Phase IB Archaeological Survey

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Redacted Version: Confidential and/or privileged information removed

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edr

December 2020

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MANAGEMENT SUMMARY

SHPO Project Review Number:	17PR01624
Involved State and Federal Agencies:	Bureau of Ocean Energy Management (BOEM); New York State Department of Public Service (NYSDPS)
Phase of Survey:	Phase IB Archaeological Survey
Location Information:	Town of East Hampton, Suffolk County, New York
Survey Area:	
Project Description:	The installation of an onshore underground electrical cable to connect an offshore wind farm to New York State's high-voltage electrical transmission network.
Survey Area:	An approximately 2.0-mile (3.2-kilometer) corridor within public road rights-of-way in the Town of East Hampton including portions of Wainscott Northwest Road, Wainscott Stone Road, Sayres Path, Wainscott Main Street, and Beach Lane.
USGS 7.5-Minute Quadrangle Map:	*East Hampton, NY*
Archaeological Survey Overview:	
Number/interval of shovel tests:	One hundred sixty-four shovel tests at a 15-meter (50-foot) interval.
Number/size of excavation units:	N/A
Pedestrian surface survey:	N/A
Surface survey transect interval:	N/A
Results of Archaeological Survey:	
Pre-Contact Native American sites identified:	None
Historic-period sites identified:	None
Report Authors:	Matthew Victor Weiss, RPA; Doug Pippin, Ph.D., RPA; Patrick Heaton, RPA
Date of Report:	December 2020

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

On behalf of South Fork Wind, LLC (SFW) (formerly Deepwater Wind South Fork, LLC [DWSF]), Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) conducted a Phase IB archaeological survey for the public roads portion of the proposed preferred route (identified as Beach Lane – Route A) of the South Fork Export Cable (the Project), located in the Town of East Hampton, Suffolk County, New York. The purpose of the Phase IB survey is to determine whether archaeological sites are located within the Area of Potential Effect (APE) for the proposed Project. The information and recommendations included in this report are intended to assist the New York State Historic Preservation Office (SHPO), the Bureau of Ocean Energy Management (BOEM), and other state and/or federal agencies in their review of the Project under Section 106 of the National Historic Preservation Act, Article VII of the New York State Public Service Law, and/or Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law, as applicable.

The Phase IB survey was conducted under the supervision of an archaeologist who meets the U.S. Secretary of Interior's Standards for Archaeology and Historic Preservation (36 CFR 61) and is a Registered Professional Archaeologist (RPA). The survey was conducted in accordance with the New York Archaeological Council's *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York* State (the *NYAC Standards*; NYAC, 1994) and the SHPO's *Phase I Archaeological Report Format Requirements* (SHPO, 2005).

The South Fork Export Cable (SFEC): Beach Lane – Route A is the onshore electric transmission cable associated with the South Fork Wind Farm (SFWF) (see Figures 1 and 2). This Phase IB survey supplements the previous assessment of archaeological resources for onshore components of the SFEC, which were documented in the report entitled, *Phase 1 Archaeological Survey: South Fork Export Cable – Onshore Cable & Substation* (EDR, 2020; hereafter, *Phase I Archaeological Survey Report*). See Section 2 below for further information regarding previous archaeological survey efforts associated with the SFEC project.

1.2 Project Location and Description

SFW is proposing to construct, operate, and maintain the SFEC, an electric export cable, to connect the proposed SFWF, an offshore wind energy facility, with the electrical transmission system in the Town of East Hampton, Suffolk County, New York (see Figures 1 and 2). This report is concerned solely with the public roads portion of the preferred alternative (Beach Lane – Route A) of the onshore portion of the SFEC (SFEC-Onshore), which is proposed to connect the offshore portion of the SFEC to a proposed onshore substation (SFEC-Interconnection Facility) located adjacent to the existing East Hampton Substation on Cove Hollow Road in the Town of East Hampton (see Figure 2). Potential

effects of the offshore portions of the SFWF and SFEC to archaeological resources are addressed under separate cover (Gray & Pape, 2018) and are not discussed herein.

Beach Lane – Route A Project Description

The offshore and onshore portions of the SFEC will be spliced together within an underground transition vault at a landing site located at the southern end of Beach Lane at Wainscott Beach. Horizontal directional drilling will be utilized under the beach and intertidal zone to connect the offshore portion of the SFEC to the underground vault. From the vault, the SFEC-Onshore will connect to the proposed SFEC-Interconnection Facility via an underground electrical duct bank (i.e., a trench), which will be installed within existing paved sections of public road rights-of-way (ROW), as well as the Long Island Railroad (LIRR) ROW. From the landing site, the SFEC-Onshore will run northward for approximately 2 miles (3.2 kilometers [km]) following the path of Beach Lane, Wainscott Main Street, Sayres Path, Wainscott Stone Road, and Wainscott Northwest Road (see Figure 2). Upon intersecting the LIRR ROW, the SFEC-Onshore will turn eastward, paralleling the rail line on its southern side for approximately 2 miles to the proposed location of the SFEC-Interconnection Facility (see Figure 2).

A typical section of the SFEC-Onshore will be comprised of three single-core cables, with a conductor of either copper or aluminum, installed within a trench measuring approximately 4 feet (1.2 meters [m]) wide by up to 8 feet (2.4 m) deep. For the purpose of this Phase IB Archaeological Survey report, the Area of Potential Effect (or APE) for the SFEC-Onshore includes all areas of proposed ground disturbance for the Project within public road ROWs. The previous *Phase I Archaeological Survey Report* (EDR, 2020) described and evaluated the potential archaeological sensitivity and prior ground disturbance for the portion of the SFEC-Onshore within the LIRR ROW, as well as the results of archaeological survey/shovel testing for the proposed landing site and SFEC-Interconnection Facility. See Section 2 below for a summary of the previous Phase IB testing and reconnaissance efforts.

The Phase IB archaeological testing described in this report included areas within public road ROWs along an approximately 2-mile-long corridor (the Beach Lane – Route A Archaeological Survey Area [hereafter, the "Survey Area") between the SFEC-Onshore landing site and the LIRR ROW (see Figure 3). As described in the previous *Phase I Archaeological Survey Report* (EDR, 2020), SFW has elected to site the SFEC-Onshore to be buried within existing paved roadways and the LIRR ROW to minimize the risk of potentially encountering undisturbed archaeological deposits. In addition, the selection of a buried cable (as opposed to an overhead transmission line) avoids visual impacts (including visual impacts to historic properties), as well as potential impacts to adjacent undisturbed soils and ecological communities.

The results of the prior *Phase I Archaeological Survey Report* (EDR, 2020; see Section 2.1 of this report) suggested that there is a potential for buried, intact soils (which could contain archaeological deposits or features) to be present within the portion of the Project route located within paved roadways. These portions of the APE are located in active, public roadways and the overlying pavement will be removed as part of proposed construction activities. Removing the pavement to conduct archaeological testing prior to construction is not feasible, given the expenses and logistical arrangements that would be required (e.g., the need for re-routing traffic). Therefore, SFW determined that the most effective way to evaluate the likelihood for archaeological sites to be located under paved roadways within the APE is to conduct archaeological testing within the grassy/unpaved shoulders of the road ROWs adjacent to the pavement (see Section 2.3, below). The results of that archaeological testing are described in this report.

The following terms are used throughout this report:

- **The Project**: The proposed installation of an onshore electrical cable to connect an offshore wind farm to New York State's high-voltage electrical transmission network within the Town of East Hampton, Suffolk County, New York (see Figure 1).
- **The South Fork Export Cable (SFEC)-Onshore**: Beach Lane – Route A is the preferred route for the onshore portion of the SFEC, approximately 4.1 miles (6.7 km) in length, which will connect the offshore portion of the SFEC, at a landing site situated at the southern end of Beach Lane on Wainscott Beach, to the proposed SFEC-Interconnection Facility, to be sited adjacent to the existing East Hampton Substation on Cove Hollow Road in the Town of East Hampton (see Figure 2).
- **The Beach Lane – Route A Archaeological Survey Area (the "Survey Area")**: The entirety of public road ROWs (i.e., ROW edge to ROW edge) along an approximately 2-mile-long corridor between the SFEC-Onshore landing site and the LIRR ROW (see Figure 3). From the landing site to the LIRR ROW, the SFEC-Onshore will be sited underneath Beach Lane, Wainscott Main Street, Sayres Path, Wainscott Stone Road, and Wainscott Northwest Road. The Survey Area serves as the limits within which Phase IB archaeological testing was conducted.
- **The Area of Potential Effect (APE)**: The maximum spatial limits of ground disturbance associated with installation of the SFEC-Onshore. In most locations it is anticipated that the APE will be limited to the portions of the roadways where pavement is removed and areas excavated for the duct bank trench, which will measure approximately 4 feet (1.2 m) wide by up to 8 feet (2.4 m) deep. For the purpose of this Phase IB archaeological survey, the APE includes the entire width of public road ROWs (i.e., ROW edge to ROW edge) along the path of the SFEC-Onshore to allow for flexibility in the placement of the trench within the roadway and splice vaults within the road shoulders.

2.0 BACKGROUND AND RESEARCH DESIGN

2.1 Summary of Previous Phase I Archaeological Survey

As stated above, this Phase IB archaeological survey report includes the APE for those portions of the Beach Lane – Route A preferred alternative for the SFEC-Onshore. An archaeological assessment and survey for the other onshore components of the Project are described in the report entitled, *Phase 1 Archaeological Survey: South Fork Export Cable – Onshore Cable & Substation* (EDR, 2020), which is summarized below. The archaeological assessment and survey of offshore components of the SFWF are described in a separate report (Gray & Pape, 2018).

The prior *Phase I Archaeological Survey Report* (EDR, 2020) included background research and an archaeological sensitivity assessment for all of the components and alternatives proposed for the SFEC-Onshore, including Beach Lane – Route A. Background research described in the report included:

- The geographic and geologic context and review of mapped soils for the APE (EDR, 2020; Section 2.1);
- Review of previously reported archaeological sites located in proximity to the APE (EDR, 2020; Section 2.2);
- A summary of previous archaeological surveys and investigations conducted proximate to the APE (EDR, 2020; Section 2.3); and,
- An historic context for the APE, including review of historic map sources (EDR, 2020; Sections 2.4 and 2.5).

In addition, the prior *Phase I Archaeological Survey Report* (EDR, 2020) included archaeological testing (i.e., shovel testing) of the SFEC-Interconnection Facility and five potential landing sites: the Beach Lane Landing Site, the Hither Hills Landing Site, the Napeague Lane Landing Site, the Fresh Pond Landing Site, and the Napeague State Park Landing Site (EDR, 2020; Sections 4.1 to 4.6). An archaeological sensitivity assessment and reconnaissance was conducted for several potential SFEC-Onshore route alternatives, within the LIRR and public road ROWs, to connect these potential landing sites with the proposed SFEC-Interconnection Facility (EDR, 2020; Sections 4.7 and 4.8). At the time of the report's submission, two landing sites/SFEC-Onshore route alternatives were deemed viable: 1) the Beach Lane Landing Site and Beach Lane – Route A SFEC-Onshore route (EDR, 2020; Section 4.8.1) and; 2) the Hither Hills Landing Site and Hither Hills – Route B SFEC-Onshore route (EDR, 2020; Section 4.8.2). SFW has determined that Beach Lane – Route A is the preferred alternative for connecting the offshore portion of the SFEC with the proposed SFEC-Interconnection Facility.

The results of the prior *Phase I Archaeological Survey Report* (EDR, 2020; Section 4) are summarized as follows:

- The proposed SFEC-Interconnection Facility (EDR, 2020; Section 4.1) consists of an approximately 2.4-acre (1.0-hectare [ha]) area south of the LIRR and west of the existing East Hampton Substation (see Figure 2). The closest archaeological site to the SFEC-Interconnection Facility is the Wainscott Chapel Site (Unique Site

Number [USN] 10303.000025) located approximately 1 mile (1.6 km) to the southeast. No pre-European contact (hereafter, "pre-contact") Native American sites are located within 1 mile. Based on topography, setting, soil, distance to freshwater sources, and extent of previous disturbance, the proposed SFEC-Interconnection Facility location was considered to have relatively low potential for the presence of pre-contact Native American archaeological resources. Likewise, based on a lack of map-documented structures (MDS) within or adjacent to this area, the proposed SFEC-Interconnection Facility location was considered to have relatively low potential for the presence of historic-period archaeological resources. The excavation of 33 shovel tests at a 15-m (50-foot) interval within the proposed SFEC-Interconnection Facility identified no archaeological resources at this location (see Figure 4)[1].

- The Beach Lane Landing Site (EDR, 2020; Section 4.2) consists of an approximately 1.8-acre (0.7-ha) area at the southern end of Beach Lane on Wainscott Beach (see Figure 2). Two pre-contact Native American archaeological resources, the Georgica Pond Site (USN 10303.000054) and the Burnt Pond Site (USN 10303.0000360), are located approximately 0.7-miles (1.1 km) and 0.9-miles (1.4 km), respectively, to the north. No information is provided for the Georgica Pond Site, but the Burnt Pond Site is recorded as a lithic scatter. No historic-period sites are located within 1 mile. Due to the presence of nearby previously recorded pre-contact Native American sites and a freshwater pond (Wainscott Pond), the Beach Lane Landing Site was considered to have moderate potential for the presence of pre-contact Native American archaeological resources. Based on a lack of MDSs within or adjacent to this area, the Beach Lane Landing Site was considered to have relatively low potential for the presence of historic-period archaeological resources. The excavation of six shovel tests at a 7.5-m (25-foot) interval along the east side of Beach Lane and a pedestrian survey of the beach identified no archaeological resources at this location (see Figure 5).
- The approximately 2-mile-long LIRR portion of the Beach Lane – Route A SFEC-Onshore route between Wainscott Northwest Road and the proposed SFEC-Interconnection Facility location (see Figure 2), was assessed via pedestrian reconnaissance for the identification of areas suitable for archaeological testing (EDR, 2020; Section 4.7). This reconnaissance found the entire LIRR ROW corridor to have been previously disturbed by extensive terrain modification associated with construction of the rail line (see Figure 6). As such, no archaeological testing was recommended for this portion of the Beach Lane – Route A SFEC-Onshore route. This disturbance is clearly visible in close interval contour and digital elevation model (DEM)

[1] The anticipated footprint of the SFEC-Interconnection Facility was shovel tested by EDR in 2017. Since that time, the footprint of the SFEC-Interconnection Facility has been refined, shifting slightly to the west, to include the area depicted on Figure 4. Shovel testing within the SFEC-Interconnection Facility identified no archaeological resources and confirmed the relatively low archaeological potential of this area. The placement and results of the 2017 shovel testing, as well as the current SFEC-Interconnection Facility footprint, were included in the prior *Phase I Archaeological Survey Report* (EDR, 2020) submitted to SHPO. The investigations, findings, and conclusions of this report were approved by SHPO on July 17, 2020 (Lloyd, 2020). No further work is recommended in this area.

data which illustrates the extent of cut and fill disturbance associated with the railroad's construction (see Figure 6).

- The approximately 2-mile-long public roads portion of the Beach Lane – Route A SFEC-Onshore route between the Beach Lane Landing Site and the LIRR ROW (see Figure 2), was assessed via pedestrian reconnaissance and a review of lidar, topographic data, modern and historic aerial imagery, historic maps, and utility data for the identification of areas suitable for archaeological testing (EDR, 2020; Sections 4.8 and 4.8.1). This desktop and field assessment determined that approximately 1.7 miles (2.7 km) of the 2-mile-long public roads ROW corridor was potentially undisturbed on one or both sides of the roadways (see Figure 3). The remaining 0.3-miles (0.5-km) of the public roads ROW corridor was found to be disturbed on both sides of the roadways (see Figure 3). Based on existing conditions, archaeological testing was recommended for all potentially undisturbed portions of the Beach Lane – Route A SFEC-Onshore route. The methodology and results of this recommended archaeological testing are described in Sections 3.1 and 3.2 of this report.

2.2 Project Consultation

The prior *Phase I Archaeological Survey Report* (EDR, 2020; Section 1.4, pp 7-9) summarizes Project consultation specific to terrestrial archaeological resources undertaken by the Applicant between March 2017 and May 2019. Portions of that summary are included below, as well as a summary of activities undertaken by the Applicant between May 2019 and October 2020:

- The Applicant initiated consultation with SHPO via the Cultural Resources Information System (CRIS) website on March 10, 2017.
- On March 21, 2017, a meeting was held at SHPO's offices in Waterford, New York, with SHPO Technical Preservation Bureau Director John Bonafide and Timothy Lloyd of the SHPO Archaeology Unit. Additional participants included staff from the Applicant, The Public Archaeology Laboratory, Inc., Gray & Pape, EDR, CH2M, AECOM, and the NYSDPS. Attendees discussed archaeological considerations for both the offshore and onshore (upland) portions of the SFWF. Portions of the discussion pertinent to the upland portions of the SFEC (i.e., the proposed landing sites, SFEC-Onshore, and SFEC-Interconnection Facility) included the following:
    - The Applicant clarified that for the portions of the SFEC-Onshore proposed within public roadways, there are no medians in the roadways and the Applicant proposes to cut a section of pavement and excavate a trench within the roadway to install the SFEC-Onshore.
    - The Applicant further noted that, because the SFEC-Onshore is proposed to be installed primarily within existing roadways, minimal vegetation clearing is anticipated along the roadway portion of the SFEC-Onshore.

- Vegetation clearing would, however, be necessary for the SFEC-Interconnection Facility and along some portions of the LIRR ROW.
- SHPO staff indicated that they believe there would be no need for Phase IB archaeological survey for any Project components proposed within existing roadways, or within road ROWs (including the outside edge of existing drainage ditches), unless near a particularly sensitive area.
- SHPO staff further indicated that there could be a need for archaeological construction monitoring along the proposed SFEC-Onshore route following consultation with Tribal Nations, particularly in areas close to water, and at the proposed landing sites.
- SHPO staff requested that all subsequent correspondence and reports for both offshore (submarine) and onshore (upland) components of the SFWF be provided via their CRIS website.

- On March 24, 2017, SHPO provided a formal letter in response to the initial project submission in CRIS. That letter stated:

  > "We have reviewed the proposed route for the South Fork Wind Farm Export Cable East Hampton (SFEC EH). SHPO recommends that a Phase IA archaeological survey be completed to identify segments of the proposed buried cable route that have the potential to encounter intact archaeological deposits. The report should make recommendations for Phase IB archaeological testing in advance of cable installation and/or archaeological monitoring during excavations for cable installation" (Lloyd, 2017).

- On July 19, 2017, the Applicant coordinated a site visit and review of the APE with representatives from Tribal Nations with interest in the cultural resource review of the SFWF. The parties travelled by van to each potential landing site, starting with Fresh Pond, and proceeded in a clockwise fashion along the proposed SFEC-Onshore roadways portions, ending near the SFEC-Interconnection Facility. In addition, the parties walked and inspected each landing site, and where accessible, the adjacent sections of the landscape to evaluate the existing conditions and to identify the potential for cultural resources to be present. Participants at the site review included:
  - Ms. Melanie Gearon – Deepwater Wind, Permitting and Environmental Analyst
  - Mr. Daniel Forrest – The Public Archaeology Laboratory, Inc. (PAL), Cultural Resource Manager
  - Mr. Patrick Heaton – Environmental Design & Research (EDR), Principal, Cultural Resources
  - Ms. Bettina Washington – Wampanoag Tribe of Gay Head (Aquinnah), Tribal Historic Preservation Officer
  - Ms. Elizabeth James-Perry – Wampanoag Tribe of Gay Head (Aquinnah), Tribal Historic Preservation Office
  - Ms. Elaine Thomas – Mohegan Tribe, Deputy Tribal Historic Preservation Officer

- On September 10, 2018, the Applicant provided a copy of an earlier draft of the *Phase I Archaeological Survey Report* to SHPO and BOEM, which was included as an Appendix to the Article VII Application prepared for the Project. The Phase I report was distributed to the Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe, Narragansett Indian Tribe, Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah) on October 29, 2018. On December 6, 2018, BOEM provided comments on the project's draft Construction and Operations Plan (COP), which included the September 2018 draft of the *Phase I Archaeological Survey Report* as an Appendix. BOEM's comments requested that the *Phase I Archaeological Survey Report* be revised to include additional detail regarding the onshore SFEC alternative routes. The *Phase I Archaeological Survey Report* (EDR, 2020) was updated in response to BOEM's comments.

As noted above in Section 2.1 and described further below in Section 2.3, the *Phase I Archaeological Survey Report* (EDR, 2020) recommended Phase IB archaeological testing for portions of the Beach Lane – Route A alternative for the SFEC-Onshore. Subsequent to completing the *Phase I Archaeological Survey Report*, additional consultation pertaining to the Phase IB archaeological survey report has included the following:

- In October 2018, the Applicant provided digital copies of technical reports prepared for submission to BOEM with the Construction and Operations Plan to the coordinating Native American tribes. These included the Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe, Narragansett Indian Tribe, Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah). The technical reports included the recently completed *Phase I Archaeological Survey Report* for the proposed onshore facilities.
- In November 2018 and January 2019, the Applicant hosted Tribal Coordination meetings at the Applicant's offices in Providence, RI and the Mashantucket Pequot Reservation (respectively) to present status updates, summaries, anticipated next steps, and invite feedback on terrestrial and marine cultural resources surveys for the SFWF (including the SFEC-Onshore). The following Tribes were invited to these meetings: Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe, Narragansett Indian Tribe, Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah). Representatives from all six of the Tribes participated in one or more of the coordination meetings during which the onshore archaeological investigations were discussed. Discussions among the Applicant and tribal representatives included a review of the Phase I survey methods and results, scoping for the planned subsurface testing of APE, and potential methods to mitigate the risks of unanticipated discoveries during Project construction.
- In December 2018, the Applicant submitted to the Town of East Hampton a request for authorization to conduct shovel testing within the Town-owned road ROWs along Beach Lane – Route A. This request was accompanied by a description of the anticipated scope of archaeological surveys entitled "South Fork Export Cable, Proposed Scope of Work for Phase I Archaeological Survey: Beach Lane – Route A, Town of East

Hampton, Suffolk County". The Applicant subsequently made a presentation to the Town of East Hampton in February 2019 to describe and illustrate the proposed archaeological fieldwork. The schedule for the anticipated subsequent archaeological survey fieldwork needed to be deferred so further consultation with additional parties was not undertaken at that time.

