APPENDIX L

ARCHEOLOGICAL INVESTIGATION

AND

LETTER FROM SHPO

Phase I and II Archaeological Investigations of the proposed LEGOLAND New York Theme Park and Resort Town of Goshen Orange County, New York

OPRHP No. 16PR04494

Prepared for:
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LA# 367.371
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MANAGEMENT SUMMARY

SHPO Project Review Number: 16PR04494

Federal Agencies: USACE, FWS
State Agencies: DEC, DOT, Dept. of Agricultural and Markets

Phase of Study: Phase I and II

Location:
Minor Civil Division: Town of Goshen
County: Orange

USGS 7.5' Quadrangle Map: Middletown, NY (2000)

Survey Area
Length: 3602.2 ft (1097.9 m)
Width: 2036.0 ft (620.6 m)
Depth: n/a
Size Total Acres Surveyed: 144.53 (58.49 ha)
Total Site Area Excavated: Site 07106.000121-24.95 sq m, 268.56 sq ft, 0.02% of site
Site 07106.000123—12.20 sq m, 131.32 sq ft, 0.02% of site
LEGOLAND Site 4—12.33 sq m, 132.72 sq ft, 0.06% of site

Archaeological Survey Overview
Total and Interval of Shovel Tests:
Phase I- 515-(491 at 15-meter interval, 8 radials, 16 selectively placed)
Phase II-Site 07106.000121: 115 at 10-meter interval and 14 at a 5-meter interval
Site 07106.000123: 40 at 10-meter interval
LEGOLAND Site 4: 41 at 5-meter interval

Total and Size of Units: Site 07106.000121: 10 1x1-meter units
Site 07106.000123: 7 1x1-meter units
LEGOLAND Site 4: 7 1x1-meter units

Width of Plowed Strips: n/a
Surface Survey Transect Interval: n/a

Results of Archaeological Survey
Number and name of prehistoric sites identified: 5, 07106.000121-123, LEGOLAND Site 4 and LEGOLAND Site 5
Number and name of historic sites identified: LEGOLAND Site 5
Sites Recommended for Phase II/Avoidance: 07106.000122, 07106.000123 and LEGOLAND Site 4

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Landmark Archaeology, Inc.

Date of Report: December 2016

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1. INTRODUCTION

This report presents the results of Phase I and II archaeological investigations conducted for the proposed LEGOLAND New York Theme Park and Resort located in the Town of Goshen, Orange County, New York (OPRHP No. 16PR04494) (Figure 1). The proposed project will entail the construction of a LEGOLAND theme park and resort and related infrastructure. The Phase I investigation considered an Area of Potential Effect (APE) of approximately 194.38 acres (78.66 ha) which includes the entire area of proposed development within the 521.95-acre (211.23-ha) property. The archaeological investigations were conducted by Landmark Archaeology, Inc. of Altamont, New York who was retained as a consultant by Lanc & Tully Engineering and Surveying, P.C. of Campbell Hill, New York.

The Phase I study was conducted to: (a) inspect the project area and define the spatial boundaries of any archaeological resources in relation to the limits of the project area, (b) assess the potential of the project area for deeply buried cultural deposits, (c) conduct surface and limited subsurface investigations of the resources which are either partially or completely in the area of the proposed construction, and (d) provide recommendations for those archaeological resources which may be impacted by proposed development activities. These tasks were conducted to provide federal and state reviewing agencies with appropriate documentation to evaluate the effect of the proposed project on historic and/or prehistoric cultural resources.

The Phase I study was conducted in two stages: a Phase IA literature review and a Phase IB intensive level identification survey. The purpose of the Phase IA investigation was to assess the potential for National Register of Historic Places (NRHP) properties to exist within the project area. Research tasks associated with the Phase IA study consisted of a literature review and records search of documents housed at the New York Office of Parks, Recreation, and Historic Preservation (OPRHP). The Phase IB consisted of a pedestrian survey and shovel test excavations within the APE.

Phase II investigations were designed to gather data with which to evaluate the NRHP eligibility status of Sites 07106.000121 and 07106.000123, and LEGOLAND Site 4. Site eligibility is based on NRHP criteria of significance (36CFR60.6, Federal Register 1976). Phase II field efforts consisted of shovel test and unit excavations. All Phase I and II field and analytical methods were conducted in accordance with guidelines established in *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York* by the New York Archaeological Council (NYAC 1994) and adopted by the OPRHP.

The following technical report presents the results of the Phase I and II investigations conducted from June to August, 2016. Derrick J. Marcucci, RPA and Susan Gade, RPA served as Principal Investigators for the project and supervised all aspects of the investigations. Background literature was reviewed by Jessica Schreyer. Fieldwork was conducted by Mr. Marcucci, Ms. Gade, Joseph Cusack, Carly Fant, Seth Frame, Devon Guy, Jaclyn Galdun, Zach Hinckley, Jennifer Lenkewich, Katarina Spero, Sydney Snyder and Jonathan Wiener. Artifact analysis was completed by Ms. Gade and Ms. Snyder. This report is written by Ms. Gade, Ms. Schreyer and Mr. Marcucci. Spatial data were collected by Ms. Snyder. Ms. Schreyer and Mr. Guy produced report graphics.

2. PROJECT DESCRIPTION

The proposed LEGOLAND New York Theme Park and Resort (LEGOLAND) development is located on Harriman Drive, southwest of US Route 6/ Route 17 (Figure 2). Merlin Entertainments is proposing the construction of a commercial recreation facility on approximately 194.38 acres (78.66 ha) within the 521.95-acre (211.23-ha) property (Figure 3). The LEGOLAND facility will include a theme park, rides and attractions, an aquarium, theaters, restaurants, a 250-guest room hotel, retail shops and various supporting administrative facilities, as well as parking and drainage facilities. Main access to the park will be from Harriman Drive.

Construction of LEGOLAND will require significant grading in the central portion of the project parcel where a prominent Pleistocene hill summit and slope are located. Grading will be needed to create relatively flat areas for park development, parking and access road. Grading will be accomplished by large machinery and blasting may be required.

Two twentieth century dwellings are located within the project parcel at the address of 420 and 422 Harriman Drive (Appendix A: Photographs 1 and 2). The homes are located at the end of Harriman Drive and are adjacent to each other on a single lot. According to project plans the homes will be demolished. No other structures are within the survey area or adjacent to the parcel.

3. DESCRIPTION OF PROJECT AREA

The project area is located in southeastern New York, in the town of Goshen. It is situated in the lower Hudson River Valley within the Hudson Mohawk Lowlands physiographic area (Isachsen et al. 2000). The Hudson Mohawk Lowlands span almost the entire north-south length of eastern New York. In southern New York, these lowlands are bounded by the Catskill Mountains to the west and the Taconic Mountains to the east. A network of creeks provides drainage for the region. Surficial geology of the project is dominated by glacial landforms and the unconsolidated sediments (glacial till) that were deposited during the late Wisconsinan glaciation which occurred 21,000 to 13,600 years ago. Bedrock geology is complex, comprised of the Trenton Group of shales that underlie the entire central part of Orange County. No bedrock exposures are evident in the parcel.

The LEGOLAND project area is positioned on a prominent glaciated Pleistocene summit and hillslope west of the Otter Kill drainage system, a 16 mile-long tributary of Moodna Creek. The northwestern portion of project area encompasses a small unnamed upland drainage and steep slopes associated with a Pleistocene hillside located west and outside of the project area. Summit terrain is nearly level to rolling and sideslopes tend to be steep. Elevation at the highest point on the hill summit is approximately 630 feet above mean sea level (amsl). The lowest elevations, at about 430 amsl, are found in the northern APE adjacent to Harriman Drive. Harriman Drive parallels US Route 6/Route 17 and forms the northern boundary of the project area. Electric transmission lines border the southern and western limits of the survey area. Wetlands are located in the northern portion of the project area where terrain is low lying. They are also along the Otter Kill to the east. A small ($2^{+/-}$ acre) pond surrounded by wetlands is located in the northeastern section of the project area immediately adjacent to Harriman Drive. Vegetation within the project area consists of open fallow farm fields, scrub brush, wetland areas with water tolerant vegetation, and second growth forest.

The headwaters of the Otter Kill is south of the project area at the Goshen No. 2 Reservoir and this stream flows northward along the eastern limits of the APE. It eventually feeds Moodna Creek roughly seven miles to the northeast near Washingtonville. An abandoned asphalt driveway off of Harriman Drive that leads to the former Hillcrest Manor Restaurant provides access to a cell tower located in the southwestern corner of the APE. The driveway was constructed to access the restaurant, in operation in the 1970s, and destroyed by fire December 24, 1987 (Goshen Fire District 2016). Hillcrest Manor Restaurant's location is marked by a foundation remnant, standing chimney, concrete pads, parking lot remains and scattered debris that covers much of the hilltop within the southwestern portion of the APE (Appendix A: Photographs 3-6). A circa mid-1970s postcard of the restaurant shows that the restaurant was large; it sat in an expansive landscaped area and had an asphalt driveway and parking lot (Appendix A: Photograph 7).

The soils in the project area are predominantly gravelly silt loam soils (Figure 4; Table 1) (Olsson 1981). Slope ranges from 0 to 25 percent. Most soils are well drained, except for the Mardin silt loam soils, which are poorly to very poorly drained soils that are mapped in the northern part of the project area along US Route 6/ Route 17.

Table 1
Summary Soil Information

Soil Name	Symbol	Slope	Drainage Class	Parent Material	Landform
Bath-Nassau shaly silt loam	BnB	3-8%	Well drained to somewhat excessively drained	Glacial till	Hilltops and ridges in uplands
Erie gravelly silt loam	ErB	3-8%	Somewhat poorly drained	Glacial till	Footslopes, lower hillsides, and along upland drainageways

Soil Name	Symbol	Slope	Drainage Class	Parent Material	Landform
Mardin silt loam	Ma	0-3%	Poorly to very poorly drained	Glacial lake deposits	Upland basins and lowland depressions and flats
Mardin gravelly silt loam	MdB	3-8%	Moderately well drained	Glacial till	Broad divides, hilltops, and ridges in uplands
Mardin gravelly silt loam	MdC	8-15%	Moderately well drained	Glacial till	Valley sides, hillsides, and ridges in uplands
Mardin gravelly silt loam	MdD	15-20%	Moderately well drained	Glacial till	Valley sides and hillsides in uplands
Mardin soils (gravelly silt loam or gravelly loam)	MNE	25-35%	Moderately well drained	Glacial till	Hillsides, valley sides and mountainsides

SOURCE: Olsson (1981)

4. PHASE IA INVESTIGATIONS

A. RESEARCH OBJECTIVES

The goal of the Phase IA study is to assess potential for the presence of significant archaeological resources within the project area. The study is designed to gather data regarding archaeological potential through archival research and a preliminary field inspection. All pertinent archaeological and historical literature and state records applicable to the project area are reviewed during the Phase IA investigation.

Site assessments are based on NRHP criteria of significance (36CFR60.6, *Federal Register* 1976). The criteria are:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and

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

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

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

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

Typically, Criterion d is the most applicable criterion for evaluation of archaeological resources.

B. BACKGROUND RESEARCH

Background research was conducted for the purpose of compiling baseline information related to the prehistory, history, geomorphology, environment, and land use history of the project area. These sources provided information regarding NRHP eligible sites in the area and data with which to evaluate the project's archaeological potential.

Phase IA research included a site file search using the Cultural Resources Information System (CRIS) maintained at the OPRHP. This search determined if archaeological sites or NRHP properties were recorded within or near the project area. It also identified areas of previous archaeological investigations within one mile of the project areas. Historic maps were examined to identify land use history and potential for historic resources within the project area.

C. RESULTS OF PHASE IA INVESTIGATIONS

Based on the records stored in the OPRHP CRIS database, there are no NRHP properties within or adjacent to the project area. The OPRHP records show that three previously recorded archaeological sites are within or adjacent to the project area (Hartgen Archeological Associates [HAA] 2000) (Figure 5). Site 07106.0200121 (Pre-Contact Deposit Area 1) and Site 07106.000123 (Pre-Contact Deposit Area 3) are within the LEGOLAND APE, and Site 07106.000122 (Pre-Contact Deposit Area 2) is in the LEGOLAND parcel, but it is located approximately 59 meters (194 ft) east of the APE. Sites 07106.000121 and

07106.000122 contained Poplar Island-like projectile points that provided a Late Archaic temporal affiliation for these sites.

The OPRHP CRIS shows that eleven other archaeological sites have been identified within one mile of the project area (Table 2). These sites consist of six prehistoric sites and five historic sites.

Table 2
Previously Recorded Archaeological Sites within One Mile of the Project Area

OPRHP #	NYSM #	Reporter	Site Identifier/ Description	Time Period
07106.000066		Maleda Booth	Lucas Subdivision/Pre-Hist	Prehistoric
07106.000078		Mark LoRusso, NYSM	Goodtime Park Racetrack	Historic, ca. 1899-1957
07106.000079		Mark LoRusso, NYSM	Historic Barn (Associated with Goodtime Park Racetrack)	Historic, ca. 1899-1957
07106.000121		**HAA**	**Pre-Contact Deposit Area 1**	**Prehistoric, Late Archaic**
07106.000122		**HAA**	**Pre-Contact Deposit Area 2**	**Prehistoric, Late Archaic**
07106.000123		**HAA**	**Pre-Contact Deposit Area 3**	**Prehistoric**
07106.000132		BTK Associates	Water Storage Tank Prehistoric Isolate	Prehistoric
07106.000147		BTK Associates	Kolk Farm	Prehistoric, Late Archaic
07146.000217		HAA	Hatfield Lane Prehistoric Site 1	Prehistoric
07146.000218		HAA	Hatfield Lane Prehistoric Site 2	Prehistoric
07146.000219		HAA	Hatfield Lane Prehistoric Site 3	Prehistoric
07146.000220		HAA	Bradner Family Burying Ground Site	Historic
07146.000221		HAA	Hatfield Lane Historic Site 1	Historic
07146.000222		HAA	Hatfield Lane Historic Site 2	Historic

Bold = within or adjacent to project area

Background research indicated a Phase IA/IB archaeological investigation that was completed in 2000 overlaps with the eastern portion of the current APE (see Figure 5). The investigation was conducted for the proposed Arcadia Hills Section II and the Lone Oak Estates residential development and included 217 acres (HAA 2000:1). Of the 217 acres, approximately 49.9 acres (20.2 ha) fall within the current APE. The study identified the aforementioned three sites 07106.000121 through 07106.000123. Two other surveys have been completed nearby the APE (BTK Associates, Inc. 2005; Selig and Roberg-Lopez 2015). Both surveys were located northeast of US Route 6/ Route 17 and the LEGOLAND APE.

Historic maps reviewed during the Phase IA study included the years 1875 (Beers 1875; Figure 6) and 1908 (USGS 1908; Figure 7). Both maps show a structure in the northeastern portion of the APE along Harriman Drive. The structure is associated with the name E.S. & E. Seely on the 1875 map. Aside from this structure, the maps show the remaining project area as undeveloped with no structures within or adjacent to the APE. A road along the same route as Harriman Drive is depicted on both maps, but it does not extend along the entire northern edge of the APE as Harriman Drive does today.

D. ARCHAEOLOGICAL POTENTIAL

Determining archaeological potential, and lack thereof, is related to two variables—first, the potential for a site to be present based on known settlement patterns and secondly, the likelihood of site preservation based on geologic processes and modern/historic land use patterns. Therefore, an important part of the Phase IA will be to review and understand the geologic history of the project corridor for the purpose of

identifying and justifying areas of high archaeological potential and subsequent implementation a Phase IB subsurface testing program.

Because archaeological deposits are incorporated within landforms by natural formation processes, they are subject to the same erosion and deposition forces as geological deposits. Geologic processes such as deposition and erosion create these landforms and the lay of the land which, by controlling soil conditions, strongly influence the distribution of plant and animal communities exploited by human groups. The interaction between these two dynamics (culture and geology) produced the archaeological record. Therefore, models of archaeological site occurrence can be developed relative to the existing represented landforms in a project area. This approach proves useful in identifying post-settlement alluvium (PSA), made land, AP horizons (plowzones) and other disturbances that may have modified the area under investigation. Survey methods based on landform and predictive site distribution allows the Phase IB fieldwork to focus on those areas with the most archaeological potential. Such a strategy can reduce the level of effort spent on areas of low or no archaeological potential (e.g., severe slopes, made land, severely eroded hillslopes). Investigations also can use methods appropriate to landform development based on potential vertical and horizontal distribution of archaeological remains.

Based on the physiographic setting of the project area and the results of background research, archaeological potential was considered high for prehistoric and historic archaeological resources to be present within the project area. Topographic features such as terraces and hilltops that are in close proximity to the Otter Kill would have been attractive settings for prehistoric groups. Background research indicates that prehistoric sites have been recorded within the project area and numerous prehistoric sites are located within a one-mile radius. Historic maps show one structure within the LEGOLAND survey area. The likelihood for the presence of deeply buried archaeological deposits was considered low in the project area since the APE is predominately an upland landform and all soils mapped in the parcel are glacially derived. No alluvial soils are mapped within the LEGOLAND parcel.

In several locations, archaeological potential has been significantly compromised by ground disturbing activities. As noted earlier, a large part of the hilltop in the southwestern limits of the project area where Hillcrest Manor Restaurant once stood has been extensively landscaped. The extent of the ruins indicates that the restaurant and parking lot(s) disturbed an estimated two acres of land. The restaurant was constructed at a location where prehistoric sites are commonly found in upland setting within the "Black Dirt" region of New York. However, grading and excavating the summit would have destroyed the A- and upper B- soil horizons and any evidence of archaeological deposits at this location.

Extensive landscaping has also been conducted at the location of the two modern residences at the end of Harriman Drive. The building lot containing both houses has been graded with surface soils disturbed to depths where there is no archaeological potential.

5. PHASE IB and II METHODS

A. RESEARCH OBJECTIVES

The goal of the current study was twofold. First, the purpose of the Phase I fieldwork was to document the presence/absence archaeological resources within the project area. Second, the Phase II investigation was designed to determine if sites in the APE are eligible for listing in the NRHP. Site evaluation is based on NRHP criteria of significance (36CFR60.6, Federal Register 1976; see Chapter 4).

B. PHASE I FIELD METHODS

The Phase I field investigation was conducted in June and July of 2016 (Appendix A: Photographs 8-11). Phase I fieldwork included a pedestrian survey and the excavation of shovel tests. The pedestrian survey was conducted across the APE to examine the area for archaeological evidence and assess disturbances. When field conditions allowed, pedestrian survey was performed by crew walking in parallel transects five meters apart. Generally, shovel tests were spaced at a 15-meter interval along transects spaced 15 meters apart. Additional shovel tests were selectively placed; these tests were positioned in locations based on landform considerations. Shovel tests were not excavated in areas of excessive slope (>12-15%), standing water, designated wetland areas where no construction will occur, or in areas that have been previously disturbed. In total, 515 shovel tests were excavated in the APE during the Phase I study (Figure 8). The diameter of shovel tests ranged from 40 to 50 centimeters. The Ap horizon, where present, was removed and screened in one analytic unit. Otherwise, soils were removed in 20-centimeter levels within natural soil horizons and tests extended a minimum of 20 centimeters in subsurface strata. When needed, a 5-inch stainless steel bucket auger was used to examine the lower B and C soils.

A large skid steer with front mower attachment was used to mow linear transects 12 meters apart in areas of dense vegetation prior to excavating shovel tests (Appendix A: Photograph 12). The machine was primarily used in areas where fallow farm fields have become overgrown with brambles, most exceeding two or more meters in height and making the areas essentially impenetrable without mowing. The skid steer was utilized for three days and cleared an estimated three kilometers of brush along linear swaths.

C. PHASE II FIELD METHODS

Phase II fieldwork at was conducted in July and August, 2016. Since the archaeological survey conducted in 2000 had recorded prehistoric sites in the LEGOLAND APE, prior to initiating fieldwork, the Principal Investigator contacted the OPRHP and requested that office review the findings and recommendations of 2000 archaeology study (Hartgen 2000). Based on that request, the OPRHP office requested Phase II site evaluations at Sites 07106.000121 and 07106.000122 (Timothy Lloyd, personal communication, 6/16/2016). The current study did not perform Phase II work at Site 07106.000122 as it will not be impacted by the proposed development.

Phase II fieldwork consisted of the excavation of shovel tests and 1x1-meter test units. Phase II investigations at Site 07106.000123 were needed as the current Phase I study found additional artifacts in association with this site. At Site 07106.000123 and LEGOLAND Site 4, shovel tests were spaced ten meters apart and positioned along transects located parallel to and in between the Phase I transects to create a 7.5-meter spacing of transects within the site. On Site 07106.000121, shovel tests were positioned across a 10-meter grid which covered the site area as reported in the 2000 (HAA 2000). Unit placement at all three sites was according to shovel test results and landform considerations. Additionally, the unit placement on Site 07106.000121 took into consideration the location of surface finds reported in 2000 (HAA 2000:Map 9). Units were hand excavated by shovel skimming and trowel excavation. Unplowed soils were removed in ten-centimeter arbitrary levels within natural soil horizons. Unit excavations extended at least ten centimeters into culturally sterile subsoil in glacial till soils. A bucket auger was

excavated in the base of selected units. A soil profile was compiled for at least one wall of each unit and color photographs were taken of unit profiles. Cultural features identified in the units were mapped in planview, photographed, and excavated by cross sectioning.

All Phase I and II excavated soils were screened through ¼-inch hardware cloth. Soil characteristics including texture and color (Munsell) and any disturbances or other noteworthy aspects of the tests were recorded on standardized Landmark Archaeology, Inc. field forms. Soil descriptions for each shovel test are provided in Appendix B. All Phase I and II excavations were recorded using a submeter, high precision *Trimble* GPS receiver. The georeferenced data were differentially corrected for an estimated horizontal error of less than one meter. All excavations were backfilled after completion.

D. ANALYSIS METHODS

Artifacts were transported to laboratory facilities at Landmark Archaeology, Inc. Artifacts were washed and sorted into appropriate categories and subcategories for analysis. The prehistoric chipped stone debitage was sorted into five categories reflecting stages in the lithic reduction sequence (Callahan 1979). The five categories of chert debitage include: primary, secondary, tertiary, retouch, and shatter. A sixth category, broken, was used for broken flakes which could not be assigned to a lithic reduction category. Fire-cracked rock (fcr) were tabulated and weighed. Sources used for projectile point identification and cultural affiliation and age included Justice (1987) and Ritchie (1971).

