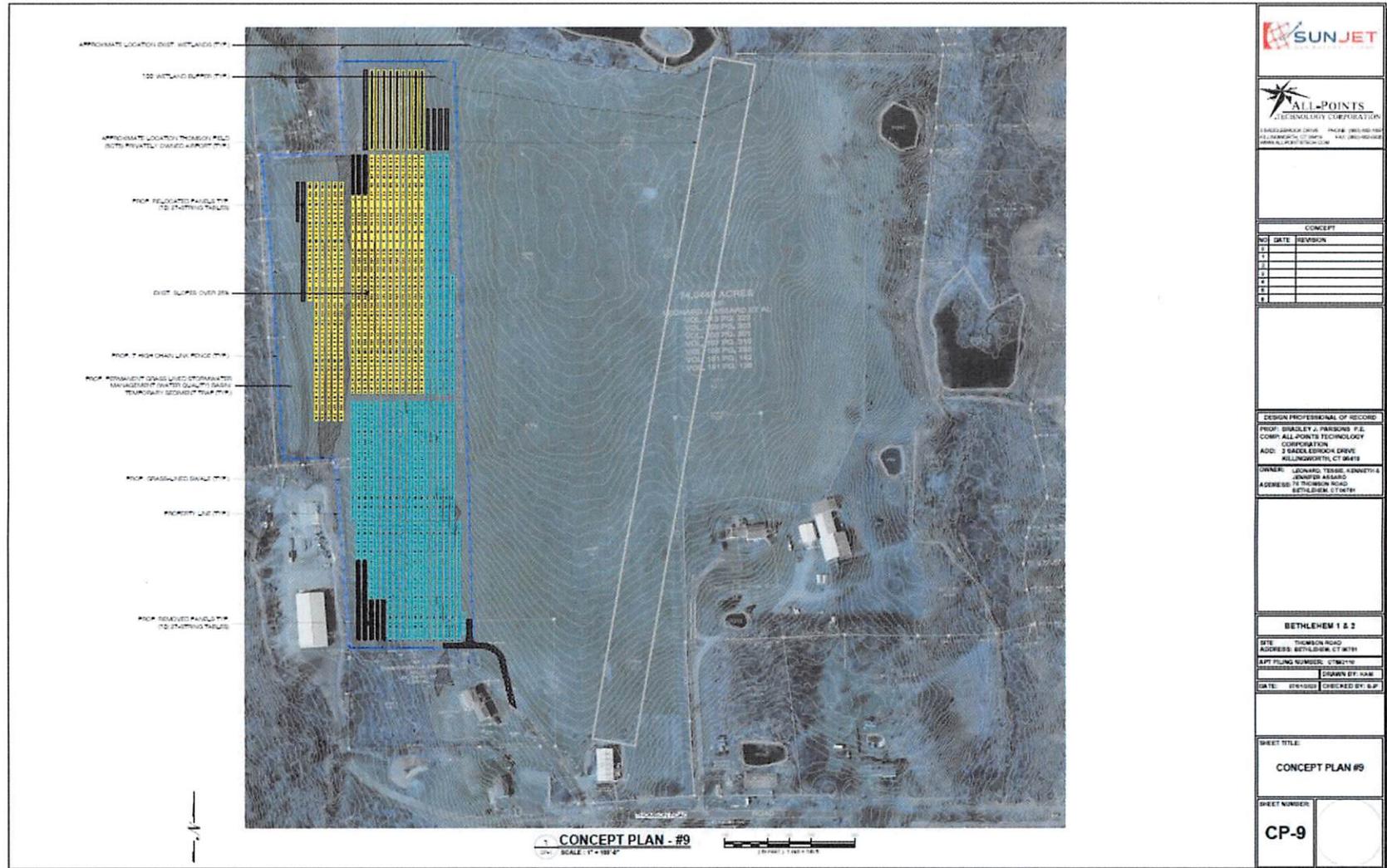


Figure 2. Revised Project Plans for the Sunjet Solar Facility in Bethlehem, Connecticut.

MAY 2020

PHASE IA CULTURAL RESOURCES RECONNAISSANCE SURVEY
OF THE PROPOSED SUNJET SOLAR CENTER IN
BETHLEHEM, CONNECTICUT

PREPARED FOR:



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ABSTRACT

This report presents the results of a Phase IA cultural resources assessment survey for the proposed Sunjet Solar Facility in Bethlehem, Connecticut. All-Points Technology Corporation, P.C., contracted with Heritage Consultants, LLC to complete this survey located at 78 Thomson Road in Bethlehem, Litchfield County, Connecticut. The project area associated with the solar facility will occupy approximately 73.2 acres of land and will be accessed from Thomson Road on the southern boundary of the property. The investigation consisted of: 1) preparation of an overview of the region's prehistory, history, and natural setting; 2) a literature search to identify and discuss previously recorded cultural resources in the region; 3) a review of readily available historic maps and aerial imagery depicting the project area to identify potential historic resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project area to determine their archaeological sensitivity. The results of the survey indicate that the western portion of the project area which encompassed 9.6 acres of land is characterized by steep slopes and was deemed to possess low/no sensitivity for intact archaeological deposits. It was also determined that the area of the proposed 14-foot crushed stone access road has visible signs of modern disturbance and holds no/low sensitivity for intact archaeological deposits. There are two standing houses near the solar facility. The house on Thomson Road will not be directly or indirectly impacted due to existing vegetation and topography which obscures visibility of the solar array. The house across the street is visible from the proposed solar facility, and any impacts to it, including visual impacts, should be avoided. Finally, the eastern portion of the project area, which includes 4.9 acres of land, was determined to hold moderate/high sensitivity for intact archaeological deposits due to low/no slopes, well drained soils, and no visible disturbance. It is recommended that the eastern portion of the project area be subjected to a Phase IBN cultural resources survey prior to the construction of the solar facility.

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CHAPTER I

INTRODUCTION

This report presents the results of the Phase IA cultural resources management survey for the proposed Sunjet Energy Solar Facility in Bethlehem, Connecticut (Figure 1). All-Points Technology Corporation (All-Points) requested that Heritage Consultants, LLC (Heritage) complete the assessment survey as part of the planning process for the proposed solar array, which will occupy approximately 14.5 ac of land within a larger 73.2 ac parcel of land along Thomson Road. The proposed impact areas associated with this project will include the solar array and a crushed stone driveway that will extend from Thomson Road in the south to the array location. The proposed 14.5 ac development area is hereafter referred to as the project area and currently consists primarily of fallow agricultural field. The project area is situated in the southwestern portion of a large parcel of land located 78 Thomson Road in Bethlehem. It is bordered to the south by Thomson Road, a residential neighborhood to the east, wooded areas to the west, and wetlands to the north. The 14.5 acres of land that will house the solar array is open field. All work associated with the 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). The results the Phase IA cultural resources survey of the project area, including background research, pedestrian survey, photo-documentation, and management recommendations are provided in this report.

Project Description and Methods Overview

The proposed project will consist of a solar array that will include the installation of approximately 105 rows of solar panels. The proposed project plans include a permanent grass lined stormwater management basin and an overflow weir on the west side of the project area. It also includes a 14-foot-wide gravel access drive from Thomson Road to the solar array (Figure 2). At the time of survey, the project area consisted of open field and ranged in elevation from approximately 233 to 253 m (764.4 to 830.0 ft) NGVD, with the highest elevation in the northeast sloping down to the west and southwest. Soils noted throughout the area are generally characterized as nearly level well drained soils with stratified loam, sand, and gravel.

This Phase IA cultural resources assessment survey consisted of the completion of the following tasks: 1) a contextual overview of the region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously completed cultural resources surveys and previously recorded cultural resources in the region encompassing the project area; 3) a review of readily available historic maps and aerial imagery depicting the project area in order to identify potential historic resources and/or areas of past disturbance; 4) pedestrian survey and photo-documentation of the project area in order to determine their archaeological sensitivity; and 5) preparation of the current Phase IA cultural resources assessment survey report.

Project Results and Management Recommendations

The review of historic maps and aerial images depicting the project area, and files maintained by the CT-SHPO, identified four previously documented archaeological sites within the vicinity of the project area. Four National/State Register of Historic Places Properties in the vicinity of the project area include the Bethlehem Green Historic District, the Bellamy Joseph House, the Isaac Hill House, and the Martin Caleb House.

In addition to the cultural resources review, Heritage used data from the pedestrian survey, as well as historic map and aerial image analysis, to stratify the project area into zones of no/low and /or moderate/high archaeological sensitivity. The results of the survey indicate that the western portion of the project area, which encompassed 9.6 acres of land, is characterized by steep slopes and was deemed to possess low/no sensitivity for intact archaeological deposits. It was also determined that the area of the proposed crushed stone access road has visible signs of modern disturbance and holds no/low sensitivity for intact archaeological deposits. There are two standing houses near the solar facility. The house on Thomsom Road will not be directly or indirectly impacted due to existing vegetation and topography which obscures visibility of the solar array. The house across the street is visible from the proposed solar facility, and any impacts to it, including visual impacts, should be avoided. Finally, the eastern portion of the project area, which includes 4.9 acres of land, was determined to hold moderate/high sensitivity for intact archaeological deposits due to low/no slopes, well drained soils, and no visible disturbance.

Project Personnel

Heritage Personnel who contributed to the project include Mr. David R. George, M.A., R.P.A., (Principal Investigator); Ms. Renée Petruzelli, M.A., R.P.A. (Project Archaeologist); Mr. Stephen Anderson, B.A., (Geographic Information Specialist) Ms. Elizabeth Correia M.A (Laboratory Specialist)and Ms. Christina Volpe, B.A., (Historian).

CHAPTER II

NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the project area in Bethlehem, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both prehistoric and historic 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 project area. The remainder of this chapter provides a brief overview of the ecology, hydrological resources, and soils present within the 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 one of the ecoregions is germane to the current investigation: Northwest Uplands ecoregion. A summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the project area.

Northwest Hills Ecoregion

The Northwest Hills ecoregion region consists of a hilly upland terrain characterized by "a moderately hilly landscape of intermediate elevation, with narrow valleys and local areas of steep and rugged topography" (Dowhan and Craig 1976:31). Elevations in the Northwest Hills ecoregion range from 228.6 to 304.8 m (750 to 1,000 ft) above sea level. The bedrock of the region is composed of schists and gneisses deposited during the Paleozoic (Dowhan and Craig 1976; Bell 1985). Soils in these uplands areas have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys (Dowhan and Craig 1976).

Hydrology in the Vicinity of the Project Region

The project area is close to many ponds, brooks, rivers, and wetlands. Freshwater sources include Bird Pond which is approximately 780.7 meters (2,561.3 ft) to the north of the project area, and Weekepeemee River which is 2,029.4 meters (6,658.1 ft) to the south of the project area. Previously completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were

focal points for prehistoric occupations because they provided access to transportation routes, sources of fresh water, and abundant faunal and floral resources.

Soils Comprising the Project Area

Soil formation is the direct result of the interaction of many variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to various diagenic and taphonomic 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. In contrast, acidic soils enhance the preservation of charred plant remains.

A review of the soils within the project area is presented below. The area is characterized by the presence of Paxton and Montauk soils and Canton and Charlton soils (Figure 3). Data regarding them was collected from the National Resources Conservation Service (<https://soilseries.sc.egov.usda.gov>).