- On January 17, 2020, the Applicant provided to the Town of East Hampton an updated request for authorization (entitled, *Request to Conduct SFEC Onshore Archaeological Surveys on Town Property*) to conduct shovel testing within the Town-owned road ROWs along Beach Lane – Route A in preparation for anticipated Phase IB archaeological survey fieldwork during the spring of 2020. Due to delays related to COVID-19, however, an updated request (under the same name) was submitted on August 18, 2020, which was authorized by the Town for archaeological work to proceed.
- In September 2020, the Applicant submitted to the SHPO and Tribal representatives a memorandum (and accompanying maps) entitled "South Fork Export Cable, Proposed Scope of Work for Phase I Archaeological Survey: Beach Lane – Route A, Town of East Hampton, Suffolk County" for review and comment. This was also distributed to the following Tribes: Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe, Narragansett Indian Tribe, Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah). A copy of this proposed work scope is attached to this report as Appendix A.
- On September 9, 2020, the Applicant hosted an online meeting to review the archaeological work scope and solicit feedback from the SHPO and Tribal representatives. The Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe, Narragansett Indian Tribe, Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah) were all invited to this meeting. During this meeting, the Applicant committed to providing regular updates to the Tribes during the course of archaeological fieldwork in the event that any potentially significant finds were observed or recovered.

2.3 Phase IB Archaeological Survey Research Design: Beach Lane – Route A

SFW has elected to site the SFEC-Onshore to be buried within existing paved roadways and the LIRR ROW to minimize the risk of potentially encountering undisturbed archaeological deposits. The results of the prior *Phase I Archaeological Survey Report* (EDR, 2020; see Section 2.1 of this report) suggested that there is a potential for buried, intact soils (which could contain archaeological deposits or features) to be present within the portion of the Project route located within paved roadways. These portions of the APE are located in active, public roadways and the overlying pavement will be removed as part of proposed construction activities. Removing the pavement to conduct archaeological testing prior to construction is not feasible, given the expenses and logistical arrangements that would be required (e.g., the need for re-routing traffic and potentially emergency vehicles).

Within public road ROWs, all ground disturbing activities will be limited to the extent of public road ROWs, although the actual footprint of the APE will be smaller. Typically, Phase IB archaeological survey would not be required for projects of this nature as SHPO guidance (SHPO, 2010) indicates that utility projects to be installed under or alongside existing roads do not require archaeological testing between the edge of pavement and the far edge of an existing ditch or utility line; the rationale being that these areas have been previously disturbed. However, background research conducted for the previous *Phase I Archaeological Survey Report* (EDR, 2020) indicates that roadways within eastern Long Island, including the Town of East Hampton, often involved relatively minimal ground disturbing activities during their construction. An interview with Stephen Lynch (personal communication, 2017), the Superintendent of Highways for the Town of East Hampton, revealed that due to the relatively flat sandy terrain, local roadways required minimal grading prior to paving. Likewise, subsequent improvements up to the modern day have not typically involved significant ground disturbing activities, being largely limited to repaving on top of previously paved surfaces. As such, the public roads portion of the Beach Lane – Route A SFEC-Onshore route, which is located across relatively flat terrain, has the potential for intact archaeological deposits to be present underneath existing paved roadways. Furthermore, no roadside ditches are present along the SFEC-Onshore route and residences are typically set back from the road, further increasing the potential for intact archaeological resources to be present.

Therefore, the Applicant recommended conducting Phase IB archaeological testing within potentially undisturbed shoulder areas, adjacent to the pavement, within road ROWs along the SFEC-Onshore route. The proposed methodology for the Phase IB archaeological survey was described in greater detail in a work scope provided to SHPO and the Tribes in advance of the conducting fieldwork (attached as Appendix A to this report). As described in that work scope, the methodology for archaeological survey would consist of the hand excavation of shovel tests at 50-foot intervals, along both sides of the applicable portions of Beach Lane, Wainscott Main Street, Sayres Path, Wainscott Stone Road, and Wainscott Northwest Road. Shovel tests would be staggered on either side of the road (i.e., not directly across from one another) to increase coverage. If one side of the road was disturbed (i.e., prior ground disturbance precluded the need for archaeological testing), shovel tests would be excavated on only one side of the road. Shovel testing in this manner would serve as a proxy for testing underneath existing paved roadways, as removing the pavement to conduct archaeological testing prior to construction is not feasible.

See Section 3.1 below for specific information pertaining to testing methods developed for this survey.

2.4 Phase IB Archaeological Survey Background Information: Beach Lane – Route A

SFW has determined that Beach Lane – Route A is the preferred alternative for connecting the offshore portion of the SFEC with the proposed SFEC-Interconnection Facility. The following represents a summary of background

information related to the Beach Lane – Route A SFEC-Onshore route, or the Survey Area as applicable, which informs the archaeological sensitivity of this SFWF onshore Project component.

2.4.1 Environmental Setting and Soils

The SFEC-Onshore is located on the South Fork of the eastern end of Long Island within the Atlantic Coastal Plain physiographic province, which is a very low-lying, low-relief area that was formed from sea level rising and falling over the past 150 million years (see Figure 7). Therefore, the bedrock in this physiographic province is derived from marine and littoral sediments as well as riverine/alluvial deposits from the eroding Appalachian Mountains. More recent deposits consist of large terminal glacial moraines and associated outwash plains formed during the Pleistocene Epoch (approximately 12,000 to 2.6 million years ago) (National Park Service, 2017). These deposits characterize the soils along the proposed route of the SFEC-Onshore, which is located on an outwash plain.

Seven mapped soil units are located within the SFEC-Onshore, which are comprised of the Bridgehampton, Carver, Haven, and Plymouth soil series (Environmental Systems Research Institute [ESRI] and Natural Resources Conservation Service [NRCS], 2020). A summary of typical characteristics for these mapped soil series are provided in Table 1, while soil units along the proposed SFEC-Onshore route are depicted in Figure 8. Soils within the SFEC-Onshore consist of glacially-deposited lacustrine, fluvial, deltaic, and aeolian materials that range widely between silty, sandy, loamy, and gravelly sediments. These soils range from well to excessively drained (NRCS, 2020).

Table 1. Soil Series within the SFEC-Onshore (SCS, 1975; NRCS, 2020).

Soil Series	Soil Horizon Depth (inches)	Color[1]	Texture, Inclusions[2]	Drainage	Landform
Bridgehampton	• 0 to 11 • 11 to 19 • 19 to 23 • 23 to 34 • 34 to 56 • 56 to 80	• Dk Brn • YBrn • Lt OBrn • Olv • StrBrn, YBrn, and OGry • YRed to YBrn	• SiLo • SiLo • SiLo • SiLo • SiLo and VFn SaLo • Fn Grl and Sa	Well drained	Outwash plains
Carver	• 0 to 3 • 3 to 8 • 8 to 14 • 14 to 22 • 22 to 31 • 31 to 60	• Dk Gry • Gry or Lt Gry • Brn • StrBrn • Lt YBrn to BYlw • Lt YBrn	• Md and Cs Sa • Md and Cs Sa • Cs and Md Sa • Cs Sa • Cs Sa • Cs Sa	Excessively drained	Moraines, outwash plains
Haven	• 0 to 3 • 3 to 10 • 10 to 19 • 19 to 28 • 28 to 55	• Dk GBrn • Brn to Dk Brn • StrBrn • YBrn • YBrn to BYlw	• Lo • Lo • Lo • Grl Lo • Grl Sa	Well drained	Outwash plains
Plymouth	• 0 to 4 • 4 to 10 • 10 to 17 • 17 to 27 • 27 to 58	• VDk GBrn • YBrn • YBrn • Brn • YBrn	• LoSa • LoSa • LoSa • LoSa • Grl Cs Sa	Excessively drained	Moraines, outwash plains

[1] Lt = Light; Dk = Dark; Pl = Pale; V = Very; / = Mottled; Brn = Brown; Blk = Black; Gry = Gray; Wht = White; Ylw = Yellow; Red = Red; Olv = Olive; Pk = Pink; GBrn = Gray Brown; StrBrn = Strong Brown; RBrn = Red Brown; YBrn = Yellow Brown; OBrn = Olive Brown; BGry = Brownish Gray; RGry = Reddish Gray; PGry = Pinkish Gray; OGry = Olive Gray; PWht = Pinkish White; BYlw = Brownish Yellow; YRed = Yellowish Red
[2] Fn = Fine; Md = Medium; Cs = Coarse; V = Very; Cl = Clay; Si = Silt; Sa = Sand; Lo = Loam; Sty = Stony; Grl = Gravel; Cbs = Cobbles; Pbs = Pebbles; Chn = Channery; Rts = Roots

2.4.2 Previously Identified Archaeological Resources and Archaeological Investigations

Previously identified archaeological resources and archaeological investigations within 1 mile of all onshore components have been discussed in the prior *Phase I Archaeological Survey Report* (EDR, 2020; Sections 2.2 and 2.3). Relative to this Phase IB archaeological survey, four archaeological sites have been previously identified within 1 mile of the SFEC-Onshore (Table 2) and two archaeological investigations have been previously conducted within 1 mile of the SFEC-Onshore (Table 3). Previous sites and surveys within 1 mile of the SFEC-Onshore are depicted on Figure 9 (Note: Removed for reasons of confidentiality). Although no archaeological resources were identified by the two previously conducted archaeological surveys within 1 mile of the SFEC-Onshore, both SHPO and New York State Museum (NSYM) records indicate use of the surrounding area by Native Americans prior to and after European contact. No historic-period archaeological sites have been identified within 1 mile of the SFEC-Onshore.

Table 2. Previously Recorded Archaeological Sites within 1-Mile of the SFEC-Onshore.

Site Number	Site Name	Distance from SFEC-Onshore	S/NRHP-Eligibility	Time Period	Site Type
USN 10303.000054	Georgica Pond Site	0.4-mile	Undetermined	Pre-Contact Native American	Unknown
USN 10303.0000360	Burnt Pond Site	0.5-mile	Undetermined	Pre-Contact Native American	Lithic scatter
NYSM 4912	Sachems Hole	0.9-mile	Undetermined	Historic-Period Native American	Ceremonial place: Poggatacut's head rested here in 1651 when his body was sent down to his grave.
NYSM 4924	-	0.9-mile	Undetermined	Pre-Contact Native American	Traces of occupation

Table 3. Previous Archaeological Surveys within 1-Mile of the SFEC-Onshore.

Date	Title/Survey	Sites Identified	Description	References
2000	A Stage 1 Archival Search and Archaeological Survey for East Hampton Town Industrial Park	None	Phase IA/IB resulting in no significant cultural resources	ILIA, 2000
2005	Phase I Archaeological Investigations for the Talmage Property	None	Phase IA/IB resulting in no significant cultural resources	(Tracker, 2005)

3.0 PHASE IB ARCHAEOLOGICAL SURVEY

3.1 Archaeological Survey Fieldwork Methods

The archaeological survey was conducted within public road ROWs, along shoulder areas adjacent to the pavement. No archaeological fieldwork or other activities were conducted on adjacent private properties, or within landscaping that extended into the public road ROWs. Fieldwork was conducted from north to south, from the LIRR ROW to the landing site, within the approximately 2-mile-long corridor for the public ROWs portion of the Beach Lane – Route A SFEC-Onshore route (the Survey Area). From north to south, the evaluated areas include one or both shoulder areas along portions of Wainscott Northwest Road, Wainscott Stone Road, Sayres Path, Wainscott Main Street, and Beach Lane.

The archaeological fieldwork included the following:

- Prior to initiating archaeological fieldwork, DigSafely NY was contacted to perform utility mark-outs along the entire length of the Survey Area within public road ROWs. The utility mark-outs enabled archaeologists to avoid excavating in areas of existing utilities and assisted in identifying previously disturbed areas where archaeological testing was unnecessary. No mark-outs were performed on adjacent private property.
- The archaeological survey was conducted by a small crew of four archaeologists and a field supervisor over the course of seven days. Per the Town of East Hampton, all fieldwork was conducted Monday through Thursday. All archaeological survey work was conducted within public road ROWs. No work was performed on private property.
- The archaeological survey consisted of the hand excavation of shovel tests at 15-m intervals along one or both sides of applicable portions of Wainscott Northwest Road, Wainscott Stone Road, Sayres Path, Wainscott Main Street, and Beach Lane. Shovel testing was conducted only in those portions of the Survey Area which had been previously identified as potentially undisturbed during desktop and field assessments conducted for the previous *Phase I Archaeological Survey Report* (EDR, 2020; see Figure 3). These locations were shared with the Town of East Hampton and adjacent landowners prior to the survey. If both sides of a roadway were potentially undisturbed, shovel tests were staggered on either side of the road (i.e., not directly across from one another) to increase coverage. If one side of the roadway was disturbed (i.e., precluded archaeological testing) or inaccessible (i.e., hedges, landscaping, etc.), shovel tests were excavated on only one side of the roadway.
- Shovel tests measured approximately 12 to 20 inches (30 to 50 cm) in diameter and were excavated by hand with shovels (i.e., no machinery or heavy equipment) to a standard depth of 1 m (39 inches) below the ground surface. Excavating to this depth was conducted to ensure that all potentially cultural-bearing strata were investigated. Shovel tests were not excavated at the location of, or immediately adjacent to, marked utilities.

Each shovel test was identified with standard provenience information consisting of a Survey Area number followed by a period and sequential shovel test number (e.g., Shovel Tests A1.01, A1.02, B1.01, B1.02, etc.). The locations of all shovel tests were recorded with professional-grade GPS equipment and noted on field maps. Photographs of the Survey Area and Phase IB survey are included in Appendix B. Stratigraphic profiles, including depth, soil color, and texture, for all shovel tests were recorded on standardized field record sheets and tabulated as Appendix C.

- To minimize visible disturbance to the landscape and ensure that ground conditions were left in an aesthetically pleasing state, sod caps were removed in one piece (if possible) and placed on tarps while excavation proceeded. Soils excavated from shovel tests were screened through 0.25-inch (0.6-cm) mesh hardware cloth over tarps (to avoid leaving soil piles) to allow for the identification of artifacts. The presence of clearly modern materials, such as plastic fragments, modern bottle glass fragments, or twentieth-century architectural materials, in shovel tests were noted on field forms, but these materials were not collected for subsequent analysis. If any pre-contact Native American or potentially significant historic-period artifacts were recovered from shovel tests, these finds would be placed in plastic bags labeled with standard Project and provenience information. All shovel tests were backfilled immediately upon completion. The backfilled soils were hand-tamped to match the pre-existing grade and to minimize any post-excavation settling. Following tamping, sod caps were placed on top of the backfilled shovel tests. All shovel tested areas were restored to match pre-existing conditions.

3.2 Archaeological Survey Fieldwork Results

EDR conducted the Phase IB archaeological survey fieldwork for the Project on September 15-17 and 21-24, 2020. The fieldwork was conducted by Douglas J. Pippin, Ph.D., RPA (Archaeology Project Manager), Matthew Victor Weiss, RPA (Project Archaeologist), Amelia Bidwell, Corry Laughlin, and Scott Gajewski (Field Assistants). In total, EDR personnel excavated 164 shovel tests at a 15-m interval (see Figure 10). No pre-contact Native American cultural material was recovered during the Phase IB survey. Historic-period cultural material was observed in four isolated shovel tests (further described below; see Figure 10: Sheets 2, 5, and 7), but is not considered indicative of any archaeological sites. Modern cultural material was observed throughout the Survey Area. All cultural materials were noted but not collected.

As discussed in Sections 2.3 and 3.1 above, Phase IB survey fieldwork was conducted along one or both sides of applicable portions of Wainscott Northwest Road, Wainscott Stone Road, Sayres Path, Wainscott Main Street, and Beach Lane. Shovel testing was conducted in those portions of the Survey Area which had been previously identified as potentially undisturbed during desktop and field assessments conducted for the previous *Phase I Archaeological Survey Report* (EDR, 2020; see Figure 3). The archaeological testing was conducted from north to south, from the

LIRR ROW to the landing site. For the purpose of organizing the Phase IB archaeological survey fieldwork, the Survey Area was divided into four distinct areas (Areas A1, B1, C1, and D1):

- Areas A1 and B1 consist of the portion of the Survey Area along Wainscott Northwest Road north and south of its intersection with Montauk Highway, respectively (see Figure 10: Sheets 1-5). No archaeological testing was conducted within the Montauk Highway ROW.
- Area C1 consists of the portion of the Survey Area along Wainscott Stone Road, Sayres Path, and Wainscott Main Street (see Figure 10: Sheets 5 and 6).
- Area D1 consists of the portion of the Survey Area along Beach Lane (see Figure 10: Sheets 6-8). Although defined as separate areas for the purpose of organizing fieldwork, all areas have been combined into a single summary below due a lack of identified archaeological resources and the similar terrain, land use, vegetation, and siting along roadways encountered throughout the Survey Area.

The Survey Area is located across outwash plain topography, which transitions from gently undulating to nearly level from north to south, respectively. The Survey Area is composed of a mixture of vegetation types, including scrubby pine and oak woodland, grassy shoulders (bounded between the roadways and residential hedges or agricultural fields), residential lawns, and residential landscaping/hedges (see Figure 10; see Appendix B: Photographs 1-8). The Survey Area bisects much of the Hamlet of Wainscott, characterized as a moderately densely populated coastal hamlet built amongst woodland and agricultural fields. Most residences along the Survey Area date to the mid-to-late twentieth century and are set back from the roadways, with landscaping, fences, hedges, and trees intentionally built/planted in the road ROWs to screen views from the road.

EDR personnel excavated 164 shovel tests (A1.01 to A1.39; B1.01 to B1.52; C1.01 to C1.14; and D1.01 to D1.59) at a 15-m interval across Areas A1, B1, C1, and D1 (see Figure 10). Several shovel tests throughout the Survey Area were excluded or offset from the 15-m interval, largely due to disturbance from the numerous driveways and utilities that intersect the Survey Area (see Figure 10; see Appendix B: Photographs 9-12). Additional disturbance resulting in the exclusion or offsetting of shovel tests included road cut, landscaping, active construction, parking lot, push pile, and walkway disturbance (see Figure 10; see Appendix B: Photographs 13-16). When disturbance was encountered in Area B1 (the only area where both sides of a segment of roadway were previously deemed potentially undisturbed) that precluded archaeological testing, shovel tests were shifted to the opposite side of the road, if possible (see Figure 10: Sheets 3-5). In addition to previous disturbance, three small areas in Area B1, totaling approximately 350 feet (107 m) in length, along one side of Wainscott Northwest Road were inaccessible for archaeological testing due to landscaping that extended up to the roadway or utilities along the roadside (see Figure 10: Sheets 3 and 4; see Appendix B: Photograph 17). At these locations, shovel tests planned for this side of Wainscott Northwest Road were shifted to the opposite side of the road. No portions of the Survey Area were found to be inundated/saturated, located

within wetlands, or in excess of 12 to 15 percent slope. Modern cultural material (i.e., asphalt, automobile safety glass, Styrofoam, rebar/steel cable, vessel glass, plastic, metal, clam shells, nails, mortar, screws, brick, coal, coal ash, mirror glass, slag, pull-tabs, and industrial porcelain) was observed in numerous shovel tests throughout the Survey Area (see Figure 10), predominately from disturbed contexts interpreted as road fill/overburden/push, fill, imported sod, or landscaped topsoil (see Appendix C). These materials were not collected.

No pre-contact Native American cultural material was recovered from the Survey Area.

Nineteenth- and/or twentieth-century cultural material was recovered from four isolated shovel tests (see Figure 10: Sheets 2, 5, and 7). These artifacts include an early-to-mid-twentieth-century bottle (Shovel Test A1.25; see Appendix B: Photograph 18), several fragments of brick, mortar, and ceramic tile (Shovel Test B1.44; see Appendix B: Photograph 19), likely all dating to the early-to-mid-twentieth century, a late-nineteenth-century blue transfer-printed whiteware sherd (Shovel Test D1.31; see Appendix B: Photograph 20), and five (one green and four colorless) vessel glass shards (Shovel Test D1.34; see Appendix B: Photograph 21), likely all dating to the early-to-mid-twentieth century. These items were noted on shovel test forms (see Appendix C) and photographed in the field, but were not collected as they were observed in low densities, not associated with any potential features, and would not have provided any specific diagnostic or chronological information. With the possible exception of those artifacts from Shovel Test D1.34, which appear to derive from a buried plowzone layer (underneath fill), the historic-period cultural material derives from disturbed contexts, interpreted as road fill/overburden/push (Shovel Tests A1.25 and B1.44) or landscaped topsoil/imported sod (Shovel Test D1.31) (see Appendix C). The artifacts are interpreted as isolated or low-density deposition of historic-period debris, likely resulting from incidental loss or informal discarding of household refuse, which often underwent subsequent displacement due to road construction activities. As such, it is the opinion of EDR that these artifacts do not represent intact and/or potentially significant archaeological sites.

Soil profiles encountered in shovel tests throughout Areas A1, B1, C1, and D1 were found to be somewhat variable, largely due to differences in the nature, extent, and intensity of disturbance noted throughout the Survey Area. See Appendix C for detailed information regarding soil profiles within excavated shovel tests. Prior disturbance in shovel tests throughout the Survey Area was noted in the form of soil mixing (soil texture, structure, and color), inclusions of non-local stones, crushed stones, compacted soils, buried natural horizons, widely varying soil colors, and modern debris, indicative of fill deposits and/or prior disturbance to natural soil horizons (see Appendix C). This disturbance is largely due to road construction and maintenance activities, landscaping, and the installation of utilities. Soil profiles for undisturbed (or relatively undisturbed) shovel tests encountered throughout the Survey Area can typically be categorized into one of two generalized soil profiles dependent on the location of mapped soil units. The northern portion of Survey Area, north of Shovel Test C1.09 (see Figure 10: Sheets 1-6), is largely situated across sandy soils

of the Carver and Plymouth soil series, while the southern portion of the Survey Area (see Figure 10: Sheets 6-8) is situated across silty soils of the Bridgehampton soil series (ESRI and NRCS, 2020) (see Figure 8).