Historic artifacts were tabulated by class, with temporally diagnostic attributes noted whenever possible. Sources commonly used in the aid of historic artifact classification include Miller (1987) and South (1977). The analysis data for both prehistoric and historic artifacts, including provenience and category frequencies are presented in Appendix C.

All field notes, photographs, and records associated with the project are on file at Landmark Archaeology, Inc., 6242 Hawes Road, Altamont, New York. Artifacts are temporarily curated at Landmark Archaeology, Inc. facilities. For the archaeological sites investigated during the current study, a New York State Archaeological Site Inventory Form was completed and submitted to the OPRHP (Appendix D).

6. RESULTS OF THE PHASE IB INVESTIGATIONS

As previously noted, Phase IB investigations included the excavation of 515 shovel tests (see Figure 8). Phase IB fieldwork relocated two of the previously recorded archaeological sites, 07106.000121 and 07106.000123, and identified two new sites: LEGOLAND Site 4 and LEGOLAND Site 5 (Figure 9). LEGOLAND Site 5 is discussed below. Sites 07106.000121, 07106.000123 and LEGOLAND Site 4 are detailed in Chapter 7.

A. PHASE I TESTING ACROSS THE APE

The shovel testing strategy employed a landform model where all areas with archaeological potential were examined by a pedestrian survey as well as the excavation of shovel tests. The Phase IB effort focused nearly exclusively within the APE that was not part of the 2000 study (HAA 2000; see Figure 5). However, shovel tests were excavated during the current study along a low terrace which was located in the western limits of the 2000 study. The effort resulted in the identification of LEGOLAND Site 4 at this location.

Testing across the APE encountered rocky glacially derived soils with an Ap/B or A/B soil sequence. The A or Ap horizon was typically brown (10YR 4/3) gravelly silt loam and the underlying B soil consisted of yellowish brown (10YR 5/4) gravelly silt loam. No alluvial or colluvial soils were encountered in the testing.

B. LEGOLAND SITE 5

Site Type: Multicomponent Prehistoric/Historic
Component: Prehistoric-Isolated find Late Middle Woodland; Historic-Late 19th- 20th Century
Location: Northeastern APE south of Harriman Drive
Approximate Size: 0.3 acres (0.12 ha)
Landform: Terrace
Soil Type: Mardin gravelly silt loam
Elevation: 438 ft amsl
Vegetation: Tall grasses and weeds
Subsurface Tests: 16
Artifacts: 1 Jack's Reef Pentagonal projectile point, 4 aqua flat glass, 4 brown curved glass, 28 clear curved glass, 2 clear flat glass, 3 whiteware, 1 ironstone, 1 black glazed stoneware, 1 yellowware, 2 terracotta flowerpot fragments, 1 melamine plate fragment, 4 brick fragments, 1 steel washer, 1 copper wire/steel item, one 30-06 bullet casing and 1 buckle fragment.
NRHP Eligibility: Not Eligible
Recommendation: No further archaeological investigations

LEGOLAND Site 5 (Appendix A: Photograph 13) is an historic site and an isolated prehistoric find identified during the current study. The site is located on the south side of Harriman Drive, which runs parallel to US Route 6/Route 17 in this area (see Figures 8 and 9; Figure 10). The site is situated at the base of an upland hillslope. Its location corresponds to the map-documented structure illustrated on the 1875 and 1908 maps (see Figures 6 and 7). The site includes a house foundation and dilapidated barn (Appendix A: Photographs 14 and 15). The house structure was completely leveled by a fire on July 24, 2015 (Mid-Hudson News Network 2015). Ruins of the burned house's basement consist of a three-sided cinder block depression measuring about 40 feet (12.2 m) long and 20 feet (6.1 m) wide and standing six feet (1.8 m) tall. Modern debris including furnace fragments and plumbing parts litters the basement. A partially collapsed wooden barn sits about 30 meters (100 ft) east of the house ruins with a two-track road running between the two structures. The barn is about 80 feet (24.4 m) long and 20 feet (6.1 m) wide and appears to have been used for milking. The barn is collapsing and consists mostly of large deteriorating

beams. The barn structure was too unstable and dangerous to investigate thoroughly. The previously noted pond is located immediately in back (southwest) of the house. The pond drains into a small tributary that crosses US Route 6/Route 17 and eventually flows into the Otter Kill. LEGOLAND Site 5 occupies 0.3 acres (0.12ha).

1. Soils

Soils on this site consisted of variable topsoil fill atop yellow brown (10YR 5/4) gravelly silt loam B subsoils. The topsoil fill ranges in thickness from 17 to 40 centimeters.

2. Shovel Testing

Phase I fieldwork included the excavation of 16 shovel tests. The tests were spaced 7.5-meters apart in the yard surrounding the house foundation. No testing was conducted in or near the area of the barn due to the unsafe condition of the structure.

Historic artifacts (n=57) were found in nine of the sixteen shovel tests. Items recovered include three whiteware, one ironstone, one black glazed stoneware, one yellowware, two terracotta flowerpot fragments, one machine-made brown glass bottle base, one machine-made brown glass bottle neck/lip, four aqua flat glass, two brown curved glass, 28 clear curved glass, two clear flat glass, one melamine plate fragment, four brick fragments, one steel washer, one copper wire/steel item likely used for electricity, one 30-06 bullet casing and one buckle fragment.

Transect 95, Shovel Test 1 produced a single prehistoric artifact: a Jack's Reef Pentagonal point. This artifact was found directly below topsoil fill that was present across the surface of the site. The topsoil lens in this shovel test contained five historic items: one flat glass fragment, one black glazed stoneware fragment, one undecorated whiteware fragment, and two small brick fragments. Eight radial shovel tests were placed at one and three meters from Transect 95, Shovel Test 1 to further examine the area for prehistoric artifacts (see Figure 10). Four of these radials yielded historic materials; however, no additional prehistoric artifacts or features were found in these radials or in any other shovel test in LEGOLAND Site 5.

3. Artifact Analysis and Site Interpretation

The Jack's Reef Pentagonal point was manufactured from Normanskill chert. The proximal portion of the blade has been retouched and utilized as a scraping implement. It measures 23.6 millimeters in length, 18.0 millimeters in width, and 5.6 millimeters in thickness. Jack's Reef points date to the later part of the Middle Woodland period (AD 500-1000).

The site location is consistent with the location of the structure associated with E.S. & E. Seely on the 1875 map. The existing house foundation postdates this time period and no evidence of a late nineteenth century house foundation was found at the site. The artifacts recovered from the shovel tests are interpreted to be primarily post occupation refuse. The assemblage is dominated by glass fragments most of which are nondiagnostic flat (n=6) or curved (n=30) pieces. The earliest dating artifacts are redware and yellowware ceramic fragments. Both ware types have been manufactured in the early nineteenth century and continuing well into the twentieth century.

4. Recommendations

LEGOLAND Site 5 does not appear to meet eligibility criteria for listing in the NRHP. The prehistoric component of the site is represented by a single Jack's Reef Pentagonal point. As an isolated artifact, this location has limited research potential and it does not meet NRHP eligibility criteria. The historic

component is represented by relatively few artifacts (n=57) and the assemblage is primarily comprised of nondiagnostic items of glass. Additionally, there are no artifacts in the assemblage that can be confidently associated with the nineteenth century occupation of the site. While the site includes intact architectural features (e.g., twentieth century house foundation), no deep subterranean features such as cisterns, privies, and wells were identified at the site. The lack of temporally discrete cultural deposits and the low density of diagnostic artifacts limit research potential of the historic component of the site. No further archaeological investigations of LEGOLAND Site 5 are recommended.

7. RESULTS OF THE PHASE IB/II INVESTIGATIONS AT SITES 07106.000121, 07106.000123, AND LEGOLAND SITE 4

A. SITE 07106.000121

Site Type: Prehistoric
Component: Late Archaic
Location: Eastern APE
Approximate Size: 3.5 acres (1.42 ha)
Landform: Upland Summit
Soil Type: Mardin gravelly silt
Elevation: 500 ft amsl
Vegetation: Grasses
Subsurface Tests: Phase I: n/a
Phase II: 129 shovel tests, 10 1x1-meter units
Percentage of Site Excavated: 0.02%
Artifacts: 2 flake tools, 20 debitage
NRHP Eligibility: Not eligible
Recommendation: No further archaeological work

Site 07106.000121 is a prehistoric site that was identified by the Phase I survey conducted in 2000 (HAA 2000). The site is located in the eastern project area across a prominent upland summit (see Figures 8 and 9; Appendix A: Photograph 16). In 2000, the site area had been plowed and a pedestrian survey of the site resulted in the collection of 11 artifacts (HAA 2000:9). Among these artifacts was a Poplar Island-like projectile point that provided a Late Archaic temporal association for the site. The 2000 work at the site also included the excavation of 22 shovel tests which included two tests at the location of each surface artifact. Only one artifact was recovered from the Phase I shovel tests excavated in 2000. The Phase I study concluded that the site "was a transient hunting camp where a small group or an individual had stopped to either sharpen or manufacture bifaces in order to perform a hunting related cutting or butchering task" (HAA 2000:11).

The current study included a Phase II investigation that entailed the excavation of 129 shovel tests and ten 1x1-meter test units (Figure 11). The location of the 2000 Phase I site boundaries and shovel tests were identified by using a submeter, high precision GPS uploaded with the 2000 site map. Although the Phase I study estimated the site to be 4.5 acres in size (HAA 2000), recalculation of the site area using spatial data collected during the present study determined it to be 3.5 acres (1.42 ha) in size.

1. Soils

Excavations at Site 07106.000121 documented eroded soils exhibiting a plowzone over a truncated B horizon. Generally, the plowzone consisted of brown (10YR 4/3) gravelly silt loam and the B soils were yellowish brown (10YR 5/4) gravelly silt loam. The plowzone typically extended 18 to 30 centimeters below ground surface. Several excavations encountered a B/C subsoil which consisted of dark yellowish brown (10YR 4/4) gravelly silt loam. Figure 12 illustrates the soil profiles of Units 4 and 8 which were typical of soils on the site.

2. Shovel Test Excavations

Phase II shovel tests included 115 within the site boundaries. Shovel tests were positioned along a ten-meter grid that crossed the summit and shoulderslope of the site area as defined by the 2000 Phase I study. An additional 14 shovel tests (STPs S100-S113) were excavated 135.3 meters (426.6 ft) north of the site at the location where the 2000 study had recovered a single artifact from the surface (Figure 13).

These 14 shovel tests were selectively positioned in the area where the surface artifact was recovered and spaced five meters apart. Of the 115 shovel tests within the site boundaries, six yielded prehistoric artifacts. The shovel test assemblage includes six artifacts: one flake tool and five pieces of debitage (Table 3). Four artifacts were recovered from the Ap and two artifacts were found in the B soils. No artifacts were recovered from the 14 selectively positioned shovel tests.

Table 3
Site 07106.000121 Phase II Artifact Assemblage

Artifact Class	STPs	Units						Total
		3	4	6	8	9	10	
Flake Tool	1		1					2
Debitage (n=20)								
Secondary Flake	2	1						3
Tertiary Flake	1		3	3		1		8
Retouch Flake	1	1		2	1		1	6
Shatter	1	1			1			3
Total	6	3	4	5	2	1	1	22

3. Unit Excavations

Ten 1x1-meter units were excavated at the site (see Figure 11). The units were positioned according to shovel testing results and to examine different areas of the site. Six of the ten units contained artifacts and no artifacts were found in Units 1, 2, 5, and 7. Artifact totals from the units were low with the highest total at five artifacts (see Table 3). In total, 16 artifacts were found in the units. Ten of the 16 artifacts were recovered from the plowzone, and the remaining six artifacts were found within the 20 centimeters directly below the plowzone. No features were identified in the unit excavations.

4. Artifact Analysis

The Phase II artifact assemblage includes 22 artifacts (see Table 3). All artifacts are debitage with two exhibiting utilization.

5. Site Interpretation

The current study supports the Phase I interpretation of the site as a short-term camp site (HAA 2000). The small assemblage is primarily comprised of tertiary or retouch flakes, suggesting tool refurbishing/sharpening activities at the site. Cultural affiliation of the site with the Late Archaic period is based on 2000 Phase I data; no diagnostic artifacts were found in the Phase II excavations.

B. SITE 07106.000123

Site Type: Prehistoric
Component: Terminal Archaic/Transitional
Location: Eastern APE
Approximate Size: 1.79 acres (0.72 ha)
Landform: Terrace
Soil Type: Bath-Nassau shaly silt loam
Elevation: 480 ft amsl
Vegetation: Wooded
Subsurface Tests: Phase I: 24

Phase II: 40 shovel tests, 7 1x1-meter units
Percentage of Site Excavated: 0.02%
Artifacts: 1 Orient Fishtail point, 1 biface, 1 flake tool, 14 debitage, 3 cores, 1 cobble tool
NRHP Eligibility: Eligible
Recommendation: Preservation and avoidance or Phase III data recovery

Site 07106.000123 is a prehistoric site that was identified by the 2000 Phase I survey. The site is located in the eastern project area on a terrace overlooking a low, wet area (see Figures 8 and 9; Appendix A: Photograph 17). The site area is wooded. In 2000, 24 shovel tests were excavated in this site area and a single prehistoric artifact, a biface fragment, was recovered (HAA 2000:10). The Phase I study concluded that the single artifact was a light lithic scatter and no further work was recommended (HAA 2000:12).

The current study included Phase I and II investigations of the site. Excavations included 24 Phase I shovel tests, 40 Phase II shovel tests and seven 1x1-meter test units (Figure 14). The location of the site boundaries and shovel tests from the 2000 study were identified by using a high precision submeter GPS unit uploaded with the 2000 site map. Spatial data collected during the present effort indicate that the site is 1.79 acres (0.72 ha) in size.

1. Soils

Excavations at Site 07106.000123 documented an unplowed A horizon over B-horizon soils. The A horizon consisted of brown (10YR 4/3) gravelly silt loam and the B soils were yellowish brown (10YR 5/4-5/6) gravelly silt loam (Figure 15). The A horizon typically extended 17 to 25 centimeters in depth.

2. Shovel Test Excavations

As noted, 24 shovel tests were excavated during the Phase I fieldwork. Two shovel tests each produced a single prehistoric artifact. Transect 41, Shovel Test 2 yielded an Orient Fishtail-like point and Transect 42, Shovel Test 2 contained a single chert flake. The projectile point was found in B-horizon soils and the flake was found in the A horizon.

Eight of the 40 Phase II shovel tests yielded one artifact each. The artifacts include: one utilized flake, six debitage and one core (Table 4). Two debitage were found in A horizon soils and the six other artifacts were recovered from B horizon soils.

Table 4
Site 07106.000123 Phase I and II Artifact Assemblage

Artifact Class	Phase I STPs	Phase II STPS	Units					Total
			1	2	3	5	7	
Biface	1		1					2
Flake Tool		1						1
Debitage (n=14)								
Primary Flake								
Secondary Flake				2		1		3
Tertiary Flake		1						1
Retouch Flake	1	3		1				5
Broken Flake					1			1
Shatter		2		2				4
Core		1		1			1	3

Artifact Class	Phase I STPs	Phase II STPS	Units					Total
			1	2	3	5	7	
Cobble Tool				1				1
Total	2	8	1	7	1	1	1	21

3. Unit Excavations

Seven 1x1-meter units were excavated at the site (see Figure 14). Five of the seven units contained artifacts (see Table 4). No artifacts were found in Units 4 and 6. Unit 2 contained seven artifacts (one cobble tool, one core and five flakes) and Units 1, 3, 5, and 7 each contained a single artifact. Only Unit 2 contained an artifact (one flake) within the A horizon. All other artifacts from units were recovered from the B horizon. No features were identified in the unit excavations.

4. Artifact Analysis

The Phase II artifact assemblage includes 21 artifacts: two bifaces, one flake tool, one cobble tool, three cores and 14 debitage (see Table 4). The Orient Fishtail point was manufactured from Onondaga chert. It has a thin blade, sloping shoulders, and part of the base is missing (Appendix A: Photograph 18). This point measures 43.7 millimeters in length, 21.9 millimeters in width, and 4.9 millimeters in thickness. Orient Fishtail projectile points date to the Terminal Archaic/Transitional period (1500-1000 BC). The other biface was manufactured from Esopus chert and has an almost rectangular shape. The unifacially concave morphology on one end suggests possible use as a gouge. This implement measures 59.5 millimeters in length, 32.5 millimeters in width, and 13.7 millimeters in thickness.

The cobble tool is a gray sedimentary rock that is irregular in shape and appears naturally fractured. It is 6.89 centimeters long and has a maximum thickness of 2.21 centimeters. The artifact weighs 40 grams. A series of shallow striations are evident along two surfaces indicating the stone has been used as an abrader.

The single flake tool is a utilized flake. It is of Normanskill chert and has a single utilized edge. The flake assemblage consists of three secondary flakes, one tertiary flake, five retouch flakes, one broken flake, and four pieces of shatter. Eight debitage are Normanskill chert, three are Onondaga chert, two are Esopus chert, and one is quartz.

Two of the three cores are polymorphic cores weighing 477.7 and 59.4 grams. The latter exhibits crushing use wear along a single edge. The third specimen is an exhausted core weighing 22.4 grams.

5. Site Interpretation

The current study supports the 2000 Phase I interpretation of the site as a short-term camp site (HAA 2000). The assemblage includes five stone implements: three bifaces, a flake tool and a cobble tool. These items suggest that hunting or processing-related activities were performed at the site. The presence of cores and flakes indicate lithic reduction was performed at the site. Site 07106.000123 dates to the Terminal Archaic/Transitional period (1500-1000 BC) based on the discovery of an Orient Fishtail projectile point.

C. LEGOLAND SITE 4

Site Type: Prehistoric
Component: Unknown
Location: Eastern APE

Approximate Size: 0.73 acres (0.3 ha)
Landform: Terrace
Soil Type: Mardin gravelly silt
Elevation: 460 ft amsl
Vegetation: Grasses
Subsurface Tests: Phase I: 24
Phase II: 41 shovel tests, 7 1x1-meter units
Percentage of Site Excavated: 0.06%
Artifacts: 3 bifaces, 8 flake tools, 45 debitage, 2 cores, and one fcr
NRHP Eligibility: Eligible
Recommendation: Preservation and avoidance or Phase III data recovery

LEGOLAND Site 4 is a prehistoric site that was identified by the present investigation. The site is located in the eastern project area on a terrace adjacent to a low, wet area (see Figures 8 and 9 and Appendix A: Photograph 11). The site lies within an open field.

The current study included a Phase I investigation that completed 24 shovel tests in the site area and a Phase II investigation that entailed the excavation of 41 shovel tests and seven 1x1-meter test units (Figure 16). Based on the distribution of positive tests, LEGOLAND Site 4 occupies 0.73 acres (0.3 ha).

1. Soils

Excavations at LEGOLAND Site 4 documented a plowzone over B horizon soils. Generally, the Ap horizon consisted of brown (10YR 4/3) gravelly silt loam and the B soils were yellowish brown (10YR 5/4) gravelly silt loam (Figure 17). The Ap typically extended 20 to 28 centimeters in depth. Lower B/C soils were exposed in test units at the site. These soils included dark yellowish brown (10YR 4/4) gravelly silt loam.

2. Shovel Test Excavations

Twenty-four shovel tests were excavated during Phase I fieldwork and nine of these tests contained prehistoric artifacts. A total of 11 artifacts were found during Phase I shovel testing. Three artifacts were found in B horizon soils and eight were found in the plowzone.

Forty-one shovel tests were excavated during the Phase II investigations. Only two of the 41 tests contained artifacts: one core and two debitage (Table 5). One flake was found in the plowzone and the core and another flake were found in B-horizon soils.

Table 5
LEGOLAND Site 4 Phase I and II Artifact Assemblage

Artifact Class	Phase I STPs	Phase II STPs	Units							Total
			1	2	3	4	5	6	7	
Biface								3		3
Flake Tool	1		2	1		1		2	1	8
Debitage (n=45)										
Primary Flake										
Secondary Flake		1					3	4		8
Tertiary Flake	3	1	1				3	9		17
Retouch Flake	1		1		2	2	1	3		10
Broken Flake	2									2

Artifact Class	Phase I STPs	Phase II STPs	Units							Total
			1	2	3	4	5	6	7	
Shatter	4				1	1	1		1	8
Core		1					1			2
Fire-cracked rock								1 (7.2 gm)		1 (7.2 gm)
Total	11	3	4	1	3	4	9	22	2	59

3. Unit Excavations

Seven 1x1-meter units were excavated at the site (see Figure 16). The units were positioned according to shovel testing results and placed to examine different areas of the site. All seven units contained artifacts (see Table 5). Units 1 and 6, which were contiguous, contained a feature (Feature 1). In total, units yielded 45 artifacts. The highest number of artifacts was recovered from Unit 6, which yielded 22 artifacts: three bifaces, two flake tools, 16 debitage and one fcr. All other units contained less than ten artifacts. Thirty artifacts were found within the Ap horizon, 14 were recovered from the B horizon and one artifact was found in Feature 1.

Feature 1 is a postmold. The feature was first exposed at the base of the plowzone. It had a roughly cylindrical shape, measuring 37 by 26 centimeters in planview. In profile, it had straight to slightly sloping side walls and a rounded base. Feature 1 extended from the base of the plowzone to 66 centimeters below surface. Its matrix consisted of strong brown (7.5YR 5/6) silt loam mottled with small (>1 cm) charcoal specimens (see Figure 17). One small fcr (7.2 gm) was found in the feature matrix.

4. Artifact Analysis

The Phase I and II artifact assemblage includes 59 artifacts: three bifaces, eight flake tools, 45 debitage, two cores, and one fcr (see Table 5). The three bifaces are preforms. Two were manufactured from Onondaga chert. The first is a later stage preform measuring 43.2 millimeters in length, 26.8 millimeters in width, and 8.7 millimeters in thickness. The second is a preform measuring 48.9 millimeters in length, 28.6 millimeters in width, and 15.5 millimeters in thickness. The third biface was made from Normanskill chert. It is a broken early stage preform with a single retouched and utilized edge. It measures 20.5 millimeter in length, 31.5 millimeters in width, and 10.3 millimeters in thickness.