Paxton and Montauk Soils (Soil Codes 84B, 84C, 84D)

The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and subsoil and low or moderately low in the substratum. Mean annual temperature is about 10 degrees C., and mean annual precipitation is about 1194 mm. Typical sequence, depth, and composition of this soil is as follows: **Ap** -- 0 to 20 cm; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary; **Bw1** -- 20 to 38 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; few earthworm casts; strongly acid; gradual wavy boundary; **Bw2** -- 38 to 66 cm; olive brown (2.5Y 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; clear wavy boundary; **Cd** -- 66 to 165 cm; olive (5Y 5/3) gravelly fine sandy loam; medium plate-like divisions; massive; very firm, brittle; 25 percent gravel; many dark coatings on plates; strongly acid.

The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines. Slope ranges from 0 to 35 percent. Saturated hydraulic conductivity is moderately high or high in the mineral solum and low to moderately high in the substratum. Mean annual temperature is about 9 degrees C., and mean annual precipitation is about 1143 mm. Typical sequence, depth, and composition of this soil is as follows: **Ap**-- 0 to 10 cm; very dark gray (10YR 3/1) loam; moderate fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 2 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.1); clear smooth boundary; **BA**-- 10 to 34 cm; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 4 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary; **Bw1**-- 34 to 65 cm; dark yellowish brown (10YR 4/6) loam; moderate coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 6 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary; **Bw2**-- 65 to 87 cm; yellowish

brown (10YR 5/6) sandy loam; moderate medium and coarse subangular blocky structure; friable; many very fine, fine, and coarse roots; many fine and medium pores; 5 percent gravel and 1 percent cobbles; extremely acid (pH 4.3); clear smooth boundary; **2Cd1**-- 87 to 101 cm; strong brown (7.5YR 5/6) gravelly loamy sand; moderate medium plates; firm; few fine roots; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; very strongly acid (pH 4.7); clear wavy boundary; **2Cd2**-- 101 to 184 cm; dark yellowish brown (10YR 4/6) gravelly loamy sand; moderate medium plates; firm; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; strongly acid (pH 5.1).

Canton and Charlton Soils (Soil Code 60B)

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. The mean annual temperature is about 9 degrees C and the annual precipitation is about 1205 mm. Typical sequence, depth, and composition of this soil 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; **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. Saturated hydraulic conductivity is moderately high or high. Mean annual temperature is about 9 degrees C and mean annual precipitation is about 1205 mm. Typical sequence, depth, and composition of this soil 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; **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

The natural setting of the area containing the proposed Sunjet Energy Solar Facility is common in the Northwest Hills ecoregion section of Connecticut and is characterized by narrow river valleys and low hills. The Northwest Hills ecoregion stretches up and down the western Connecticut boundary line, following the Housatonic River. The project area is located approximately 2,029.4 meters (8012 ft) to the north of the Weekepeemee River, and approximately 780.7 meters (2,561.3 ft) to the south of Bird Pond. The region demonstrates that there is substantial natural diversity remaining even though the area has

undergone modifications and adaptations since the retreat of the glaciers. The types of Native American 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

PREHISTORIC 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 prehistory of the region was studied at the site level. Sites chosen for excavation were highly visible and they were located in such areas as the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the prehistory 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 prehistoric 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 prehistoric 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 prehistory of Connecticut. The remainder of this chapter provides an overview of the prehistoric setting of the region encompassing the project area.

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., 12,000 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 numerous surface finds of Paleo-Indian projectile points throughout the State of Connecticut, only two sites, the Templeton Site (6-LF-21) in Washington, Connecticut and the Hidden Creek Site (72-163) in Ledyard, Connecticut, have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located 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 graters, 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.

The only other Paleo-Indian site studied in detail in Connecticut is the Hidden Creek Site (72-163) (Jones 1997). The Hidden Creek Site is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut. 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, graters, 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.

While archaeological evidence for Paleo-Indian occupation is scarce in Connecticut, it, combined with data from the West Athens Road and King's Road Site in the Hudson drainage and the Davis and Potts Sites in northern New York, supports the hypothesis that there was human occupation of the area not long after ca. 12,000 B.P. (Snow 1980). Further, site types currently known suggest that the Paleo-Indian settlement pattern was characterized by a high degree of mobility, with groups moving from region to region in search of seasonally abundant food resources, as well as for the procurement of high-quality raw materials from which to fashion stone tools.

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, finds of these projectile points have 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.

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

By the onset of the Middle Archaic Period, essentially modern deciduous forests had developed in the region (Davis 1969). It is at this time that increased numbers and types of sites are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site, which is located in Manchester, New Hampshire and studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. In fact, Dincauze (1976) obtained several radiocarbon dates from the Middle Archaic component of the Neville Site. The dates, associated with the then-newly named Neville type projectile point, ranged 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 m² (5,383 ft²). 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 Terminal Archaic Period (3,700 to 2,700 B.P.)

The Terminal Archaic Period, 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 prehistory. 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 archeologists. 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 the use of Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic Period 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 still was 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 it has been 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.

Careful archaeological investigations of Early Woodland sites in southern New England have 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 indicates 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 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 diverse stylistically than their predecessors, with incision, shell stamping, punctuation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Prehistory

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. For the majority of the

prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild 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 prehistoric era 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 containing the proposed project area, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV

HISTORIC OVERVIEW

Introduction

As stated in Chapter 1, the project area for the proposed Sunjet Solar Facility is located in the town of Bethlehem, which is in Litchfield County, Connecticut. The town of Bethlehem is situated in southern Litchfield County, and the project area is positioned in the center of Bethlehem and on the north side of Thomson Road between Sunny Ridge Road to the east and wetlands to the west. This chapter presents an overview of the history of the larger region, as well as historical data specific to the project area.

Bethlehem

In 1703 the Connecticut General Assembly granted the town of Woodbury the right to enlarge their boundaries. In 1710 a deed of sale referred to the North Purchase was made between white settlers and the Nunawague Native Americans for a tract of land encompassing 18,000 acres of land in present day Bethlehem and Washington. In 1723 the future town of Woodbury was surveyed, and tracts of land were divided into lots to be sold to the future first residents of Bethlehem. They arrived in 1734 and settled in the "heights northeast of the present center". The first settlers located themselves a short distance north of the present center of the town.

Native American History

At the time of European contact, the people who lived in the Woodbury and Bethlehem area were known as the Pootatuck. The Pootatuck were a group of Algonquian speaking Native Americans dwelling in the Pomperaug River drainage basin (Cothren 1872, De Forest 1962). Pootatuck translates to "by the falls of the river" and historians believe the Pootatuck were a small wandering tribe that made their home in "dense forests, among the lofty mountains, by the murmuring streams, and along the meandering rivers." (Cothren 1858:862). Land along the Pomperaug River was sold to European settlers as early as 1673 (Clark 1973: 1). Conflict arose soon after with residents in Woodbury fearing "the incursions of the Mohawks, who previous to the arrival of the settlers, held the Indians of this territory as tributaries by superior prowess" (Cothren 1858:864). Fear that the Pootatuck would side with the French in the French and Indian Wars in 1706 state leaders determined that "in order to prevent the defection of the Pootatuck and Owiantonuck Indians to the common enemy and to secure their fidelity, that order be sent to Captain John Minor and Mr. John Sherman of Woodbury...to remove the said Indians down to Fairfield or Stratford...But if they cannot at present be removed, then to take two of their principal persons, and convey them to Fairfield, there to be kept safely as hostages, to secure the fidelity of those that remain at those inland places (Cothran 1858: 872).

Bethlehem History: Seventeenth and Eighteenth Centuries

In 1703 the Connecticut General Assembly granted the town of Woodbury the right to enlarge their boundaries. The deed to some 17,000-plus acres of land was signed and granted by Nonnewaug, the 6th sachem in succession after Pomperaug, on June 23, 1710. The land was surveyed in 1723 and divided into the English system of tiered lots to be divided amongst the proprietors of the future towns of Bethlehem and Washington in 1733 and 1734. A small tract of land in Southbury was reserved as hunting grounds for the Pootatuck and eventually became used a reservation for the few Pootatuck who survived colonial expansion following the French and Indian Wars (Clark 1973).

Colonial proprietors did not initially occupy their land in Bethlehem. Many sold off smaller pieces to other settlers and as is consistent with centuries of tradition lands were bought, sold, and divided to be passed down to the next generation. In 1734 when the first few families arrived they settled a short distance north of the present center and by 1738 the few families who resided within the North Purchase, as it was then called, petitioned the General Assembly for the right to pay for a minister to come and preach to their residents during the winter months (Cothren 1872). Joseph Bellamy (1719-1790) was asked to serve as pastor during the winter months, and soon after decided to remain in Bethlehem permanently. By 1740 there were fourteen families living in the North Purchase, and that same year the Ecclesiastical Society was established which allowed for residents of Bethlehem to erect a Congregational Church and school which were completed by 1744 (Cothren 1872). Joseph Bellamy's house located at present-day 9 Main Street North, was listed on the National Register of Historic Places in 1982. The Bellamy house is significant for being considered by historians as bring the first theological school in the country (Brown 2009). Bellamy began bringing students to his home in Bethlehem as early as 1740, but it was not until 1750 following the publication of his book of *True Religion Delineated* that inspired theologians to reach out to and study with Bellamy. Historians credit Bellamy and his house as being the first theological school in the country, due in part to Bellamy's insistence on teaching multiple students at once instead of what previous practice dictated which allowed only for single apprentice-like mentorship in religion. Bellamy's students followed a pre-determined course of study and were encouraged to read books outside the realm of religion that provoked critical thinking (Harding 1853).

In 1750, settlers of the North Purchase, present-day Bethlehem, suffered from an illness that took the lives of thirty people in the community. Leaders of the society sent a letter to the Connecticut General Assembly stating, "mortal distemper has carried off 30 persons, general in the prime of life, to the grave, and people have been called off from their common business to attend the sick"; residents subsequently asked to be excused from paying their taxes that year, which was granted (Cothren 1872). Bethlehem split from the town of Woodbury in 1787 becoming its own town. According to local legend the event that inspired the town's naming occurred in 1738 just before Christmas when a rare manifestation of the northern lights appeared in the region. Many townspeople assumed it to be the final judgement and worried that the spectacle meant sure doom. Revered Joseph Bellamy compared the spectacle to the birth of Jesus Christ, and the star which led the three kings to his birth on Christmas Eve. When the town changed their name, a spelling error was made, and the town name was registered as "Bethlem" (Keating 1938). Years later in 1864, residents requested to change the name and the town officially became known as Bethlehem.

Bethlehem History, Nineteenth and Twentieth Centuries

Visible on the 1859 historic map as being outside of the eastern boundary of the project area, the Episcopal Church was first mentioned in the town records in March of 1807 when a petition signed by eighteen people requested that David Bellamy, justice of the peace, grant Daniel Skidmore the necessary warrant for holding a meeting to organize a parish of the Episcopal Church. The first meeting was held March 30, 1807 at the house of Amos Lake (Brown 2009). Connecticut's Constitution of 1818 separated church and state and disassembled the Congregational church's governance over community taxation. After about 1830, various more industrial businesses appeared in town: carriage shops, a fulling mill, and shoe-making operation, and textile manufacturing, among other activities (Barber 1836). Cumulatively, it seems, these manufacturing efforts began to have the effect of drawing a larger population to the town by the end of the nineteenth century. In the 1850 United States Federal Census, the population in Bethlehem was 815 residents. It has almost always been an agricultural town, primarily focused on the production of dairy and cider. In 1870 the town was home to one woolen mill, two wagon shops, three sawmills, one grist mill, three cider distilleries, one blacksmith shop, one shoemakers' shop and three

mercantile stores. It also has two churches, a town hall, two ministers and one physician (Cothren 1872). In 1839, Bethlehem constructed a townhouse for government offices, meetings, and a schoolhouse on the west side of Main Street across from the Congregational church which was constructed in 1836 and still standing today (Brown 2009).