- Generally, relatively undisturbed soil profiles in the northern, sandier portion of the Survey Area consisted of a landscaped topsoil overlying two or more subsoil layers (see Appendix B: Photograph 22; see Appendix C). The landscaped topsoil generally ranged from a brown to very dark grayish brown sandy loam or sand, typically extending to depths ranging between 10 to 20 cm (4 to 8 inches) below ground surface (bgs). The upper subsoil generally consisted of a yellowish brown or brownish yellow sand, typically extending to depths ranging between 45 to 75 cm (18 to 30 inches) bgs. The lower subsoil generally consisted of a yellowish brown or very pale brown sand or loamy sand that extended to a maximum depth of 100 cm (39 inches) bgs. Subsoil horizons were usually dense with inclusions of rounded quartz pebble and cobble till; although subsoil horizons in several shovel tests, generally the upper horizon, were found to be completely free of till, suggestive of glacial outwash deposition. Several shovel tests were found to contain a completely intact soil profile (natural topsoil and subsoil horizons) underlying disturbed soil layers (see Appendix C). Shovel tests excavated within undeveloped scrubby pine and oak woodland, particularly across the northern half of Area A1, often possessed intact topsoil as well as a light brownish gray sand eluviated layer (E horizon) between the topsoil and subsoil, typically measuring between 5 to 10 cm (2 to 4 inches) in thickness (see Appendix B: Photograph 23; see Appendix C).
- Generally, relatively undisturbed soil profiles in the southern, siltier portion of the Survey Area consisted of a landscaped topsoil, overlying a buried plowzone, overlying two subsoil layers (see Appendix B: Photograph 24; see Appendix C). The presence of the plowzone across the southern portion of the Survey Area is due to the continued agricultural use of this area since the historic-period. The landscaped topsoil generally consisted of a very dark gray or very dark grayish brown sandy loam, typically extending to depths ranging between 10 to 25 cm (4 to 10 inches) bgs, and contained numerous small crushed pebbles. The landscaped topsoil for Shovel Tests D1.01 to D1.33 appears to also be imported sod. The buried plowzone generally consisted of a brown or dark yellowish brown silt loam or sandy loam, typically extending to depths ranging between 40 to 50 cm (16 to 20 inches) bgs. The upper subsoil generally consisted of a yellowish brown sandy loam or silt loam, typically extending to depths ranging between 50 to 70 cm (20 to 28 inches) bgs. The lower subsoil generally consisted of a light olive brown, light brownish gray, or pale brown silt or loamy sand that extended to a maximum depth of 100 cm (39 inches) bgs. Both subsoil horizons possessed significantly less rounded quartz pebble and cobble till compared to the northern, sandier portion of the Survey Area.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary of Phase IB Archaeological Survey

The results of the Phase IB archaeological survey for the proposed South Fork Export Cable: Beach Lane – Route A can be summarized as follows:

- In accordance with the previously completed *Phase 1 Archaeological Survey: South Fork Export Cable – Onshore Cable & Substation* report (EDR, 2020; see Section 2.1 of this report), prior consultation with SHPO, the Town of East Hampton, and Tribal representatives (Section 2.2), and a research design/work scope reviewed by appropriate parties (Section 2.3; see also Appendix A), EDR conducted a Phase IB archaeological survey along portions of the preferred alternative (Beach Lane – Route A) of the SFEC-Onshore.
- EDR archaeologists excavated 164 shovel tests at a 15-m interval throughout the potentially undisturbed portions of the Survey Area.
- No pre-contact Native American archaeological resources were encountered during Phase IB testing.
- Historic-period cultural material, indicative of incidental loss or informal discarding of household refuse, which often underwent subsequent displacement due to road construction activities, was recovered from four isolated shovel tests, primarily from disturbed contexts. These artifacts represent scattered debris and are not indicative of more substantial archaeological deposits.
- In the opinion of EDR, the recovered historic-period artifacts do not meet State/National Register of Historic Places (S/NRHP) eligibility criteria.

4.2 Conclusions and Recommendations

Based on the results of this Phase IB archaeological survey, no potentially significant archaeological resources have been identified within the portion of the Beach Lane – Route A SFEC-Onshore corridor located along public roadways in the Town of East Hampton. In the opinion of EDR, the historic-period cultural material recovered from four isolated shovel tests does not satisfy S/NRHP-eligibility criteria and is unlikely to be associated with S/NRHP-eligible sites.

South Fork Wind's proposed siting of the SFEC-Onshore underneath existing paved roadways minimizes the likelihood that undisturbed and/or potentially significant archaeological resources are located within the APE. As described above in Section 2.2 of this report, SHPO correspondence dated March 24, 2017 stated:

> We have reviewed the proposed route for the South Fork Wind Farm Export Cable East Hampton (SFEC EH). SHPO recommends that a Phase IA archaeological survey be completed to identify segments of the proposed

> buried cable route that have the potential to encounter intact archaeological deposits. The report should make recommendations for Phase IB archaeological testing in advance of cable installation *and/or* [emphasis added] archaeological monitoring during excavations for cable installation (Lloyd, 2017).

During consultation with Tribal representatives prior to conducting the Phase IB survey, stakeholders indicated their strong preference for archaeological investigations to be conducted prior to construction, as opposed to relying on archaeological monitoring to identify, evaluate, and respond to the potential presence of archaeological sites. The results of background research and reconnaissance survey of the APE also suggested a potential for intact soils that could contain cultural deposits to be present within the APE (EDR, 2020). Therefore, the Applicant undertook a Phase IB archaeological survey of the portions of Beach Lane – Route A located within public road ROWs. As described herein in Section 2.1 of this report, the prior *Phase I Archaeological Survey Report* (EDR, 2020) provided a Phase IA analysis of the cable route and recommended shovel testing along a portion of Beach Lane – Route A:

> These portions of the APE are located in active, public roadways and the overlying pavement will be removed as part of proposed construction activities. Removing the pavement to conduct archaeological testing prior to construction is not feasible, given the expenses and logistical arrangements that would be required (e.g., the need for re-routing traffic and potentially emergency vehicles). Therefore, the most effective way to evaluate the likelihood for archaeological sites to be located under paved roadways within the APE is to conduct archaeological testing within the grassy/unpaved portions of the road ROWs adjacent to the pavement (EDR, 2020:75).

The purpose of the Phase IB was to further evaluate the potential for sites to be located within the APE and minimize the risk of unanticipated discoveries or disturbance to archaeological resources during construction. No pre-contact Native American artifacts or archaeological features were identified during Phase IB archaeological testing. The results of shovel testing along roadside areas did identify undisturbed soils/subsoil that likely extend underneath paved roadways. Therefore, it is possible that isolated artifacts or small isolated features could be present in undisturbed soils along the path of the SFEC-Onshore. However, the absence of any pre-contact cultural material identified during the Phase IB archaeological survey indicates that no substantial sites (i.e., villages/settlements, lithic workshops, middens, etc.) are located within the APE and suggests that the potential for isolated artifacts or features to be present underneath existing paved roadways is relatively minimal.

These findings, when considered together with the results and recommendations presented in the prior *Phase I Archaeological Survey Report* (EDR, 2020) for the Project indicate that the Project will have no effect on significant archaeological resources. The Phase IB survey did not result in the identification of any potentially significant archaeological resources. The results of the Phase IB survey indicate that the potential for isolated artifacts or features

to be present underneath existing paved roadways is relatively minimal. There, no additional archaeological investigations are recommended in association with Beach Lane – Route A for the proposed SFEC-Onshore Project. To further mitigate the potential (however unlikely) for encountering archaeological resources during installation of the SFEC-Onshore, the Applicant will prepare and implement an Unanticipated Discovery Plan that will include stop-work and notification procedures to be followed if a cultural resource is encountered during installation.

5.0 REFERENCES

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR). 2020. *Phase 1 Archaeological Survey: South Fork Export Cable – Onshore Cable & Substation, Town of East Hampton, Suffolk County, New York*. Report prepared for Deepwater SFW Farm, LLC and AECOM by EDR, Syracuse, NY.

Environmental Systems Research Institute (ESRI) and Natural Resources Conservation Service (NRCS). 2020.SSURGO Downloader: Southern Long Island Subbasin Soils. Available at: https://www.arcgis.com/apps/View/index.html?appid=cdc49bd63ea54dd2977f3f2853e07fff.

Gray & Pape. 2018. Marine Archaeological Resources Assessment - Deepwater Wind - SFW Farm and Export Cable. Report prepared for Deepwater SFW Farm, LLC by Gray & Pape, Inc. Providence, RI.

Institute of Long Island Archaeology (ILIA). 2000. *A Stage 1 Archival Search and Archaeological Survey for East Hampton Town Industrial Park, Town of East Hampton, Suffolk County, New York.* Prepared by ILIA, Department of Anthropology, State University of New York at Stony Brook, Stony Brook, NY.

Lloyd, T. 2017. Re: BOEM, South Fork Wind Farm, East Hampton, Suffolk County, NY, 17PR01624. Review correspondence to Mr. William Hoffman, Archaeologist, BOEM from the New York State Historic Preservation Office.

Lloyd, T. 2020. Re: BOEM, South Fork Wind Farm/Deepwater Wind LLC/90MW/Export Cable/18-T-0604, East Hampton, Suffolk County, NY, 17PR01624. Review correspondence to Mr. Scott Philips, Section 106 Lead, SWCA from the New York State Historic Preservation Office.

Lynch, Stephen (Superintendent of Highways, Town of East Hampton). 2017. Personal communication with Kristina Garenani (EDR). September 20, 2017.

National Park Service. 2017. Geology of the Atlantic Coastal Plain. National Park Service, Washington, D.C. Available at https://www.nps.gov/cue/geology/geo_coastalplain.htm.

Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey. United States Department of Agriculture, Washington, D.C. Available at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

New York Archaeological Council (NYAC). 1994. *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York* State. New York State Office of Parks, Recreation & Historic Preservation, Waterford, NY.

New York State Historic Preservation Office (SHPO). 2005. *New York State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements*. SHPO, Waterford, NY.

SHPO. 2010. New Water and Sewer Letter (template). SHPO, Waterford, NY.

Soil Conservation Service (SCS). 1975. *Soil Survey of Suffolk County, New York*. United States Department of Agriculture, SCS, Washington, D.C.

Tracker Archaeology Services, Inc. (TAS). 2005. *Phase I Archaeological Investigations for the Talmage Property, Wainscott, Town of East Hampton, Suffolk County, New York.* Prepared by TAS, North Babylon, NY.

Figures

Appendix A:

Phase IB Archaeology Work Scope: Beach Lane – Route A

Appendix B:
Photographs

Appendix C:
Shovel Test Records

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 1: South Fork Wind Farm

- SFEC Landing Site
- SFEC-Interconnection Facility
- SFWF WTG
- SFWF WTG (Alternate Location)
- Offshore Substation
- SFEC-Onshore
- SFEC-NYS (New York State Waters)
- SFEC-OCS (Federal Waters)
- SFWF Inter-Array Cable
- SFWF Maximum Work Area

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. **2.** This map was generated in ArcMap on November 13, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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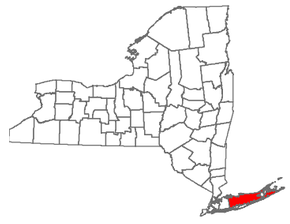
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton,
Suffolk County, New York

Figure 2: South Fork Wind Farm - Onshore Facilities

Horizontal directional drilling will be utilized under the beach to connect the offshore portion of the SFEC to the SFEC-Onshore.

- SFEC-Onshore Corridor (Beach Lane - Route A)
- SFEC Landing Site (Beach Lane Landing Site)
- SFEC-Interconnection Facility



Notes: 1. Basemap: ESRI ArcGIS Online "World Street Map" map service. **2.** This map was generated in ArcMap on November 11, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 3: Survey Area

Sheet 1 of 2

Survey Area

Parcel Boundary

Reconnaissance Results

Disturbed

Potentially Undisturbed

Notes: 1. Basemap: NYSDOP "2016" orthoimagery map service. **2.** This map was generated in ArcMap on November 11, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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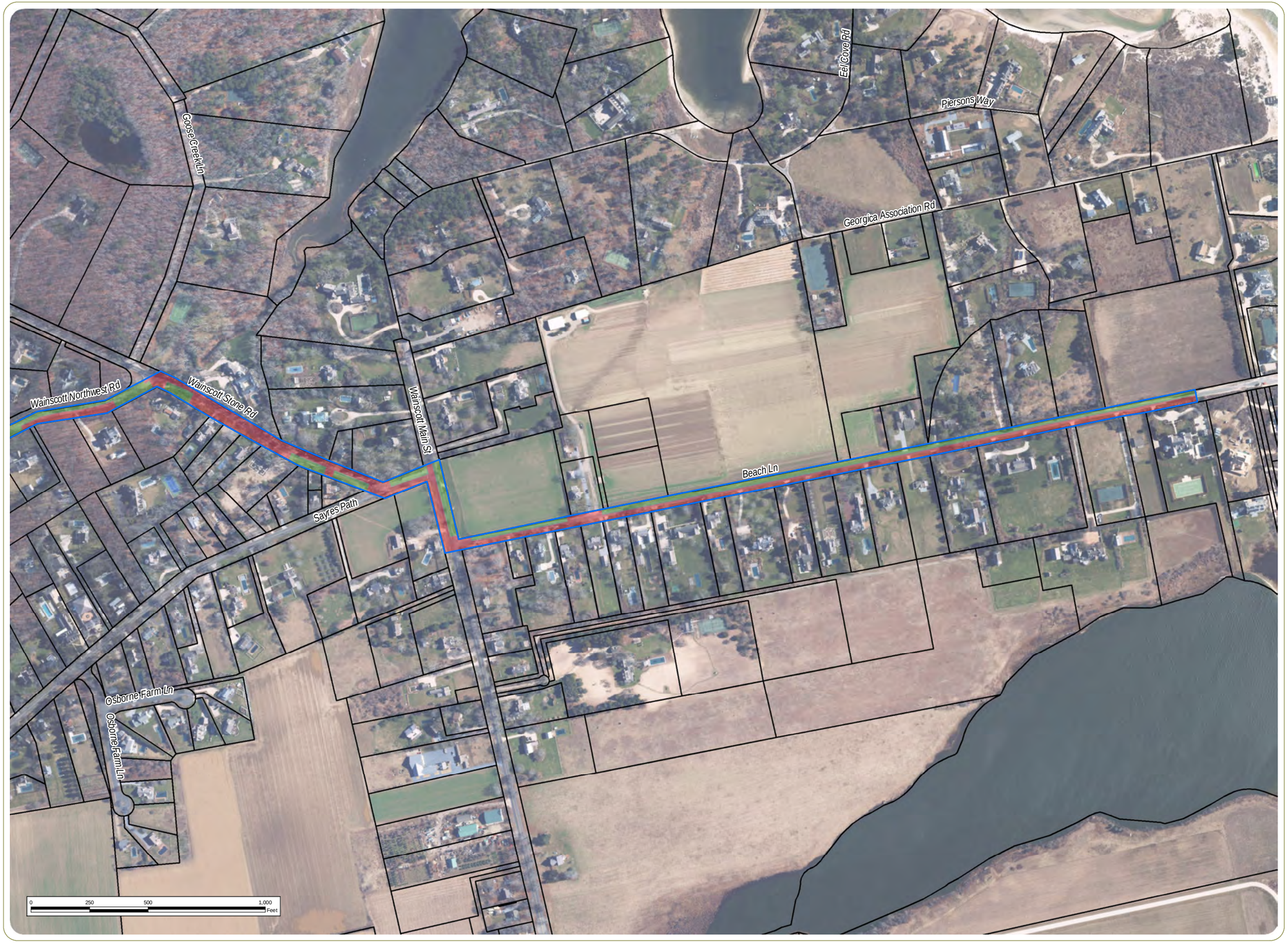
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton,
Suffolk County, New York

Figure 3: Survey Area

Sheet 2 of 2



Survey Area

Parcel Boundary

Reconnaissance Results

Disturbed

Potentially Undisturbed

Notes: **1.** Basemap: NYSDOP "2016" orthoimagery map service. **2.** This map was generated in ArcMap on November 11, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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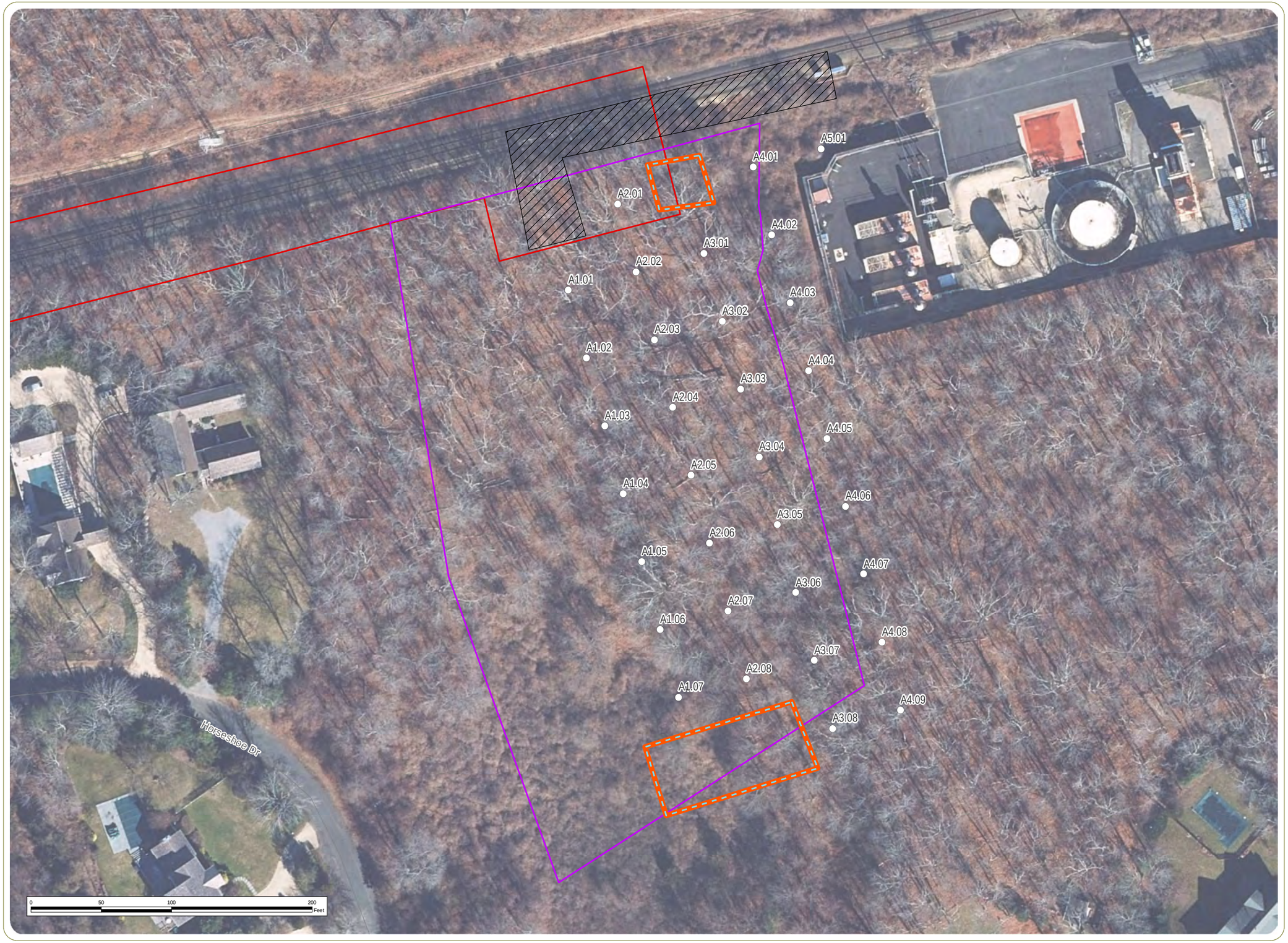

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 4: SFEC-Interconnection Facility Archaeological Survey Results

Shovel Test

- No Cultural Material
- Buried Utility Area
- Railroad Berm
- SFEC-Onshore Corridor (Beach Lane - Route A)
- SFEC-Interconnection Facility

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. **2.** This map was generated in ArcMap on November 12, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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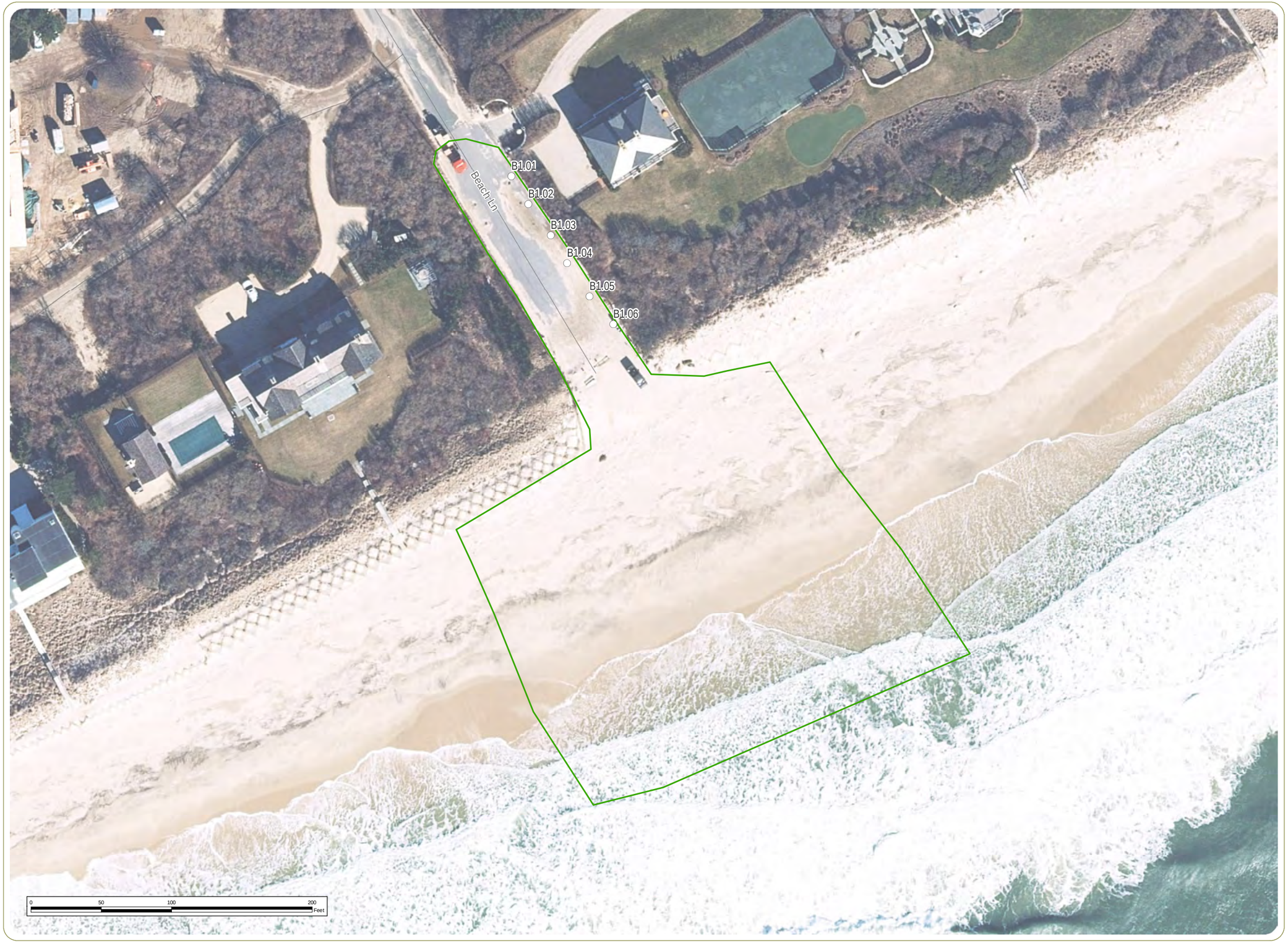
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 5: Beach Lane Landing Site Archaeological Survey Results