All eight flake tools are utilized flakes. Seven have a single utilized edge, and one exhibits utilization on two edges. Five flake tools are of Normanskill chert and three are Onondaga chert. The 45 debitage consist of eight secondary flakes, 17 tertiary flakes, ten retouch flakes, two broken flakes and eight shatter. Thirty-one flakes are of Normanskill chert and 14 are Onondaga chert.

The two cores recovered weigh 33.7 and 24.8 grams. The single piece of fcr weighs 7.2 grams.

5. Site Interpretation

LEGOLAND Site 4 is interpreted to be a short term camp site of unknown cultural affiliation. Eleven stone implements (3 bifaces and 8 flake tools) were recovered from the site, which indicates that tool production and processing tasks were performed at the site. The relatively higher number of expedient flake tools suggests that lithic material was not scarce. Sufficient chert was available that flake tools were produced as needed for a task, utilized, and then discarded.

8. NRHP ELIGIBILITY AND RECOMMENDATIONS

There are four prehistoric sites located in the LEGOLAND parcel not including LEGOLAND Site 5 which is represented by a single projectile point. The sites cluster along hill and terrace terrain west of the Otter Kill (see Figure 9). Sites 07106.000121 and 07106.000122 are located on a prominent hill that overlooks this stream. Site 07106.000123 and LEGOLAND Site 4 are located on a terrace along a small drainage that borders the prominent hill on which Sites 07106.000121 and 07106.000122 are located.

Site 07106.000123 and LEGOLAND Site 4 are recommended as eligible to the NRHP under Criterion d. Excavations at Site 07106.000123 yielded an Orient Fishtail projectile point that is associated with the Terminal Archaic/Transitional cultural period (1500-1000 BC) and an artifact assemblage including several tool types. Phase II investigations of the site documented the presence of intact cultural deposits in unplowed A- and upper B-horizon soils. The site is interpreted to be a camp where hunting and tool processing-related activities were performed. The cultural affiliation of LEGOLAND 4 cannot be ascertained with available data. However, cultural deposits at this site contained a varied assemblage which included several bifaces and tools suggestive of tool production and processing tasks. Additionally, cultural deposits appear intact below the plowzone in the upper B horizon. The presence of a postmold feature with charcoal at the site suggests additional features with datable organics may be present at the site.

Site 07106.000123 and LEGOLAND Site 4 have yielded, and have potential to yield, more information regarding settlement, subsistence and community patterns of the prehistoric occupations along the Otter Kill. A sample of research issues which can be addressed by further investigations at the site includes the following topics:

- Settlement System/Site Function
- Subsistence Patterns
- Community Pattern
- Prehistoric Lithic Technology

Avoidance of Site 07106.000123 and LEGOLAND Site 4 is recommended. Site avoidance should include an avoidance and preservation plan that outlines short term strategies to protect the site during construction, as well as long term plans to ensure future preservation of the site. The avoidance and preservation plan must be submitted to OPRHP for review.

For areas of the sites that avoidance is not feasible, a Phase III archaeological data recovery is recommended to mitigate adverse effects of the proposed development activities. Phase III investigations should follow a Data Recovery Plan (DRP) which is developed in consultation with the OPRHP. The DRP must outline field and analytical methods to address research issues relevant to the site's data potential.

Site 07106.000121 does not meet eligibility criteria for listing in the NRHP. The site is a Late Archaic occupation based on artifacts recovered during Phase I investigation completed in 2000 (HAA 2000). The current Phase II study recovered 22 artifacts which are all flakes. No culturally diagnostic artifacts and no features were found by the current Phase II excavations. The site is considered to have limited research potential, and thus, it does not meet eligibility criteria for listing in the NRHP. No further archaeological investigations of the site are recommended.

LEGOLAND Site 5 also does not appear to meet eligibility criteria for listing in the NRHP. The prehistoric component of the site is represented by a single Jack's Reef Pentagonal point. As an isolated artifact, this location has limited research potential and it does not meet NRHP eligibility criteria. The historic component includes an assemblage primarily comprised of nondiagnostic glass. Additionally,

there are no artifacts in the assemblage that can be confidently associated with the nineteenth century occupation of the site. While the site includes intact architectural features (e.g., twentieth century house foundation), no deep subterranean features such as cisterns, privies, and wells were identified at the site. The lack of temporally discrete cultural deposits and the low density of diagnostic artifacts limit research potential of the historic component of the site. No further archaeological investigations of LEGOLAND Site 5 are recommended.

Site 07106.000122 was not investigated during the course of the current study and the NRHP eligibility of this site is undetermined. The site is located within the project parcel, but according to project plans, the site will not be impacted by the proposed development. OPRHP consultation regarding preservation and protection of the site is recommended. If project plans change and Site 07106.000122 cannot be avoided by development, Phase II archaeological investigations are recommended to determine the NRHP eligibility of the site.

9. SUMMARY

Phase I and II archaeological investigations were conducted for the proposed LEGOLAND New York Theme Park and Resort located in the Town of Goshen, Orange County, New York (OPRHP No. 16PR04494). The proposed project will entail the construction of a LEGOLAND theme park and related infrastructure. The Phase I investigation considered an APE of approximately 194.38 acres (78.66 ha) which includes the entire area of proposed development within the 521.95-acre (211.23-ha) property. The archaeological investigations were conducted by Landmark Archaeology, Inc. of Altamont, New York who was retained as a consultant by Lanc & Tully Engineering and Surveying, P.C. of Campbell Hill, New York.

Based on the physiographic setting of the project area and the results of background research, archaeological potential was considered high for prehistoric and historic archaeological resources to be present within the project area. Topographic features such as terraces and hilltops that are in close proximity to the Otter Kill would have been an attractive setting for prehistoric groups. Background research indicates that prehistoric sites have been recorded within the project area and numerous prehistoric sites are located within a one-mile radius. Historic maps show one structure within the parcel and other structures in the vicinity surrounding the parcel.

Phase I excavations included 515 shovel tests and the Phase I study identified LEGOLAND Site 4 and LEGOLAND Site 5. Additionally, the study relocated previously recorded archaeological sites 07106.000121 and 07106.000123 and found that Site 07106.000123 is larger in size than was estimated when it was originally recorded in 2000. Phase II investigations were completed at Sites 07106.000121 and 07106.000123, and LEGOLAND Site 4.

Site 07106.000123 and LEGOLAND Site 4 are recommended as eligible for listing in the NRHP under Criterion d. Cultural deposits at Site 07106.000123 and LEGOLAND Site 4 have yielded, and have potential to yield, more information regarding settlement, subsistence and community patterns of the prehistoric occupations along the Otter Kill. Excavations at Site 07106.000123 yielded an Orient Fishtail projectile point that is associated with the Terminal Archaic/Transitional cultural period (1500-1000 BC) and an artifact assemblage including several tool types. The site is interpreted to be a camp where hunting and tool processing-related activities were performed. The cultural affiliation of LEGOLAND 4 cannot be ascertained with available data. However, cultural deposits at this site contained a varied assemblage which included several bifaces and tools suggestive of tool production and processing tasks.

Site 07106.000121 and LEGOLAND Site 5 are recommended as not eligible for listing in the NRHP. Phase II excavations at Site 07106.000121 yielded no culturally diagnostic artifacts and no features were identified at the site. The historic component of LEGOLAND Site 5 appears to be primarily a result of post occupation activity and includes modern refuse. No temporally discrete cultural deposits or features were found at the site and testing yielded a relatively low density of nondiagnostic artifacts. No other artifacts were found in association with the Jack's Reef Pentagonal projectile point found at LEGOLAND Site 5. Therefore, these two sites are considered to have limited research potential, and thus, do not meet eligibility criteria for listing in the NRHP. No further archaeological investigations of Site 07106.000121 and LEGOLAND Site 5 are recommended.

Site 07106.000122 was not investigated during the course of the current study and the NRHP eligibility of this site is undetermined. The site is located within the project parcel, but according to project plans, the site will not be impacted by proposed development. OPRHP consultation is recommended regarding preservation and protection of the site. If project plans change and Site 07106.000122 cannot be avoided by development, Phase II archaeological investigations are recommended to determine the NRHP eligibility of the site.

It should be noted that no field technique is completely adequate to define all cultural resources in a particular location. Therefore, should additional historic or prehistoric resources be detected during the course of the project development, the OPRHP must be notified immediately so that the significance of the discovery can be determined.

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Figures

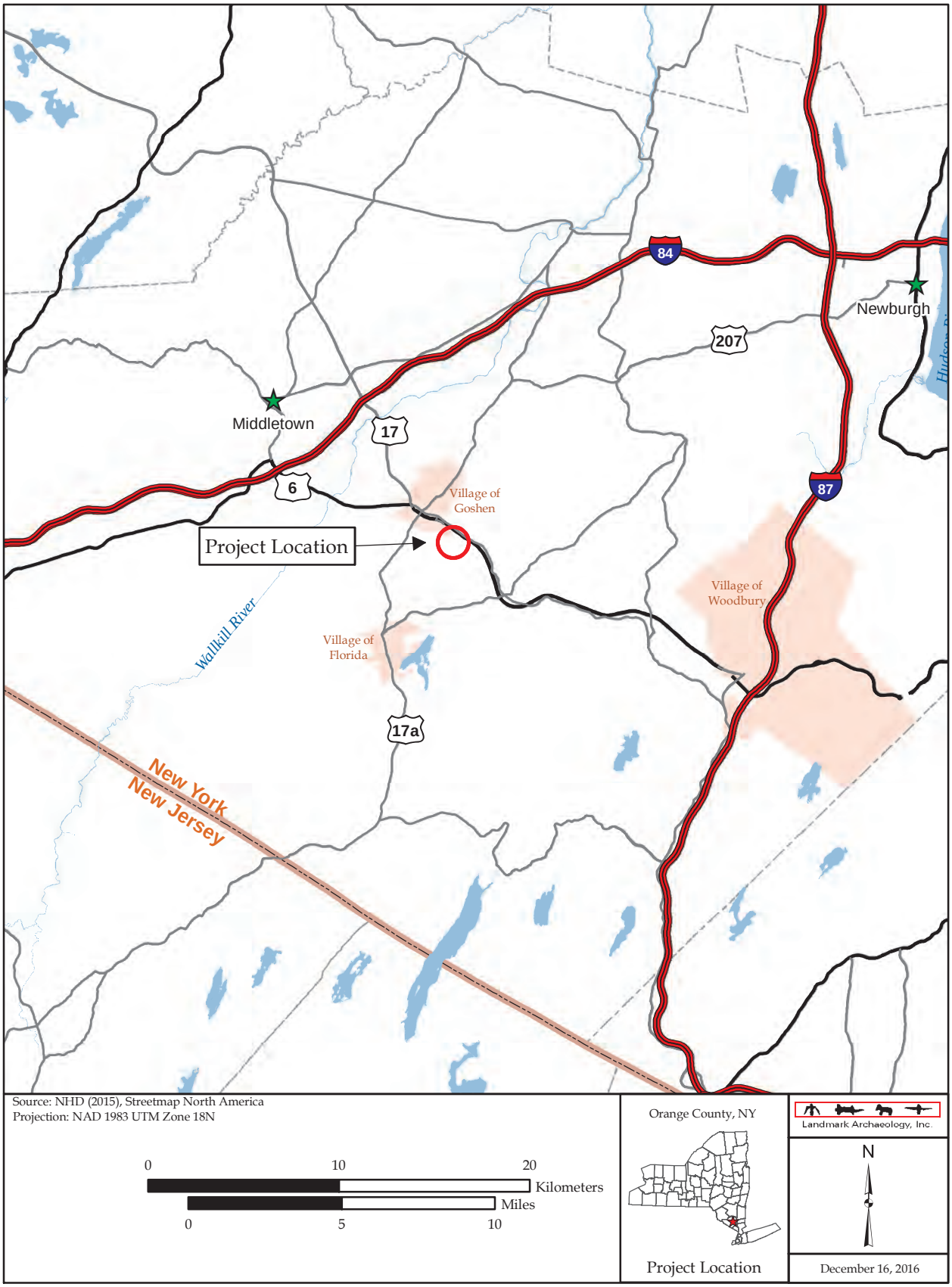

Figure 1: Project Location

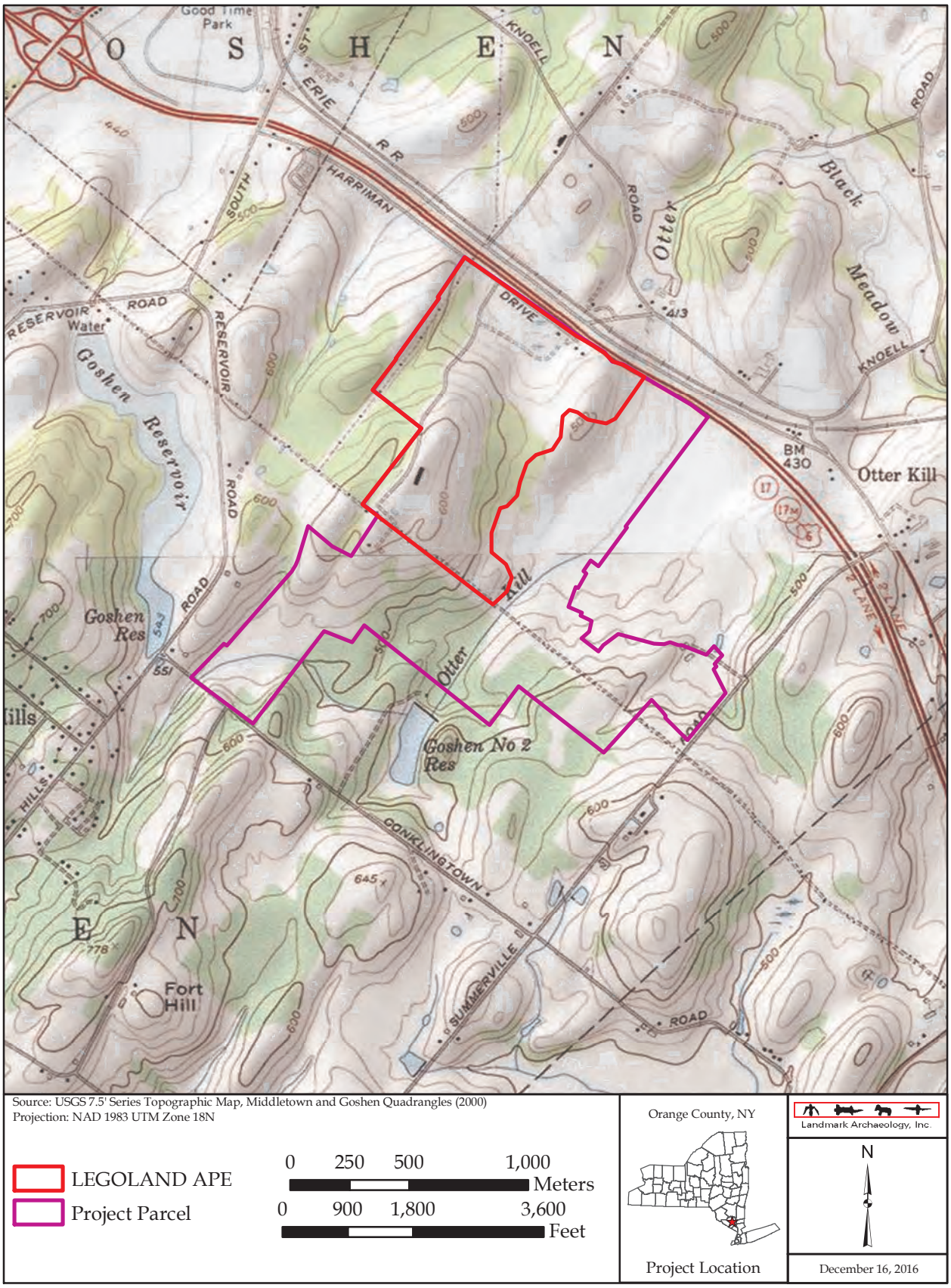

Figure 2: Project Location and Topographic Features

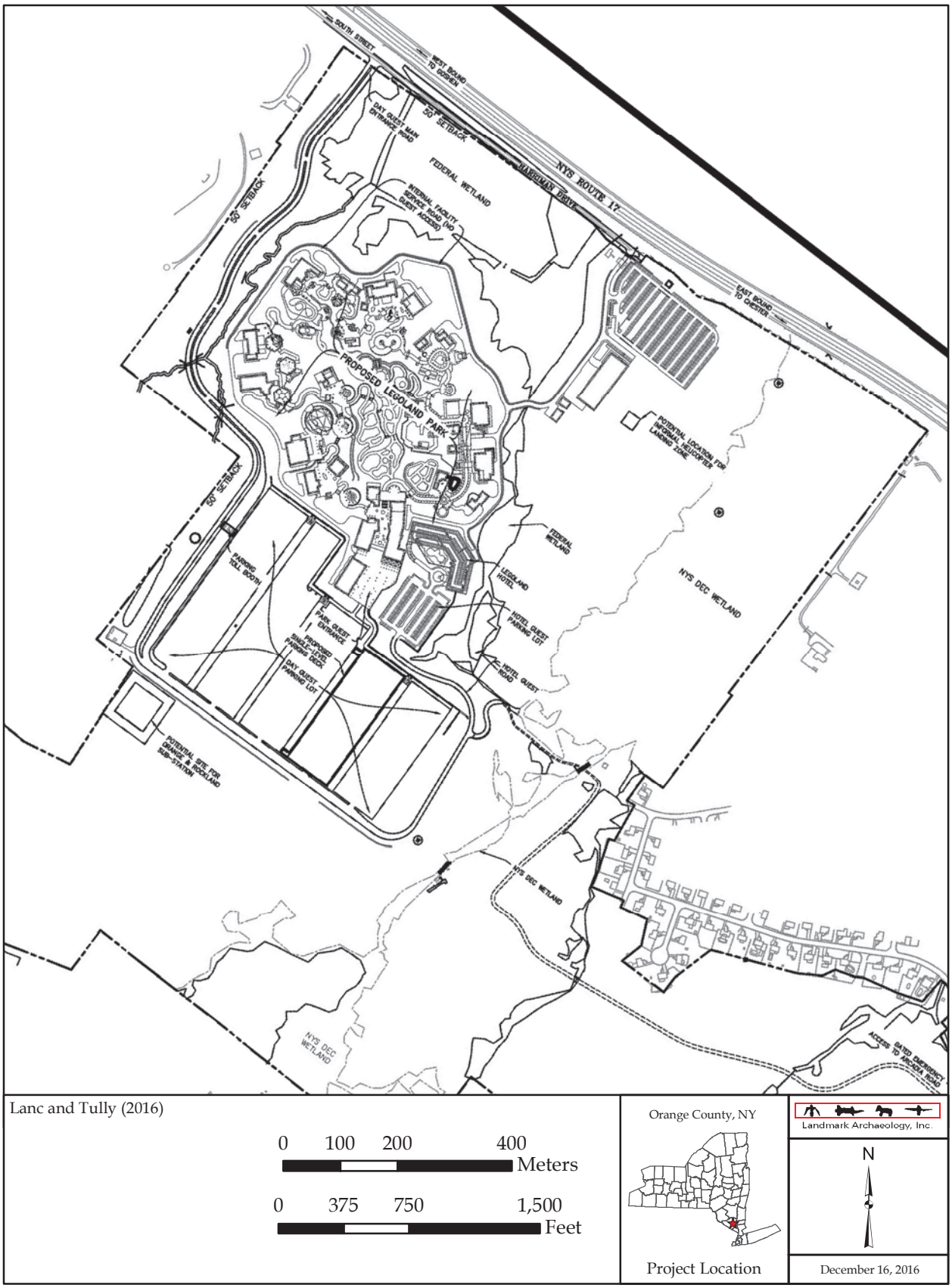

Figure 3: Project Plans

Figure 4: Mapped Soils

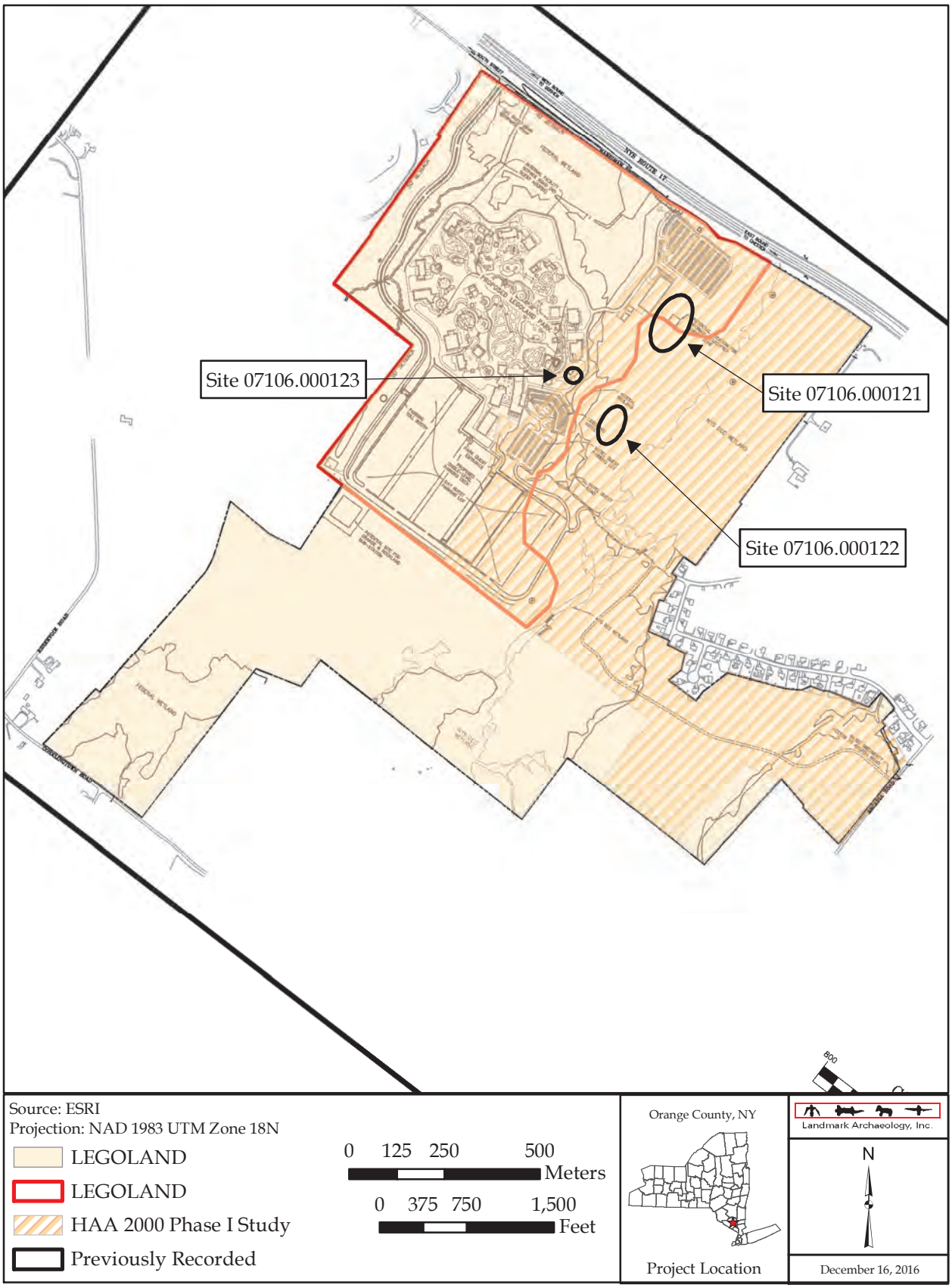

Figure 5: LEGOLAND APE, 2000 Phase I Study Area, and Previously Recorded Archaeological Sites