Historic Overview of the Project Area

The following is a brief overview of notable property owners abutting the project area according to 1859 and 1874 historic maps of the project area. On the 1859 historic map, abutting the northern limit of the Project Parcel in blue, near present-day West Lane, is the name H. Gillette. According to a contemporary publication: "Harvey Gillette's gristmill, built between 1820 and 1830, was located three-quarters of a mile west of the green on Route 132. The most successful industry until the late 1800s, it processed corn, rye, and oats. It paid the most taxes and use the most waterpower from Bird's Pond and Long Meadow Pond. The mill operated until 1913 but became badly deteriorated by 1950" (Brown 2009; see photo of mill below).

On both the 1859 and 1871 historic maps, along the northern boundary of the project parcel there is a former carriage shop indicated as "Stevens Car Sh." (Figures 4 and 5). According to the 1860 census the property belonged to James Stevens age 48, who listed his occupation as "wagon maker", and noted his real estate value as \$2,000 and his personal estate value being \$1,000. Living with him in 1860 was his wife Mary age 44, and their twin children named Emeline and Emily, both age 10 (Census 1860). Also listed as living on the property but in a separate dwelling is Julius Pope age 29, also employed as a wagon maker and noting a personal estate value of \$802. Living with Julius was his wife Josephine age 22, and their children Almon age 2, and Rosa age 1. One servant named Almira Dayton age 17, born in New York is listed as living on the property as well (Census 1860).

On the 1859 historic map of the project parcel, adjacent to the southwestern boarder of the project area outlined in red, is the notation of a Paper Mill (Figure 4). The paper mill does not appear on the 1874 historic map of the project parcel. Only one digital historic record could be found regarding the paper mill, according to a genealogical recording, "Samuel Church Jr. born Sept 16, 1716 married June 2, 1740 Sarah Porter of Bethlehem, Conn where he passed his life. He built the first paper mill and made the first writing paper in the state". He died December 1, 1760 during the "great sickness" in Bethlehem (Washburn 1914).

Several of the homesteads surrounding the project parcel indicated in blue on the 1859 and 1874 historic maps, are significant for playing their individual role in making Bethlehem a budding community in the nineteenth century. Beginning at the lower right boundary of the project parcel, the E. Merriam homestead was that of Erastus Merriam. According to the 1850 United States Federal Census Erastus Merriam, then age 41, was employed as a "wholesale peddler" and possessed a real estate value of \$1,000. Living with him in 1850 was his wife Maria age 38, and his daughter Elizabeth age 14 (Census 1850). The 1860 census is interesting because Erastus is still indicated as living on his former property and is listed as being the property owner however, living with him in 1860 is one Abraham Bassett age 52, employed as a shoemaker, Harriet Bassett age 51, and Daniel Farnum age 50. Erastus Merriam age 48, lists himself employed as a "basket maker" with a real estate value of \$900 and a personal estate of \$200 (Census 1860). Living next to Merriam in 1859 is H. Skidmore (Figure 4). Homer Skidmore age 52, lists himself on the 1860 U.S. Census as a merchant with a real estate value of \$2,000 and a personal estate value of \$6,000. Living with him in 1860 was his wife Annice age 44, and their children Burnice age 20, Sarah age 15, and Henry age 9 (Census 1860).

Other notable abutting property owners surrounding the project area according to the 1859 historic map is the property of H. Peck and the indication that he owned or operated the "P.O. & Store" as indicated on the map (Figure 4). According to the 1860 U.S. Census, Henry Peck then age 41 worked as a "Clothier" and possessed a real estate value of \$1,400 and a personal estate value of \$3,000. Living with him in 1860 was his wife Mary, age 40 and their children Mary A age 12, Henry age 10, and one Irish born servant named Margaret Higgins age 25 (Census 1860). Living next to Peck, as indicated on the 1859 historic map of the project area is J. Wheeler (Figure 4). On the 1860 U.S. Census James Wheeler age 49 listed his occupation as "laborer", possessing a real estate value of \$300. Living with him in 1860 was his wife Comfort, age 51 (Census 1860). Next to J. Wheeler on the 1859 historic map is L. Skidmore (Figure 1859). Lorah Skidmore in 1860 was 75, employed as a farmer and possessed a real estate value of \$6,000 and a personal estate value of \$2,300. Living with Lorah in 1860 was his wife Catherine age 53, and their son Julius age 13 (Census 1860).

A.H. Thompson's Farm

The entirety of the project area within the project parcel was the former land of Ebenezer Thompson (1775-1854). The property was first owned by Dr. Ebenezer Thompson who first settled in Bethlehem in 1738 and died during the "great sickness of 1750" (Cothren 1872). In early 2000, Dr. Ebenezer Thompson's tombstone was uncovered in the town of Bethlehem's oldest cemetery off Route 61 on Bellamy Lane (Old Bethlehem Historical Society, 2000). The focus of our study is the grandson of Dr. Ebenezer Thomson who died in 1750. According to the 1850 U.S. Census, the property indicated as belonging to A.H. Thompson belonged to his father Ebenezer (1775-1854), who was listed head of house at the age of 75 and possessing a real estate value of a large sum: \$10,500. Living in the household was Ebenezer's wife Esther age 71 and their children Amos H age 45, Frederick age 40, Frederick's wife Celestia age 31, and their children Jerusha age 7, David age 5, Andrew age 3, Elbert Carrington age 15, and Huldah age 13. Also listed as living in the house were three Irish born servants, Dunnis Morrison age 65, Thomas Lillis age 25, and John Judson age 18 (Census 1850).

According to an agricultural census for the year 1850 Amos Thompson (1807-1882), owned 150 acres of in-use farmland and 50 acres of unused farmland. His farm in 1850 was worth \$5,000. Thompson possessed 1 horse, 14 milk cows, 2 working oxen, 6 other cattle, 6 sheep, 4 swine, \$460 value of livestock, 50 bushels of Indian corn, and 25 bushes of oats. By the time of the 1860 U.S. Census Amos H. Thompson reports himself as a 53-year-old farmer with a real estate value of \$16,500 and a personal estate of \$9,500; significant sums for the period. Living with Amos in 1860 was his wife Lucinda age 44, and their children Ann age 16, Henrietta age 15, Harriet age 12, Eva age 6, Edna age 4, and twins Frank and Frederick age 2. Also listed is one Irish born servant named Patrick Farrall, age 25 (Census 1860).

In 1880 Amos lists himself as a 77-year-old farmer suffering from a noted illness, shock. Living with him was once again his wife Lucinda then age 64, and their twin sons Frank and Frederick age 22, both listed as farmers. One servant is also listed as living in the household, Mathew Kinney age 22 (Census 1880). Amos Thomson died in May of 1882 at the age of 75, and his wife Lucinda died shortly after in 1884 at the age of 67; both are interred at the Bethlehem New Cemetery. Following the death of Amos Thompson in 1882, his brother Frederick Thompson took over the family farm. He also served as a selectman for the town of Bethlehem from 1885-1899. According to the U.S. Census for the year 1910, Frederick occupied the family farm and is listed as a 52-year-old farmer. Living with him in 1910 was his second wife Minnie, then age 47 and their children Melvin age 27, Raymond age 25, Leavit age 21, and Christine age 19 (Census 1910; See photos below). Frederick died in October of 1930 and is buried at Evergreen Cemetery, outside of the eastern boundary of the project area.

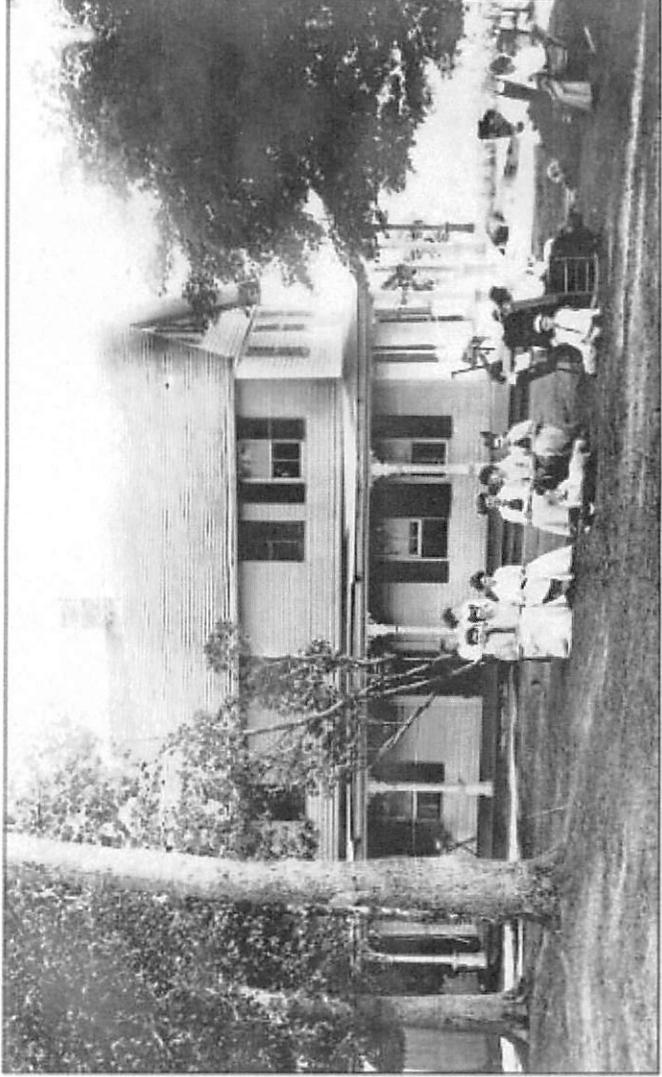


Photo adopted from Brown 2009:113)



Frederick Thompson circa 1909 (Brown 2009).

According to one history of the town of Bethlehem, the Thompson family farm was well known for many years as "Fairview Farm". The text described that the farm "was located at the end of Thomson Road, which used to go through Guilds Hollow over Mill Pond Road, Connecting with Arch Bridge Road (Addie Griswold Road), across Carmel Hill Road, through Arrowhead Farm, and into Washington, Connecticut" (Brown 2009; 113).