Shovel Test

- No Cultural Material

SFEC Landing Site (Beach Lane Landing Site)

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. **2.** This map was generated in ArcMap on November 12, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 1 of 8

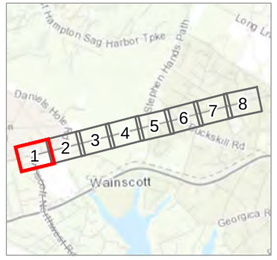
- Gas Line
- Telecom Line
- Water Line

6-Inch Elevation Contours

- Major Contour
- Minor Contour
- Beach Lane - Route A Corridor

Elevation

- Higher
- Lower



Notes: 1. Basemap: NYSDOP "2016" orthoimagery map service. **2.**Depicted utility lines indicate approximate path and location of subsurface utilities. **3.** This map was generated in ArcMap on November 12, 2020. **4.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 2 of 8

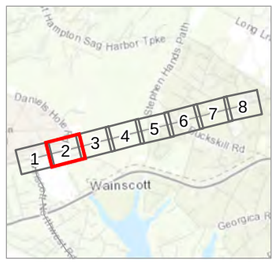
- Water Line

6-Inch Elevation Contours

- Major Contour
- Minor Contour
- Beach Lane - Route A Corridor

Elevation

- Higher
- Lower



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South Fork Export Cable: Beach Lane – Route A

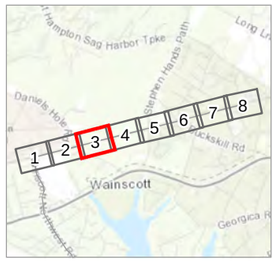
Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 3 of 8

6-Inch Elevation Contours
- Major Contour
- Minor Contour
- Beach Lane - Route A Corridor

Elevation
- Higher
- Lower



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30 ft
25 ft
30 ft
25 ft
0 50 100 200 Feet

South Fork Export Cable: Beach Lane – Route A

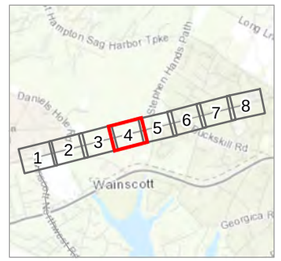
Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 4 of 8

6-Inch Elevation Contours
- Major Contour
- Minor Contour
- Beach Lane - Route A Corridor

Elevation
- Higher
- Lower



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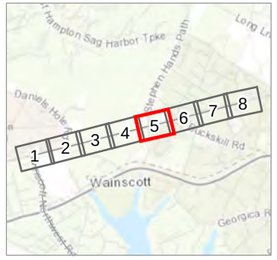
Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 5 of 8

- Water Line
- 6-Inch Elevation Contours
  - Major Contour
  - Minor Contour
- Beach Lane - Route A Corridor

Elevation
- Higher
- Lower



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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 6 of 8

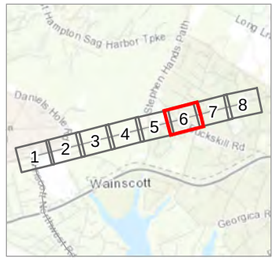
- Water Line

6-Inch Elevation Contours

- Major Contour
- Minor Contour
- Beach Lane - Route A Corridor

Elevation

- Higher
- Lower



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Green Hollow Rd

Blue Jay Way

40 ft

35 ft

40 ft

35 ft

35 ft

30 ft

Horseshoe Dr

0 50 100 200 Feet

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

Sheet 7 of 8

6-Inch Elevation Contours

Major Contour

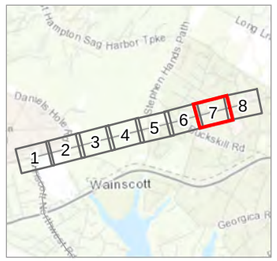
Minor Contour

Beach Lane - Route A Corridor

Elevation

Higher

Lower



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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 6: Long Island Railroad Archaeological Reconnaissance Results

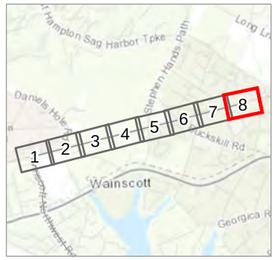
Sheet 8 of 8

6-Inch Elevation Contours
- Major Contour
- Minor Contour

SFEC-Interconnection Facility

Beach Lane - Route A Corridor

Elevation
- Higher
- Lower



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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 7: Project Topography

SFEC-Onshore Corridor (Beach Lane - Route A)

Notes: 1. Basemap: ESRI ArcGIS Online "USA Topo Maps" map service. **2.** This map was generated in ArcMap on November 12, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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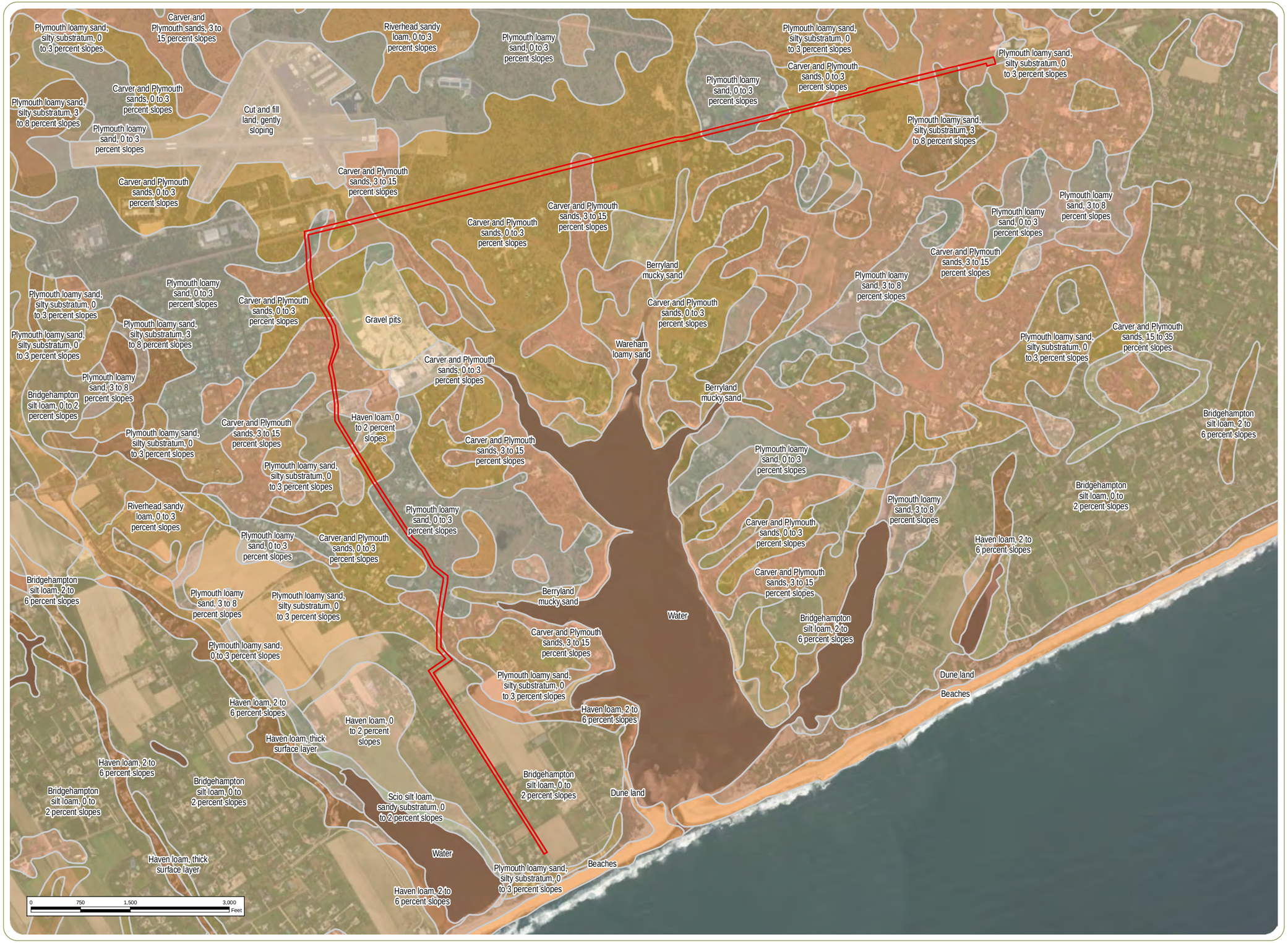
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 8: Project Soils



Soil Unit

SFEC-Onshore Corridor (Beach Lane - Route A)

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. **2.** This map was generated in ArcMap on November 12, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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Figure 9

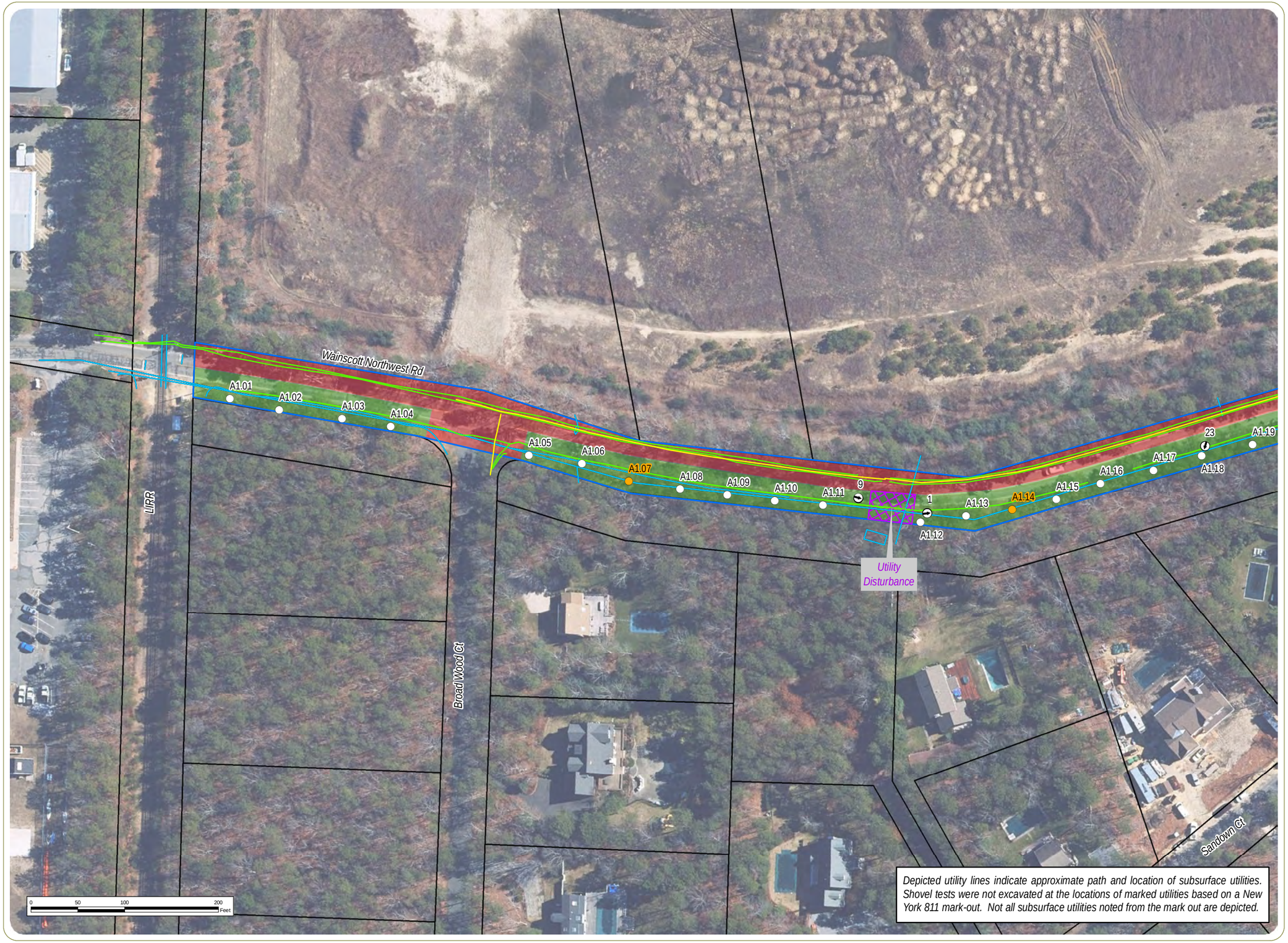
Removed for reasons of confidentiality and/or privileged information

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 1 of 8



Depicted utility lines indicate approximate path and location of subsurface utilities. Shovel tests were not excavated at the locations of marked utilities based on a New York 811 mark-out. Not all subsurface utilities noted from the mark out are depicted.

- Photograph Location

Shovel Test

- Modern Material
- No Cultural Material
- Gas Line
- Telecom Line
- Water Line
- Shovel Test Exclusion
- Survey Area
- Parcel Boundary

Reconnaissance Results

- Disturbed
- Potentially Undisturbed

Notes: **1.** Basemap: NYSDOP "2016" orthoimagery map service. **2.** This map was generated in ArcMap on November 11, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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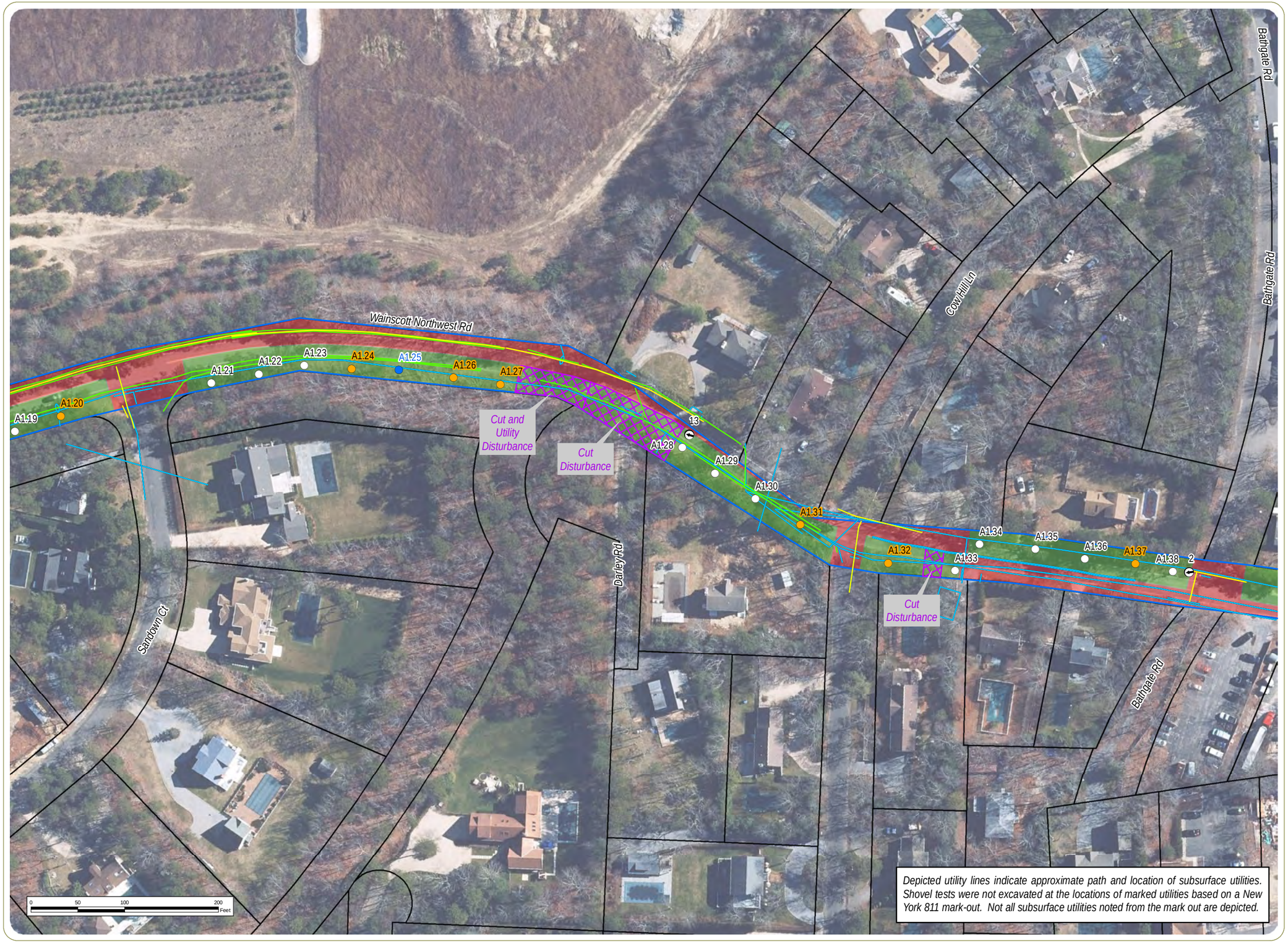
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 2 of 8



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- Photograph Location

Shovel Test

- Historic-Period Artifact(s)
- Modern Material
- No Cultural Material
- Gas Line
- Telecom Line
- Water Line
- Shovel Test Exclusion
- Survey Area
- Parcel Boundary

Reconnaissance Results

- Disturbed
- Potentially Undisturbed

Notes: 1. Basemap: NYSDOP "2016" orthoimagery map service. **2.** This map was generated in ArcMap on November 11, 2020. **3.** This is a color graphic. Reproduction in grayscale may misrepresent the data.

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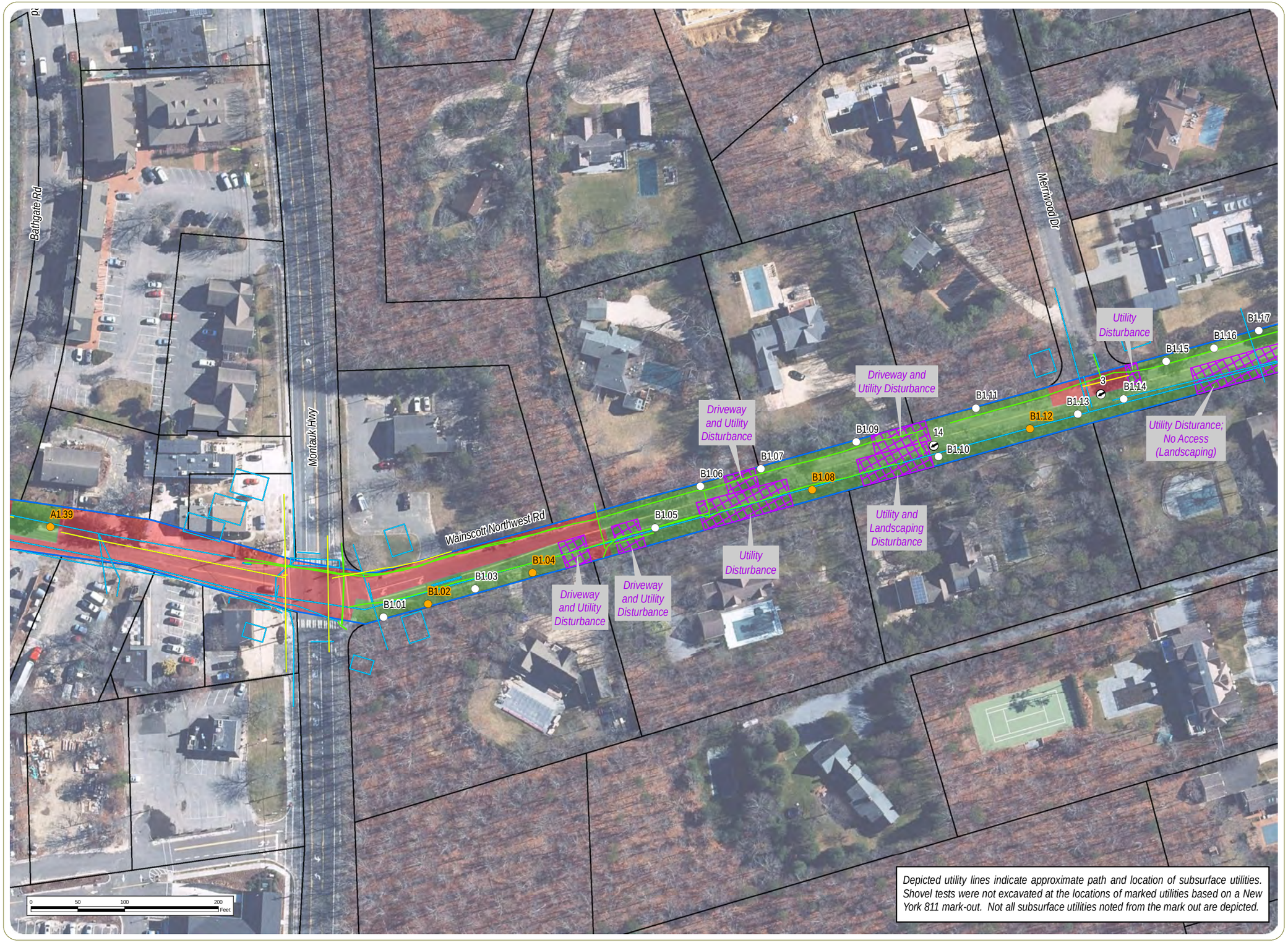
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 3 of 8



- Photograph Location

Shovel Test

- Modern Material
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- Gas Line
- Telecom Line
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Reconnaissance Results