Figure 6: Project Area, 1875

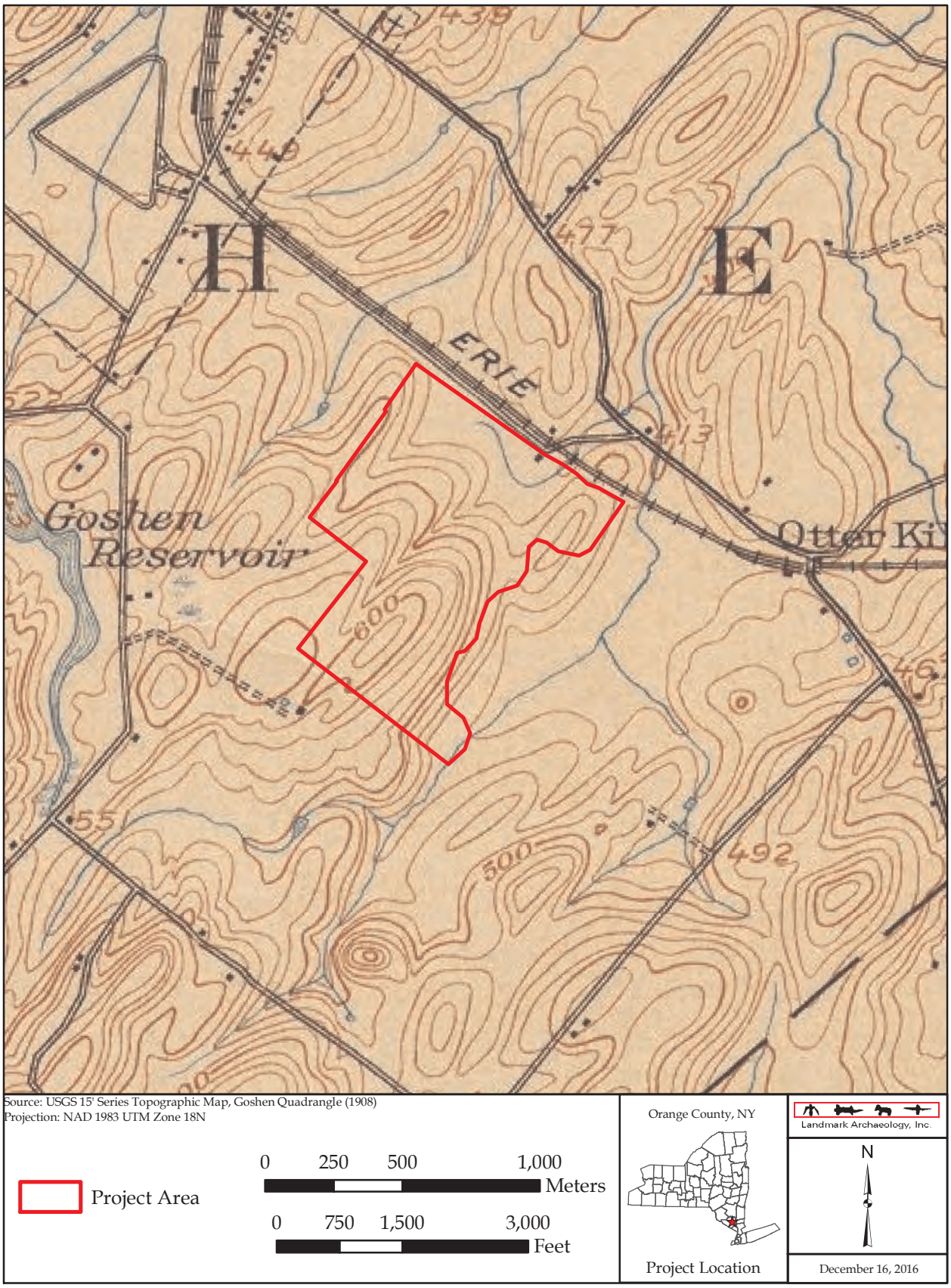

Figure 7: Project Area, 1908

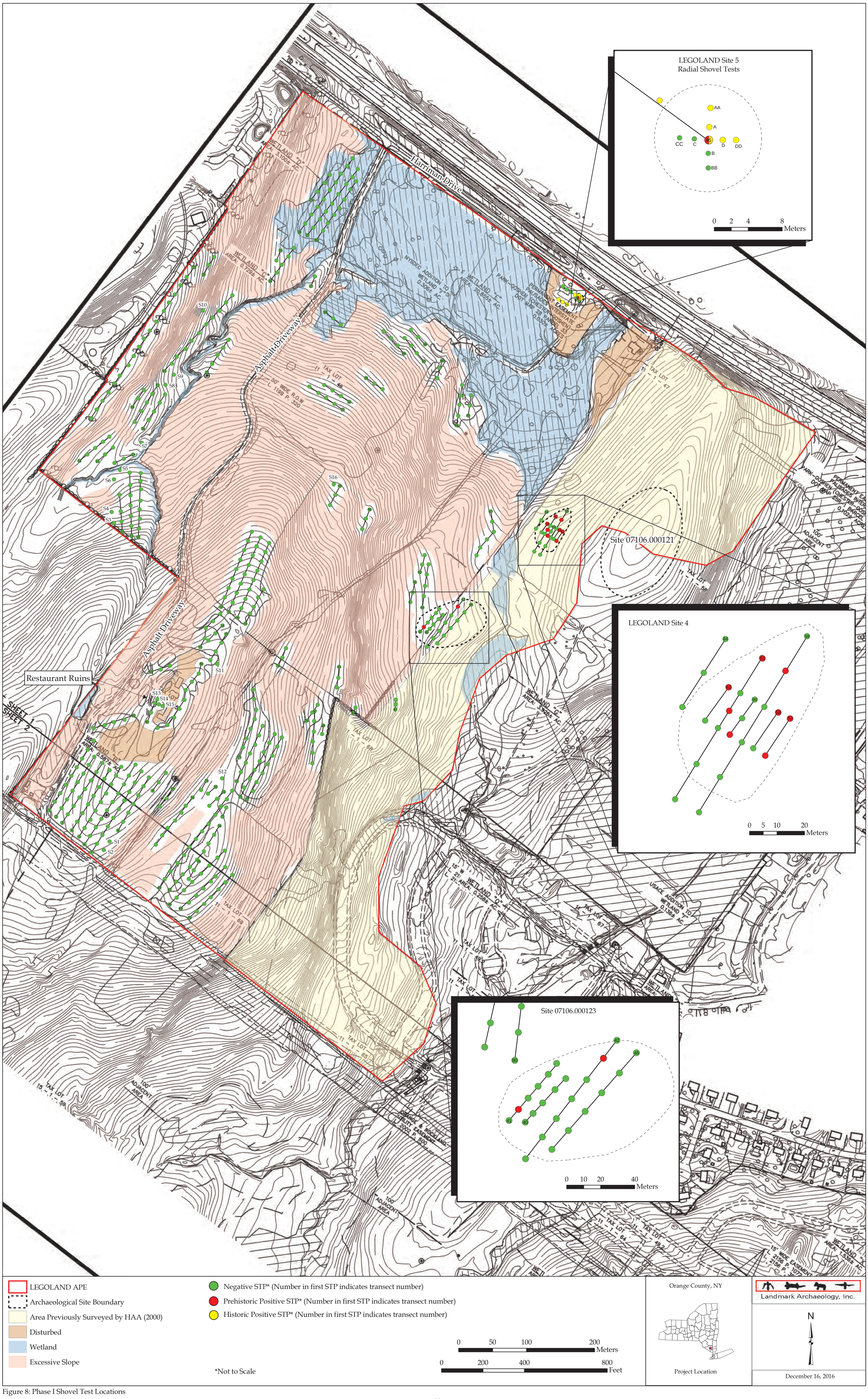

Figure 8: Phase I Shovel Test Locations

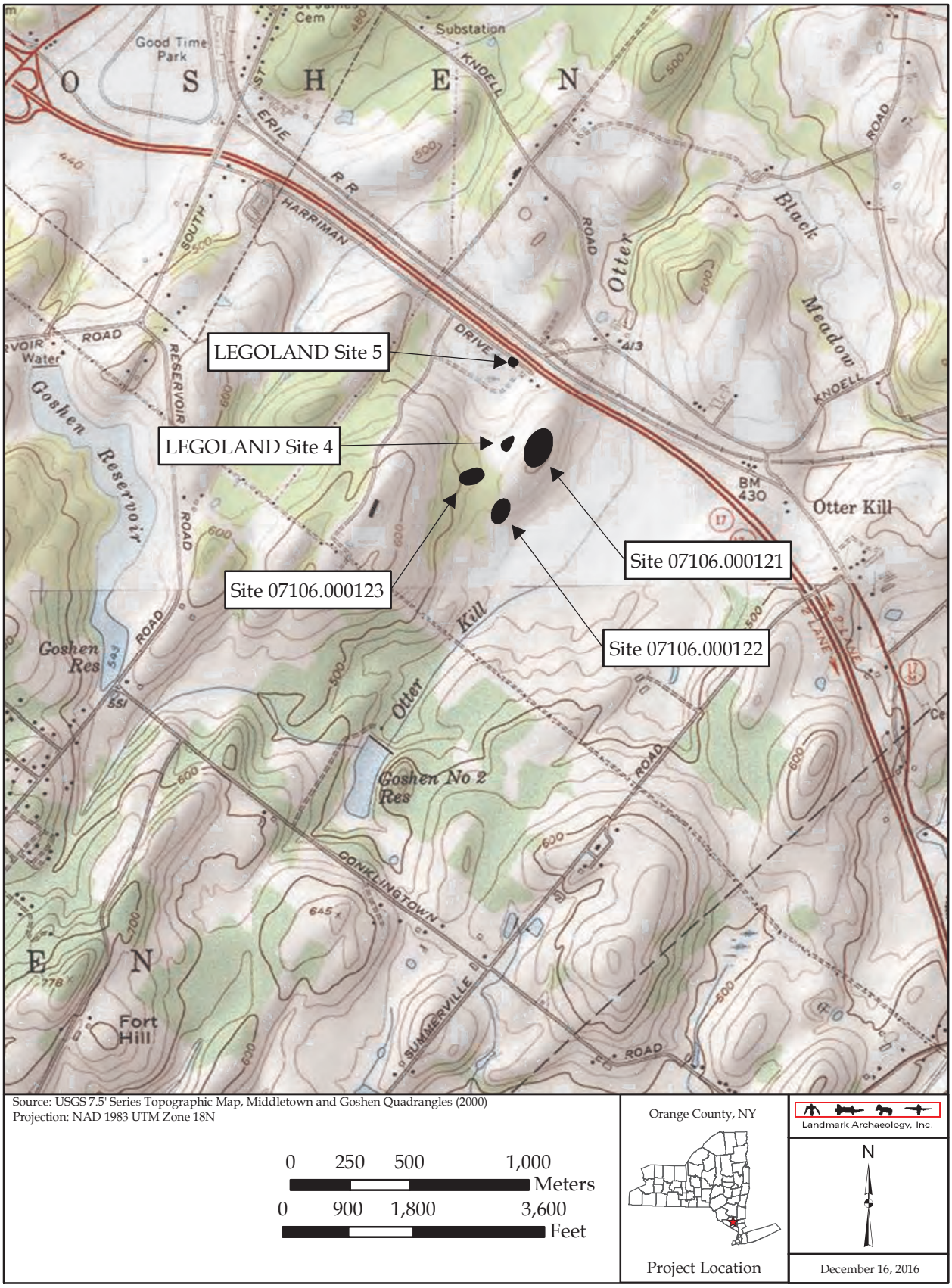

Figure 9: 07106.000121, 07106.000122, 07106.000123, LEGOLAND Site 4 and LEGOLAND Site 5 Locations