In the 1934 aerial image of the project area, the Thompson family farmhouse (pictured above) is visible on the map, behind it, there are indicated parceled off farm pastures; approximately five falling within the red limit of the project area (Figure 6). In the 1951 aerial photograph, the house is again visible and there is limited reforestation throughout the project area. Throughout the project parcel there is limited reforestation in the northern and eastern portions of the project area (Figure 7). By the time of the 2004 aerial photograph there appears minimal farming parcel markers in the form of stone walls or fences within the project area, but these seem to be severely diminished in comparison to the 1951 aerial photograph. There also appears to be an increase in residential structures to the north of the project parcel and west of the immediate project area (Figure 8). In 2016, the aerial photograph indicates an increase in the residential development west of the project area, previously noted in 2004; as well as the addition of several agricultural structures within the southeastern portion of the project parcel (Figure 9). The 2018 aerial photograph indicates that residential and commercial development took place to the east of the project area along Main Street South; indications of farm parcels within the project area are no longer visible (Figure 10). Little changes occurred between the 2018 and 2019 aerial photographs with just one addition of an outbuilding outside of the western portion of the project parcel limit (Figure 11).

CHAPTER V

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous cultural resources research completed within the vicinity of the project area in Bethlehem, Connecticut. This discussion provides the comparative data necessary for assessing the results of the current 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 project area are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, National/State Register of Historic Places properties, and inventoried historic standing structures over 50 years old situated in the project region (Figures 12 and 13). 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. 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 Properties

A review of data currently on file at the Connecticut State Historic Preservation Office, as well as the electronic site files maintained by Heritage identified one National/State Register of Historic Places Properties and three historic standing structures within 1.6 km (1 mi) of the project area (Figure 13). A total of four previous documented archaeological sites were identified within 1.6 km (1 mi) of the project area (Figure 14). The four archaeological sites and the three historic standing structures; the Joseph Bellamy House, the Old Post Tavern-Isaac Hill House, the Caleb Martin House, and the Bethlehem Green Historic District are discussed below.

Bethlehem Green Historic District

The Bethlehem Green Historic District is located in the center of the town of Bethlehem, Connecticut. The historic district includes the green and 63 contributing properties spread out over an area of 55 acres. The Bethlehem Green is a triangular-shaped park bounded on the east by Route 61, on the north by Route 32, and on the west by the street called "The Green". The Joseph Bellamy House, also known as the Bellamy-Ferriday House and Garden, and the Old Post Tavern-Isaac Hill House are part of the Bethlehem Green Historic District and are described below. Historic buildings around the green include the Congregational Church (1790), the townhouse (1839), the Episcopal Church, two eighteenth century taverns, which are currently private residences, a general store built on the site of a former store built in the nineteenth century, and a former school building currently used by the Episcopal Church. The Bethlehem Green Historic District was listed on the National Register of Historic Places in October 1982. The Bethlehem Green Historic District will not be impacted directly or indirectly by the proposed solar facility.

Joseph Bellamy House

The Joseph Bellamy House, which is also known as the Bellamy-Ferriday House and Garden, is a historic house museum located at 9 Main Street North in Bethlehem, Litchfield County, Connecticut. The property is part of the Bethlehem Green Historic District. The main house was built between 1754 and 1767 by the Reverend Joseph Bellamy, a prominent Congregationalist minister who played a role in the First Great Awakening. The submitted inventory form notes that Reverend Bellamy was a pastor in Bethlehem for 50 years and established the first theological seminary in America. The Joseph Bellamy House was first recorded by Mr. Herbert C. Darbee, Executive Secretary of the Connecticut Historical Commission, in

November 1966. The house consists of a 2-1/2 story main block, oriented facing south, with a two-story ell and modern wing to the north. The main block is topped by a gabled roof with a central chimney and gabled dormers. Its exterior is finished in wooden clapboards with corner quoin blocks, and there is a projecting two-story entry section in the rightmost bay. It has a Palladian window on the second floor, and a shallow portico supported by four fluted Ionic columns. The Joseph Bellamy House was listed on the National Register of Historic Places in 1982. The Joseph Bellamy House will not be impacted directly or indirectly by the proposed solar facility.

Old Post Tavern-Isaac Hill House

The Old Post Tavern, which is also known as the Isaac Hill House, is a two-story Colonial style structure that is situated within the Bethlehem Green Historic District in Bethlehem, Connecticut. It is located on the east side of Route 61 and approximately 183 meters (600 ft) south of Route 132. It was built to serve as a tavern in 1759 by Isaac Hill and originally stood opposite of the Brick Church (1829). The property was recorded, in July 1966, by Mr. John L. Beringer and Mr. Henry Simon of the Connecticut Historical Commission. The submitted inventory form notes that by 1966, the structure had been altered considerably with a modern portico added. The first-floor windows had molded caps and a five light transom was installed over the front door. The original building was described as having 12-over-12 sash windows. The front door had "fine raised panels" and the house had original clapboard siding. The historic Old Post Tavern-Isaac Hill House will not be impacted directly or indirectly by the proposed solar facility.

Caleb Martin House

The Caleb Martin House is located on Mill Pond Road in the south-central section of Bethlehem, Connecticut. The house was listed on the National Register of Historic Places in March 1996. It was built in 1730 as a one-room end chimney house and subsequently enlarged to a fully developed Colonial saltbox form by about 1745. It is a 2-1/2 story timber framed structure, with a side gable roof, large off-center chimney, clapboarded exterior, and stone foundation. The house has a saltbox profile, with the rear roof extending down to the first floor. The second-floor hangs over the first in front, as does the main roof over the second floor. The interior is a typical Georgian center chimney plan, with a small front vestibule that included a narrow winding staircase, and parlor spaces on both sides of the chimney. Together with its associated outbuildings, it occupies the northern end of its rural site, which extends almost 914 meters (3000 ft) to the south in the valley of the Weekepeemee River. Except for a 7-acre parcel carved out the northeast corner, the original farm property land is substantially the same as its original 1724 land grant. Bordered by stone walls along most of its boundary, it encompasses about 60 acres of open and wooded land. The Caleb Martin House is highly significant as an early example of Connecticut domestic architecture of exceptional quality and integrity with a level of significance further enhanced by its known associations with a series of owners, several quite prominent in Bethlehem's history. Caleb Martin, the house's original builder, was a descendant of the original proprietors of Woodbury, of which Bethlehem was a part until 1787. The Caleb Martin House will not be impacted directly or indirectly by the proposed solar facility.

Site 10-1

Site 10-1, which is also known as the Brophy Field Igloo (Transect A) site, is located on Brophy Road, which is also known as Robert Leather Road, in Bethlehem, Connecticut. The submitted site form notes that the land, which consisted of a cornfield, was owned by the Archdiocese (Abby of Regina Laudis) and was surface collected by Sister Philip in 1988 and 1989. Sister Philip collected a single kaolin pipe bowl fragment and identified a possible stone foundation. Little to no additional information is listed on the submitted site form. The Brophy Field Igloo (Transect A) site has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Site 10-2

Site 10-2, which is also known as the Flint Beach Site, is located on Flanders Road in Bethlehem, Connecticut. The submitted site form notes that the land, which consists of a pasture, was owned by the Archdiocese (Abby of Regina Laudis). The site was recorded by Mother Philip Kline, O.S.B of the Abby of Regina Laudis, in November 1989. Mother Philip Kline conducted sub-surface testing at the site for her PhD dissertation for the Union Institute in Cincinnati, Ohio. Mother Philip Kline reported that survey test pits were excavated at 10-meter intervals. Test pit designation C-3 yielded a single quartz flake and charcoal, C-4 yielded a single chert graver, a chert flake with potlid fracture, and charcoal. Test pit C-7 yielded charcoal. Mother Philip Kline hypothesized, in the submitted site form, that there were two campsites approximately 40 meters (131.2 ft) apart along the beach of what may have been a glacial pond. She noted that one campsite might be a possible Paleo-Indian Period site, but due to the lack of diagnostic artifacts, could not give a date to the second campsite. The Flint Beach Site has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Site 10-3

Site 10-3, which is also known as the Brophy Field Igloo (Transect B) site, is located on Brophy Road, which is also known as Robert Leather Road, in Bethlehem, Connecticut. The submitted site form notes that the land, which consisted of a cornfield, was owned by the Archdiocese (Abby of Regina Laudis). The submitted site form does not report any additional information about the site. The Brophy Field Igloo (Transect B) Site has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Site 10-4

Site 10-4, which is also known as the Bellamy-Ferriday House and Garden and the Joseph Bellamy House is a historic house museum located at 9 Main Street North in Bethlehem, Litchfield County, Connecticut. The property is part of the Bethlehem Green Historic District. The main house was built between about 1754 and 1767 by the Reverend Joseph Bellamy, a prominent Congregationalist minister in Bethlehem at the time. The property was first recorded by Mr. Herbert C. Darbee, Executive Secretary of the Connecticut Historical Commission, in November 1966. It was recorded again in June 2002 by Ms. Sara Mascia of Historical Perspectives, Inc., of Westport, Connecticut. Ms. Mascia reported that Historical Perspectives, Inc. crew conducted archaeological testing and monitoring of the site. She notes that in addition to the historical materials that were collected, a prehistoric component was identified. Quartz, quartzite, and chert artifacts were recovered from a buried early "A horizon". The Bellamy-Ferriday House and Garden (Joseph Bellamy House) was listed on the National Register of Historic Places in 1982. The Joseph Bellamy House will not be impacted directly or indirectly by the proposed solar facility.

Summary and Interpretations

A review of data currently on file at the Connecticut State Historic Preservation Office (CT-SHPO), as well as electronic site files maintained by Heritage identified four previously documented archaeological sites. The review and the analysis of the cultural resources recorded nearby, indicates that the larger project region contains prehistoric Native American deposits. Historic occupation began in the mid-seventeenth century and is represented by numerous standing historic structures.

CHAPTER VI METHODS

Introduction

This chapter describes the research design and field methodology used to complete the Phase IA cultural resources assessment survey of the project area in Bethlehem, Connecticut. The following tasks were completed during this investigation: 1) study of the region's prehistory, history, and natural setting, as presented in Chapters II through IV; 2) a literature search to identify and discuss previously recorded cultural resources in project region; 3) a review of historic maps, topographic quadrangles, and aerial imagery depicting the project area in order to identify potential historic resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project area in order to determine its archaeological sensitivity. These methods are in keeping with those required by the Connecticut State Historic Preservation Office in the document entitled: *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987)

Research Framework

The current Phase IA cultural resources assessment survey was designed to identify and assess the archaeological sensitivity of the project area, as well as to visually examine the project items and record any previously unidentified cultural resources during pedestrian survey. The undertaking was comprehensive in nature, and project planning took into consideration the distribution of previously recorded cultural resources located with the project region, as well as the visual assessment of the project area. The methods used to complete this investigation were designed to provide coverage of all portions of the project area. The field work portion of this undertaking entailed pedestrian survey, photo-documentation, and mapping (see below).

Archival Research and Literature Review

Background research for this project included a review of a variety of historic maps depicting the proposed project area; an examination of the USGA7.5' series topographic quadrangles; and examination of aerial images dating from 1934 to 2019. A review of all archaeological sites, National and State Register of Historic Places, inventoried historic standing structures on file with the CT-SHPO, as well as electronic cultural resources data maintained by Heritage was also reviewed. The intent of this review was to identify all previously recorded cultural resources situated within and immediately adjacent to the project area. This review also provides natural and cultural context of the project area and well as assesses sensitivity with respect to the potential for identification of intact cultural resources.

Field Methods and Data Synthesis

Heritage performed fieldwork for the Phase IA cultural resources assessment survey of the Sunjet Energy Solar Facility project area in Bethlehem, Connecticut. This included pedestrian survey, photo-documentation, and mapping of the proposed development area. All potential areas of impact in the project area were photo-documented by Heritage using digital media (Photos 1 through 9).