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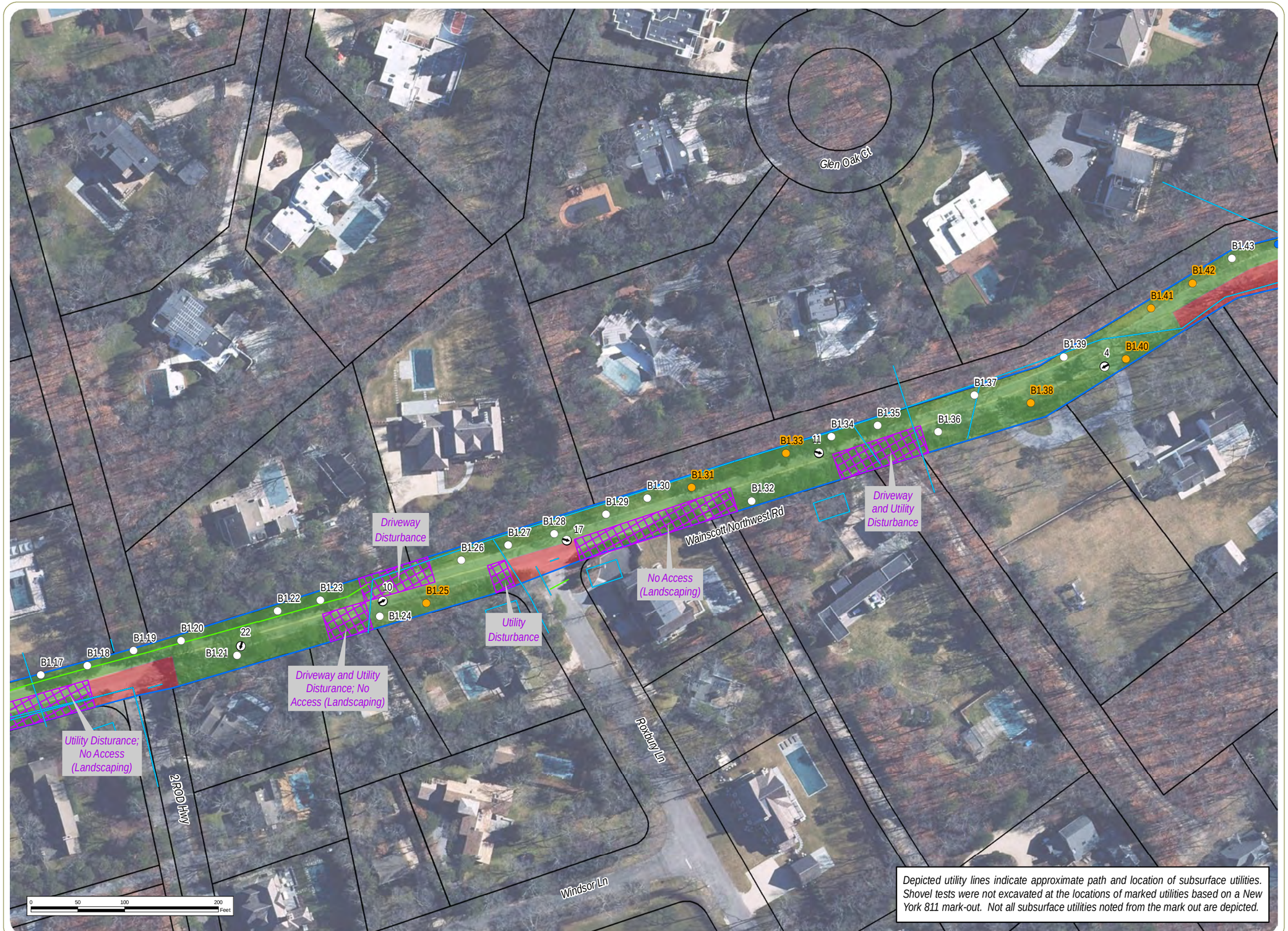

South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 4 of 8

- Photograph Location

Shovel Test

- Historic-Period Artifact(s)
- Modern Material
- No Cultural Material
- Telecom Line
- Water Line
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- Parcel Boundary

Reconnaissance Results

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- Potentially Undisturbed

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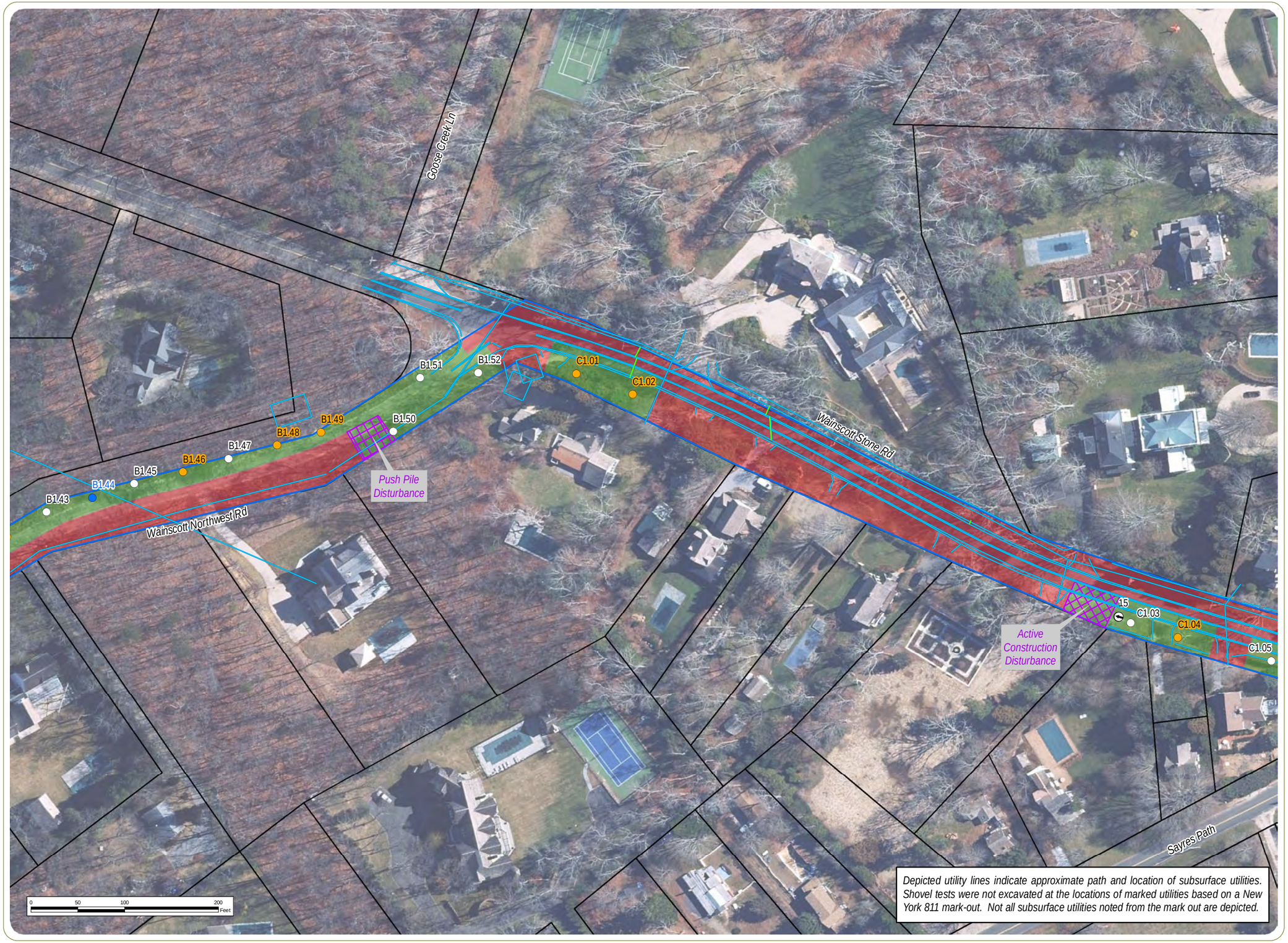
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 5 of 8



- Photograph Location

Shovel Test

- Historic-Period Artifact(s)
- Modern Material
- No Cultural Material
- Telecom Line
- Water Line
- Shovel Test Exclusion
- Survey Area
- Parcel Boundary

Reconnaissance Results

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- Potentially Undisturbed

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South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 6 of 8

- Photograph Location

Shovel Test

- Modern Material
- No Cultural Material
- Telecom Line
- Water Line
- Shovel Test Exclusion
- Survey Area
- Parcel Boundary

Reconnaissance Results

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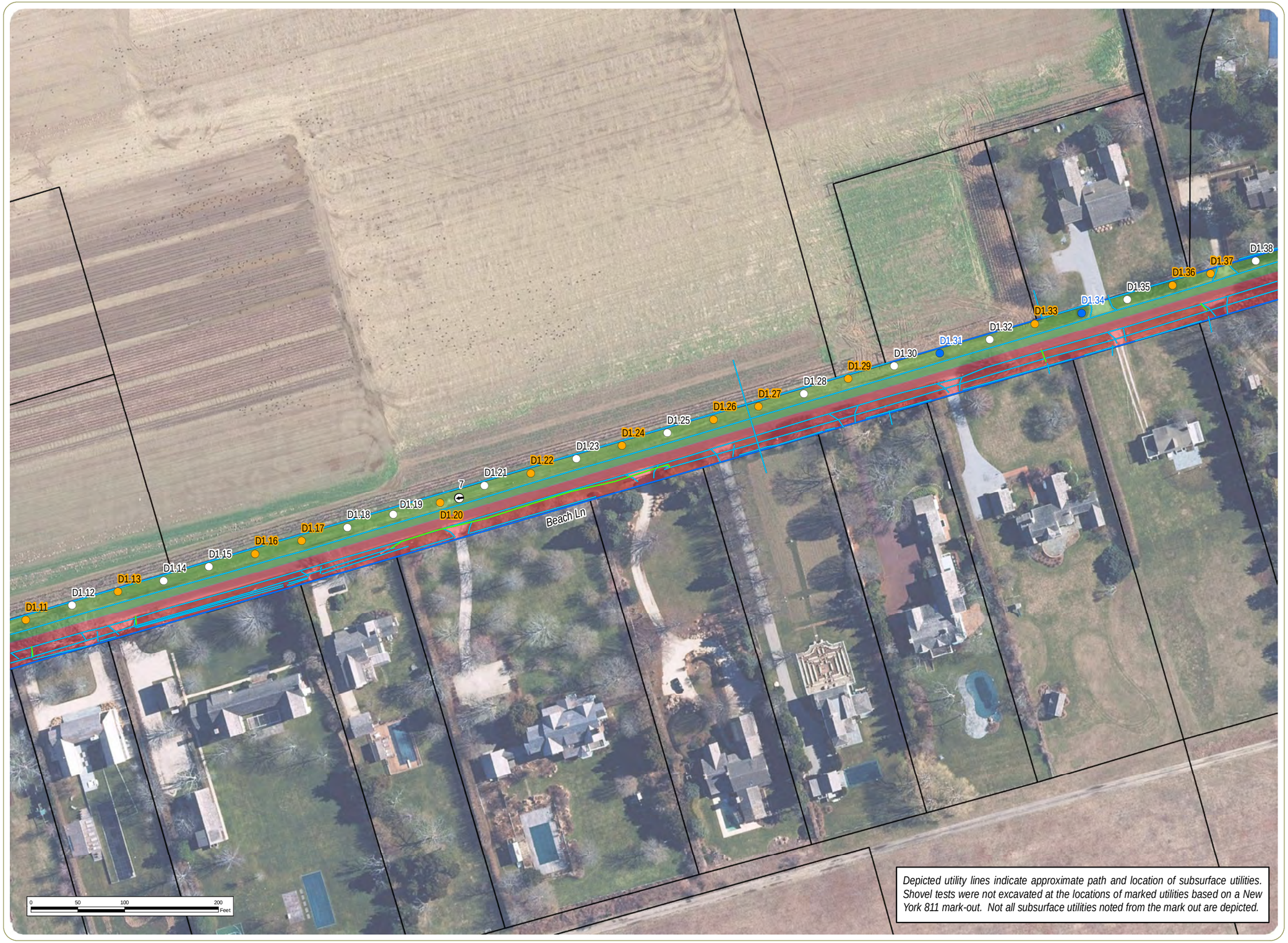
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 7 of 8



- Photograph Location

Shovel Test

- Historic-Period Artifact(s)
- Modern Material
- No Cultural Material
- Telecom Line
- Water Line
- Survey Area
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Reconnaissance Results

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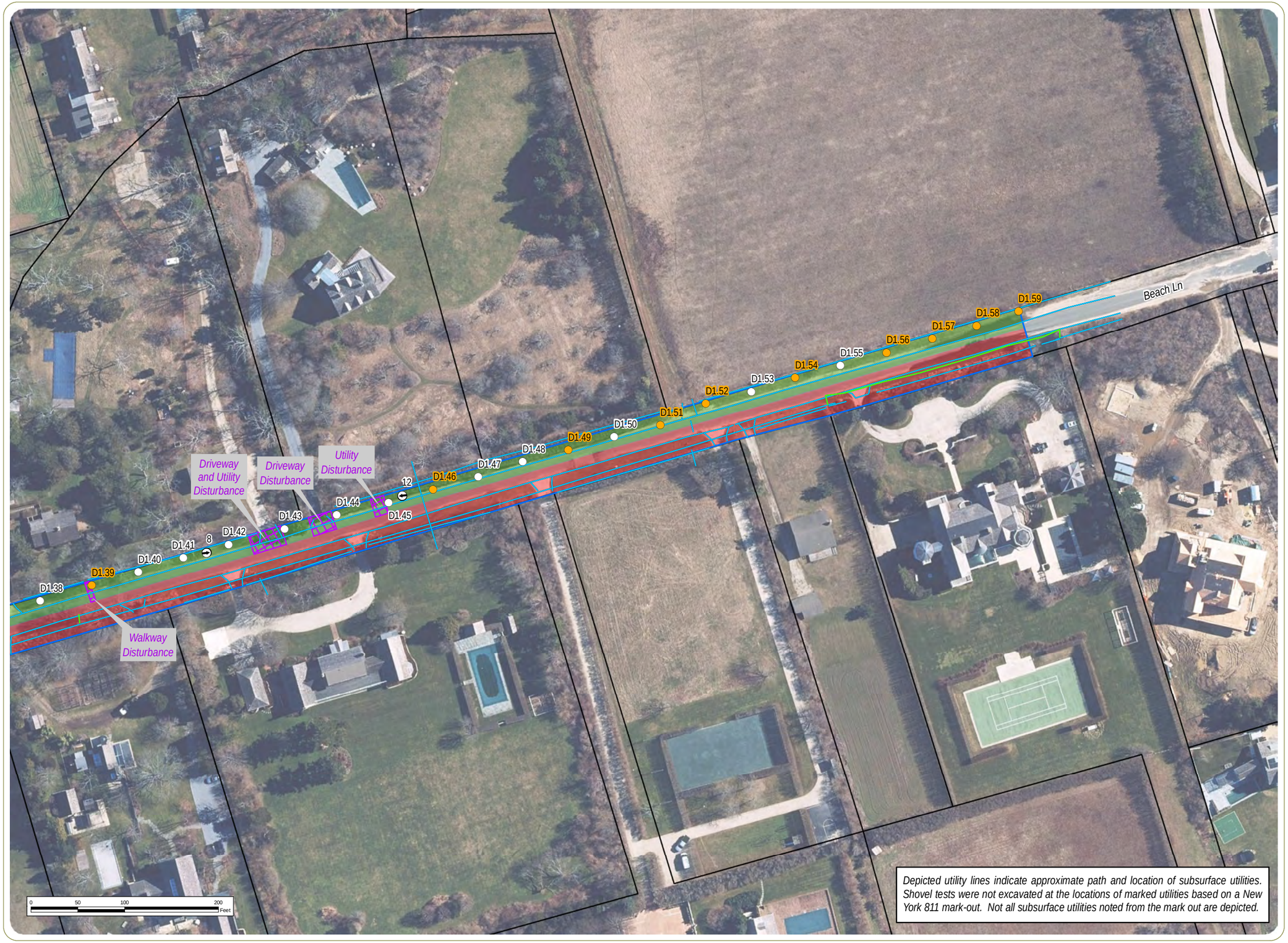
South Fork Export Cable: Beach Lane – Route A

Town of East Hampton, Suffolk County, New York

Figure 10: Phase IB Archaeological Survey Results

Sheet 8 of 8



- Photograph Location

Shovel Test

- Modern Material
- No Cultural Material
- Telecom Line
- Water Line
- Shovel Test Exclusion
- Survey Area
- Parcel Boundary

Reconnaissance Results

- Disturbed
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Appendix A:

Phase IB Archaeology Work Scope: Beach Lane – Route A

Environmental Design & Research,
Landscape Architecture, Engineering & Environmental Services, D.P.C.
217 Montgomery Street, Suite 1000, Syracuse, New York 13202
P. 315.471.0688 • F. 315.471.1061 • www.edrdpc.com

memorandum

To:	Melanie Gearon, Jennifer Garvey Deepwater Wind South Fork, LLC Ørsted U.S. Offshore Wind	EDR Project No:	17018
From:	Patrick Heaton, RPA; Douglas Pippin, Ph.D., RPA		
Date:	August 7, 2020		
Reference:	South Fork Export Cable Proposed Scope of Work for Phase I Archaeological Survey: Beach Lane – Route A Town of East Hampton, Suffolk County		

Introduction

As part of environmental permitting review for the proposed South Fork Export Cable (SFEC; or, the Project), Deepwater Wind South Fork, LLC, (DWSF) intends to conduct a Phase I Archaeological Survey within public roadway rights-of-way within the Town of East Hampton.

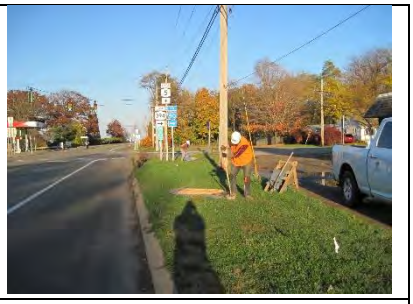
Most portions of the SFEC will be installed in the ocean floor. The transmission cable will come ashore at a landfall site located along the coastline in the Town of East Hampton. The Project is currently investigating a potential landfall site at the parking lot at the southern end of Beach Lane. From the landfall, a new buried terrestrial cable would be installed within paved roadways and the LIRR railroad right-of-way, from the landfall location to the interconnection facility. The transmission cable would be located underground within public roads and the LIRR right-of-way and would not include any overhead lines or other above-ground structures.

Summary of Prior Archaeological Survey/Evaluation

DWSF previously conducted a Phase I Archaeological Survey for the Project[1]. The Phase 1 archaeological survey included archival research and archaeological fieldwork. Background research was conducted to review the geology and environmental setting, previously reported archaeological sites and archaeological surveys, regional histories, and historic maps of the study area. These sources were reviewed to prepare historic contexts for the pre-contact and post-contact historic periods and assess the archaeological sensitivity of the Area of Potential Effect (APE) for direct effects. In addition, reconnaissance-level surveys were conducted by archaeologists to evaluate existing conditions and prior ground disturbance as part of assessing the potential for archaeological resources to be present within the APE. In addition, shovel testing and systematic pedestrian surveys of the sea-to-shore transition corridor and the SFEC-Interconnection Facility site were conducted. Pedestrian surveys were conducted along the pavement of the public road rights of way (ROWs) of the SFEC-Onshore and along the Long Island Railroad (LIRR) ROW portion of the SFEC-Onshore.

[1] The Phase I Archaeological Survey report (EDR, May 2019) is available at: https://edrdpc.box.com/s/e3lch4xst0cc030w5i3zj6usk5ardns6.





Representative photographs of EDR staff excavating shovel tests as part of Phase I Archaeological Survey.

DWSF has elected to site the onshore portion of the SFEC buried within existing paved roadways as much as possible. The selection of a buried cable (as opposed to an overhead transmission line) avoids potential visual impacts (including visual impacts to historic properties). In addition, siting the SFEC-Onshore within paved roadways avoids potential impacts to adjacent undisturbed soils and ecological communities. Given that existing roadways include some degree of prior ground disturbance, siting the SFEC-Onshore within roadways helps to minimize the risk of potentially encountering undisturbed archaeological deposits.

The results of the prior Phase I archaeological survey suggest that there is a potential for buried, intact soils, which could contain archaeological deposits or features to be present within the portion of the APE located within paved roadways. These portions of the APE are located in active, public roadways and the overlying pavement will be removed as part of proposed construction activities. Removing the pavement to conduct archaeological testing prior to construction is not feasible, given the expenses and logistical arrangements that would be required (e.g., the need for re-routing traffic and potentially emergency vehicles). Therefore, the most effective way to evaluate the likelihood for archaeological sites to be located under paved roadways within the APE is to conduct archaeological testing within the grassy/unpaved portions of the road ROWs adjacent to the pavement.

Description of Proposed Phase I Archaeological Survey – Beach Lane Route A

As a component of the environmental permitting review for the project, a Phase I Archaeological Survey along existing paved roads in the Town of East Hampton is proposed. The proposed archaeological survey would be conducted within road rights-of-way, along shoulder areas adjacent to the pavement. No archaeological fieldwork or other activities would be conducted on adjacent private properties. The proposed potential route of the underground cable, referred to in Project permitting documents as Beach Lane – Route A, would follow public roads for approximately 2 miles from the southern terminus of Beach Lane to the LIRR. The areas being evaluated for the cable route include portions of Beach Lane, Main Street, Sayres Path, Wainscot Stone Road, and Wainscott Road NW (see attached "Archaeological Testing Plan for Beach Lane - Route A" maps).