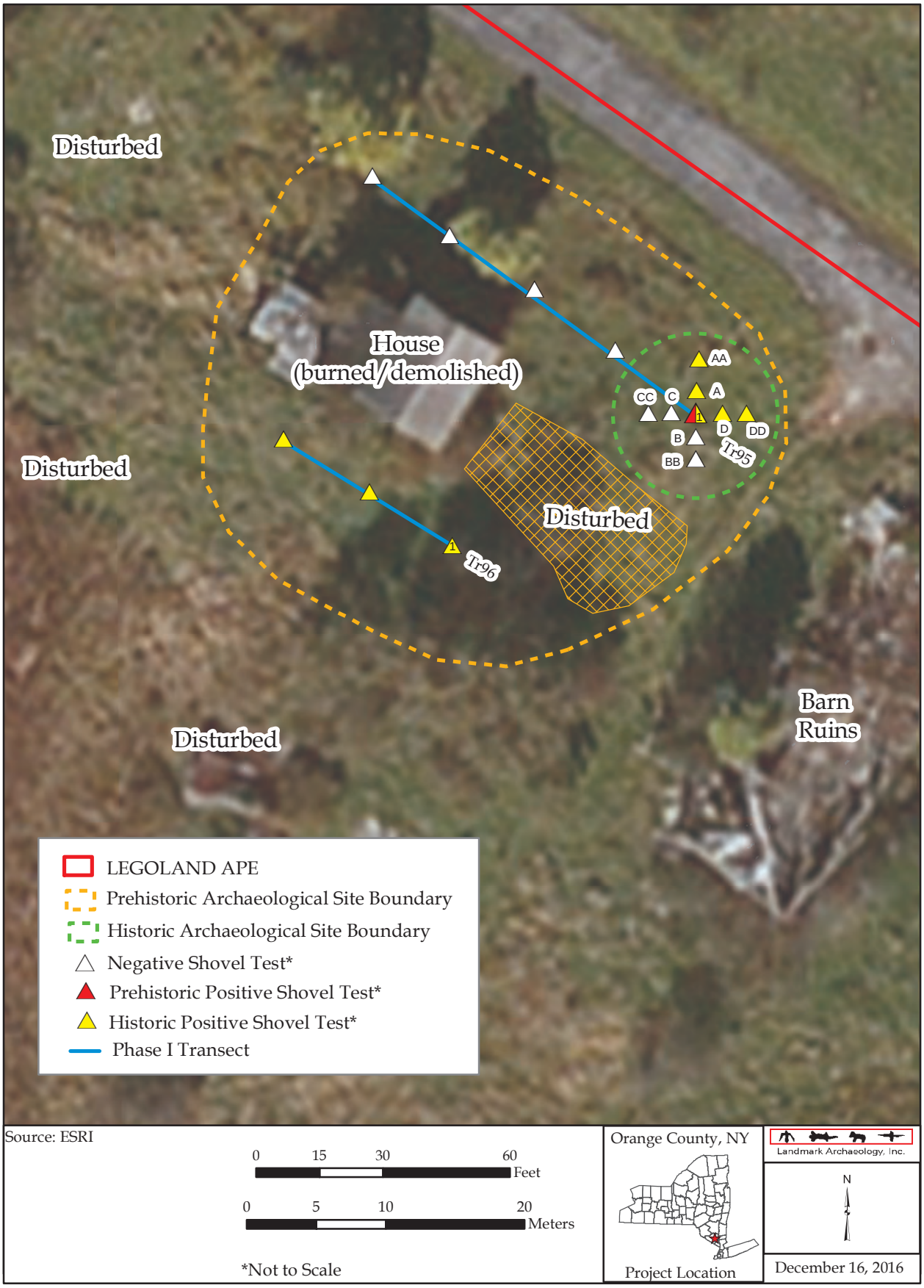

Figure 10: LEGOLAND Site 5 Field Map

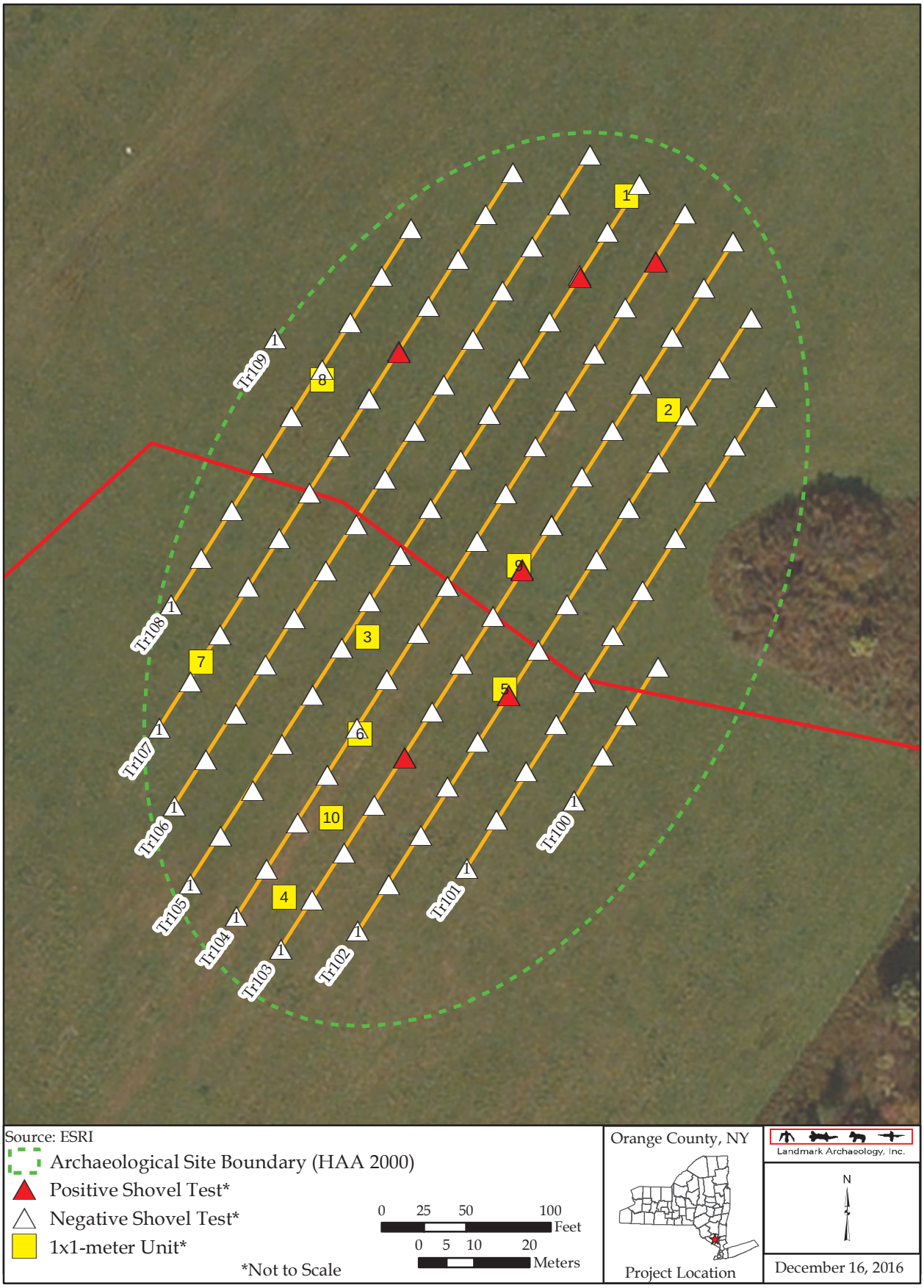

Figure 11: Site 07106.000121 Field Map

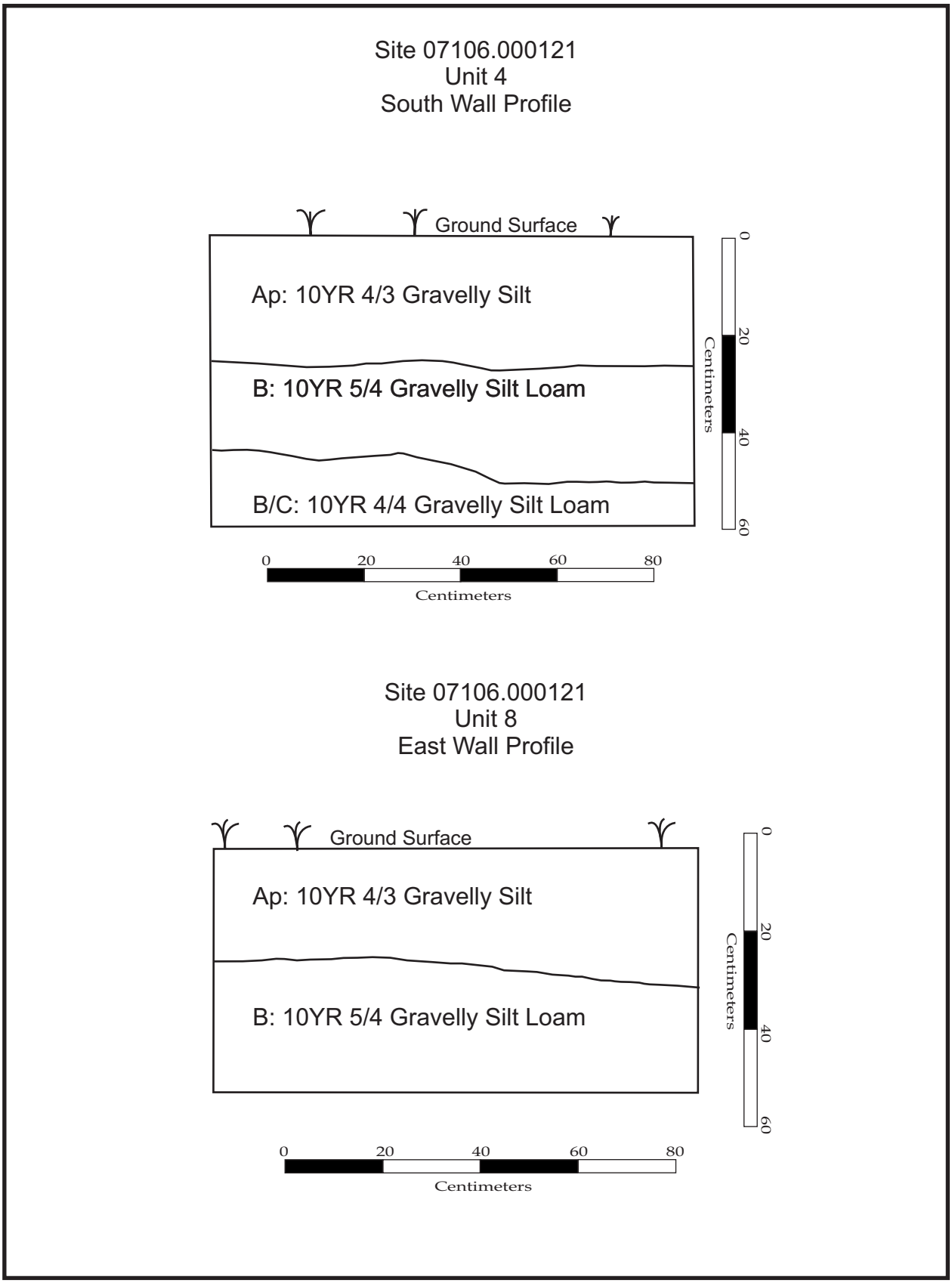

Figure 12: Site 07106.000121 Units 4 and 8 Profiles

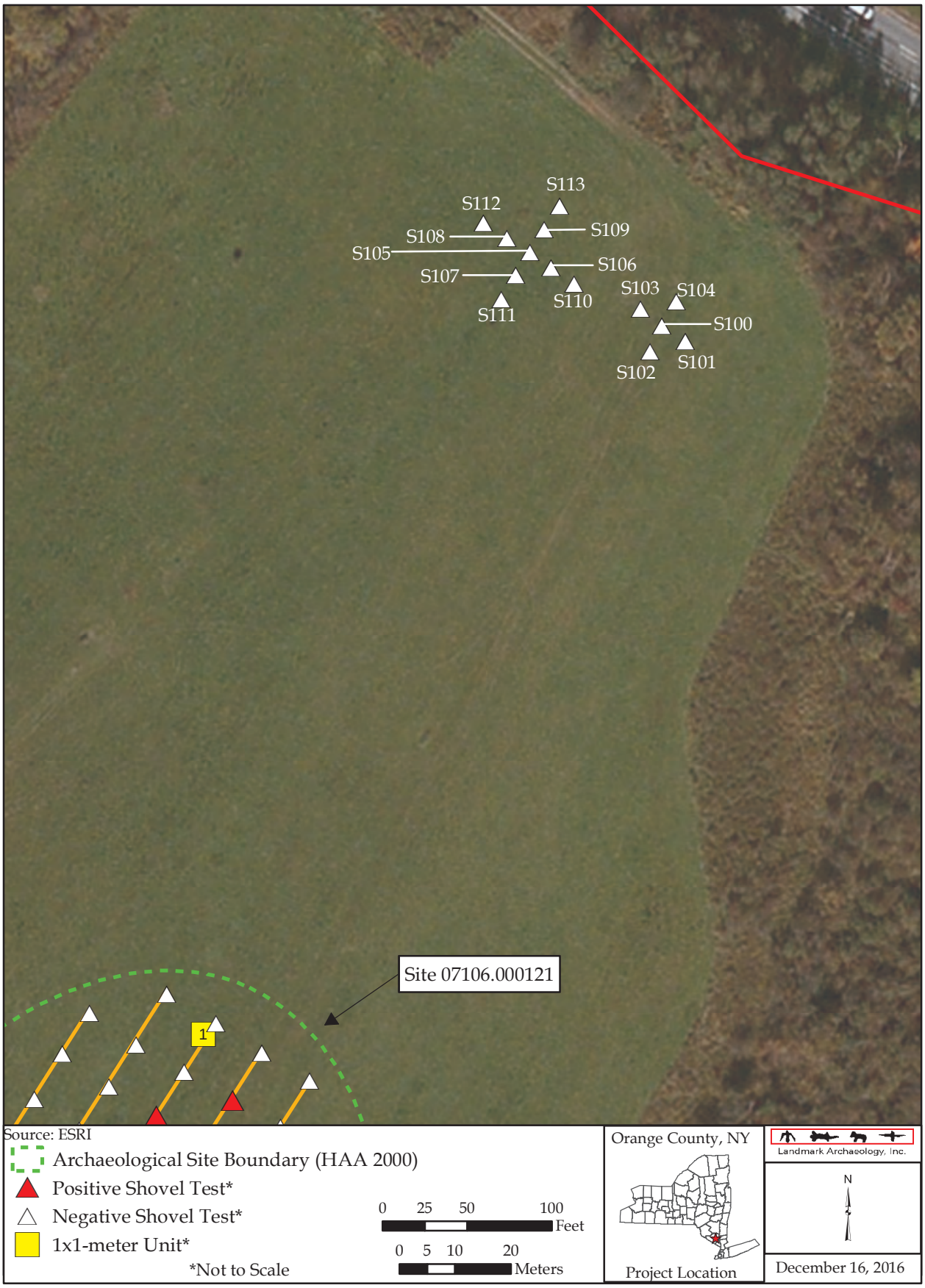

Figure 13: Site 07106.000121 Selective Shovel Test Locations

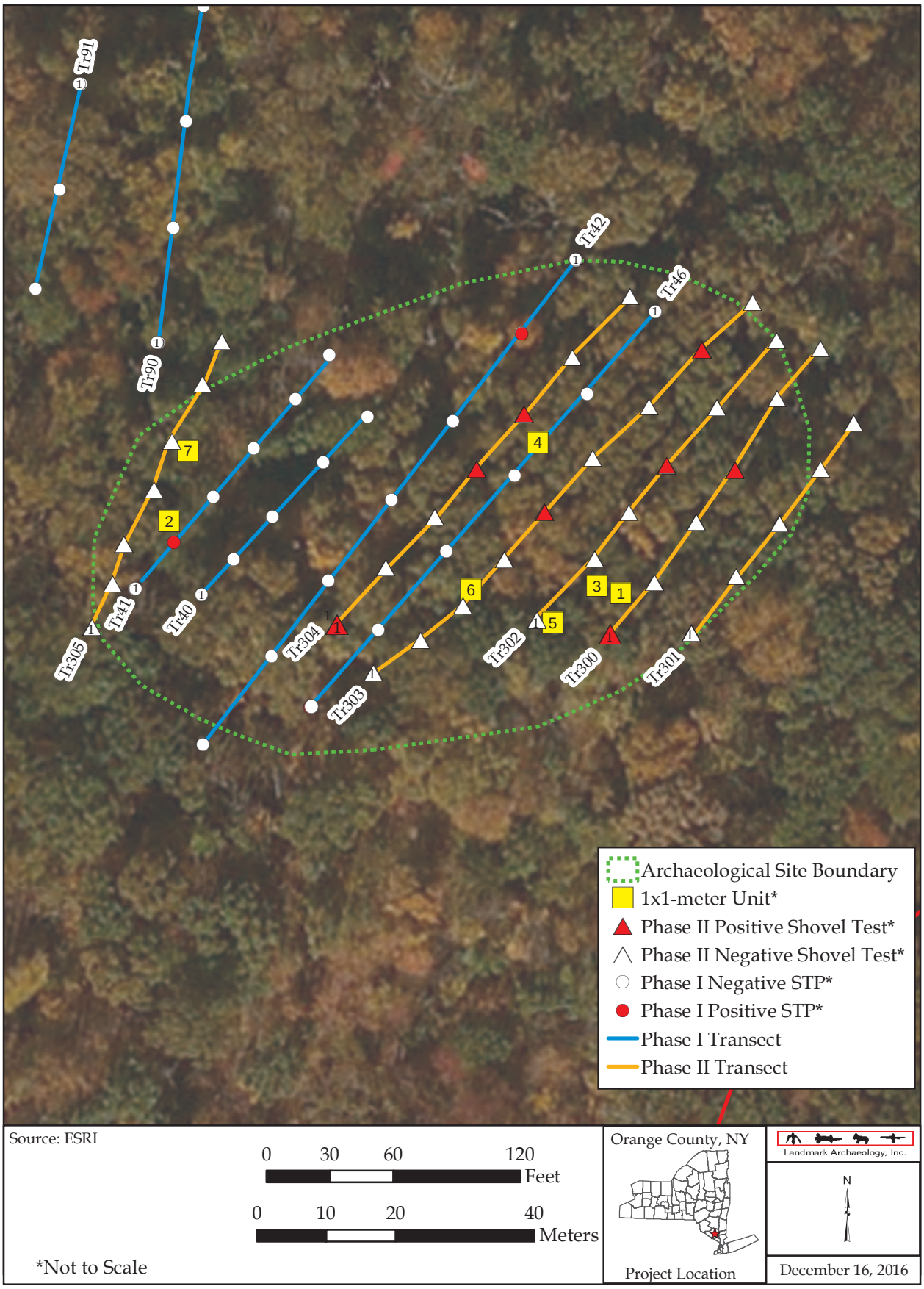

Figure 14: Site 07106.000123 Field Map

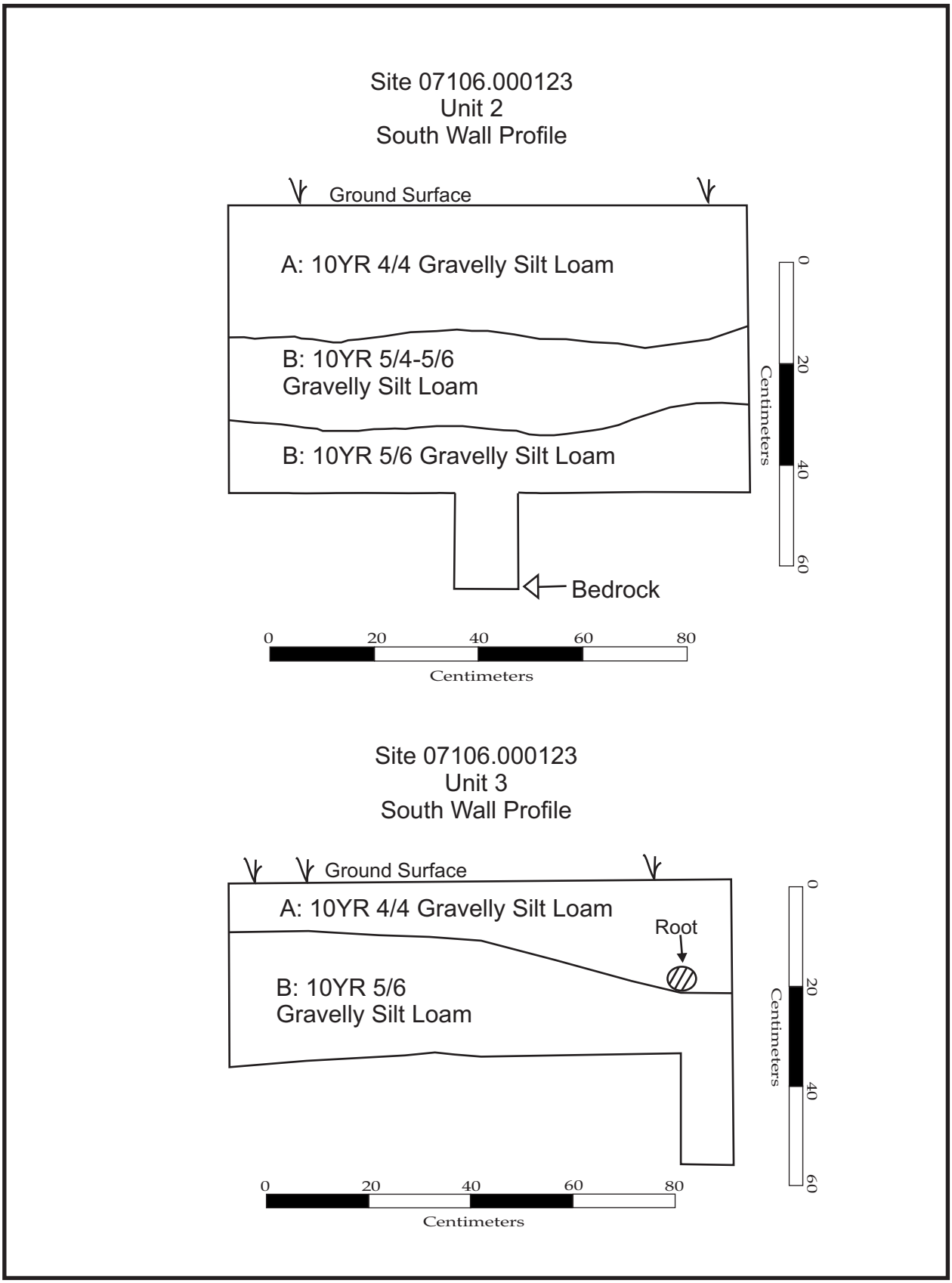

Figure 15: Site 07106.000123 Units 2 and 3 Profiles

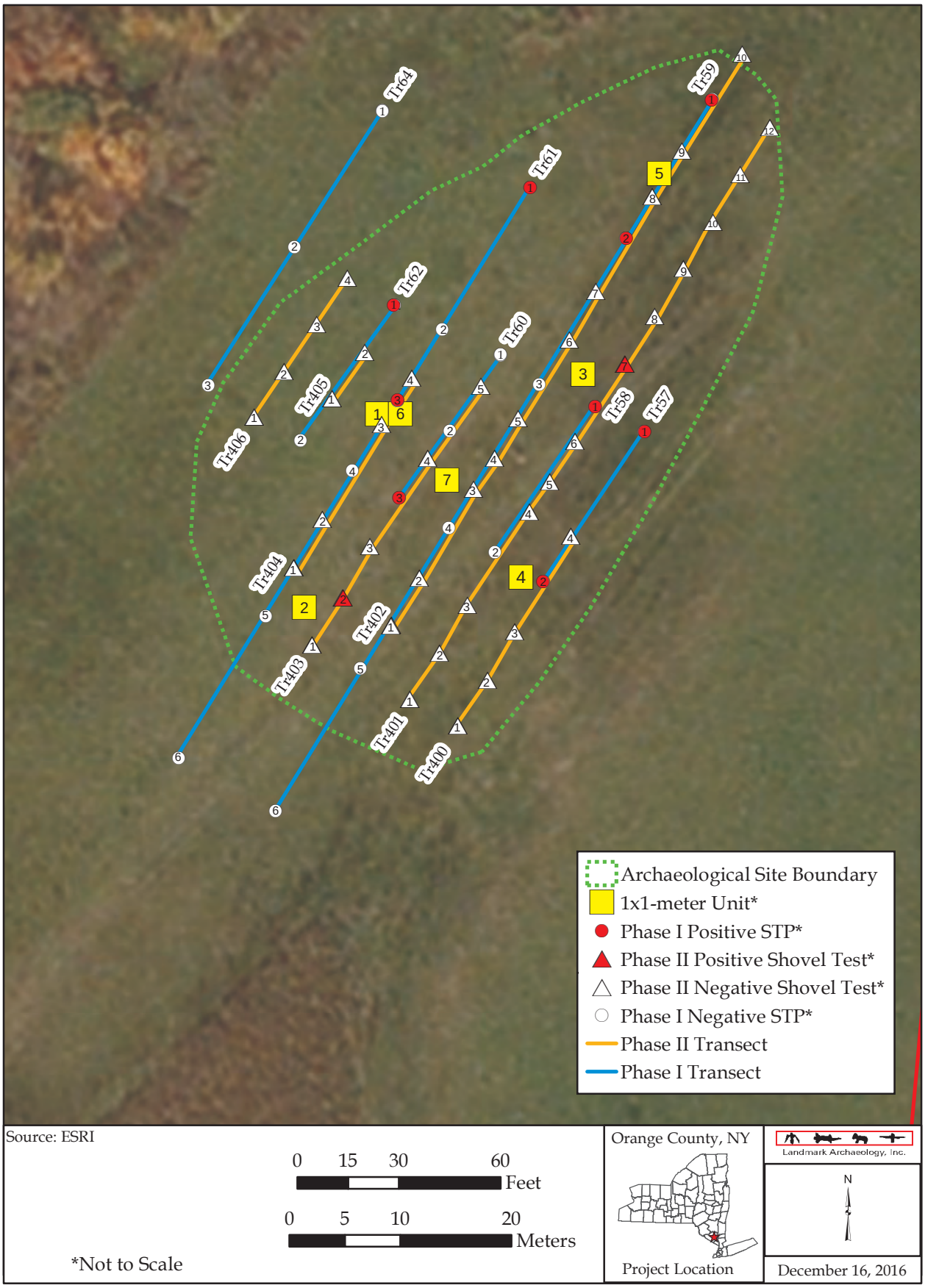

Figure 16: LEGOLAND Site 4 Field Map

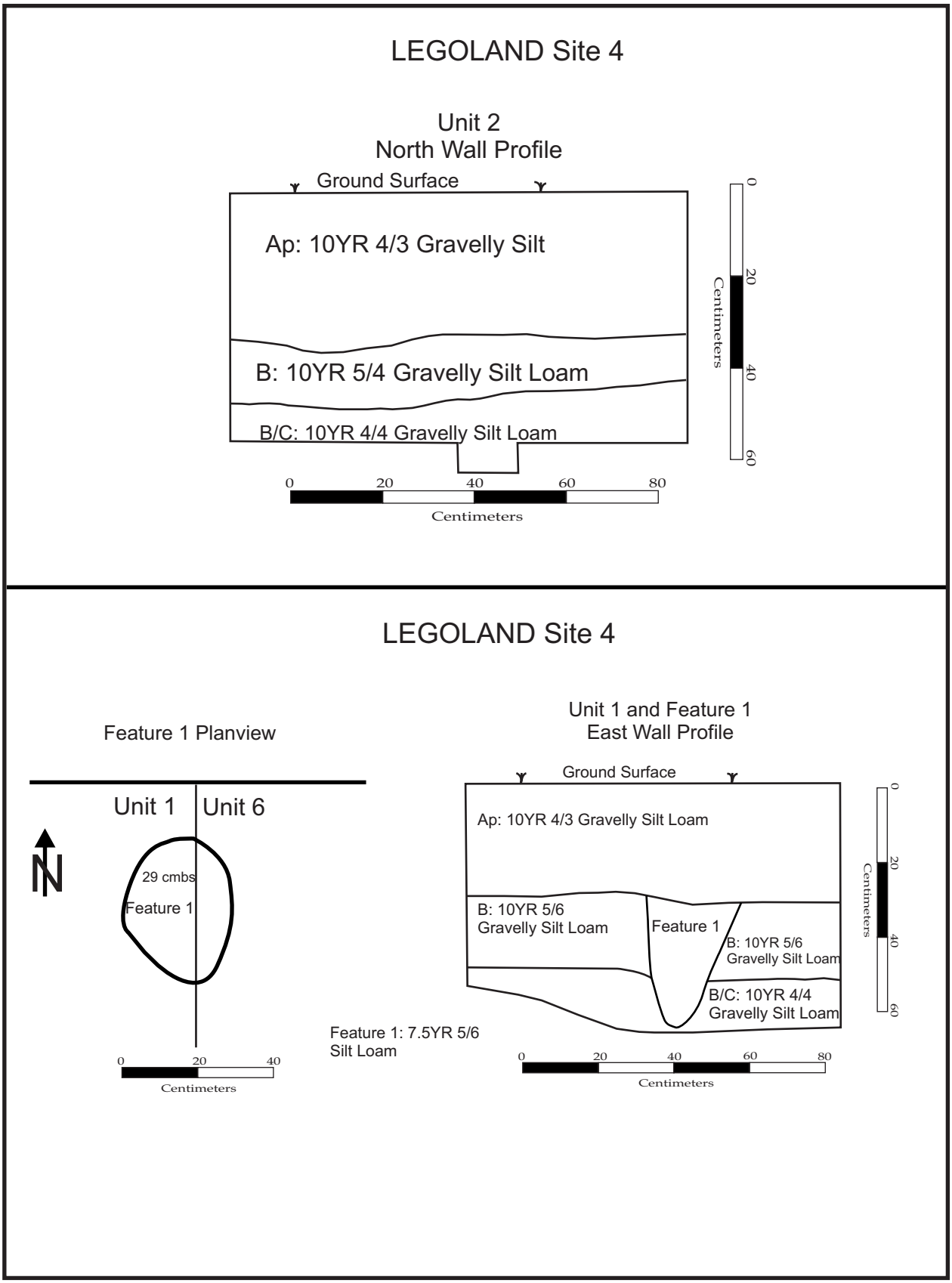

Figure 17: LEGOLAND Site 4 Unit 4 Profile and Feature 1 Planview and Profile

APPENDIX A

Photographs

10
15
2
1
13
14
16
8
17
11
5
3
12
6
4
9
Source: ESRI (2016), Lanc and Tully (2016)
Projection: NAD 1983 UTM Zone 18N
LEGOLAND APE
Photo Angle
0 75 150 300
Meters
0 250 500 1,000
Feet
Orange County, NY
Project Location
Landmark Archaeology, Inc.
N
December 16, 2016