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
Connecticut State Archaeologist
Office of Connecticut State Archaeology
Box U-1023
University of Connecticut
Storrs, Connecticut 06269

CHAPTER VII

RESULTS & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IA cultural resources assessment survey of the project area in Bethlehem, Connecticut, as well as management recommendations for treatment of the proposed impact area associated with the Sunjet Solar Facility project. As stated in the introductory section of this report, the investigation involved the following tasks: 1) a contextual overview of the region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded archaeological and cultural resources in the project region; 3) a review of readily available historic maps and aerial imagery depicting the project area in order to identify potential historic resources and/or areas of past disturbance; 4) pedestrian survey and photo-documentation of the project area to determine its archaeological sensitivity; and 5) preparation of the current Phase IA cultural resources assessment survey report.

Results of Phase IA Survey

The project area is situated in the southwestern portion of a large parcel of land located 78 Thomson Road in Bethlehem. It is bordered to the south by Thomson Road, a residential neighborhood to the east, wooded areas to the west, and wetlands to the north. The 14.5 acres of land that will house the solar array is currently primarily fallow agricultural fields. The proposed solar array will occupy approximately 14.5 ac of land within a larger 73.2 ac parcel of land along Thomson Road. The solar array will include the installation of approximately 105 rows of solar panels. The proposed project plans include a permanent grass lined stormwater management basin and an overflow weir on the west side of the project area. It also includes a 14-foot-wide gravel access drive from Thomson Road to the solar array (Figure 2). At the time of survey, the project area consisted primarily of fallow agricultural fields and ranged in elevation from approximately 233 to 253 m (764.4 to 830.0 ft) NGVD, with the highest elevation in the northeast sloping down to the west and southwest. Soils noted throughout the area are generally characterized as nearly level well drained soils with stratified loam, sand, and gravel.

Heritage personnel conducted a pedestrian survey of the project area on May 8, 2020 (Figure 15 and Photos 1 through 9). At the time of the survey it was determined that eastern half of the project area, which included 4.9 acres of land, held moderate/high sensitivity for intact archaeological deposits due to low to no slopes, well drained soils, and no visible disturbance. The western portion of the project area which encompassed 9.6 acres of land had steep slopes and held low/no sensitivity for intact archaeological deposits (Figure 14). It was also determined that the area where the proposed crushed stone access road will be built has visible signs of modern disturbance and holds no/low sensitivity for intact archaeological deposits.

The pedestrian survey completed by Heritage also resulted in the identification of two historic houses located to the south and southeast of the project area (Figure 14 and Photos 8 and 9). The first house is an historic residence located at 56 Thomson Road, which is to the southeast corner of the project area. According to the assessor's office it was built ca., 1850. The house consists of two two-story blocks that are offset from each other but both face Thomson Road, and there is a garage attached to the west side (Photo 9). The eastern block has a gable roof with a narrow chimney at its center. Five windows are spread across the second story, while there is a door and two windows on the first. All windows have decorative shutters. The front entrance has sidelights and pilasters at each side of the door. It also has an exaggerated

entablature. The western block of the house has a gable roof which eases its pitch partway down the north side. There is another brick chimney at the center of this block. The second story here has two windows, and the first story has four. There is a second-story, hip-roofed bay window on the west side of this block. The garage has one car door facing west, and a steep gable roof. All exterior walls are clad in vinyl siding and roofs have asphalt shingles. This house will not be impacted directly by the construction of the solar array and viewshed will not be impacted due to existing intervening vegetation and topography that obscures visibility.

The second house is located across the street from the project area (Photo 8). It is a Colonial style house with two stories and a steep gable roof. A brick chimney protrudes from the center of the roof. The second story of the facade, which faces Thomson Road to the north, has five windows. The center window has muntins dividing it into small panes. The first story has four windows and a central entrance. The door is flanked by sidelights. The first story is also capped with a wraparound porch. The porch has regularly spaced support columns, and no railings. A modern addition with skylights is attached to the east side of the Colonial house. Based on an early twentieth century photo of the house, the sidelights around the front entrance are later additions, however the two-over-two sash windows are the same. Decorative shutters around the windows and brackets on the porch have since been removed. This house is visible from the solar array, and it is recommended that visual impacts should be avoided the extent possible. This may be accomplished through the installation of vegetative screening along the southern border of the solar facility and privacy slats in the surrounding fence line.

Management Recommendations

The results of the Phase IA cultural reconnaissance survey determined that the western portion of the project area, which encompassed 9.6 acres of land, is characterized by steep slopes and was deemed to possess low/no sensitivity for intact archaeological deposits. It was also determined that the area of the proposed crushed stone access road has visible signs of modern disturbance and holds no/low sensitivity for intact archaeological deposits. There are two standing houses to the south of the solar facility. The house on Thomson Road will not be directly or indirectly impacted due to existing vegetation and topography which obscures visibility of the solar array. The house across the street is visible from the proposed solar facility, and any impacts to it, including visual impacts, should be avoided to the extent possible. This may be accomplished through the installation of vegetative screening along the southern border of the solar facility and privacy slats in the perimeter fence line. Finally, the eastern portion of the project area, which includes 4.9 acres of land, was determined to hold moderate/high sensitivity for intact archaeological deposits due to low/no slopes, well drained soils, and no visible disturbance. It is recommended that the eastern portion of the project area be subjected to a Phase IB cultural resources survey prior to the construction of the solar facility.

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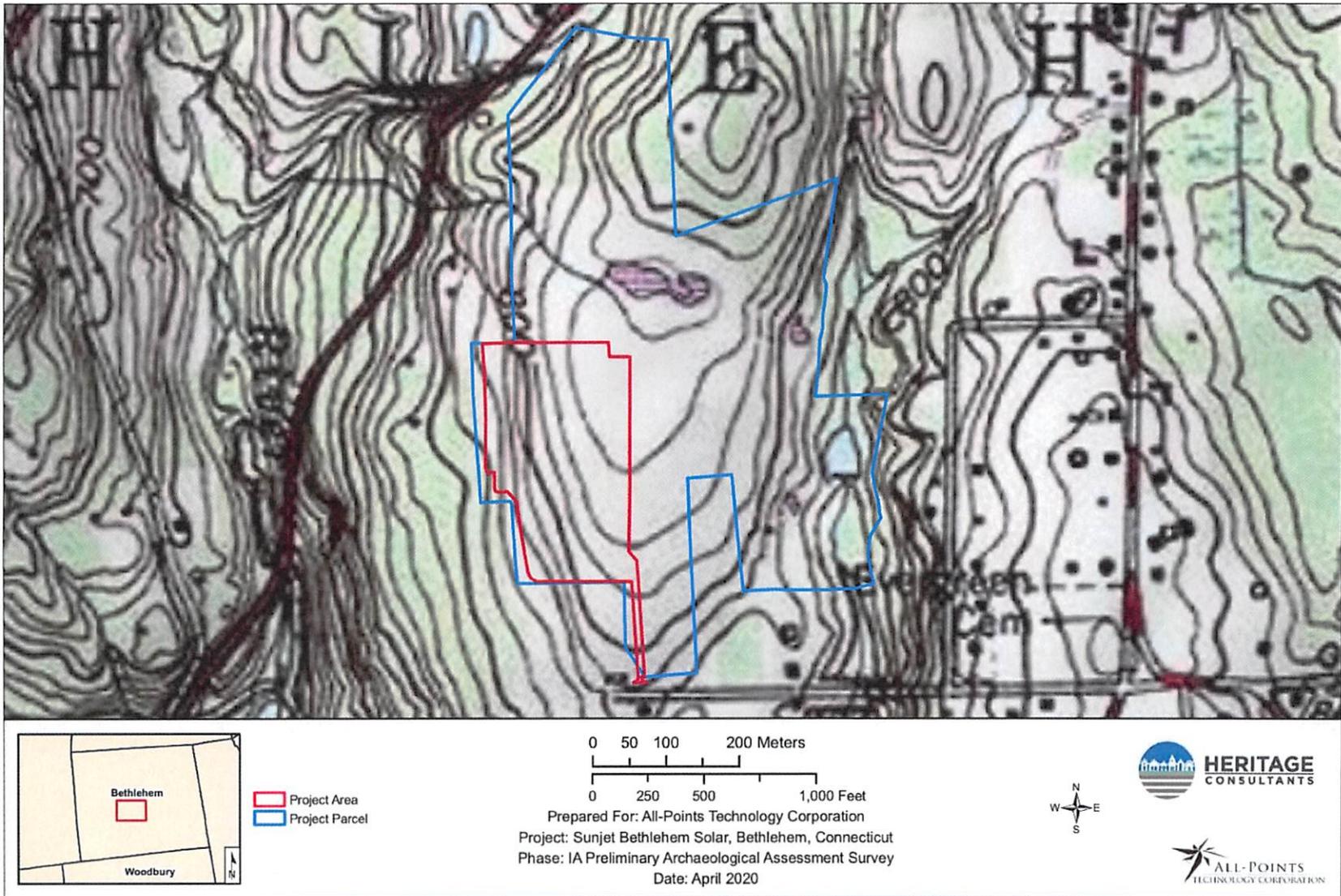


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project area in Bethlehem, Connecticut.