The purpose of the archaeological survey is to identify Pre-Contact (Native American) and/or more recent ("historic-period") archaeological sites that could be disturbed during project related construction. The archaeological fieldwork is anticipated to include the following:

- Prior to initiating the archaeological fieldwork, DigSafely NY will be contacted to request a utility mark-out. The utility mark-out will enable the archaeologists to avoid excavation in the areas of existing utilities, and to help identify previously disturbed areas where no archaeological work is necessary.
- The archaeological survey will be conducted by a small crew of 3-4 archaeologists and could require up to 14 days.
- The archaeological survey will consist of the hand excavation of shovel test pits at 50-foot intervals, along both sides of the applicable portions of Beach Lane, Main Street, Sayres Path, Wainscott Stone Road, and Wainscott Road NW and along one side of the applicable portions of Daniels Hole Road, Stephen Hands Path, and Buckskill Road. Shovel test pits will be staggered on either side of the road (i.e., not directly across from one another) to increase coverage. If one side of the road is disturbed (i.e., precludes archaeological testing), shovel test pits will be excavated on only one side of the road.
- Shovel test pits are small holes (approximately 18 inches in diameter) dug by hand with shovels (i.e., no machinery) to depths of up to 3 to 4 feet below the ground surface. No shovel tests will be excavated in the areas of marked existing utilities.
- To minimize visible disturbance to the landscape and ensure that ground conditions are left in an aesthetically pleasing state, sod caps will be removed in one piece and placed on tarps while excavation proceeds. Soils excavated from shovel tests will be sifted through 0.25-inch screening over tarps (to avoid leaving soil piles). All holes will be backfilled immediately upon completion. The backfilled soils will be hand-tamped to match the pre-existing grade to minimize any post-excavation settling and the sod cap will be placed back on top of the backfilled hole. All test areas will be restored to match pre-existing conditions.
- The archaeological survey will be conducted in areas immediately adjacent to roads, where there has likely been some prior ground disturbance. Therefore, the likelihood of discovering significant archaeological finds is considered to be relatively low. However, if artifacts or other archaeological materials (e.g., lithic artifacts/stone tools, projectile points, pottery sherds, indications of a former building) are recovered from shovel tests, then additional shovel tests at closer intervals may be excavated within adjacent portions of the road right-of-way, to determine if an archaeological site is present. If any archaeological finds are observed, these will be collected and returned to the archaeologists' laboratory facility where they will be washed, identified, and inventoried in accordance with the New York Archaeological Council's *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York State*. A complete inventory of all archaeological finds will be included in the Phase I Archaeological Survey technical report for the Project, which will be provided to the Town, the NY State Historic Preservation Office, and the Bureau of Ocean Energy Management, as further described below. If significant artifacts are identified, these can be returned to the Town for permanent curation, if desired by the Town, or the Project's archaeologists would seek to identify an appropriate repository for the materials (such as a local museum or the NY State Museum).
- All archaeological survey work will be conducted within the existing right-of-way of public roads. No archaeological survey will be conducted on private property.
- No machinery or heavy equipment will be used.
- The results of survey will be incorporated in a technical report and a public report prepared by EDR for submittal to the Town, NY State Historic Preservation Office, Section 106 Consulting Parties, and the Bureau of Ocean Energy Management. The technical report will be marked "confidential – not for public disclosure" if it contains locational information for archaeological resources that may be placed at risk by disclosure.

Phase I Archaeological Survey Locations

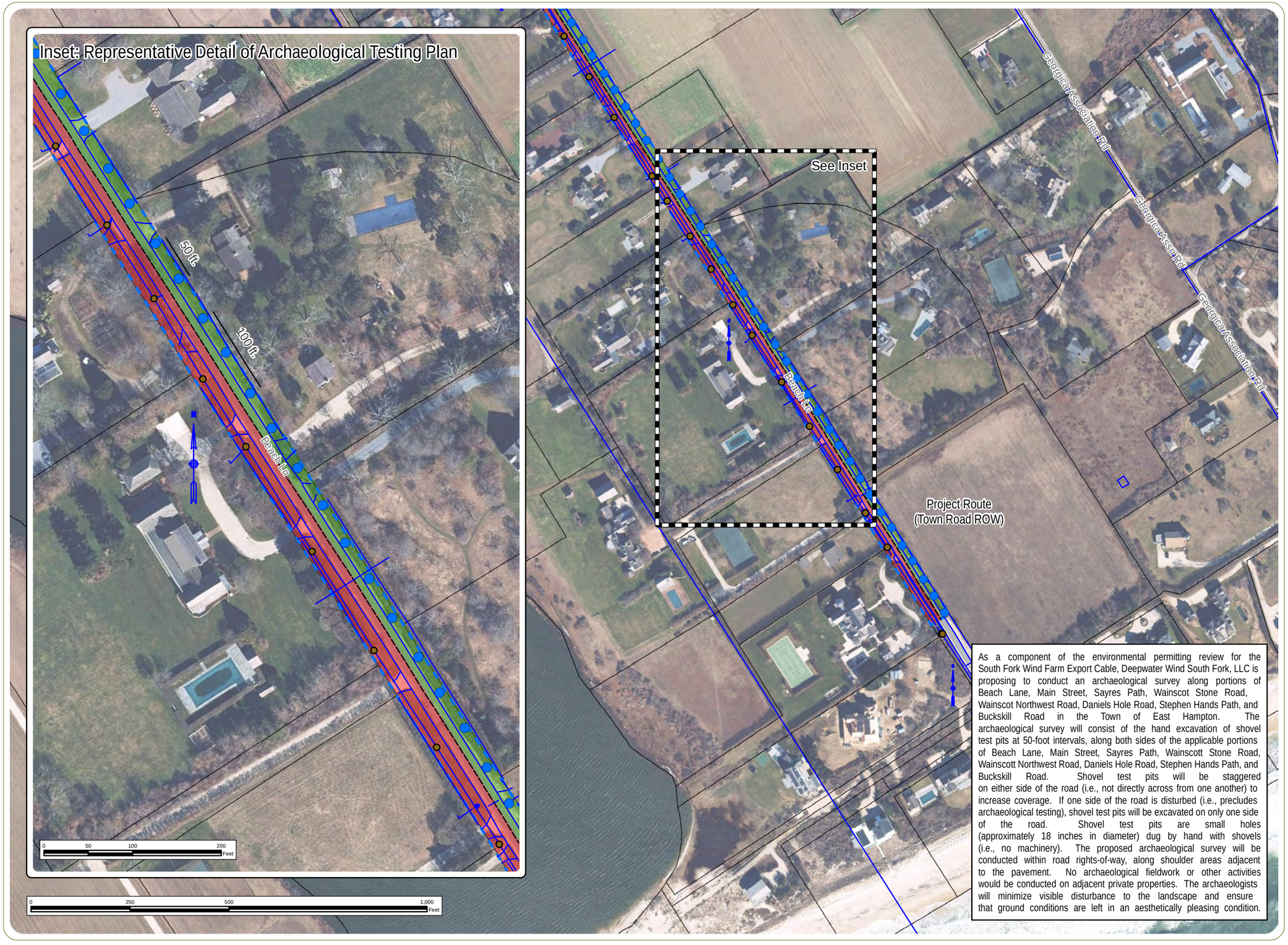
As noted above, the archaeological survey will be conducted with the public road rights-of-way along portions of Beach Lane, Main Street, Sayres Path, Wainscot Stone Road, and Wainscott NW Road along either side of the paved roadways. The attached "Archaeological Testing Plan for Beach Lane - Route A" maps indicate the areas where soil sampling within the right-of-way may occur and depict the anticipated layout of shovel tests that would be excavated within the road rights-of-way.

Logistics and Schedules

Fieldwork is anticipated to last up to 14 days, will be conducted during business hours on the weekdays and will not be conducted on holidays or during the weekends. Field crews will consist of 3-4 people. One or two vehicles would be temporarily parked adjacent to the public roadways (on the shoulder or other nearby public parking areas) during the course of the archaeological fieldwork. It is anticipated that the archaeological fieldwork will occur during the fall of 2020 (currently anticipated to begin on or about September 14, 2020); however, weather or ground conditions may affect the schedule.

If you would like any additional detail or have any questions about the proposed Phase I Archaeological Survey Work described herein, please contact Doug Pippin (dpippin@edrdpc.com) or Patrick Heaton (pheaton@edrdpc.com) at 315.471.0688.

Attachments: Archaeological Testing Plan for Beach Lane - Route A (maps)



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South Fork Export Cable - Onshore Cable & Substation

Town of East Hampton, Suffolk County, New York

Archaeological Testing Plan for Beach Lane - Route A

Sheet 1 of 6

- Proposed Shovel Test
- Water Valve
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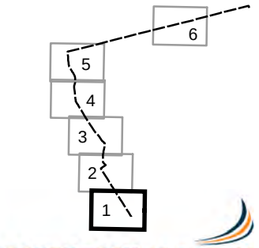
- Water Line
- SCWA Water Main
- Gas Line
- Telecom
- Buried Interconnection
- Route (within roadway)
- Beach Lane - Route A
- LIRR Road Crossing Temporary Work Area

Reconnaissance Results

- Disturbed
- Undisturbed
- Parcel Boundary



SOUTH FORK WIND FARM

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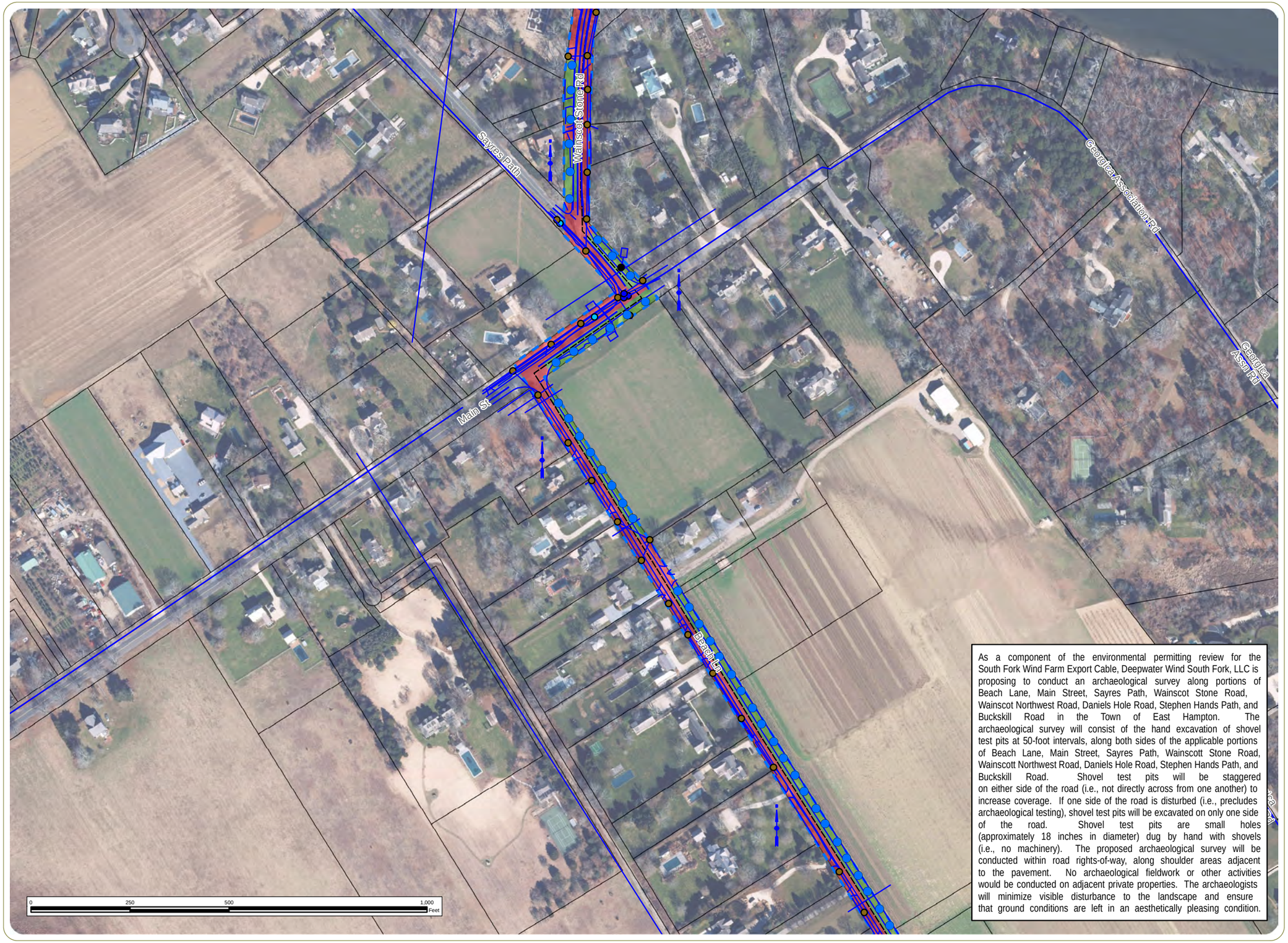
Town of East Hampton, Suffolk County, New York

Archaeological Testing Plan for Beach Lane - Route A

Sheet 2 of 6



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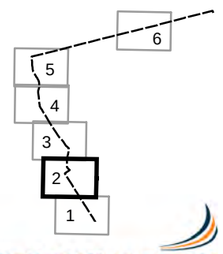

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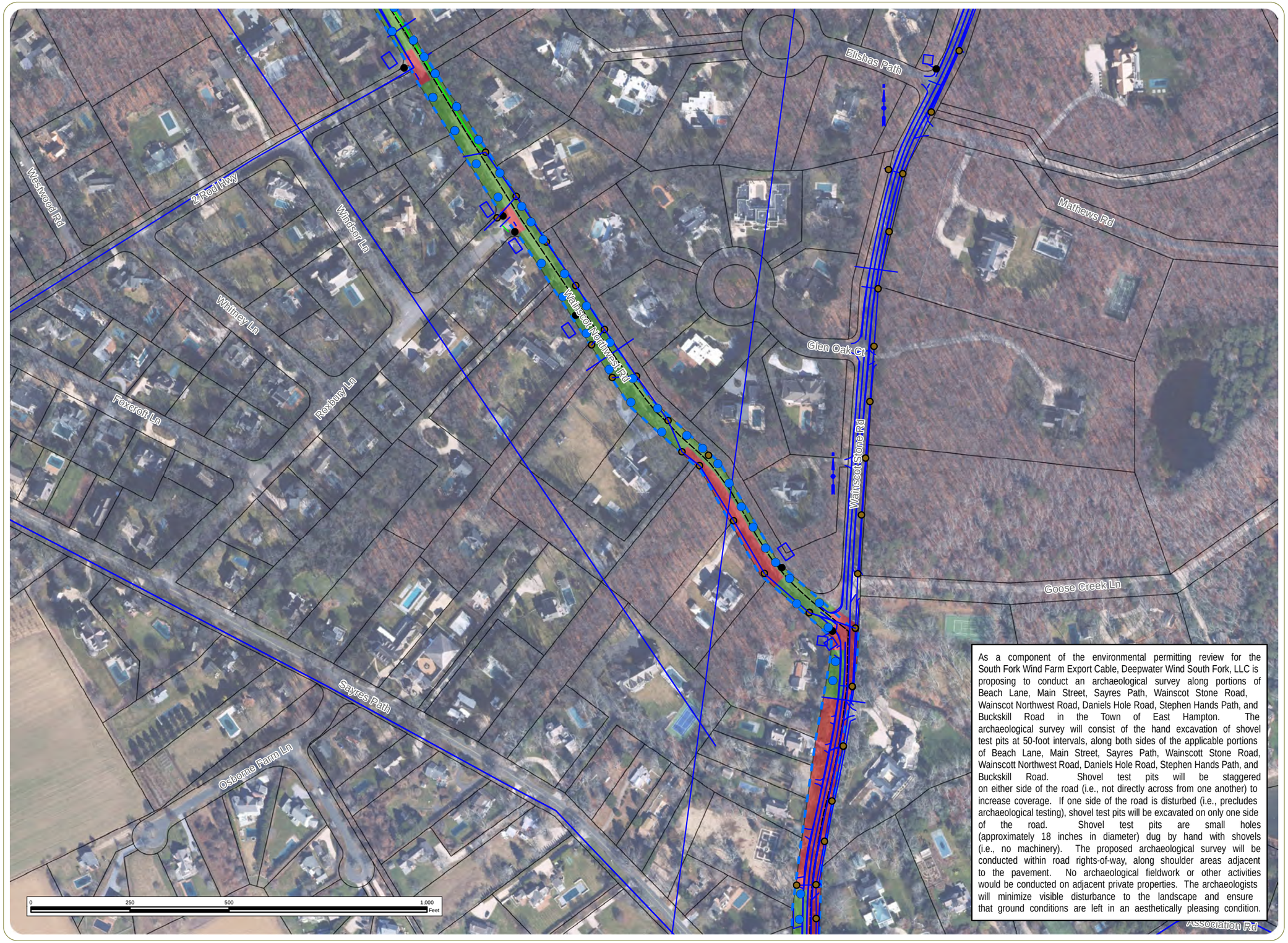
Town of East Hampton, Suffolk County, New York

Archaeological Testing Plan for Beach Lane - Route A

Sheet 3 of 6



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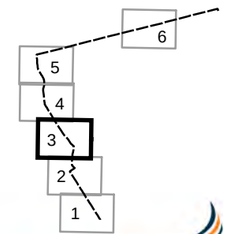

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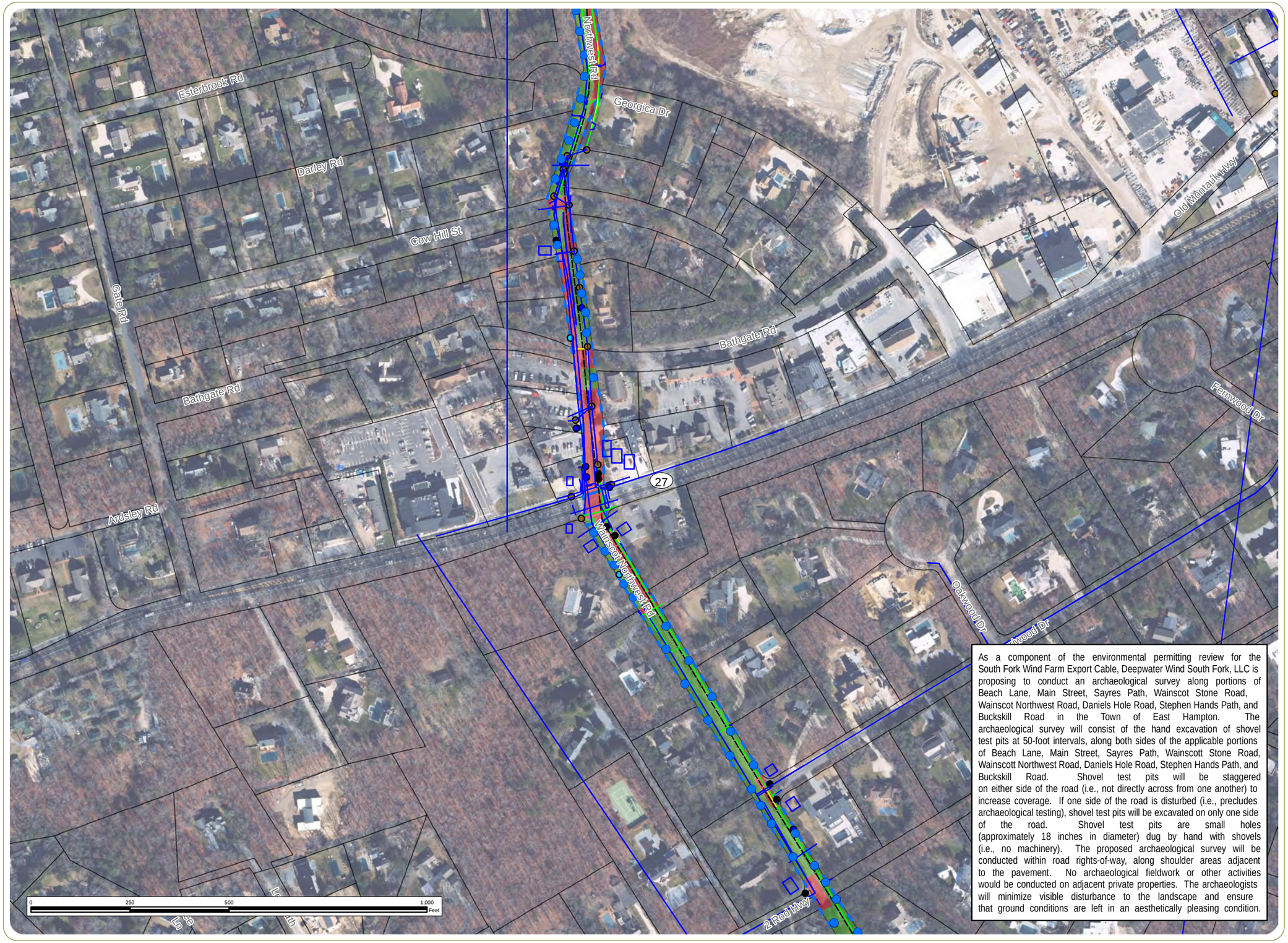
Town of East Hampton, Suffolk County, New York

Archaeological Testing Plan for Beach Lane - Route A

Sheet 4 of 6



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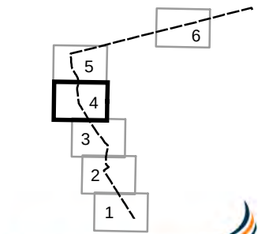

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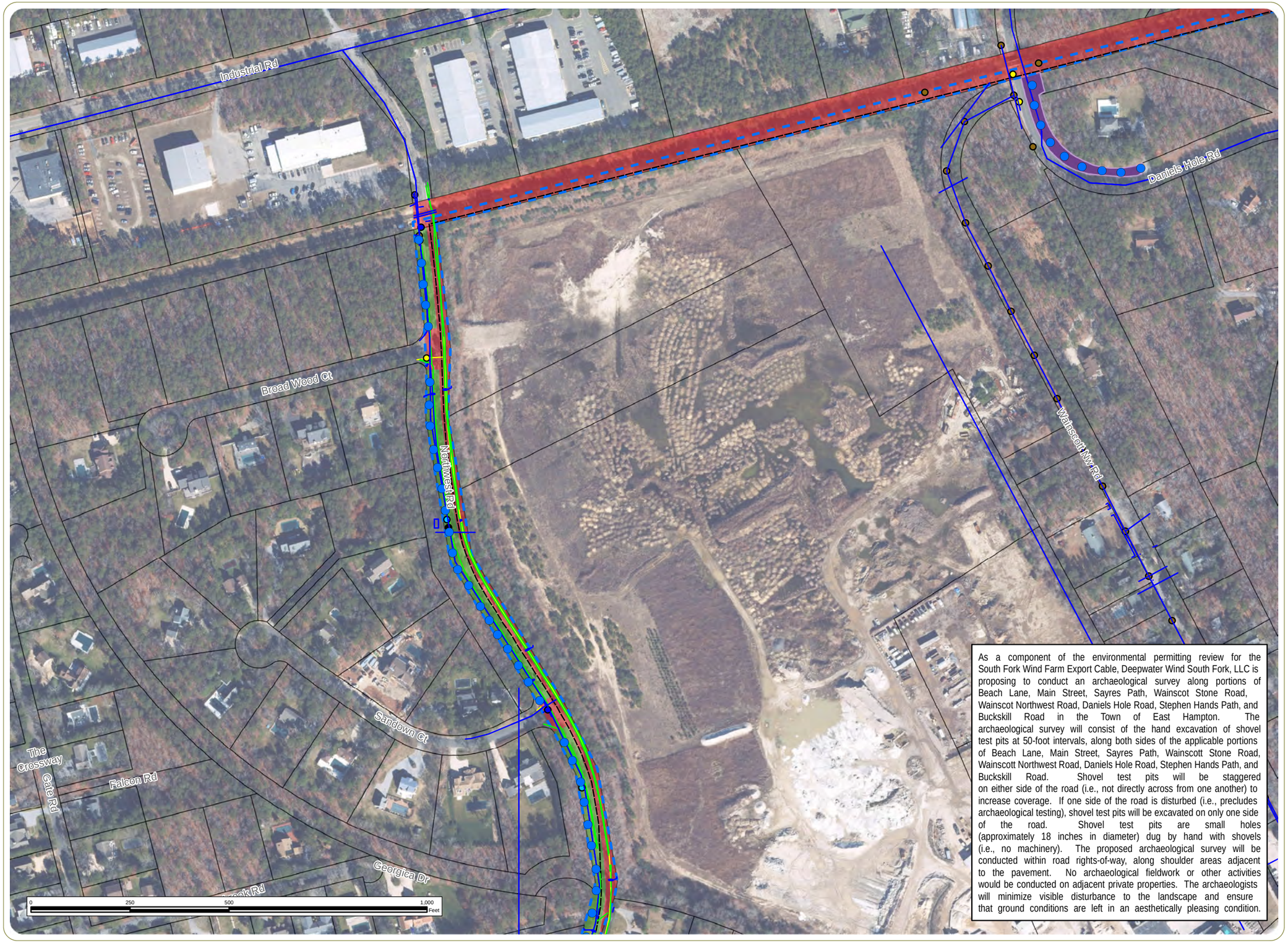
Archaeological Testing Plan for Beach Lane - Route A