Photo Key

Photograph 1: 420 Harriman Drive, View to North

Photograph 2: 422 Harriman Drive, View to North

Photograph 3: Hillcrest Manor Restaurant Ruins, View to North

Photograph 4: Hillcrest Manor Restaurant Ruins, View to South

Photograph 5: Hillcrest Manor Restaurant Ruins, View to South

Photograph 6: Hillcrest Manor Restaurant Ruins, View to East

Photograph 7: Hillcrest Manor Restaurant Postcard, ca. 1970

Photograph 8: Phase I Shovel Testing, View to North

Photograph 9: Phase I Shovel Testing, Vew to South

Photograph 10: Phase I Shovel Testing, Vew to Northeast

Photograph 11: Phase I Shovel Testing LEGOLAND Site 4, View to Northwest

Photograph 12: Skid Steer Mower, View to South

Photograph 13: LEGOLAND Site 5, View to Northwest

Photograph 14: LEGOLAND Site 5, Basement, View to Northwest

Photograph 15: LEGOLAND Site 5, Barn Ruins, View to Southeast

Photograph 16: Site 0716.000121, View to Southwest

Photograph 17: Site 07106.000123, View to Southeast

Photograph 18: Orient Fishtail, Site 07106.000123

APPENDIX B

Shovel Test Descriptions

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	STP					
Phase I						
Transect 1						
	1		0-26	26-41		Rock impasse
	2		0-25	25-33		
	3		0-21	21-39		
	4		0-19	19-39		
	5		0-29			Root impasse
	6		0-19	19-32		
	7		0-31	31-43		
	8		0-29	29-41		
	9		0-25	25-39		
Transect 2						
	1		0-20	20-35		
	2		0-23			Root impasse
	3		0-32	32-43		
	4		0-20	20-36		
	5		0-25	25-36		
	6		0-18	18-30		
	7		0-26	26-38		
	8		0-24	24-34		
Transect 3						
	1		0-32	32-55		
	2		0-20	20-40		
	3		0-24	24-46		
	4		0-25	25-48		
	5		0-22	22-45		
	6		0-22	22-46		
	7		0-21	21-44		
	8		0-18	18-43		
Transect 4						
	1		0-19	19-40		
	2		0-22	22-42		
	3		0-19	19-35		
	4		0-15	15-40		
	5		0-17	17-37		
	6		0-15	15-30		
	7		0-20	20-36		
	8		0-31	31-36		
Transect 5						
	1		0-19	19-36		
	2		0-17	17-30		Rock impasse
	3		0-24	24-44		
	4		0-24	24-27		
	5		0-23	23-39		
	6		0-16	16-43		
	7		0-14	14-32		
	8		0-18	18-36		
	9		0-19	19-34		
Transect 6						
	1		0-21	21-33		
	2		0-29	29-40		
	3		0-17	17-45		
	4		0-17	17-37		
	5		0-18	18-39		
	6		0-18	18-41		
	7		0-20	20-45		
	8		0-18	18-40		
	9		0-22	22-42		
	10		0-21	21-42		
Transect 7						
	1		0-24	24-36		
	2		0-25	25-38		
	3		0-25	25-39		
	4		0-26	26-38		
	5		0-26	26-35		
	6		0-16	16-30		
	7		0-21	21-37		

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	8		0-25	25-40		
	9		0-24	24-44		
	10		0-23	23-39		
Transect 8						
	1		0-28	28-48		
	2		0-29	29-40		
	3		0-32	32-41		
	4		0-28	28-36		
	5		0-22	22-36		
	6		0-16	16-31		
	7		0-23			Root impasse
Transect 9						
	1		0-24	24-45		
	2		0-26	26-45		
	3		0-26			Root impasse
Transect 10						
	1		0-10	10-30		Root impasse
	2		0-13	13-35		
	3		0-26	26-33		
	4		0-23	23-34		
	5		0-27	27-39		
	6		0-17	17-32		
	7		0-21			Rock impasse
	8		0-14	14-37		
Transect 11						
	1		0-19	19-42		
	2		0-23	23-44		
	3		0-17	17-38		
	4		0-21	21-36		Root impasse
	5		0-19	19-43		
	6		0-25	25-42		
	7		0-20	20-45		
Transect 12						
	1		0-20			Root impasse
	2		0-23	23-39		
	3		0-24	24-44		
	4		0-22	22-47		
Transect 13						
	1		0-19	19-40		
	2		0-16	16-36		
	3		0-19	19-39		
Transect 14						
	1		0-21	21-29		
	2		0-28	28-39		
	3		0-22	22-36		
	4		0-21	21-38		
	5		0-29	29-41		
Transect 15						
	1		0-20	20-39		
	2		0-22	22-36		
	3		0-17	17-35		
Transect 16						
	1		0-26	26-41		
	2		0-26	26-43		
	3		0-24	24-38		
	4		0-26	26-40		
	5		0-20	20-39		
Transect 17						
	1		0-19	19-41		
	2		0-17	17-46		
	3		0-18	18-40		
	4		0-19	19-38		
	5		0-17	17-27		Root impasse
Transect 18						
	1		0-20	20-48		
	2		0-20	20-45		
	3		0-20	20-43		
Transect 19						

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	1		0-21	21-42		
	2		0-17	17-38		
	3		0-19	19-38		
	4		0-17	17-38		
	5		0-18	18-39		
	6		0-18	18-24		Root impasse
	7		0-19	19-40		
	8		0-20	20-38		
	9		0-20	20-38		
	10		0-16	16-40		
	11		0-18	18-41		
Transect 20						
	1		0-26	26-39		
	2		0-14	14-39		
	3		0-21	21-39		
Transect 21						
	1		0-16	16-38		
	2		0-17	17-38		
	3		0-18	18-39		
	4		0-20	20-38		
	5		0-18	18-35		
	6		0-20	20-41		
	7		0-17	17-33		
	8		0-2			Rock impasse
	9		0-15	15-36		
	10		0-19	19-40		
	11		0-20	20-38		
	12		0-16	16-39		
	13		0-15	15-37		
	14		0-16	16-35		
	15		0-18	18-42		
	16		0-18	18-39		
	17		0-17	17-38		
	18		0-17	17-39		
Transect 22						
	1		0-27	27-43		
	2		0-24	24-42		
	3		0-20	20-40		
	4		0-20	20-40		
	5		0-20	20-38		
Transect 23						
	1		0-20	20-30		Rock impasse
	2		0-20	20-40		
Transect 24						
	1		0-30	30-45		
	2		0-25	25-39		
	3		0-25	25-40		
	4		0-20	20-42		
	5		0-19	19-40		
Transect 25						
	1		0-22	22-41		
	2		0-25	25-35		
Transect 26						
	1		0-22	22-40		
	2		0-23	23-34		
	3		0-27	27-34		
	4		0-26	26-46		
	5		0-29	29-38		
	6		0-30	30-40		Rock impasse
	7		0-25	25-50		
	8		0-18	18-38		
Transect 27						
	1		0-18	18-36		
	2		0-22	22-40		
	3		0-19	19-38		
	4		0-17	17-37		
	5		0-22	22-43		
	6		0-20	20-43		

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	7		0-24	24-48		
	8		0-22	22-40		
	9		0-28	28-44		
Transect 28						
	1		0-29	29-39		
	2		0-30	30-41		
	3		0-27	27-40		
	4		0-24	24-44		
	5		0-25	25-44		
	6		0-23	23-45		
	7		0-25	25-45		
	8		0-30	30-54		
	9		0-31	31-46		
	10		0-36	36-59		
Transect 29						
	1		0-22	22-46		
	2		0-29	29-41		
	3		0-25	25-43		
	4		0-23	23-46		
Transect 30						
	1		0-16	16-35		Rock impasse
	2		0-23	23-39		
	3		0-23	23-40		
	4		0-21	21-43		
	5		0-25	25-44		
	6		0-24	24-42		
	7		0-22	22-44		
	8		0-23	23-45		
	9		0-23	23-46		
Transect 31						
	1		0-26	26-43		
	2		0-26	26-43		
	3		0-25	25-43		
	4		0-27	27-44		
	5		0-21	21-40		
	6		0-19	19-39		
	7		0-21	21-40		
	8		0-18	18-39		
	9		0-19	19-41		
Transect 32						
	1		0-21	21-37		
	2		0-24	24-33		
	3		0-22	22-41		
	4		0-26	26-38		
	5		0-27	27-38		
	6		0-22	22-34		
	7		0-19	19-38		
	8		0-17	17-38		
	9		0-21	21-40		
Transect 33						
	1		0-27	27-32		Rock impasse
	2		0-26	26-43		
	3		0-27	27-45		
	4		0-30	30-47		
	5		0-23	23-41		
Transect 34						
	1		0-21	21-35		Gravel impasse
	2		0-20	20-33		
	3		0-15	15-35		
Transect 35						
	1		0-17	17-35		
	2		0-18	18-32		Rock impasse
	3		0-18	18-39		
	4		0-19	19-39		
Transect 36						
	1		0-24	24-44		
	2		0-26	26-35		Rock impasse
	3		0-24	24-34		

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	4		0-34	34-41		
Transect 37						
	1		0-21	21-39		
	2		0-22	22-40		
	3		0-20	20-38		
	4		0-22	22-44		
	5		0-24	24-40		
Transect 38						
	1		0-36			Rock impasse
	2		0-20	20-39		
	3		0-20	20-38		
Transect 39						
	1		0-22	22-38		
	2		0-26	26-34		
	3		0-23	23-45		
Transect 40						
07106.000123	1		0-26	26-37		
07106.000123	2		0-21	21-42		
07106.000123	3		0-28	28-49		
07106.000123	4		0-28	28-50		
07106.000123	5		0-27	27-39		
Transect 41						
07106.000123	1		0-26	26-43		
07106.000123	2		0-19	19-39	x	Rock impasse
07106.000123	3		0-18			Root impasse
07106.000123	4		0-24	24-43		
07106.000123	5		0-23	23-43		
07106.000123	6		0-20	20-39		
Transect 42						
07106.000123	1		0-21	21-41		
07106.000123	2		0-19	19-41	x	
07106.000123	3		0-28	28-44		
07106.000123	4		0-26	26-45		
07106.000123	5		0-19	19-45		
07106.000123	6		0-22	22-45		
	7		0-20	20-43		
Transect 43						
	1		0-17	17-38		
	2		0-18	18-39		
	3		0-20	20-42		
Transect 44						
	1		0-20	20-44		
	2		0-19	19-45		
Transect 45						
	1		0-22	22-40		
	2		0-25	25-40		
	3		0-23	23-33		
Transect 46						
07106.000123	1		0-24	24-35		
07106.000123	2		0-18	18-47		
07106.000123	3		0-18	18-40		
07106.000123	4		0-17	17-39		
07106.000123	5		0-24	24-45		
07106.000123	6		0-24	24-40		
Transect 47						
	1		0-27	27-42		
	2		0-26	26-43		
	3		0-33	33-46		
	4		0-25	25-34		
	5		0-23	23-40		
	6		0-22	22-33		
Transect 48	1		0-25	25-41		
	2		0-19	19-41		
Transect 49						
	1		0-26	26-42		
	2		0-30	30-46		
	3		0-28	28-40		

LEGOLAND Phase I and II
Orange County, New York
Landmark Archaeology, Inc. #367.371

Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	4		0-29	29-39		
	5		0-17	17-40		
	6		0-18	18-42		
	7		0-15	15-40		
	8		0-27	27-44		
	9		0-27	27-41		Rock impasse
	10		0-23	23-58		
	11		0-18	18-44		
	12		0-13	13-32		
	13		0-24	24-48		
Transect 51						
	1		0-22	22-44		
	2		0-22	22-42		
	3		0-25	25-32		Rock impasse
Transect 52						
	1		0-18	18-44		
	2		0-26	26-39		
Transect 53						
	1		0-31	31-55		
	2		0-25	25-47		
Transect 54						
	1		0-22	22-40		
	2		0-22	22-40		
	3		0-26	26-45		
	4		0-19	19-30		
	5		0-25	25-43		
	6		0-19	19-39		
	7		0-21	21-32		
Transect 55						
	1		0-17	17-29		
	2		0-16	16-36		
	3		0-17	17-34		
Transect 56						
	1		0-23	23-47		
	2		0-24	24-47		
	3		0-28	28-49		
Transect 57						
LEGOLAND SITE 4	1		0-23	23-35	x	
LEGOLAND SITE 4	2		0-23	23-49	x	
Transect 58						
LEGOLAND SITE 4	1		0-22	22-46	x	
LEGOLAND SITE 4	2		0-26	26-50		
Transect 59						
LEGOLAND SITE 4	1		0-26	26-49	x	
LEGOLAND SITE 4	2		0-21	21-46	x	
LEGOLAND SITE 4	3		0-22	22-36		
LEGOLAND SITE 4	4		0-29	29-47		
LEGOLAND SITE 4	5		0-27	27-41		
	6		0-25	25-43		
Transect 60						
LEGOLAND SITE 4	1		0-21	21-38		
LEGOLAND SITE 4	2		0-26	26-46		
LEGOLAND SITE 4	3		0-20	20-40	x	
Transect 61						
LEGOLAND SITE 4	1		0-29	29-46	x	
LEGOLAND SITE 4	2		0-22	22-45		
LEGOLAND SITE 4	3		0-20	20-41	x	
LEGOLAND SITE 4	4		0-18	18-36		
LEGOLAND SITE 4	5		0-21	21-44		
	6		0-23	23-42		
Transect 62						
LEGOLAND SITE 4	1		0-27	27-49	x	
LEGOLAND SITE 4	2		0-28	28-47		
Transect 63						
	1		0-28	28-50		
	2		0-26	26-40		
	3		0-19	19-39		
	4		0-35	35-46		

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	5		0-24	24-41		
	6		0-23	23-39		
Transect 64						
	1		0-21	21-44		
	2		0-20	20-35		
	3		0-27	27-44		
Transect 67						
	1		0-27	27-50		
	2		0-26	26-40		
	3		0-24	24-37		
	4		0-22	22-39		
	5		0-22	22-40		
	6		0-28	28-41		
Transect 68						
	1		0-25	25-42		
	2		0-28	28-46		
	3		0-22	22-42		
	4		0-19	19-36		
	5		0-22	22-47		
	6		0-22	22-44		
	7		0-30	30-40		
	8		0-23	23-45		
Transect 69						
	1		0-25	25-47		
	2		0-19	19-42		
	3		0-19	19-39		
	4		0-18	18-42		
	5		0-26	26-40		
	6		0-27	27-45		
	7		0-29	29-57		
Transect 70						
	1		0-23	23-42		
	2		0-21	21-46		
	3		0-22	22-45		
	4		0-23	23-42		
	5		0-22	22-43		
	6		0-25	25-36		
	7		0-22	22-47		
Transect 71						
	1		0-26	26-41		
	2		0-30	30-46		
	3		0-28	28-50		
	4		0-29	29-46		
	5		0-28	28-43		
	6		0-28	28-42		
	7		0-22	22-41		
Transect 72						
	1		0-26	26-41		
	2		0-24	24-39		
	3		0-20	20-40		Rock impasse
	4		0-24	24-38		
	5		0-20	20-48		
	6		0-23	23-43		
	7		0-20	20-45		
	8		0-20	20-48		
Transect 73						
	1		0-21	21-39		
	2		0-28	28-52		
	3		0-27	27-45		
	4		0-23	23-39		
	5		0-31	31-46		
	6		0-26	26-39		
	7		0-33	33-48		
	8		0-28	28-43		
Transect 74						
	1		0-26	26-38		
	2		0-23	23-34		Rock impasse
	3		0-23	23-33		

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
Transect 75						
	1		0-25	25-38		
	2		0-27	27-33		Rock impasse
	3		0-17	17-33		
	4		0-29	29-52		
	5		0-25	25-48		
	6		0-25	25-50		
	7		0-27	27-44		
	8		0-27	27-44		
Transect 76						
	1		0-24	24-44		
	2		0-29	29-38		Rock impasse
	3		0-24	24-46		
Transect 77						
	1		0-25	25-47		
	2		0-26	26-44		
Transect 78						
	1		0-27	27-55		
	2		0-31	31-56		
	3		0-23	23-45		
Transect 79						
	1		0-29	29-41		
	2		0-23	23-37		
	3		0-17	17-36		
	4		0-23	23-45		
	5		0-22	22-46		
Transect 80						
	1		0-20			Rock impasse
	2		0-17	17-32		
	3		0-24	24-40		
	4		0-22	22-37		Rock impasse
	5		0-28	28-45		
	6		0-22	22-41		
	7		0-25	25-43		
	8		0-38	38-55		
	9		0-45	45-60		
Transect 81						
	1		0-20	20-50		
	2		0-20	20-55		
	3		0-20	20-50		
Transect 82						
	1		0-25			Rock impasse
	2		0-17			Asphalt impasse
	3		0-16	16-28		Rock impasse
	4		0-25			Rock impasse
	5		0-10	10-15		Rock impasse
Transect 83						
	1		0-16	16-40		
	2		0-22	22-43		
	3		0-24	24-41		
Transect 84						
	1		0-29	29-44		
	2		0-21	21-42		
	3		0-29	29-52		
	4		0-20	20-45		
	5		0-20	20-40		
Transect 85						
	1		0-26	26-49		
	2		0-25	25-44		
	3		0-26	26-48		
Transect 86						
	1		0-50	50-60		
	2		0-35	35-50		
	3		0-33	33-45		
Transect 87						
	1		0-23	23-49		
	2		0-22	22-49		
	3		0-22	22-43		

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	4		0-18	18-34		Rock impasse
Transect 88						
	1		0-18	18-35		
	2		0-18	18-40		
	3		0-22	22-40		
	4		0-29	29-40		
Transect 89						
	1		0-35	35-45		
	2		0-28	28-42		
	3		0-24	24-35		
Transect 90						
	1		0-16	16-36		
	2		0-17	17-34		
	3		0-20	20-37		
	4		0-17	17-38		
	5		0-18	18-40		
Transect 91						
	1		0-23	23-45		
	2		0-26			Root impasse
	3		0-19	19-43		
Transect 92						
	1		0-15	15-31		
	2		0-19	19-32		
	3		0-15	15-32		
Transect 93						
	1		0-31	31-44		
	2		0-30	30-50		
	3		0-22	22-41		
Transect 94						
	1		0-28	28-45		
	2		0-25	25-33		
	3		0-22	22-38		
Transect 95						
LEGOLAND Site 5	1	0-24		24-36	x	
LEGOLAND Site 5	1A	0-24		24-46	x	
LEGOLAND Site 5	1AA	0-19		19-41	x	
LEGOLAND Site 5	1B	0-20		20-41		
LEGOLAND Site 5	1BB	0-26		26-43		
LEGOLAND Site 5	1C	0-40		40-50		
LEGOLAND Site 5	1CC	0-30		30-45		
LEGOLAND Site 5	1D	0-25		25-47	x	
LEGOLAND Site 5	1DD	0-28		28-39	x	
LEGOLAND Site 5	2	0-17		17-44	x	
LEGOLAND Site 5	3	0-17		17-39		
LEGOLAND Site 5	4	0-25		25-41		
LEGOLAND Site 5	5	0-22		22-36		
Transect 96						
LEGOLAND Site 5	1	0-25		25-45	x	
LEGOLAND Site 5	2	0-22		22-41	x	
LEGOLAND Site 5	3	0-28		28-46	x	
Selective	S1		0-21	21-37		
	S2		0-22	22-42		
	S3		0-20	20-45		
	S4		0-20	20-48		
	S5		0-20	20-43		
	S6		0-22	22-41		
	S7		0-22	22-36		
	S8		0-18	18-32		
	S9		0-20	20-35		
	S10		0-14	14-36		
	S11		0-18	18-46		
	S12		0-17	17-35		
	S13		0-34	34-45		Rock impasse
	S14		0-35			
	S15		0-16	16-40		
	S16		0-21	21-42		

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
Phase II						
Site 07106.000121						
Transect 100	1		0-21	21-43		
	2		0-24	24-40		
	3		0-23	23-43		
	4		0-25	25-37		Rock impasse
Transect 101	1		0-25	25-45		
	2		0-23	23-39		
	3		0-22	22-39		
	4		0-21	21-42		
	5		0-22	22-40		
	6		0-22	22-40		
	7		0-21	21-40		
	8		0-22	22-40		
	9		0-21	21-43		
	10		0-21	21-39		
	11		0-23	23-42		
Transect 102	1		0-29	29-49		
	2		0-29	29-52		
	3		0-29	29-48		
	4		0-26	26-43		
	5		0-29	29-48		
	6		0-30	30-50	x	
	7		0-30	30-52		
	8		0-30	30-36		Rock impasse
	9		0-40			Rock impasse
	10		0-30	30-40		
	11		0-30			Rock impasse
	12		0-30	30-45		
	13		0-30	30-50		
	14		0-30	30-50		
Transect 103	1		0-19	19-37		
	2		0-23	23-37		
	3		0-24	24-39		
	4		0-23	23-38		
	5		0-24	24-38	x	
	6		0-24	24-33		Rock impasse
	7		0-25	25-33		Rock impasse
	8		0-25	25-35		
	9		0-28	28-39	x	
	10		0-27	27-39		
	11		0-30	30-50		
	12		0-30	30-45		
	13		0-30	30-47		
	14		0-25	25-45		
	15		0-31	31-44		
	16		0-31	31-44		
Transect 104	1		0-23	23-43		
	2		0-20	20-41		
	3		0-27	27-43		
	4		0-25	25-43		
	5		0-26	26-45		
	6		0-24	24-38		
	7		0-25	25-42		
	8		0-25	25-42		
	9		0-30	30-43		
	10		0-30	30-41		
	11		0-30	30-42		
	12		0-26	26-40		
	13		0-25	25-42		
	14		0-22	22-42		
	15		0-21	21-40	x	
	16		0-18	18-23		Rock impasse

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
Transect 105	1		0-27	27-43		
	2		0-27	27-37		
	3		0-26	26-38		
	4		0-26	26-37		
	5		0-26	26-38		
	6		0-24	24-37		
	7		0-24	24-42		
	8		0-25	25-40		
	9		0-25	25-45		
	10		0-27	27-45		
	11		0-28	28-43		
	12		0-22	22-40		
	13		0-28	28-43		
	14		0-25	25-43	x	
	15		0-24	24-42		
	16		0-26	26-43		
Transect 106	1		0-28	28-52		
	2		0-25	25-47		
	3		0-26	26-48		
	4		0-23	23-38		
	5		0-27	27-55		
	6		0-24	24-45		
	7		0-28	28-53		
	8		0-26	26-52		
	9		0-30	30-52		
	10		0-30	30-50		
	11		0-29	29-52		
	12		0-30	30-52		
	13		0-30	30-50		
	14		0-30	30-50		
	15		0-30	30-50		
Transect 107	1		0-27	27-47		
	2		0-31	31-52		
	3		0-28	28-43		
	4		0-29	29-42		
	5		0-28	28-43		
	6		0-28	28-45		
	7		0-35	35-47		
	8		0-34	34-51		
	9		0-23	23-38	x	
	10		0-24	24-40		
	11		0-20	20-38		
	12		0-21	21-36		
	13		0-24	24-39		
Transect 108	1		0-28	28-48		
	2		0-30	30-42		Rock impasse
	3		0-30	30-49		
	4		0-30	30-50		
	5		0-24	24-42		
	6		0-24	24-37		
	7		0-26	26-55		
	8		0-23	23-42		
	9		0-22	22-43		
Transect 109	1		0-29	29-55		
Selective	S100		0-30	30-48		
	S101		0-24	24-41		
	S102		0-26	26-40		
	S103		0-27	27-42		
	S104		0-23	23-36		
	S105		0-26	26-37		
	S106		0-26	26-40		
	S107		0-27	27-48		