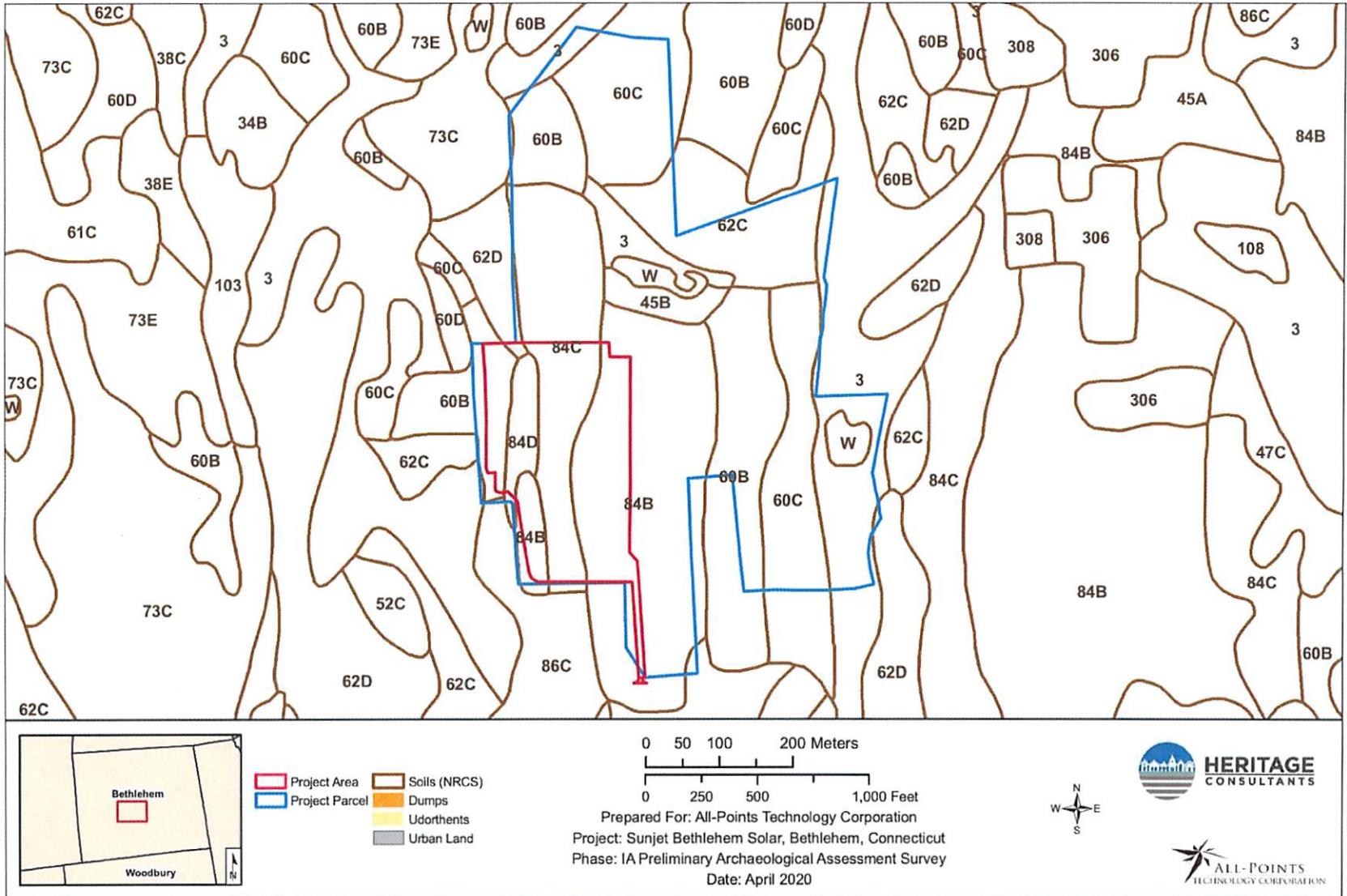


Figure 3. Map of soils located in the vicinity of the project area in Bethlehem, Connecticut.

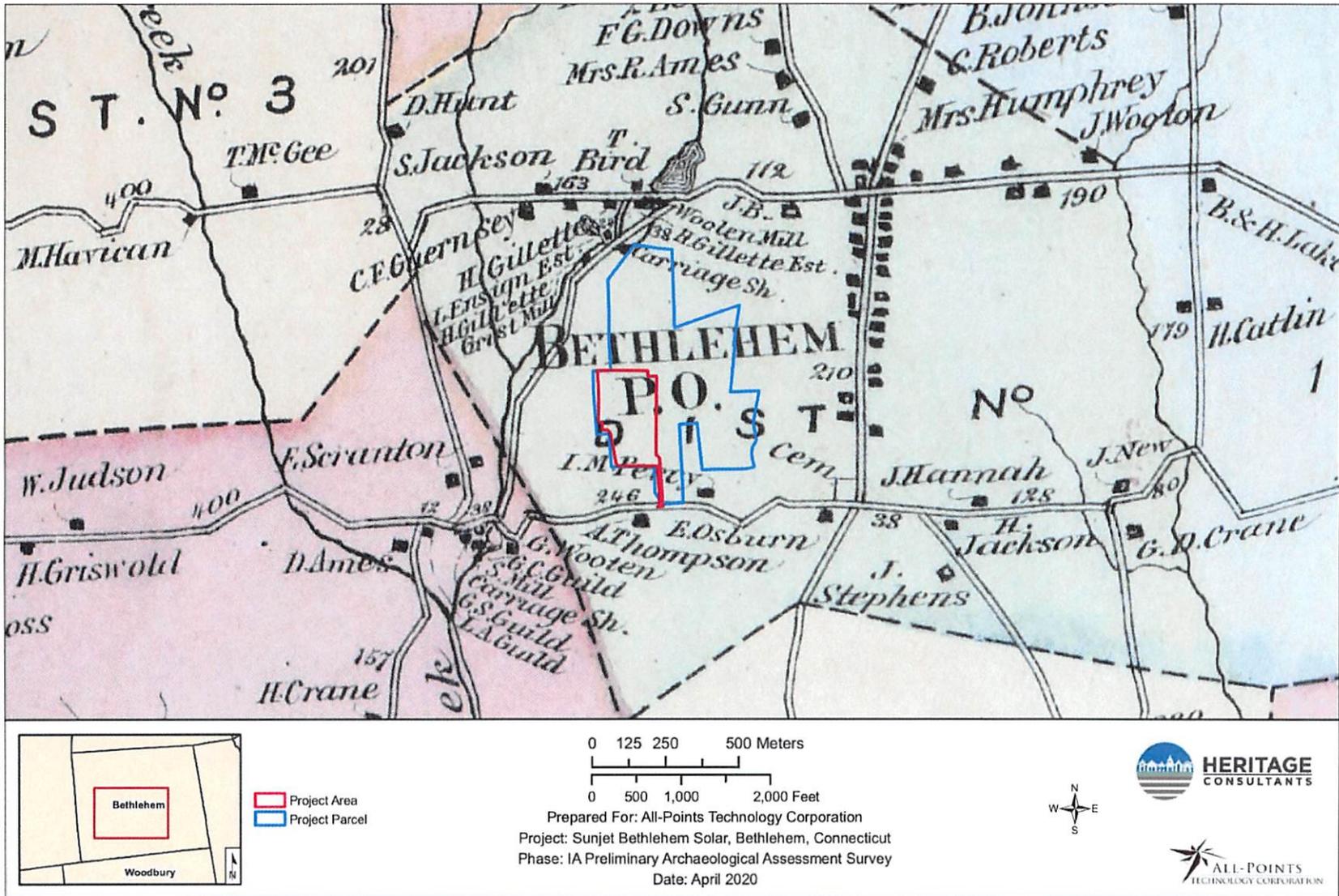


Figure 5. Excerpt from an 1874 historic map showing the location of the project area in Bethlehem, Connecticut.

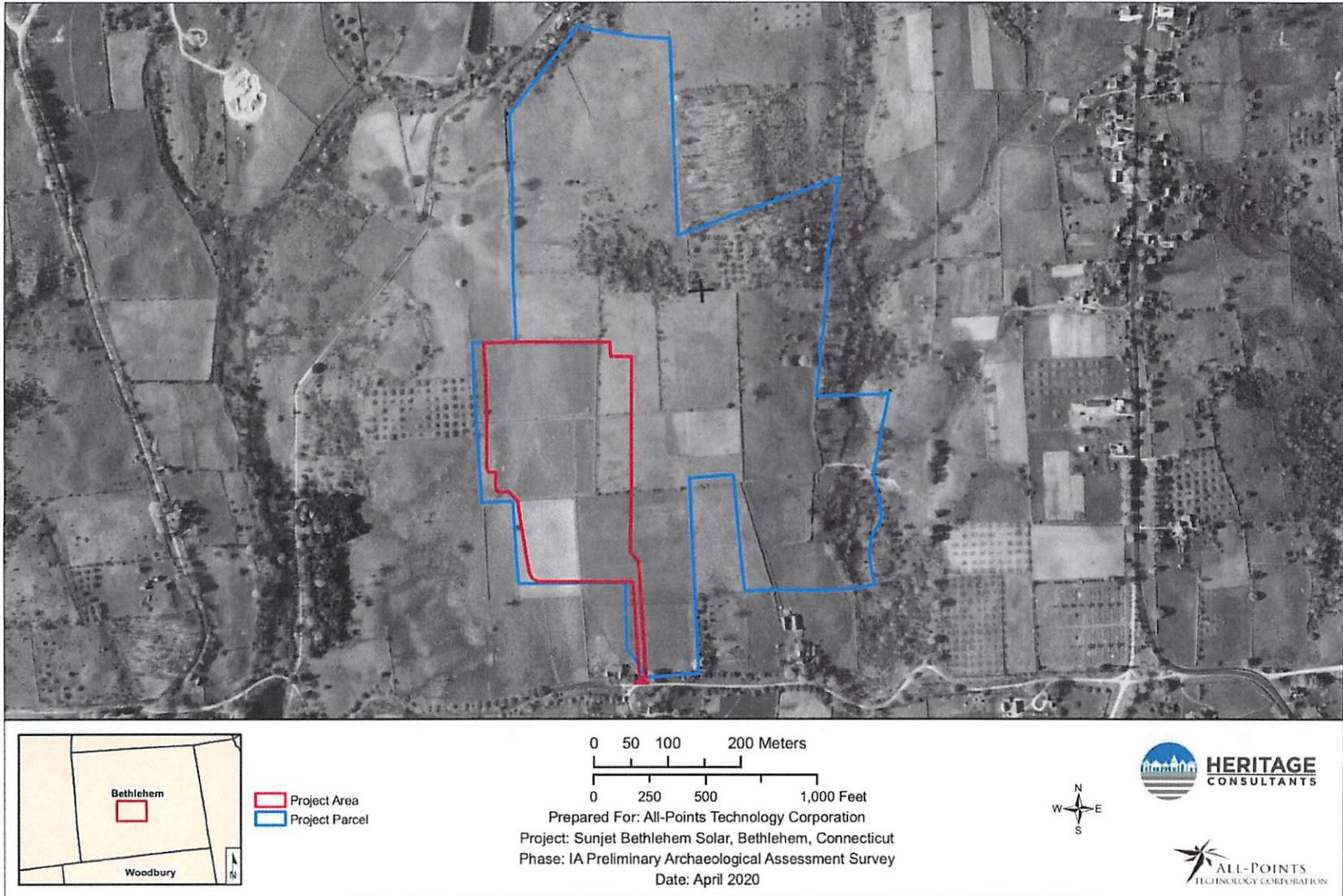


Figure 6. Excerpt from a 1934 aerial image showing the location of the project area in Bethlehem, Connecticut.