Sheet 5 of 6



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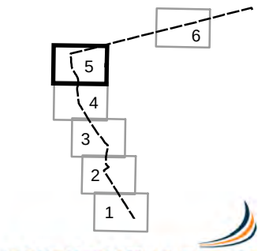

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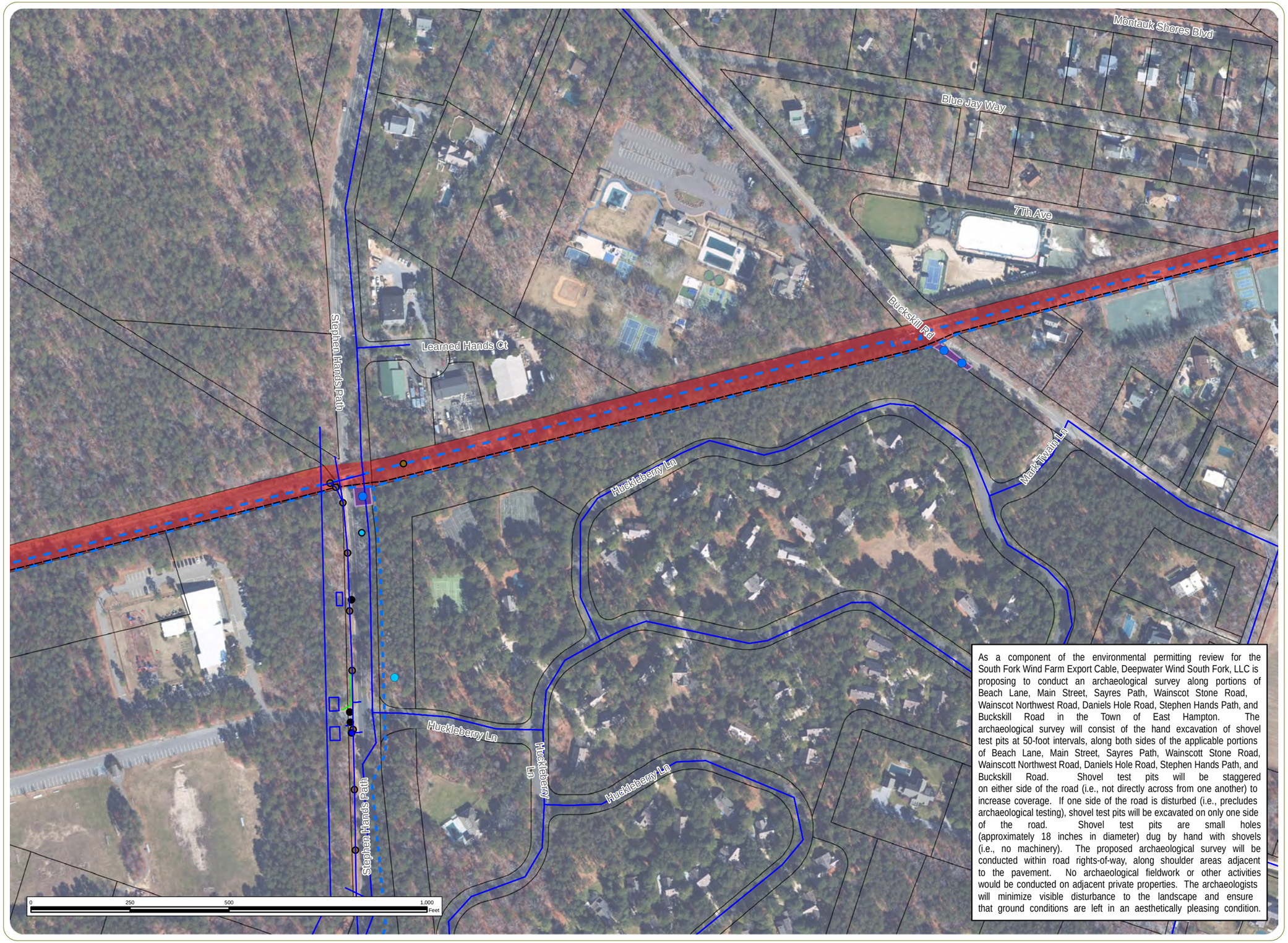
Archaeological Testing Plan for Beach Lane - Route A

Sheet 6 of 6



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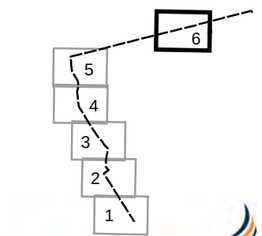

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Appendix B:
Photographs

Photograph 1

General view of Area A1 within scrubby pine and oak woodland. View to the south-southeast.

Photograph 2

General view of Area A1 within grassy shoulder bounded by residential landscaping. View to the north-northwest.

Photograph 3

General view of Area B1 within grassy shoulders bounded by residential landscaping. View to the northwest.

Photograph 4

General view of Area B1 within scrubby pine and oak woodland and grassy shoulder bounded by residential landscaping. View to the northwest.

Photograph 5

General view of Area C1 within residential lawn. View to the north.

Photograph 6

General view of Area C1 within grassy shoulder bounded by agricultural field. View to the southwest.

Photograph 7

General view of Area D1 within grassy shoulder bounded by agricultural field. View to the north-northwest.

Photograph 8

General view of Area D1 within grassy shoulder bounded by residential landscaping. View to the south-southeast.

Photograph 9

Utility disturbance within Area A1. View to the south.

Photograph 10

Driveway disturbance within Area B1. View to the southeast.

Photograph 11

Driveway and utility disturbance within Area B1. View to the southeast.

Photograph 12

Utility disturbance within Area D1. View to the north-northwest.

Photograph 13

Road cut disturbance within Area A1. View to the north.

Photograph 14

Landscaping and utility disturbance within Area B1. View to the northwest.

Photograph 15

Active construction disturbance within Area C1. View to the north.

Photograph 16

Parking lot disturbance within Area C1. View to the northeast.

Photograph 17

Shovel testing exclusion due to landscaping extending up to roadway in Area B1. View to the south.

Photograph 18

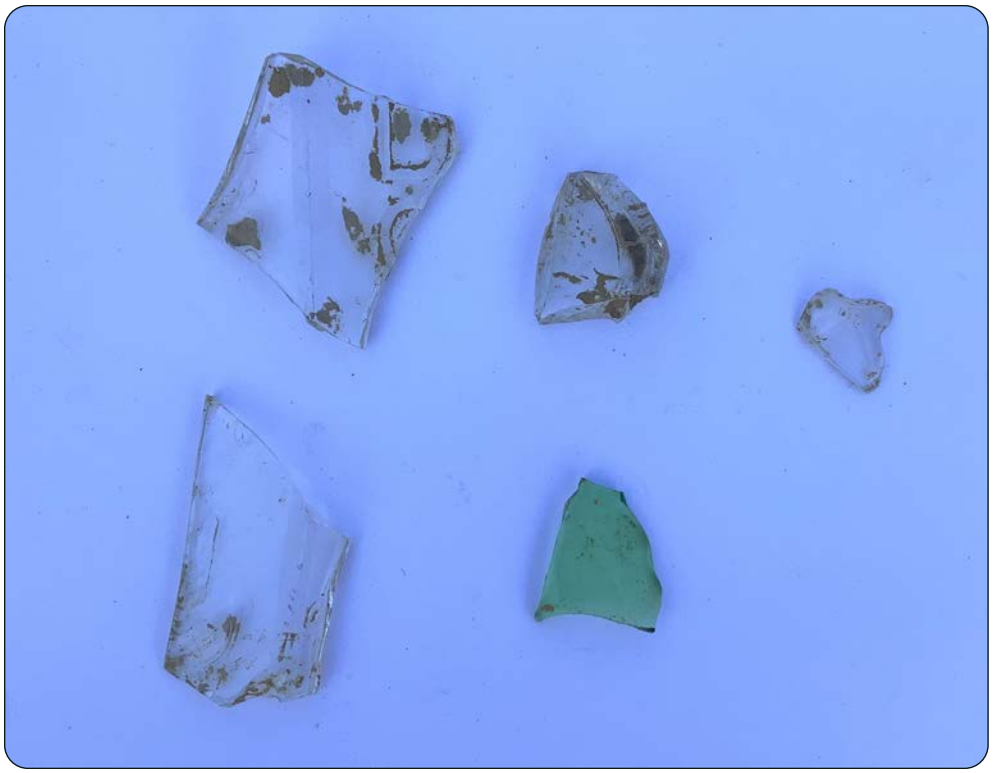
Discarded early-to-mid-twentieth-century bottle from Shovel Test A1.25.

Photograph 19

Discarded early-to-mid-twentieth-century brick, mortar, and ceramic tile fragments from Shovel Test B1.44.

Photograph 20

Discarded late-nineteenth-century blue transfer-printed whiteware sherd from Shovel Test D1.31.



Photograph 21

Discarded early-to-mid-twentieth-century colorless and green vessel glass shards from Shovel Test D1.34.

Photograph 22

Representative soil profile in the northern, sandier portion of the Survey Area (Shovel Test B1.21). View to the west.

Photograph 23

Representative soil profile in the northern, sandier portion of the Survey Area with eluviated layer (Shovel Test A1.18). View to the west.

Photograph 24

Representative soil profile in the southern, siltier portion of the Survey Area (Shovel Test D1.10). View to the south.

Appendix C:
Shovel Test Records

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.01	I	0	28	10YR 5/2, Grayish Brown	Sandy Loam	No Cultural Material (NCM)	None
	II	28	50	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	50	100	10YR 7/4, Very Pale Brown	Sand	NCM	60% rock
A1.02	I	0	6	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	6	12	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	12	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.03	I	0	19	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	19	54	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	54	100	10YR 7/4, Very Pale Brown	Sand	NCM	60% rock
A1.04	I	0	17	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	17	26	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	26	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.05	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	18	36	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	36	82	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	82	100	10YR 7/3, Very Pale Brown	Sandy Loam	NCM	Very compact, 20% rock
A1.06	I	0	7	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	7	15	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	15	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.07	I	0	23	10YR 6/4, Light Yellowish Brown	Sand	Modern Material (not collected)	Mottled with 10YR 5/8, Yellowish Brown; asphalt fragments and modern trash
	II	23	32	10YR 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	32	100	10YR 5/8, Yellowish Brown	Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.08	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	18	43	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	43	72	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	72	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
A1.09	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	18	47	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	47	85	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	85	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse
A1.10	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	10	25	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	25	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.11	I	0	16	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	16	50	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	50	100	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
A1.12	I	0	9	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	9	15	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	15	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.13	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	18	46	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	46	88	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	88	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.14	I	0	9	10YR 3/2, Very Dark Grayish Brown	Sand	Modern Material (not collected)	Modern trash at top
	II	9	19	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	19	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.15	I	0	14	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	14	42	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	42	100	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
A1.16	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	12	18	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	18	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.17	I	0	14	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	14	37	10YR 5/6, Yellowish Brown	Sand	NCM	None
	III	37	100	7.5YR 5/6, Strong Brown	Sand	NCM	65% rock, dry coarse sand
A1.18	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	10	29	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	29	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.19	I	0	17	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	17	34	10YR 5/6, Yellowish Brown	Sand	NCM	None
	III	34	75	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	75	100	7.5YR 5/6, Strong Brown	Sand	NCM	Very coarse

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.20	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sand	Modern Material (not collected)	Automobile safety glass
	II	12	24	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	24	70	10YR 5/8, Yellowish Brown	Sand	NCM	None
	IV	70	100	10YR 6/8, Brownish Yellow	Sand	NCM	None
A1.21	I	0	20	10YR 5/1, Gray	Sandy Loam	NCM	None
	II	20	36	10YR 5/6, Yellowish Brown	Sand	NCM	None
	III	36	80	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	80	100	7.5YR 5/6, Strong Brown	Sand	NCM	Very coarse
A1.22	I	0	9	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	9	20	2.5Y 6/2, Light Brownish Gray	Sand	NCM	Ae
	III	20	62	10YR 5/8, Yellowish Brown	Sand	NCM	Root impasse
A1.23	I	0	24	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	24	48	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	48	84	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	84	100	10YR 5/6, Yellowish Brown	Sand	NCM	Very coarse
A1.24	I	0	16	10YR 3/3, Dark Brown	Sand	Modern Material (not collected)	Road runoff, modern trash, Styrofoam
	II	16	50	10YR 4/3, Brown	Sand	Modern Material (not collected)	Road runoff, modern trash, asphalt chunks
	III	50	57	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A
	IV	57	100	10YR 5/8, Yellowish Brown	Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.25	I	0	30	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	Mixed with 10YR 5/3, Brown
	II	30	73	10YR 4/3, Brown	Loam	Historic-Period Artifacts	With lenses of 10YR 2/2, Very Dark Brown and 10YR 7/3, Very Pale Brown, very compact, one early to mid-20th century bottle photographed and discarded
	III	73	100	10YR 5/4, Yellowish Brown	Loam	Modern Material (not collected)	Very compact, there is a rebar or steel cable lying flat (NW-SE) at the base
A1.26	I	0	46	10YR 4/3, Brown	Sand	Modern Material (not collected)	Mottled with 10YR 3/2, Very Dark Grayish Brown and 10YR 5/8, Yellowish Brown; glass and asphalt
	II	46	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.27	I	0	17	2.5Y 4/4, Olive Brown	Sand	Modern Material (not collected)	Road fill, asphalt chunks, modern glass
	II	17	20	10YR 2/2, Very Dark Brown	Sand	Modern Material (not collected)	Asphalt
	III	20	100	10YR 5/8, Yellowish Brown	Sand	Modern Material (not collected)	Mottled with 2.5 Y 5/4, Light Olive Brown, asphalt & glass frags
A1.28	I	0	10	10YR 5/3, Brown	Sandy Loam	NCM	None
	II	10	17	10YR 7/1, Light Gray	Sandy Loam	NCM	None
	III	17	46	10YR 6/8, Brownish Yellow	Sand	NCM	None
	IV	46	100	10YR 7/3, Very Pale Brown	Sand	NCM	None
A1.29	I	0	14	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	14	25	2.5Y 6/2, Light Brownish Gray	Sand	NCM	None
	III	25	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
A1.30	I	0	15	10YR 5/3, Brown	Sandy Loam	NCM	30% rock
	II	15	38	10YR 5/8, Yellowish Brown	Sand	NCM	30% rock
	III	38	100	10YR 7/4, Very Pale Brown	Sand	NCM	50% rock
A1.31	I	0	10	10YR 3/3, Dark Brown	Sand	Modern Material (not collected)	Landscaped A; glass and asphalt
	II	10	100	10YR 5/8, Yellowish Brown	Sand	Modern Material (not collected)	Road fill; mottled with 10YR 3/3, Dark Brown; asphalt

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.32	I	0	59	10YR 5/8, Yellowish Brown	Sand	Modern Material (not collected)	Road fill lensed with 10YR 3/2, Very Dark Grayish Brown, asphalt, plastic, metal
	II	59	100	10YR 5/8, Yellowish Brown	Sand	NCM	Compacted
A1.33	I	0	22	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	30% rock
	II	22	48	10YR 6/8, Brownish Yellow	Sand	NCM	30% rock
	III	48	100	10YR 7/4, Very Pale Brown	Sand	NCM	50% rock, dry coarse sand
A1.34	I	0	20	10YR 5/3, Brown	Sandy Loam	NCM	None
	II	20	42	10YR 5/6, Yellowish Brown	Sand	NCM	None
	III	42	100	10YR 7/4, Very Pale Brown	Sand	NCM	50% rock
A1.35	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Landscape A
	II	10	15	10YR 6/4, Light Yellowish Brown	Sand	NCM	Landscape fill
	III	15	27	10YR 3/1, Very Dark Gray	Sand	NCM	Buried A
	IV	27	100	10YR 5/8, Yellowish Brown	Sand	NCM	B
A1.36	I	0	12	10YR 4/2, Dark Grayish Brown	Sand	NCM	With lenses of 10YR 5/3, Brown at base, coarse sand, road fill, 50% rock
	II	12	27	10YR 4/1, Dark Gray	Sandy Loam	NCM	Compact
	III	27	48	10YR 6/8, Brownish Yellow	Sand	NCM	None
	IV	48	80	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	V	80	100	10YR 7/6, Yellow	Sand	NCM	Very coarse sand
A1.37	I	0	16	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	Landscape A
	II	16	66	10YR 5/6, Yellowish Brown	Sand	Modern Material (not collected)	Fine sand fill, compacted, modern materials: plastic, glass, 1962 dime
	III	66	100	10YR 5/6, Yellowish Brown	Sand	NCM	Natural subsoil

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
A1.38	I	0	15	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	15	19	10YR 7/1, Light Gray	Sandy Loam	NCM	None
	III	19	35	10YR 6/6, Brownish Yellow	Sand	NCM	None
	IV	35	100	10YR 7/3, Very Pale Brown	Loamy Sand	NCM	Very compact
A1.39	I	0	17	10YR 2/2, Very Dark Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; modern trash and clam shells
	II	17	28	10YR 5/6, Yellowish Brown	Sand	NCM	Fill
	III	28	70	10YR 4/6, Dark Yellowish Brown	Sand	NCM	Fill with non-native pebbles; wet
	IV	70	80	2.5Y 4/2, Dark Grayish Brown	Sand	Modern Material (not collected)	Fill; stinky; modern glass
	V	80	100	2.5Y 4/3, Olive Brown	Sand	NCM	Fill
B1.01	I	0	8	10YR 5/2, Grayish Brown	Sand	NCM	None
	II	8	42	10YR 6/6, Brownish Yellow	Sand	NCM	With lenses of 5YR 5/6, Yellowish Red and 10YR 4/1, Dark Gray, coarse sand and 50% rock
	III	42	58	10YR 6/8, Brownish Yellow	Sand	NCM	None
	IV	58	100	10YR 6/4, Light Yellowish Brown	Loamy Sand	NCM	None
B1.02	I	0	13	10YR 4/2, Dark Grayish Brown	Sand	Modern Material (not collected)	Road fill, modern trash - plastic, Styrofoam
	II	13	20	2.5Y 6/2, Light Brownish Gray	Sand	NCM	Ae
	III	20	100	10YR 5/8, Yellowish Brown	Sand	NCM	B, very clean, no stones whatsoever
B1.03	I	0	14	10YR 5/3, Brown	Sandy Loam	NCM	None
	II	14	46	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	46	85	10YR 7/4, Very Pale Brown	Loamy Sand	NCM	STP stopped at unmarked buried utility (PVC pipe running parallel to road), utility not damaged in any way, utility likely bored since soil profile is undisturbed