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Soil Description
1-Gravelly Silt Loam

Munsell		Varies	10YR 4/3	10YR 5/4	Artifacts Present	Comments
Soil Description Key		Fill	1	1		
STRAT		Fill	A/Ap	B		
	S108		0-20	20-38		
	S109		0-28	28-42		
	S110		0-25	25-40		
	S111		0-28	28-50		
	S112		0-24	24-42		
	S113		0-27	27-43		
Site 07106.000123						
Transect 300	1		0-15	15-40	x	
	2		0-22	22-45		
	3		0-20	20-30		Root impasse
	4		0-23	23-35	x	Root impasse
	5		0-23	23-48		
	6		0-24	24-45		
Transect 301	1		0-35	35-45		
	2		0-20	20-40		
	3		0-20	20-47		
	4		0-23	23-50		
	5		0-26	26-49		
Transect 302	1		0-20	20-47		
	2		0-20	20-45		
	3		0-19	19-42		
	4		0-22	22-44	x	
	5		0-22	22-40		
	6		0-29	29-42		

APPENDIX C

Artifact Inventory

Site 07106.000121
Prehistoric Artifact Inventory

Phase	Cat. #	TR	STP	Unit	Level	Depth (cm)	STRAT	Biface	Flake Tool		Debitage						Chert Type	Core		Comments
									Utilized	Retouched	Pri	Sec	Ter	RT	Br	Sh		amt.	wt (gm)	
II	100	102	6		1	0-30	Ap					1					ON			
II	102	103	5		1	0-24	Ap						1				ON			
II	103	103	9		1	0-28	Ap					1					NSK			
II	106	104	15		1	0-21	Ap							1			ON			
II	109	105	14		2	25-43	B		1						x		ON			Single utilized edge-8.3mm
II	112	107	9		2	23-38	B									1	ON			
II	110			3	1		Ap					1					ORK			
II	113			3	3		BC							1			ORK			
II	113			3	3		BC									1	ON			
II	111			4	1		Ap						2				NSK			
II	114			4	2		B						1				ON			
II	115			4	3		B			1							GT			Two retouched edges: #1-18.9mm, #2-12.3mm
II	117			6	1		Ap						3	2			NSK			
II	120			8	2		B							1			ON			
II	121			8	3		B									1	ON			
II	123			9	1		Ap						1				ON			
II	124			10	1		Ap							1			ON			
						TOTAL			1	1		3	8	6		3				

Chert Types	Debitage Types
GT-Glacial Till	Pri-Primary Flake
NSK-Normanskill	Sec-Secondary Flake
ON-Onondaga	Ter-Tertiary Flake
ORK-Oriskiny	RT- Retouch Flake
	Br-Broken Flake
	Sh-shatter

Site 07106.000123
Prehistoric Artifact Inventory

Phase	Cat. #	TR	STP	Unit	Level	Depth	STRAT	Biface	Flake Tool		Debitage						Chert Type	Core		GS/Cobble Tool		Comments
									Utilized	Retouched	Pri	Sec	Ter	RT	Broken	Shatter		amt	wt (gm)	amt.	wt (gm)	
I	4	41	2		2	19-39	B	1									ON					Orient Fishtail-like point; thin blade, sloping shoulders, base missing. L=43.7mm, W=21.9mm, T=4.9mm
I	5	42	2		1	0-19	A							1			NSK					
II	107	300	1		2	15-40	B		1			x					NSK					Single utilized edge, 12.5 mm
II	100	300	4		2	23-35	B							1			NSK					
II	101	302	4		2	22-44	B							1			NSK					
II	102	303	5		2	24-47	B										NSK	1	22.4			Exhausted core
II	103	303	8		2	20-23	A									1	QT					
II	104	304	1		2	17-41	B							1			ON					
II	105	304	4		1	0-18	A									1	ON					
II	106	304	5		2	24-41	B						1				NSK					
II	108			1	2		B	1									ES					Rectangular shape, parallel straight sides, one end broken. L=59.5mm, W=32.5mm, T=13.7mm
II	110			2	3		A					1					ES					
II	111			2	4		B							1			NSK	1	477.7			Polymorphic core
II	111			2	4		B									2	NSK					
II	112			2	5		B					1					NSK					
II	112			2	5		B													1	38.3	Broken cobble with numerous, thin, shallow striatations across one surface
II	109			3	2		B								1		ON					
II	113			5	3		B					1					ES					
II	114			7	3		B										ON	1	59.4			Polymorphic core with crushing use-wear along single edge, 29.1mm
						TOTAL		2	1			3	1	5	1	4		3	559.5	1	38.3	

Chert Types	Debitage Types
ES-Esopus	Pri-Primary Flake
NSK-Normanskill	Sec-Secondary Flake
ON-Onondaga	Ter-Tertiary Flake
QT-Quartz	RT- Retouch Flake
	Br-Broken Flake
	Sh-shatter

LEGOLAND Site 4
Prehistoric Artifact Inventory

Phase	Cat. #	TR	STP	Unit	Feature	Level	Depth	STRAT	Biface	Flake Tool		Debitage						Chert Type	Core		FCR		Comments
										Utilized	Retouched	Pri	Sec	Ter	RT	Br	Sh		amt.	wt (gm)	amt.	wt (gm)	
I	7	57	2			1	0-20	Ap						1				NSK					
I	6	57	1			1	0-20	Ap									1	NSK					
I	8	58	1			3	22-46	B									1	NSK					
I	10	59	1			2	26-49	B								1		NSK					
I	11	59	2			2	21-46	B									1	NSK					
I	12	60	3			1	0-20	Ap		1				x				NSK					Single utilized edge-9.2mm
I	13	61	1			1	0-29	Ap									1	NSK					
I	14	61	3			1	0-20	Ap						2		1		NSK					
I	15	62	1			1	0-27	Ap							1			NSK					
II	102	401	7			2	26-43	B						1				ON					
II	100	403	2			1	0-27	Ap					1					NSK					
II	101	403	2			2	27-44	B										NSK	1	24.8			Exhausted core
II	105			1		1		Ap							1			NSK					
II	105			1		1		Ap						1				ON					
II	105			1		1		Ap		1			x					ON					Single utilized edge-17.9mm
II	105			1		1		Ap		1				x				ON					Single utilized edge-8.5mm
II	106			2		1		Ap		1				x				NSK					Single utilized edge-10.2mm
II	107			3		1		Ap							1			NSK					
II	108			3		2		B							1			ON					
II	108			3		2		B									1	NSK					
II	109			4		1		Ap		1			x					NSK					Single utilized edge-10.5mm
II	109			4		1		Ap							1			ON					
II	109			4		1		Ap							1			NSK					
II	110			4		2		B									1	NSK					
II	111			5		1		Ap					3	3			1	NSK	1	33.7			
II	112			5		2		B							1			ON					
II	113			6		1		Ap	1									ON					Late stage preform, L=43.2mm, W=26.8mm, T=8.7mm
II	113			6		1		Ap	1									ON					Preform, L=48.9mm, W=28.6mm, T=15.5mm
II	113			6		1		Ap					1	2	1			ON					
II	113			6		1		Ap					1	3	1			NSK					
II	114			6		2		B		1			x					NSK					Two utilized edges: #1-5.9mm; #2-14.1mm
II	114			6		2		B	1									NSK					Broken early stage biface with single retouched, utilized edge (7.5mm); L=20.5mm, W=31.5mm, T=10.3mm
II	114			6		2		B						2				NSK					
II	119			6		3		B					2	2				ON					
II	119			6		3		B							1			NSK					
II	120			6		4		B		1			x					NSK					Single utilized edge-15.4mm
II	118			6	1			F1													1	7.2	
II	116			7		1		Ap		1							x	ON					Single utilized edge-6.2mm
II	116			7		1		Ap									1	ON					
							TOTAL		3	8			8	17	10	2	8		2	58.5	1	7.2	

Chert Types	Debitage Types
	Pri-Primary Flake
NSK-Normanskill	Sec-Secondary Flake
ON-Onondaga	Ter-Tertiary Flake
	RT- Retouch Flake
	Br-Broken Flake
	Sh-shatter

LEGOLAND Site 5
Prehistoric Artifact Inventory

Cat. #	TR	STP	Level	Depth (cm)	STRAT	Biface	Comments
22	95	1	2	27-36	B	1	Jack's Reef Pentagonal point, blade is retouched and utilized. Max length=23.6mm, width=18.0mm, thickness=5.6mm.

LEGOLAND Site 5
Historic Artifact Inventory

Cat #	TR	STP	Level	Depth (cm)	Amt.	Class	Type	Description	Comments
21	95	1	1	0-24	1	Glass	Flat	Aqua	Fragment
21	95	1	1	0-24	1	Ceramic	Stoneware	Black glaze	Fragment
21	95	1	1	0-24	1	Ceramic	Whiteware	Undecorated	Fragment
21	95	1	1	0-24	2	Brick			Fragment
30	95	2	1	0-17	1	Glass	Bottle	Brown	Bottle base, modern machine-made
30	95	2	1	0-17	1	Metal	Aluminum	Buckle	
31	95	2	2	17-44	1	Glass	Flat	Aqua	Fragment
23	95	1A	1	0-24	1	Ceramic	Ironstone	Undecorated	Fragment
23	95	1A	1	0-24	1	Glass	Curved	Brown	Fragment
23	95	1A	1	0-24	14	Glass	Curved	Clear	Fragment
24	95	1AA	1	0-19	10	Glass	Curved	Clear	Fragment
24	95	1AA	1	0-19	1	Glass	Flat	Aqua	Fragment
24	95	1AA	1	0-19	1	Glass	Bottle	Brown	Wine bottle finish, seam through lip
24	95	1AA	1	0-19	1	Ceramic	Yellowware	Undecorated	Fragment
24	95	1AA	1	0-19	2	Ceramic	Redware	Flowerpot	Fragment
25	95	1AA	2	19-41	1	Glass	Curved	Clear	Fragment
25	95	1AA	2	19-41	1	Brick			Fragment
25	95	1AA	2	19-41	1	Metal	Steel	Washer	
25	95	1AA	2	19-41	1	Metal	Copper/Steel	Wire Bundle in Block	Small, electric-related
28	95	1D	1	0-20	1	Brick			Fragment
29	95	1DD	1	0-20	1	Ceramic	Whiteware	Undecorated	Fragment
32	96	1	1	0-20	1	Ceramic	Whiteware	Undecorated	Fragment
32	96	1	1	0-20	1	Melamine	Plate	white	Fragment
32	96	1	1	0-20	1	Glass	Flat	Clear	Fragment
34	96	1	2	20-40	1	Glass	Curved	Brown	Fragment
34	96	1	2	20-40	1	Glass	Flat	Aqua	Fragment
35	96	2	2	20-40	1	Glass	Flat	Clear	Fragment
36	96	3	1	0-20	3	Glass	Curved	Clear	Fragment
36	96	3	1	0-20	3	Arms	Bullet	Casing	30-06

APPENDIX D

New York State Archaeological Site Inventory Form

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier 07106.000121

Project Identifier 16PR04494 Date 12/07/2016

Your Name Susan Gade Phone (518) 861-8283
Address Landmark Archaeology, Inc.
6242 Hawes Rd., Altamont, NY

Organization (if any)

1. SITE IDENTIFIER(S) 07106.000121
2. COUNTY Orange One of the following: CITY:
TOWNSHIP: Goshen
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER:

4. SITE DESCRIPTION (check all appropriate categories):

Site

__Stray Find	___Cave/Rockshelter	___Workshop
__Pictograph	___Quarry	___Mound
__Burial	__ Shell Midden	___Village
__Surface Evidence	_x__Camp	_x__Material in plow zone
_x_Material below plow zone	__Buried evidence	___Intact Occupation floor
__Single component	__Evidence of features	___Stratified
	___Multicomponent	

Location

___Under cultivation	__Never cultivated	_x__Previously cultivated
___Pastureland	___Woodland	___Floodplain
_x_ Upland		___ Sustaining erosion

Soil Drainage: excellent ___ good x___ fair ___ poor
Slope: flat x___ gentle _x__ moderate ___ steep
Distance to nearest water from site (approx.) Otter Kill 300 meters/1000 ft
Elevation: 485-495 ft amsl

5. SITE INVESTIGATION (append additional sheets, if necessary):

Surface--date(s)
__Site map (Submit with form)
___Collection

Subsurface--date(s) June-August, 2016
Testing: shovel _x_ coring ___ other_____ unit size 30-50 cm
no. of units 129 (Submit plan of units with form)
Excavation: unit size 1x1-m ___no. of units 10

Investigator: Derrick J. Marcucci, RPA and Susan Gade, RPA

Manuscript or published report(s) (reference fully):

Gade, Susan, Jessica Schreyer and Derrick J. Marcucci
2016 *Phase I and II Archaeological Investigations of the Proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York. LA 367.371*

Hartgen Archeological Associates
2000 *Phase IA Report for Archeological Potential and Sensitivity Assessment and Phase IB Archeological Field Investigation Lone Oak/Arcadia Hills II Subdivision, Town of Goshen, Orange County, New York.*

Present repository of materials: Temporarily curated at Landmark Archaeology, Inc., Altamont, NY

6. COMPONENT(S) (cultural affiliation/dates): Late Archaic (4000-1000 BC)

7. LIST OF MATERIAL REMAINS (be specific as possible in identifying object and material):
2 flake tools, 20 debitage

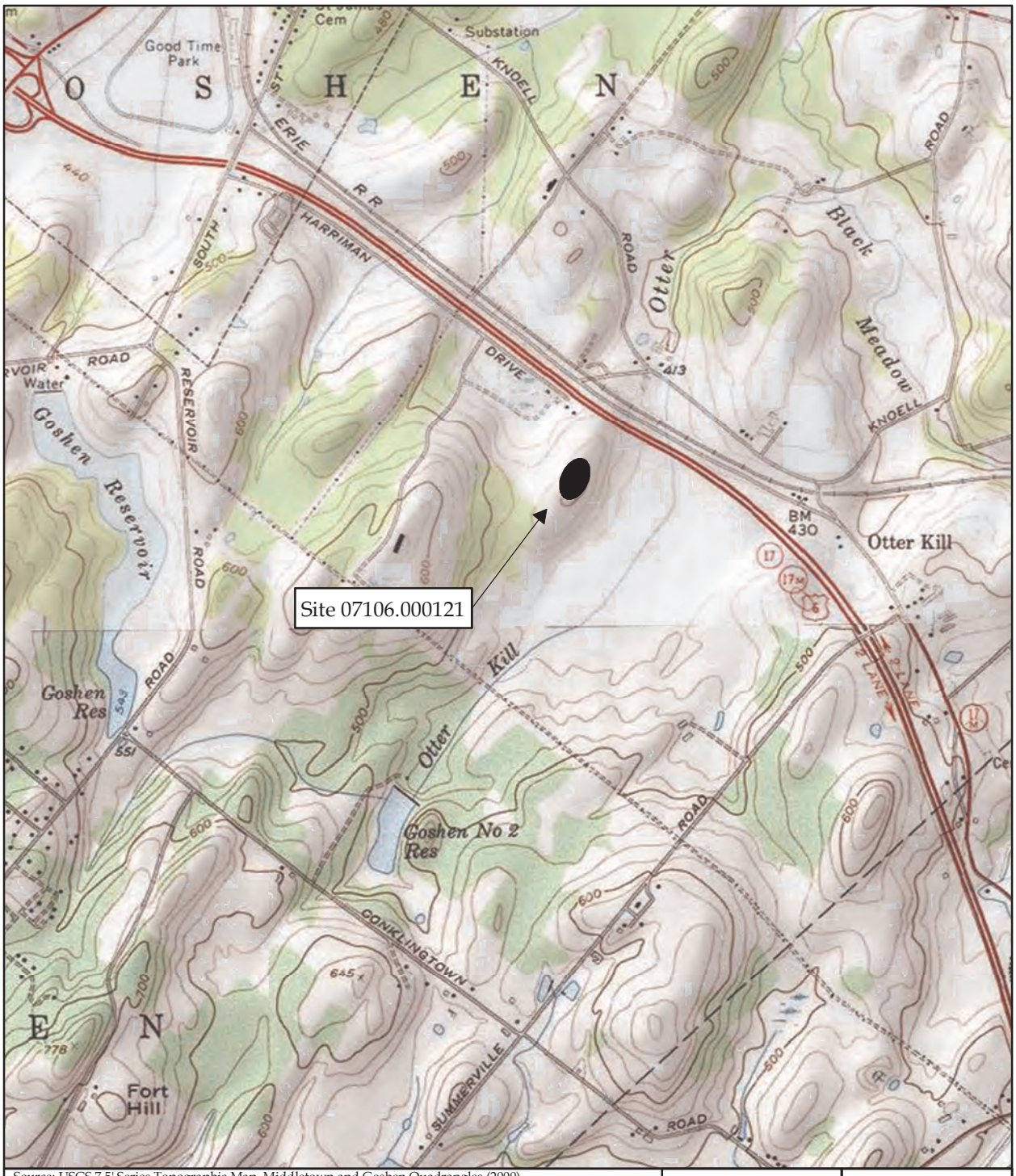
If historic materials are evident, check here and fill out historic site form

8. MAP REFERENCES

USGS 7.5 Minute Series Quad. Name: Goshen
UTM Coordinates 557867.53 East
4581202.40 North

9. Photography

Photographs included in technical report.



Source: USGS 7.5' Series Topographic Map, Middletown and Goshen Quadrangles (2000)
Projection: NAD 1983 UTM Zone 18N

0 250 500 1,000 Meters

0 900 1,800 3,600 Feet

Orange County, NY

Project Location

Landmark Archaeology, Inc.

N

December 14, 2016

Site 07106.000121 Location

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier 07106.000123

Project Identifier 16PR04494 Date 12/07/2016

Your Name Susan Gade Phone (518) 861-8283
Address Landmark Archaeology, Inc.
6242 Hawes Rd., Altamont, NY

Organization (if any)

1. SITE IDENTIFIER(S) 07106.000123
2. COUNTY Orange One of the following: CITY:
TOWNSHIP: Goshen
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER:

4. SITE DESCRIPTION (check all appropriate categories):

Site

__Stray Find	___Cave/Rockshelter	___Workshop
__Pictograph	___Quarry	___Mound
__Burial	__ Shell Midden	___Village
__Surface Evidence	_x_Camp	___Material in plow zone
__Material below plow zone	__Buried evidence	___Intact Occupation floor
__Single component	__Evidence of features	___Stratified
	___Multicomponent	

Location

___Under cultivation	_x_Never cultivated	___Previously cultivated
___Pastureland	_x_Woodland	___Floodplain
__ Upland		___ Sustaining erosion

Soil Drainage: excellent ___ good _x_ fair ___ poor
Slope: flat ___ gentle _x_ moderate ___ steep
Distance to nearest water from site (approx.) Otter Kill 400 meters / 1300 ft
Elevation: 540-560 ft amsl

5. SITE INVESTIGATION (append additional sheets, if necessary):

Surface--date(s)
__Site map (Submit with form)
___Collection

Subsurface--date(s) June-August, 2016
Testing: shovel _x_ coring ___ other_____ unit size 30-50 cm
no. of units 64 (Submit plan of units with form)
Excavation: unit size 1x1-m no. of units 7

Investigator: Derrick J. Marcucci, RPA and Susan Gade, RPA

Manuscript or published report(s) (reference fully):

Gade, Susan, Jessica Schreyer and Derrick J. Marcucci
2016 *Phase I and II Archaeological Investigations of the Proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York. LA 367.371*

Hartgen Archaeological Associates
2000 *Phase IA Report for Archeological Potential and Sensitivity Assessment and Phase IB Archeological Field Investigation Lone Oak/Arcadia Hills II Subdivision, Town of Goshen, Orange County, New York*

Present repository of materials: Temporarily curated at Landmark Archaeology, Inc., Altamont, NY

6. COMPONENT(S) (cultural affiliation/dates): Terminal Archaic

7. LIST OF MATERIAL REMAINS (be specific as possible in identifying object and material):
1 Orient Fishtail point, 1 biface, 1 flake tool, 14 debitage, 3 cores, 1 cobble tool

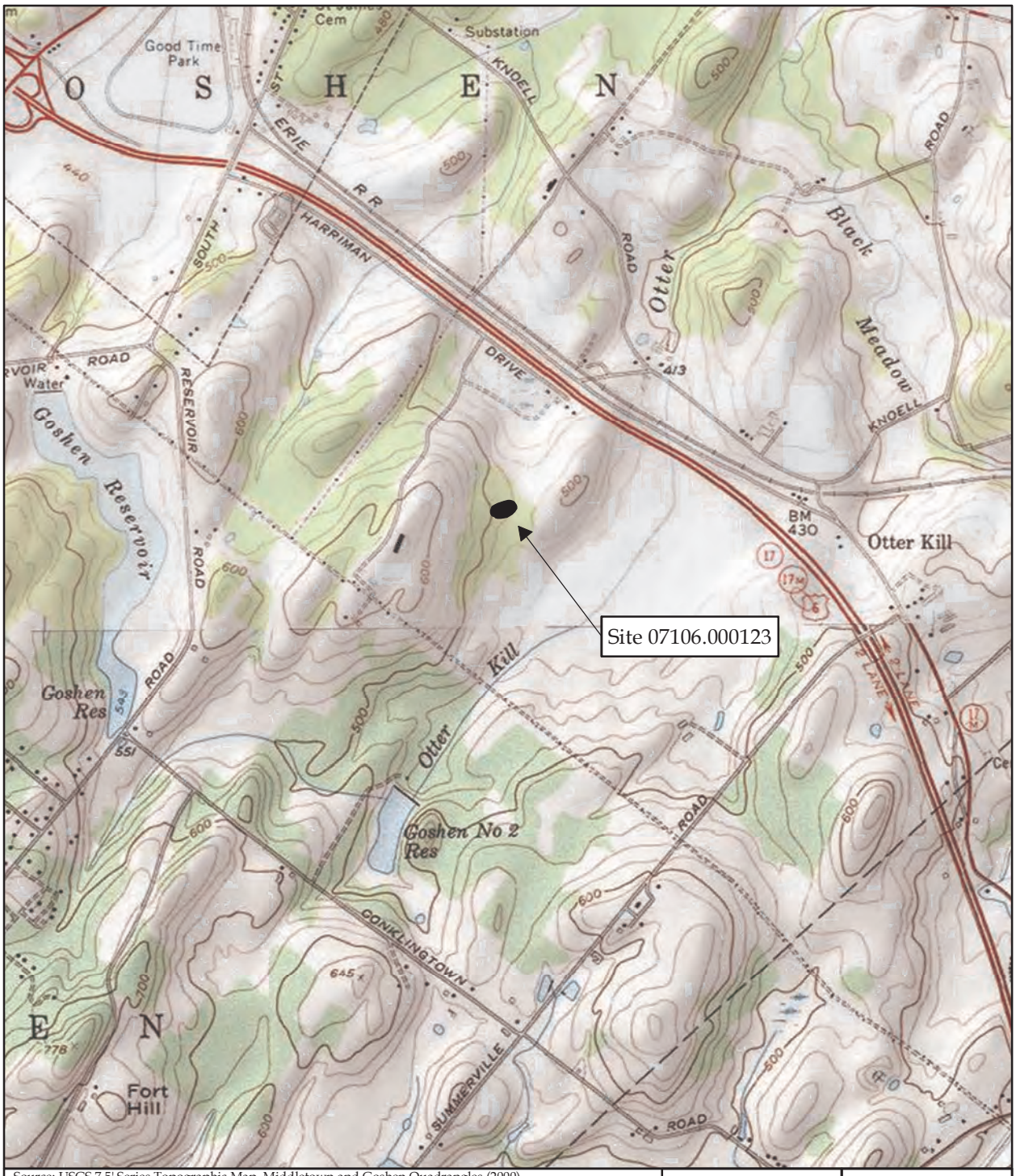
If historic materials are evident, check here and fill out historic site form

8. MAP REFERENCES

USGS 7.5 Minute Series Quad. Name: Goshen
UTM Coordinates 557597.32 East
4581080.81 North

9. Photography

Photographs included in technical report.