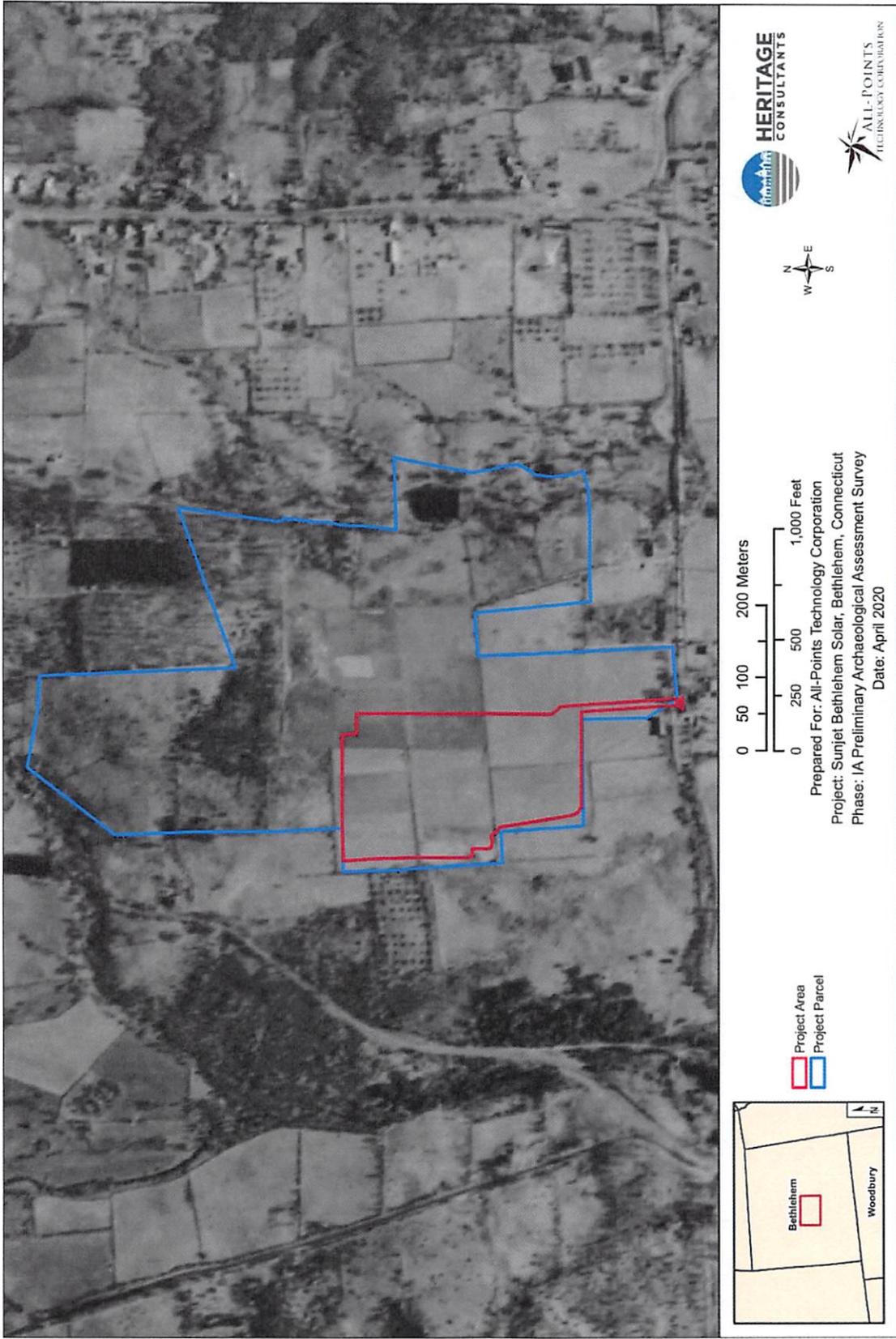


Figure 7. Excerpt from a 1951 aerial photograph showing the location of the project area in Bethlehem, Connecticut.

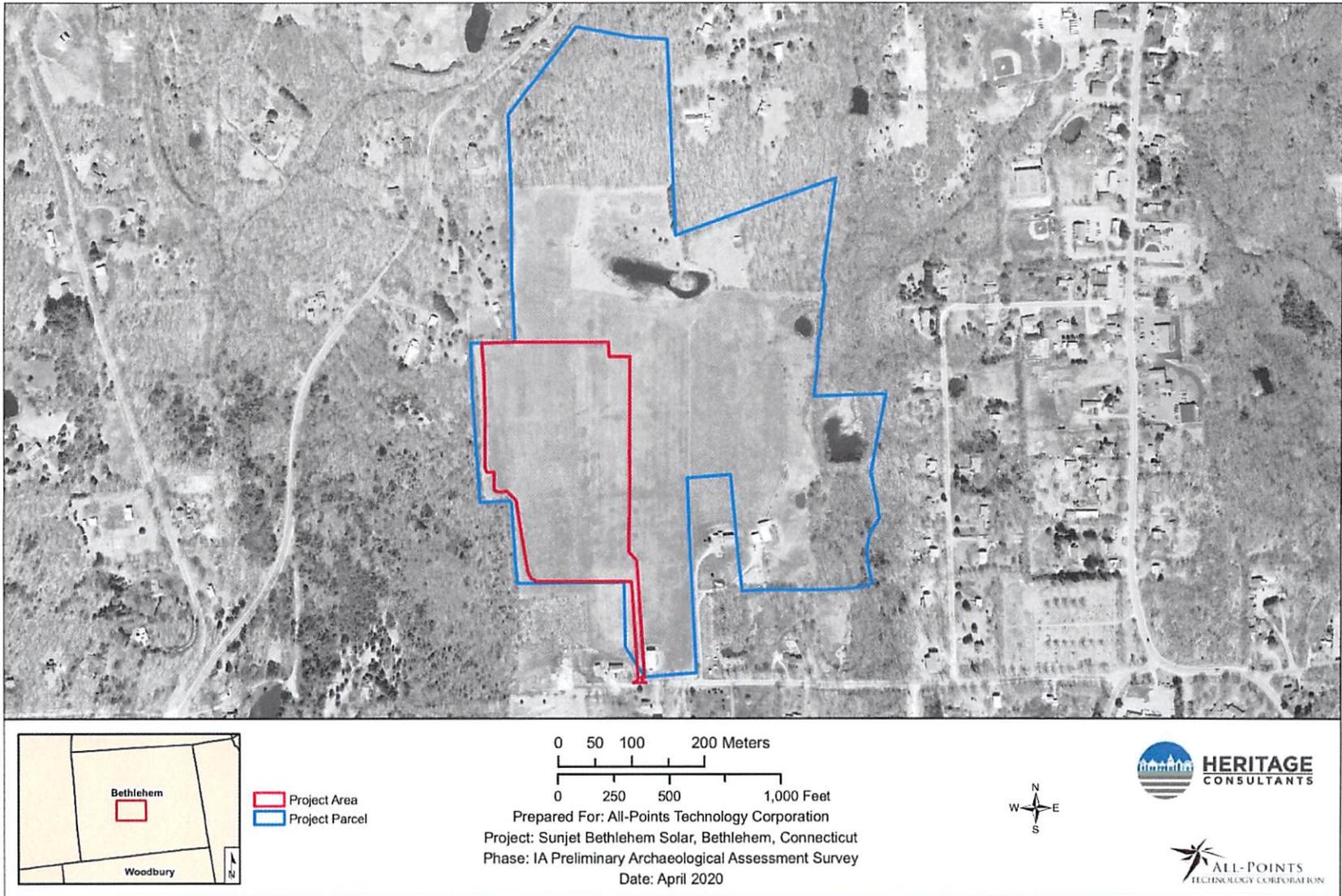


Figure 8. Excerpt from a 2004 aerial photograph showing the location of the project area in Bethlehem, Connecticut.

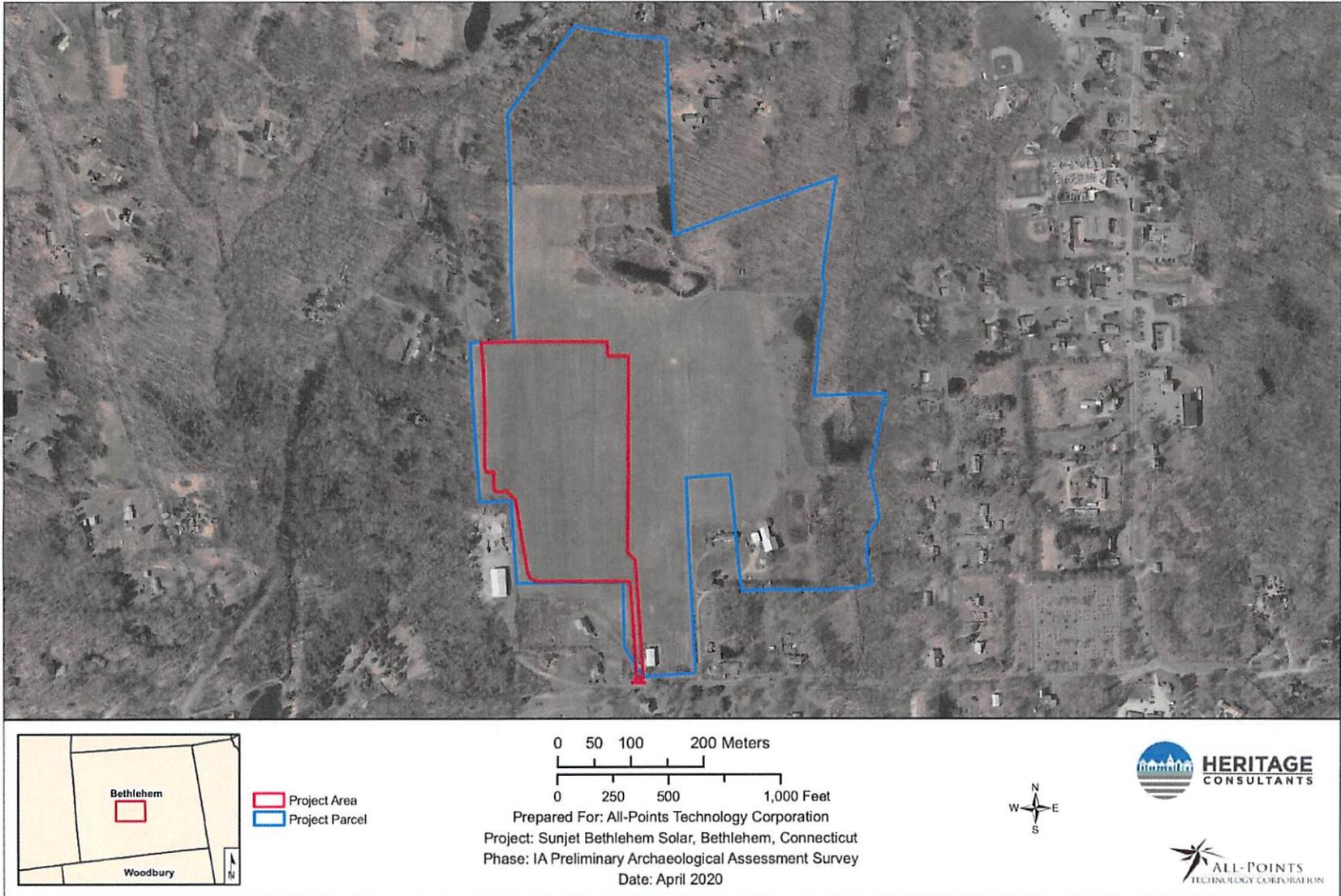


Figure 9. Excerpt from a 2016 aerial photograph showing the location of the project area in Bethlehem, Connecticut.