Source: USGS 7.5' Series Topographic Map, Middletown and Goshen Quadrangles (2000)
Projection: NAD 1983 UTM Zone 18N

0 250 500 1,000 Meters

0 900 1,800 3,600 Feet

Orange County, NY

Project Location

Landmark Archaeology, Inc.

N

December 14, 2016

Site 07106.000123 Location

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier 16PR04494 Date 12/07/2016

Your Name Susan Gade Phone (518) 861-8283
Address Landmark Archaeology, Inc.
6242 Hawes Rd., Altamont, NY

Organization (if any)

1. SITE IDENTIFIER(S) Legoland Site 4
2. COUNTY Orange One of the following: CITY:
TOWNSHIP: Goshen
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER:

4. SITE DESCRIPTION (check all appropriate categories):

Site

__Stray Find	___Cave/Rockshelter	___Workshop
__Pictograph	___Quarry	___Mound
__Burial	__ Shell Midden	___Village
__Surface Evidence	_x__Camp	_x__Material in plow zone
_x_Material below plow zone	__Buried evidence	___Intact Occupation floor
__Single component	__Evidence of features	___Stratified
	___Multicomponent	

Location

___Under cultivation	__Never cultivated	_x_Previously cultivated
___Pastureland	___Woodland	___Floodplain
__ Upland		___ Sustaining erosion

Soil Drainage: excellent ___ good _x__ fair ___ poor
Slope: flat ___ gentle _x__ moderate ___ steep
Distance to nearest water from site (approx.) Otter Kill 425 meters/1400 ft
Elevation: 465-480 ft amsl

5. SITE INVESTIGATION (append additional sheets, if necessary):

Surface--date(s)
__Site map (Submit with form)
___Collection

Subsurface--date(s) June-August, 2016
Testing: shovel _x__ coring ___ other_____ unit size 30-50 cm
no. of units 65 (Submit plan of units with form)
Excavation: unit size 1x1-m no. of units 7

Investigator: Derrick J. Marcucci, RPA and Susan Gade, RPA

Manuscript or published report(s) (reference fully):

Gade, Susan, Jessica Schreyer and Derrick J. Marcucci

2016 *Phase I and II Archaeological Investigations of the Proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York. LA 367.371*

Present repository of materials: Temporarily curated at Landmark Archaeology, Inc., Altamont, NY

6. COMPONENT(S) (cultural affiliation/dates): Unknown

7. LIST OF MATERIAL REMAINS (be specific as possible in identifying object and material):
3 bifaces, 8 flake tools, 45 debitage, 2 cores, and one fcr

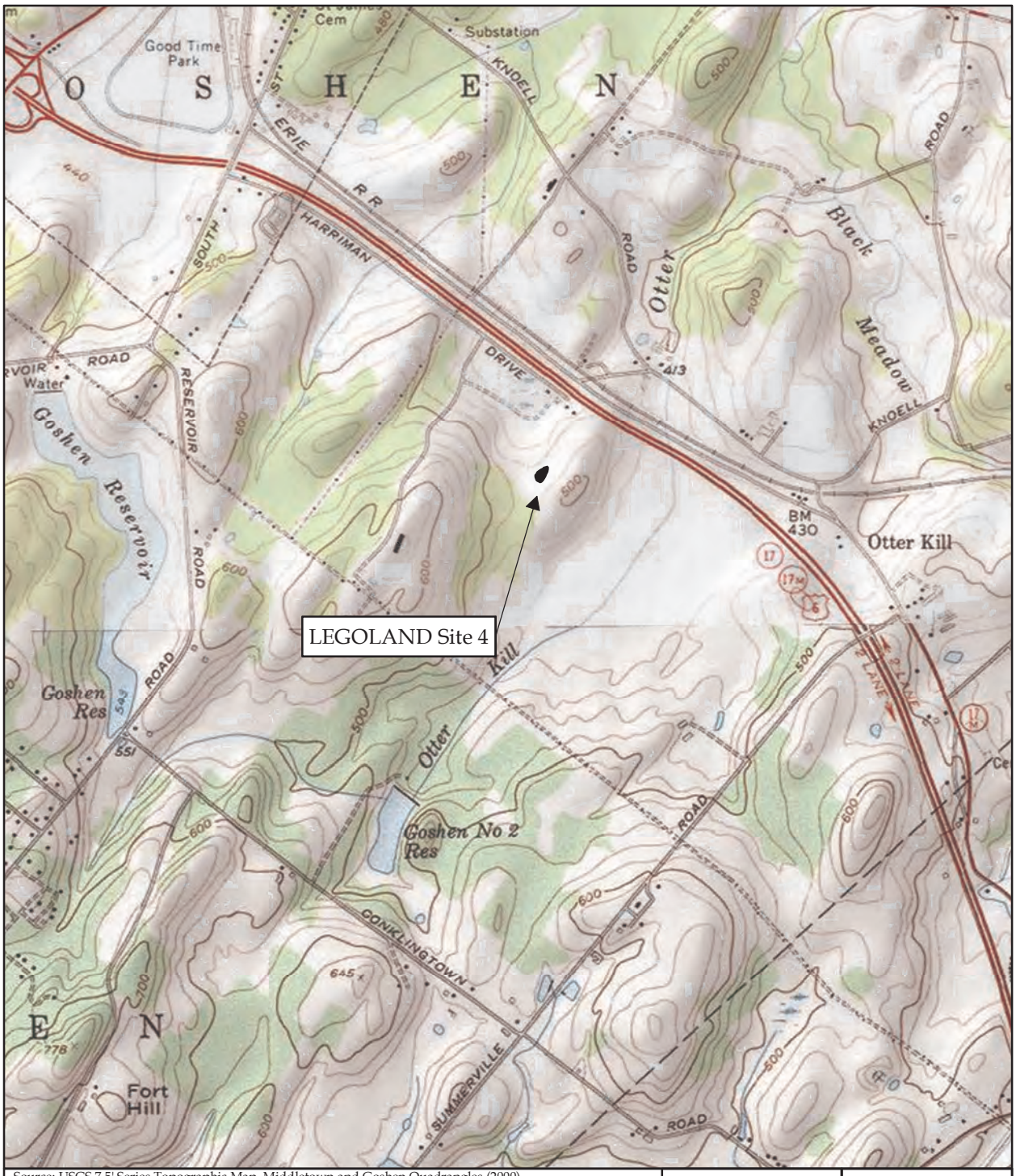
If historic materials are evident, check here and fill out historic site form

8. MAP REFERENCES

USGS 7.5 Minute Series Quad. Name: Goshen
UTM Coordinates 557739.18 East
4581229.42 North

9. Photography

Photographs included in technical report.



Source: USGS 7.5' Series Topographic Map, Middletown and Goshen Quadrangles (2000)
Projection: NAD 1983 UTM Zone 18N

0 250 500 1,000 Meters

0 900 1,800 3,600 Feet

Orange County, NY

Project Location

Landmark Archaeology, Inc.

N

December 14, 2016

LEGOLAND Site 4 Location

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier 16PR04494 Date 12/07/2016

Your Name Susan Gade Phone (518) 861-8283
Address Landmark Archaeology, Inc.
6242 Hawes Rd., Altamont, NY

Organization (if any)

1. SITE IDENTIFIER(S) Legoland Site 5
2. COUNTY Orange One of the following: CITY:
TOWNSHIP: Goshen
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER:

4. SITE DESCRIPTION (check all appropriate categories):

Site

x Stray Find	___Cave/Rockshelter	___Workshop
__Pictograph	___Quarry	___Mound
__Burial	__ Shell Midden	___Village
__Surface Evidence	___Camp	___Material in plow zone
__Material below plow zone	__Buried evidence	___Intact Occupation floor
__Single component	__Evidence of features	___Stratified
	___Multicomponent	

Location

___Under cultivation	x Never cultivated	___Previously cultivated
___Pastureland	___Woodland	___Floodplain
__ Upland		___ Sustaining erosion

Soil Drainage: excellent ___ good x fair ___ poor
Slope: flat ___ gentle x moderate ___ steep
Distance to nearest water from site (approx.) pond 30 m/100 ft
Elevation: 438 ft amsl

5. SITE INVESTIGATION (append additional sheets, if necessary):

Surface--date(s)
__Site map (Submit with form)
___Collection

Subsurface--date(s) June-August, 2016
Testing: shovel x coring ___ other_____ unit size 30-50 cm
no. of units 16 (Submit plan of units with form)
Excavation: unit size ____no. of units

Investigator: Derrick J. Marcucci, RPA and Susan Gade, RPA

Manuscript or published report(s) (reference fully):

Gade, Susan, Jessica Schreyer and Derrick J. Marcucci

2016 *Phase I and II Archaeological Investigations of the Proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York. LA 367.371*

Present repository of materials: Temporarily curated at Landmark Archaeology, Inc., Altamont, NY

6. COMPONENT(S) (cultural affiliation/dates): Middle Woodland

7. LIST OF MATERIAL REMAINS (be specific as possible in identifying object and material):
One Jack's Reef Pentagonal projectile point

If historic materials are evident, check here and fill out historic site form ✓

8. MAP REFERENCES

USGS 7.5 Minute Series Quad. Name: Goshen
UTM Coordinates 557763.95 East
4581571.69 North

9. Photography

Photographs included in technical report.

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

Bernadette Castro
Commissioner

For Office Use Only--Site Identifier

Project Identifier 16PR04494

Your Name Susan Gade Date 12/07/2016
Address Landmark Archaeology, Inc. Phone (518) 861-8283
6242 Hawes Rd. Altamont, NY 12009

Organization (if any): Landmark Archaeology, Inc.

1. SITE IDENTIFIER(S): Legoland Site 5

2. COUNTY Orange One of the following: CITY
TOWNSHIP: Goshen
INCORPORATED VILLAGE
UNINCORPORATED VILLAGE OR HAMLET

3. PRESENT OWNER:

4. SITE DESCRIPTION (check all appropriate categories):

Superstructure: complete __ partial___ collapsed _x__ not evident
Foundation: above ___ below (ground level) x__ not evident ___
___ Structural subdivisions apparent ___Only surface traces visible
___ Buried traces detected
List construction materials (be as specific as possible): cinderblocks

Grounds

___Under cultivation ___Sustaining erosion ___ Woodland ___Upland
_x_Never cultivated ___Previously cultivated __ Floodplain ___Pastureland
Soil Drainage: excellent ___ good x__ fair ___ poor
Distance to nearest water from structure (approx.) __pond 30 m/100 ft
Elevation: 438 ft amsl

5. Site Investigation (append additional sheets, if necessary):

Surface -- date (s)
Site map (submit with form*)
Collection

Subsurface -- date(s) June-August 2016__ _____

Testing: shovel _x___ coring ___ other__unit size 30-50 cm diameter__
no. units __16__ (Submit plan of units with form*)

Excavation: unit size _____ no. of units __
(Submit plan of units with form*)

* Submission should be 8 ½" by 11", if feasible

Investigator __Derrick J. Marcucci, RPA

Manuscript or published report (s) (reference fully):
Gade, Susan, Jessica Schreyer and Derrick J. Marcucci
2016 *Phase I and II Archaeological Investigations of the Proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York. LA 367.371*

Present repository of materials:

6. Site inventory:
a. Date constructed or occupation period: c. 1875; house destroyed by fire 2015
b. Previous owners, if known:
Modifications, if known (Append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):
a. Historic map references
1) Name County Atlas of Orange, New York Date 1875 Source: FW Beers
Present location of original, if known
2) Name 15' Goshen Quadrangle Date 1908 Source: USGS
Present location of original, if known

b. Representation in existing photography
1) Photo date _____ Where located:
2) Photo date _____ Where located:
c. Primary and secondary source of documentation (reference fully)

d. Persons with memory of site
1) Name_____ Address
2) Name _____ Address

8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

4 aqua flat glass, 4 brown curved glass, 28 clear curved glass, 2 clear flat glass, 3 whiteware, 1 ironstone, 1 black glazed stoneware, 1 yellowware, 2 terra cotta flowerpot fragments, 1 melamine plate fragment, 1 steel washer, 1 copper/steel item used for electricity, one 30-06 bullet casing and 1 buckle fragment.

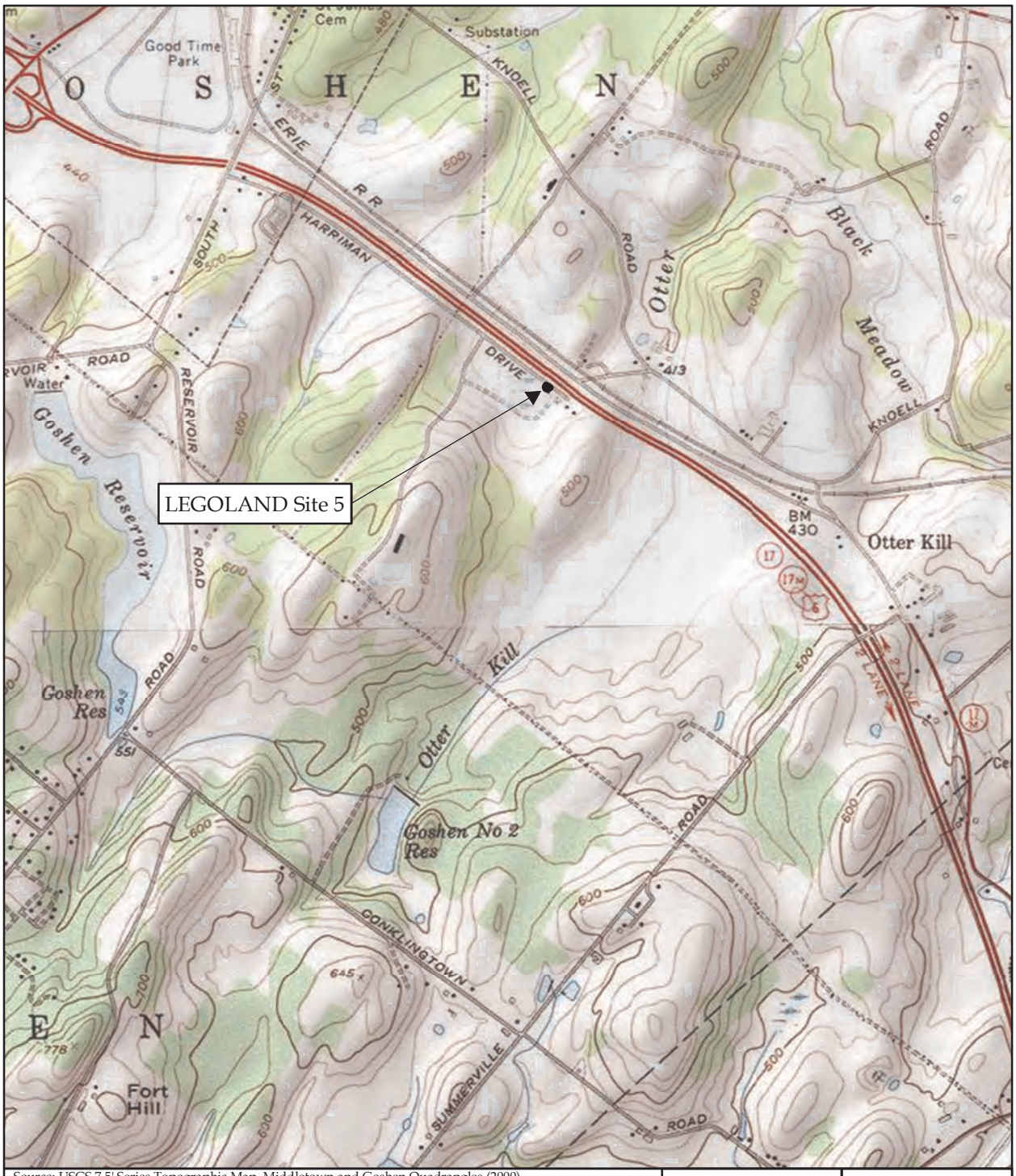
If prehistoric materials are evident, check here and fill out prehistoric site form ✓

9. Map References: Map or maps showing exact location and extent of site must accompany this form and be identified by source and date. Keep this submission to 8½" x 11", if possible.

USGS 7 1/2 Minute Series Quad. Name: Goshen
For Office Use Only--UTM Coordinates: 557763.95 East
4581571.69 North

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.

Photos provided in technical report



Source: USGS 7.5' Series Topographic Map, Middletown and Goshen Quadrangles (2000)
Projection: NAD 1983 UTM Zone 18N

0 250 500 1,000 Meters

0 900 1,800 3,600 Feet

Orange County, NY

Project Location

Landmark Archaeology, Inc.

N

December 16, 2016

LEGOLAND Site 5 Location

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

January 24, 2017

Mr. Brian Orzel
US Army Corps of Engineers, NY District
26 Federal Plaza
Jacob Javits Federal Building
New York, NY 10278

Re: USACE
Legoland New York - Theme Park and Resort
Harriman Drive, Goshen, NY
16PR04494

Dear Mr. Orzel:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

Three Pre-Contact Native American archaeological sites were identified on the property during a previous Phase I archaeological survey (Survey No. 00SR50444): Pre-Contact Area 1 (07106.000121), Pre-Contact Area 2 (07106.000122), and Pre-Contact Areas 3 (7106.000123).

SHPO has reviewed the report entitled “Phase I and II Archaeological Investigations of the proposed LEGOLAND New York Theme Park and Resort, Town of Goshen, Orange County, New York” (December 2016). During the Phase I archaeological survey, two new archaeological sites were identified within the project’s area of potential effect (APE): Legoland 4 (07106.000193) and Legoland 5 (07106.000194). Legoland 4 is a Pre-Contact Native American site and Legoland 5 is the remnants of a nineteenth through twentieth century farmstead. SHPO concurs with the report recommendation that the Legoland 5 site is not eligible for the State and/or National Registers of Historic Places (S/NRHP) and no additional archaeological work is necessary.

The report authors concluded that two of the previously identified archaeological sites (Pre-Contact Area 1 and Pre-Contact Area 3) are within the APE, and that Pre-Contact Area 2 is not within the APE. SHPO concurs with the report recommendation that Pre-Contact Area 2 should be protected from inadvertent project-related impacts. SHPO recommends the use of protective fencing around Pre-Contact Area 2. If project plans change such that Pre-Contact Area 2 falls within the APE, then SHPO recommends a Phase II investigation to assess the site’s potential eligibility for listing in the S/NRHP.

The report presents the results of Phase II archaeological investigations conducted at three sites: Pre-Contact Area 1, Pre-Contact Area 3, and Legoland 4. SHPO concurs with the report recommendations that Pre-Contact Area 3 and Legoland 4 are eligible for listing in the S/NRHP, and that Pre-Contact Area 1 is not eligible for listing in the S/NRHP and no additional archaeological work is necessary.

A total of five archaeological sites have been identified on the property, one of which (Legoland 2, 07106.000122) appears to be outside of the APE at the time of the writing of this letter. The site numbers, names, and SHPO recommendations are summarized below.

Site Number	**Site Name**	**SHPO Recommendation**
07106.000121	Pre-Contact Area 1	Not eligible for S/NRHP
07106.000122	Pre-Contact Area 2	Avoid or Phase II
07106.000123	Pre-Contact Area 3	Eligible for S/NRHP, avoid or Phase III
07106.000193	Legoland Site 4	Eligible for S/NRHP, avoid or Phase III
07106.000194	Legoland Site 5	Not eligible for S/NRHP

If site avoidance is selected, then SHPO recommends a Site Protection Plan, including both long and short-term avoidance measures, be created and submitted to SHPO for review. If any of the sites determined eligible for the S/NRHP by SHPO cannot be avoided and a Phase III data recovery mitigation is selected, then SHPO recommends a Data Recovery Plan be created and submitted to SHPO for review.

If further correspondence is required regarding this project, please refer to the SHPO Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only