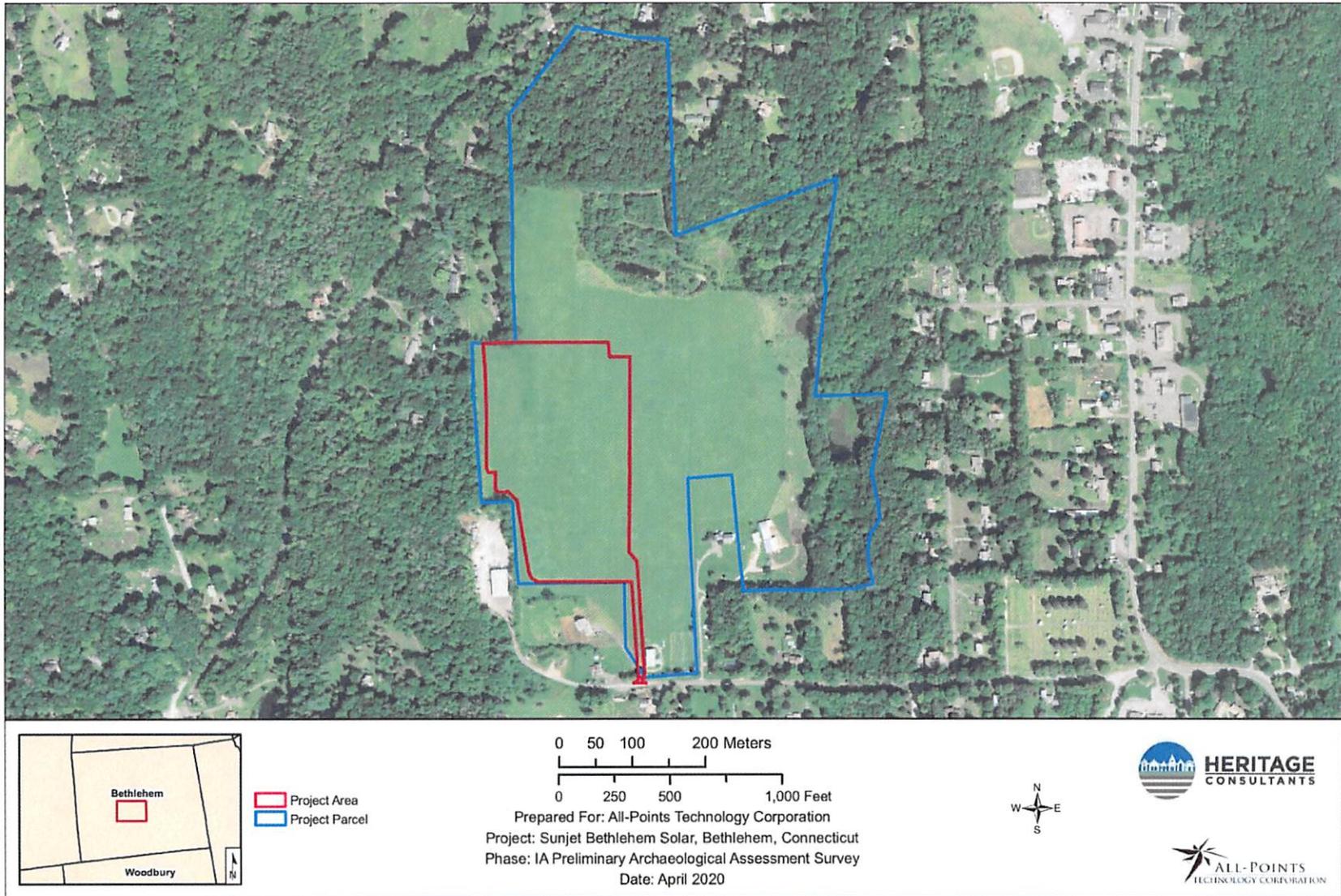


Figure 10. Excerpt from a 2018 aerial photograph showing the location of the project area in Bethlehem, Connecticut.



Figure 11. Excerpt from a 2019 aerial photograph showing the location of the project area in Bethlehem, Connecticut.

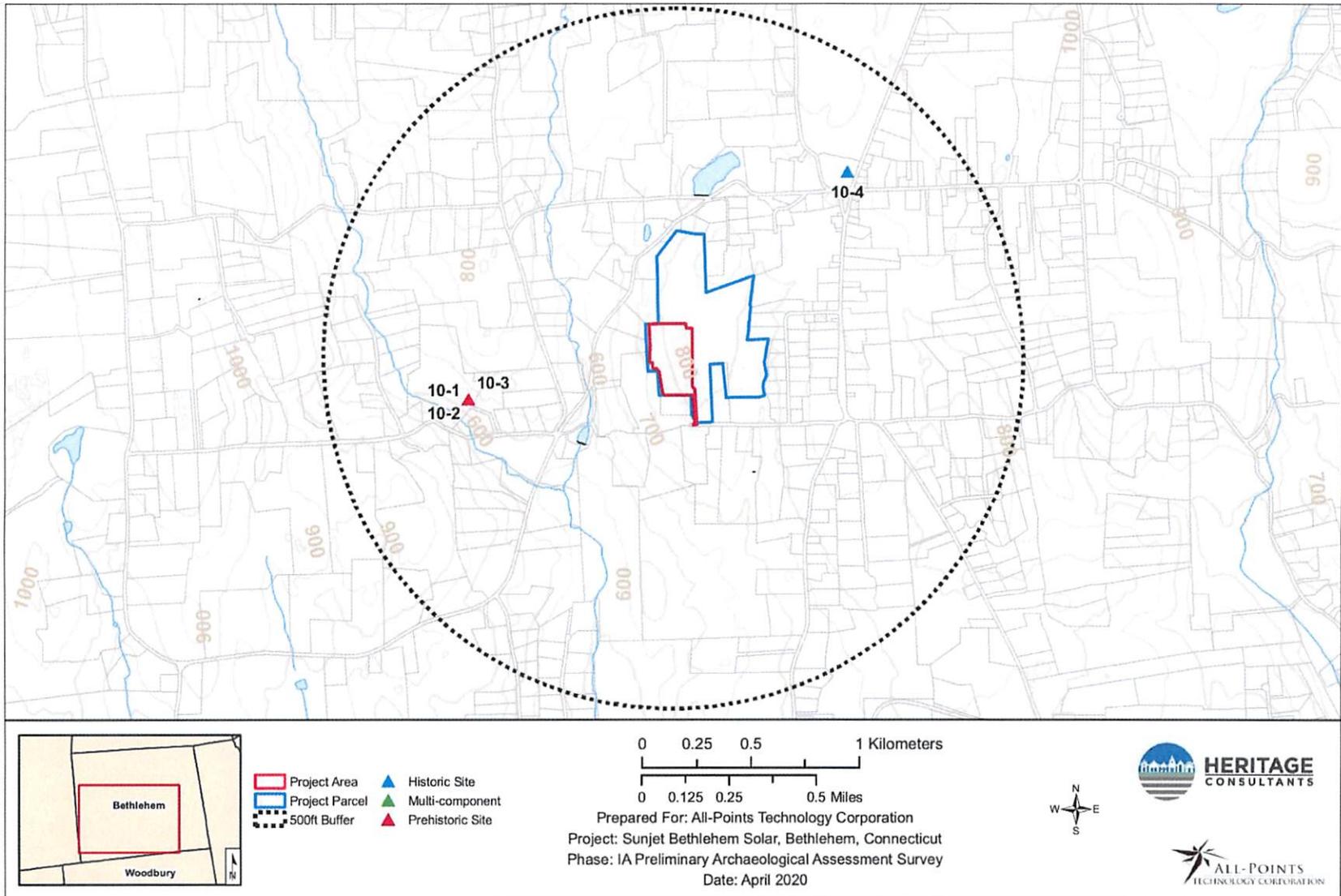


Figure 12. Digital map showing the location of previously identified archaeological sites in the vicinity of the project area in Bethlehem, Connecticut.

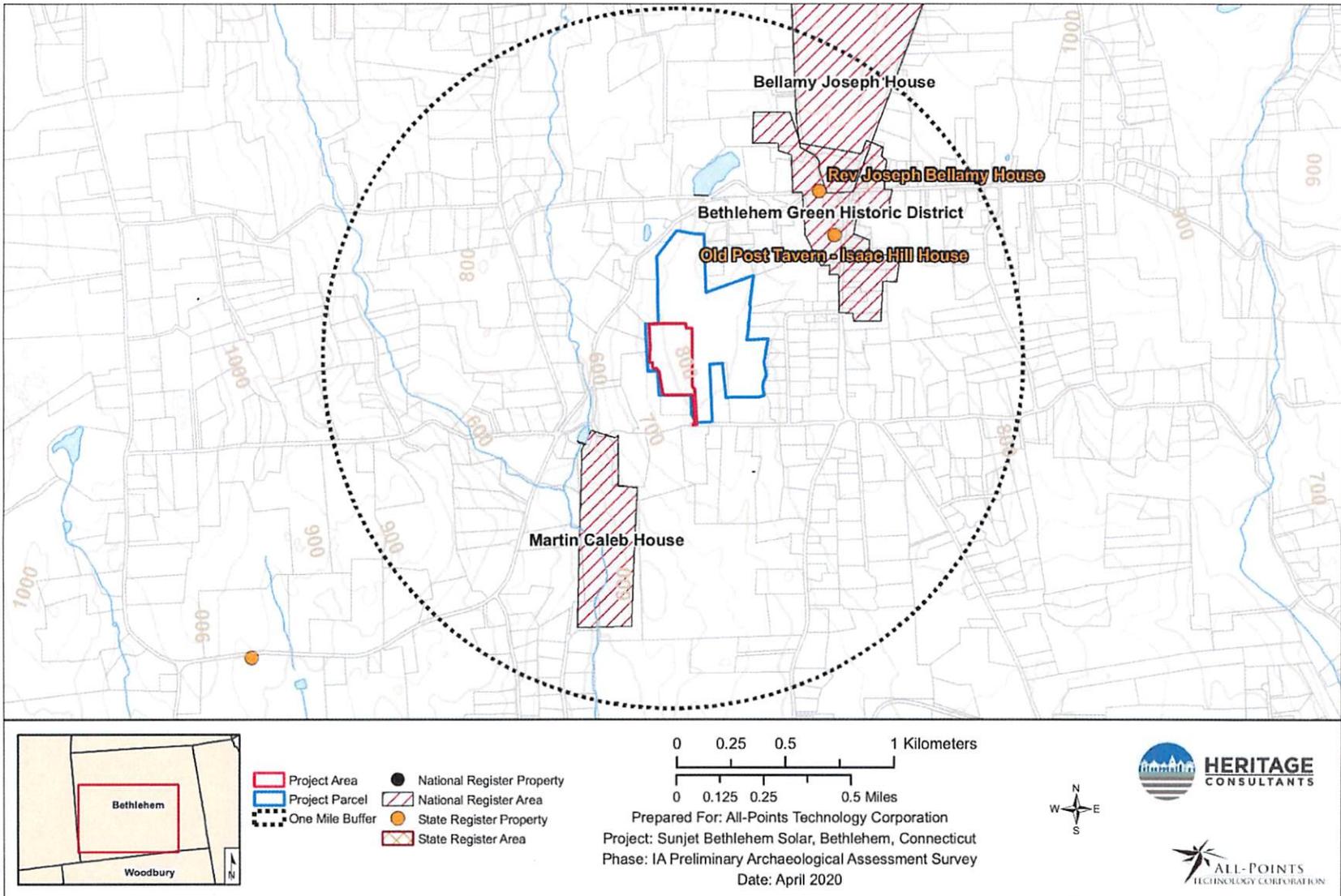


Figure 13. Digital map depicting the locations of previously identified National/State Register of Historic Places properties in the vicinity of the project area in Bethlehem, Connecticut.



Figure 14. Excerpt from a 2019 aerial photograph of project area depicting areas of moderate/high and no/low archaeological sensitivity.



Photo 1. Overview of project area from southern border facing north.



Photo 2. Overview of project area facing north.



Photo 3. Overview of project area at northeast corner facing southwest.



Photo 4. Overview of project area from northwest corner facing south.



Photo 5. Overview of project area from southwest corner facing northeast.



Photo 6. Overview of project area from southwest corner facing east.



Photo 7. Overview of project area from center of project area facing north.



Photo 8. Photo of house on south side of Thomson Road facing southwest. (Note house is visible from Solar Facility.)



Photo 9. Photo of house on the north side of Thomson Road facing north.