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.04	I	0	11	10YR 4/2, Dark Grayish Brown	Sand	NCM	Landscaped A
	II	11	49	10YR 4/3, Brown	Sand	Modern Material (not collected)	Fill; asphalt
	III	49	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
B1.05	I	0	18	10YR 4/3, Brown	Sandy Loam	NCM	Alternating layers with 10YR 5/6, Yellowish Brown, 60% rock
	II	18	80	10YR 4/6, Dark Yellowish Brown	Loamy Sand	NCM	With 10YR 8/2, Very Pale Brown mottles
	III	80	100	10YR 7/2, Light Gray	Sand	NCM	With 10YR 4/6, Dark Yellowish Brown mottles
B1.06	I	0	18	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	None
	II	18	64	10YR 5/8, Yellowish Brown	Sand	NCM	Root impasse
B1.07	I	0	17	10YR 5/2, Grayish Brown	Sand	NCM	None
	II	17	30	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	30	52	10YR 4/2, Dark Grayish Brown	Sand	NCM	None
	IV	52	100	10YR 7/4, Very Pale Brown	Loamy Sand	NCM	None
B1.08	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; modern nail
	II	10	38	10YR 5/8, Yellowish Brown	Sand	NCM	Redeposited A
	III	38	45	10YR 5/8, Yellowish Brown	Sand	NCM	10YR 5/1, Gray; oxidized; compact fill - impasse
B1.09	I	0	15	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	15	42	10YR 5/8, Yellowish Brown	Loamy Sand	NCM	Very compact
	III	42	80	10YR 7/4, Very Pale Brown	Loamy Sand	NCM	50% rock, very compact
	IV	80	100	10YR 7/3, Very Pale Brown	Sand	NCM	Coarse sand
B1.10	I	0	20	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	20	80	10YR 6/8, Brownish Yellow	Sand	NCM	65% rock
	III	80	100	10YR 7/3, Very Pale Brown	Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.11	I	0	7	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	7	12	10YR 7/1, Light Gray	Sandy Loam	NCM	None
	III	12	45	10YR 6/8, Brownish Yellow	Sand	NCM	None
	IV	45	78	10YR 7/4, Very Pale Brown	Sand	NCM	50% rock
	V	78	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.12	I	0	8	10YR 3/2, Very Dark Grayish Brown	Sand	Modern Material (not collected)	Landscape A, plastic trash
	II	8	100	10YR 5/8, Yellowish Brown	Sand	NCM	Road Fill mottled with 10YR 4/2, Dark Grayish Brown Sa at last 10cm
B1.13	I	0	28	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	Mottled with 10YR 5/6, Yellowish Brown and 10YR 7/2, Light Gray
	II	28	55	10YR 5/8, Yellowish Brown	Loamy Sand	NCM	None
	III	55	82	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	82	100	10YR 7/3, Very Pale Brown	Sand	NCM	None
B1.14	I	0	10	10YR 3/1, Very Dark Gray	Sandy Loam	NCM	Landscaped A
	II	10	100	10YR 5/8, Yellowish Brown	Sand	NCM	Fill with pockets of 10YR 2/2, Very Dark Brown sand; wet
B1.15	I	0	23	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	23	55	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	55	78	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	78	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.16	I	0	13	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	None
	II	13	34	10YR 5/8, Yellowish Brown	Sand	NCM	Road fill mottled with landscape
	III	34	70	10YR 5/8, Yellowish Brown	Sand	NCM	Large cobbles
	IV	70	100	10YR 6/8, Brownish Yellow	Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.17	I	0	18	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	18	45	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	45	71	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	71	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.18	I	0	24	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscaped A
	II	24	73	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil
	III	73	100	10YR 5/8, Yellowish Brown	Sand	NCM	Natural; no rocks
B1.19	I	0	18	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	18	40	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	40	80	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	80	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.20	I	0	25	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	25	50	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	50	85	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	85	100	10YR 7/3, Very Pale Brown	Sand	NCM	Coarse sand
B1.21	I	0	15	10YR 4/3, Brown	Sandy Loam	NCM	Landscape A
	II	15	19	10YR 2/2, Very Dark Brown	Sand	NCM	Buried A
	III	19	25	2.5Y 6/2, Light Brownish Gray	Sand	NCM	Ae
	IV	25	55	10YR 5/8, Yellowish Brown	Sand	NCM	None
	V	55	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
B1.22	I	0	18	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	18	48	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	48	81	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	81	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.23	I	0	21	10YR 5/3, Brown	Sand	NCM	Landscaped A; mottling with Stratum II
	II	21	60	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil
	III	60	100	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil
B1.24	I	0	18	10YR 5/1, Gray	Sandy Loam	NCM	None
	II	18	48	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	48	78	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	78	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.25	I	0	10	10YR 4/3, Brown	Sand	Modern Material (not collected)	Landscaped A; plastic
	II	10	20	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A
	III	20	100	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil
B1.26	I	0	20	10YR 5/3, Brown	Sandy Loam	NCM	None
	II	20	48	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	48	78	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock, coarse sand
	IV	78	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand
B1.27	I	0	12	10YR 4/3, Brown	Sandy Loam	NCM	Landscape A
	II	12	28	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Fill
	III	28	60	10YR 5/8, Yellowish Brown	Sand	NCM	B
	IV	60	100	2.5Y 6/6, Olive Yellow	Sand	NCM	C
B1.28	I	0	15	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	None
	II	15	52	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	52	79	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	79	100	10YR 7/3, Very Pale Brown	Sand	NCM	Very coarse sand

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.29	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Ao horizon
	II	12	23	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	III	23	60	10YR 5/8, Yellowish Brown	Sand	NCM	Very few rocks; root impasse
B1.30	I	0	14	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	14	49	10YR 5/6, Yellowish Brown	Sand	NCM	None
	III	49	80	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	80	100	10YR 7/3, Very Pale Brown	Sand	NCM	None
B1.31	I	0	10	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Road overburden; plastic
	II	10	15	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A
	III	15	20	2.5Y 6/2, Light Brownish Gray	Sand	NCM	E horizon
	IV	20	70	10YR 5/8, Yellowish Brown	Sand	NCM	Subsoil
	V	70	100	10YR 5/8, Yellowish Brown	Sand	NCM	Coarse sand
B1.32	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	18	64	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	64	100	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
B1.33	I	0	15	10YR 4/2, Dark Grayish Brown	Sand	Modern Material (not collected)	One modern trash
	II	15	100	10YR 5/8, Yellowish Brown	Sand	NCM	No rocks at all
B1.34	I	0	30	10YR 5/2, Grayish Brown	Sandy Loam	NCM	Mixed with 10YR 5/6, Yellowish Brown, very gravelly 65% rock, root impasse covering entire floor at 30 cmbgs
B1.35	I	0	20	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	20	70	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	III	70	100	10YR 7/3, Very Pale Brown	Sand	NCM	40% rock picking up with depth, very coarse sand

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.36	I	0	15	10YR 2/2, Very Dark Brown	Sandy Loam	NCM	Landscaped A
	II	15	20	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried topsoil
	III	20	100	10YR 5/8, Yellowish Brown	Sand	NCM	Subsoil; no rocks
B1.37	I	0	18	10YR 5/2, Grayish Brown	Sandy Loam	NCM	Mottled with 10YR 6/8, Brownish Yellow and 10YR 6/1, Gray
	II	18	40	7.5YR 6/8, Reddish Yellow	Sand	NCM	None
	III	40	84	10YR 6/4, Light Yellowish Brown	Sand	NCM	Coarse sand
	IV	84	100	10YR 6/3, Pale Brown	Sand	NCM	Very coarse sand, 65% rock
B1.38	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscape A - modern trash
	II	12	16	10YR 5/3, Brown	Sand	NCM	Ae
	III	16	100	10YR 5/8, Yellowish Brown	Sand	NCM	No rocks at all
B1.39	I	0	28	10YR 5/3, Brown	Sandy Loam	NCM	None
	II	28	48	7.5YR 6/8, Reddish Yellow	Sand	NCM	None
	III	48	79	10YR 6/4, Light Yellowish Brown	Sand	NCM	Coarse sand
	IV	79	100	10YR 6/3, Pale Brown	Sand	NCM	Very coarse sand, 65% rock
B1.40	I	0	20	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; modern plastic, metal, glass
	II	20	70	10YR 5/8, Yellowish Brown	Sand	NCM	No rocks
	III	70	85	10YR 5/8, Yellowish Brown	Sand	NCM	None
	IV	85	100	10YR 5/8, Yellowish Brown	Sand	NCM	Coarse sand
B1.41	I	0	26	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Compact and lots of modern trash
	II	26	34	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	34	62	10YR 5/4, Yellowish Brown	Sand	NCM	None
	IV	62	81	10YR 7/3, Very Pale Brown	Sand	NCM	Coarse sand, 65% rock
	V	81	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	Compact

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.42	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sand	Modern Material (not collected)	Modern trash plastic, glass, mortar
	II	12	30	10YR 5/3, Brown	Sand	NCM	Ae, some pebbles
	III	30	77	10YR 5/8, Yellowish Brown	Sand	NCM	B, no rocks
	IV	77	100	10YR 5/8, Yellowish Brown	Sand	NCM	B
B1.43	I	0	18	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	18	45	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	45	82	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
	IV	82	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
B1.44	I	0	12	10YR 4/3, Brown	Sand	Historic-Period Artifacts	Several brick (one inscribed "SAG..."), tile, and mortar fragments (likely all early to mid-20th century) recovered at base of stratum (compact road overburden); artifacts photographed and discarded; modern vessel glass also recovered
	II	12	25	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A
	III	25	70	10YR 5/8, Yellowish Brown	Sand	NCM	Subsoil
	IV	70	100	10YR 5/8, Yellowish Brown	Sand	NCM	Subsoil
B1.45	I	0	10	10YR 4/1, Dark Gray	Sandy Loam	NCM	None
	II	10	14	10YR 7/1, Light Gray	Sandy Loam	NCM	None
	III	14	38	10YR 5/8, Yellowish Brown	Sand	NCM	None
	IV	38	100	10YR 7/4, Very Pale Brown	Sand	NCM	65% rock
B1.46	I	0	14	10YR 4/3, Brown	Sand	Modern Material (not collected)	Modern trash plastic
	II	14	18	10YR 6/2, Light Brownish Gray	Sand	NCM	Ae
	III	18	40	10YR 5/8, Yellowish Brown	Sand	NCM	B, very rooty, root impasse

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
B1.47	I	0	14	10YR 5/2, Grayish Brown	Sandy Loam	NCM	None
	II	14	48	10YR 5/6, Yellowish Brown	Loamy Sand	NCM	None
	III	48	75	10YR 7/4, Very Pale Brown	Loamy Sand	NCM	50% rock, very compact
	IV	75	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	Compact
B1.48	I	0	12	10YR 4/3, Brown	Sand	Modern Material (not collected)	Road overburden; screws; compact
	II	12	17	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A; compact
	III	17	77	10YR 5/8, Yellowish Brown	Sand	NCM	No rocks
	IV	77	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
B1.49	I	0	14	10YR 4/3, Brown	Sand	Modern Material (not collected)	Road overburden plastic, asphalt
	II	14	27	10YR 2/2, Very Dark Brown	Sandy Loam	Modern Material (not collected)	Lenses of 10YR 4/3, Brown, Modern trash plastic, brick
	III	27	41	10YR 5/4, Yellowish Brown	Sand	Modern Material (not collected)	Asphalt
	IV	41	100	10YR 5/8, Yellowish Brown	Sand	Modern Material (not collected)	Redeposited subsoil? Asphalt, plastics
B1.50	I	0	35	10YR 3/1, Very Dark Gray	Sandy Loam	NCM	None
	II	35	60	10YR 5/6, Yellowish Brown	Loamy Sand	NCM	None
	III	60	100	10YR 7/3, Very Pale Brown	Loamy Sand	NCM	None
B1.51	I	0	50	10YR 2/2, Very Dark Brown	Sandy Loam	NCM	Road overburden; compact
	II	50	100	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil
B1.52	I	0	100	10YR 5/3, Brown	Sand	NCM	With lenses of 10YR 5/4, Yellowish Brown and mottles of 10YR 3/2, Very Dark Grayish Brown, 30% rock
C1.01	I	0	19	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscape A, brick, asphalt, glass, mortar fragments
	II	19	31	2.5Y 5/3, Light Olive Brown	Sandy Loam	NCM	Fill, compact
	III	31	46	10YR 4/2, Dark Grayish Brown	Sand	Modern Material (not collected)	Fill, coal chunks
	IV	46	100	10YR 5/8, Yellowish Brown	Sand	NCM	Natural subsoil

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
C1.02	I	0	20	10YR 4/2, Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	With large asphalt chunks and 30% rock
	II	20	44	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	With mottles of 10YR 7/2, Light Gray
	III	44	60	10YR 5/3, Brown	Sandy Loam	NCM	None
	IV	60	85	10YR 5/8, Yellowish Brown	Sand	NCM	None
	V	85	100	10YR 6/3, Pale Brown	Sand	NCM	Very coarse sand
C1.03	I	0	20	10YR 4/3, Brown	Sandy Loam	NCM	With 10YR 7/1, Light Gray and 10YR 6/8, Brownish Yellow lenses
	II	20	36	10YR 3/3, Dark Brown	Sandy Loam	NCM	None
	III	36	55	10YR 6/8, Brownish Yellow	Sand	NCM	None
	IV	55	83	10YR 5/4, Yellowish Brown	Sand	NCM	None
	V	83	100	10YR 6/3, Pale Brown	Sand	NCM	Coarse sand
C1.04	I	0	13	10YR 3/3, Dark Brown	Sandy Loam	NCM	Landscaped A
	II	13	60	10YR 5/6, Yellowish Brown	Sand	Modern Material (not collected)	Fill; alternating bands of 10YR 5/6, Yellowish Brown sand/coal ash/coal with modern nails and glass
	III	60	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
C1.05	I	0	35	10YR 3/3, Dark Brown	Sandy Loam	NCM	With large lens of 10YR 6/8, Brownish Yellow in the middle
	II	35	78	10YR 6/8, Brownish Yellow	Sand	NCM	None
	III	78	100	10YR 6/3, Pale Brown	Sand	NCM	Coarse sand
C1.06	I	0	18	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; coal and glass
	II	18	28	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Buried A
	III	28	72	10YR 5/8, Yellowish Brown	Sand	NCM	B horizon
	IV	72	100	10YR 6/6, Brownish Yellow	Sand	NCM	C horizon

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
C1.07	I	0	37	10YR 5/2, Grayish Brown	Sandy Loam	Modern Material (not collected)	Mixed with 10YR 6/4, Light Yellowish Brown and 10YR 3/1, Very Dark Gray and 10YR 6/8, Brownish Yellow, includes chunks of asphalt (20%)
	II	37	47	10YR 2/2, Very Dark Brown	Sandy Loam	Modern Material (not collected)	Asphalt lens in the south half (broken up), north half is solid asphalt
	III	47	74	10YR 6/4, Light Yellowish Brown	Sandy Loam	NCM	Compact; excavation of the STP stopped at 60 cmbgs, beyond that was angered using the 4" bucket auger
	IV	74	150	10YR 5/2, Grayish Brown	Loamy Sand	NCM	None
C1.08	I	0	17	10YR 4/3, Brown	Sand	Modern Material (not collected)	Landscaped A; mirror glass
	II	17	64	10YR 5/8, Yellowish Brown	Sand	NCM	B horizon
	III	64	100	2.5Y 5/4, Light Olive Brown	Sand	NCM	C horizon; fine sand
C1.09	I	0	15	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; slag and plastic
	II	15	73	10YR 5/8, Yellowish Brown	Sand	NCM	None
	III	73	100	2.5Y 6/6, Olive Yellow	Sand	NCM	Damp and sticky
C1.10	I	0	30	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	None
	II	30	80	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	None
	III	80	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
C1.11	I	0	53	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Landscape A/fill- glass, coal
	II	53	100	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	Fill mottled with Stratum I
C1.12	I	0	20	10YR 4/2, Dark Grayish Brown	Loamy Sand	Modern Material (not collected)	Fill layer with modern glass and plastic
	II	20	56	10YR 4/3, Brown	Loamy Sand	Modern Material (not collected)	Plastic throughout
	III	56	83	10YR 3/3, Dark Brown	Sandy Loam	NCM	Intact A horizon
	IV	83	100	10YR 6/8, Brownish Yellow	Loamy Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
C1.13	I	0	36	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; coal, plastic, brick, and colorless and brown beer glass
	II	36	75	10YR 6/6, Brownish Yellow	Sand	NCM	Natural subsoil; compact
	III	75	100	2.5Y 6/6, Olive Yellow	Sand	NCM	Natural subsoil
C1.14	I	0	38	10YR 5/3, Brown	Loam	NCM	Compact
	II	38	74	10YR 5/4, Yellowish Brown	Loam	NCM	Compact
	III	74	100	10YR 6/3, Pale Brown	Loam	NCM	Compact
D1.01	I	0	9	10YR 3/1, Very Dark Gray	Sandy Loam	NCM	Landscape A
	II	9	77	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Fill mottled with 2.5Y 5/3, Light Olive Brown sandy clay loam, modern green glass, plastic
	III	77	100	10YR 5/6, Yellowish Brown	Sand	NCM	Sterile sub
D1.02	I	0	12	10YR 3/1, Very Dark Gray	Sandy Loam	NCM	Modern sod layer
	II	12	45	10YR 4/3, Brown	Sandy Loam	NCM	None
	III	45	100	10YR 6/4, Light Yellowish Brown	Loam	NCM	None
D1.03	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Sod fill
	II	12	47	10YR 4/3, Brown	Sandy Loam	NCM	Ap horizon
	III	47	58	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	IV	58	90	10YR 5/2, Grayish Brown	Loam	NCM	None
	V	90	100	10YR 6/6, Brownish Yellow	Loam	NCM	None
D1.04	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; modern plastic, nail, and green beer glass
	II	10	47	10YR 4/4, Dark Yellowish Brown	Sandy Loam	NCM	Buried plowzone
	III	47	68	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	Truncated (by plowzone) B horizon
	IV	68	100	2.5Y 5/4, Light Olive Brown	Sand	NCM	Fine sand

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.05	I	0	15	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	25% rock
	II	15	50	10YR 4/3, Brown	Sandy Loam	NCM	Ap horizon
	III	50	80	10YR 6/4, Light Yellowish Brown	Loamy Sand	NCM	None
	IV	80	100	7.5YR 5/6, Strong Brown	Sand	NCM	50% rock
D1.06	I	0	14	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscape A, modern glass
	II	14	44	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Modern plastic, glass
	III	44	57	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	Truncated B
	IV	57	100	2.5Y 5/3, Light Olive Brown	Sandy Loam	NCM	C
D1.07	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	25% rock
	II	12	50	10YR 4/3, Brown	Sandy Loam	NCM	None
	III	50	90	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
	IV	90	100	10YR 5/6, Yellowish Brown	Loamy Sand	NCM	None
D1.08	I	0	9	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; plastic, brick, beer bottle glass
	II	9	34	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried plowzone or fill; plastic, brick, beer bottle glass
	III	34	52	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	Truncated B horizon
	IV	52	100	2.5Y 5/3, Light Olive Brown	Sandy Loam	NCM	None
D1.09	I	0	23	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	23	42	10YR 5/3, Brown	Loamy Sand	NCM	Compact
	III	42	55	10YR 5/6, Yellowish Brown	Loam	NCM	Compact
	IV	55	100	10YR 6/3, Pale Brown	Loam	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.10	I	0	18	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscape A
	II	18	22	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried Ap, plastic
	III	22	76	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	None
	IV	76	100	2.5Y 5/3, Light Olive Brown	Sandy Loam	NCM	C, sterile
D1.11	I	0	20	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscaped A; modern beer glass, brick, plastic; probably imported sod
	II	20	40	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried plowzone; modern colorless glass and plastic
	III	40	52	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B horizon
	IV	52	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	C horizon
D1.12	I	0	17	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	17	42	10YR 4/3, Brown	Silt Loam	NCM	None
	III	42	67	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	10% rock
	IV	67	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
D1.13	I	0	20	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscape A, imported sod, modern plastic, coal
	II	20	40	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried Ap, plastic, glass
	III	40	66	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B
	IV	66	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.14	I	0	19	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	19	46	10YR 4/3, Brown	Silt Loam	NCM	None
	III	46	55	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	10% rock
	IV	55	84	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
	V	84	100	10YR 6/8, Brownish Yellow	Sand	NCM	30% rock, coarse sand

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.15	I	0	18	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	18	44	10YR 4/3, Brown	Silt Loam	NCM	None
	III	44	51	10YR 5/8, Yellowish Brown	Loamy Sand	NCM	None
	IV	51	90	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
	V	90	100	10YR 6/8, Brownish Yellow	Sand	NCM	30% rock, coarse sand
D1.16	I	0	20	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscaped A; imported sod; modern nail, brick, plastic
	II	20	48	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried plowzone; plastic discarded
	III	48	53	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B horizon
	IV	53	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.17	I	0	28	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscape A, glass, plastic, mortar
	II	28	46	10YR 4/4, Dark Yellowish Brown	Sandy Loam	NCM	Buried Ap
	III	46	59	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B
	IV	59	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.18	I	0	21	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	21	50	10YR 4/3, Brown	Silt Loam	NCM	None
	III	50	86	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	20% rock
	IV	86	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.19	I	0	22	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	22	45	10YR 4/3, Brown	Silt Loam	NCM	None
	III	45	52	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	20% rock
	IV	52	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.20	I	0	24	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscape A, modern trash, glass, asphalt
	II	24	45	10YR 4/4, Dark Yellowish Brown	Sandy Loam	NCM	Buried Ap
	III	45	73	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B
	IV	73	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.21	I	0	21	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	21	47	10YR 4/3, Brown	Silt Loam	NCM	None
	III	47	61	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	20% rock
	IV	61	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.22	I	0	27	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscaped A; imported sod; broken pebbles; modern brick and plastic
	II	27	44	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried plowzone; plastic
	III	44	54	10YR 5/6, Yellowish Brown	Silt Loam	NCM	None
	IV	54	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.23	I	0	22	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	22	40	10YR 4/3, Brown	Silt Loam	NCM	None
	III	40	55	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	None
	IV	55	73	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
	V	73	87	10YR 5/8, Yellowish Brown	Sand	NCM	30% rock
	VI	87	100	10YR 6/3, Pale Brown	Sandy Loam	NCM	Subsoil
D1.24	I	0	23	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscape A, plastic, glass
	II	23	43	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried Ap, modern glass, plastic
	III	43	58	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B
	IV	58	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.25	I	0	20	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	30% rock
	II	20	45	10YR 4/3, Brown	Silt Loam	NCM	None
	III	45	64	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	20% rock
	IV	64	90	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
	V	90	100	10YR 6/8, Brownish Yellow	Sand	NCM	Coarse sand
D1.26	I	0	22	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Landscaped A; imported sod; plastic and beer glass; broken pebbles
	II	22	44	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried plowzone; Styrofoam throughout; broken pebbles
	III	44	60	10YR 5/6, Yellowish Brown	Silt Loam	NCM	None
	IV	60	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.27	I	0	23	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscape A
	II	23	47	10YR 4/3, Brown	Silt Loam	Modern Material (not collected)	Ap, clear glass
	III	47	64	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	IV	64	90	2.5Y 6/6, Olive Yellow	Silt Loam	NCM	B
	V	90	100	10YR 5/8, Yellowish Brown	Sand	NCM	None
D1.28	I	0	21	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	None
	II	21	46	10YR 4/3, Brown	Silt Loam	NCM	None
	III	46	71	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	IV	71	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
D1.29	I	0	15	10YR 3/1, Very Dark Gray	Sandy Loam	Modern Material (not collected)	Imported sod landscape A, plastic, colorless glass
	II	15	48	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried Ap, plastic, green glass
	III	48	74	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B
	IV	74	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.30	I	0	16	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Compact
	II	16	28	10YR 5/4, Yellowish Brown	Silt Loam	NCM	Mixed with 10YR 4/3, Brown, very compact
	III	28	55	10YR 4/3, Brown	Sandy Loam	NCM	None
	IV	55	64	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	None
	V	64	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
D1.31	I	0	12	10YR 3/1, Very Dark Gray	Sandy Loam	Historic-Period Artifacts	Landscaped A; imported sod; one late 19th century blue transfer-printed whiteware fragment - photographed and discarded
	II	12	42	10YR 5/3, Brown	Silt Loam	Modern Material (not collected)	Fill with lens of Stratum I, extremely compacted. Modern plastic, brown, colorless glass
	III	42	56	10YR 4/4, Dark Yellowish Brown	Sandy Loam	Modern Material (not collected)	Buried Ap, modern plastic and metal beer can tab
	IV	56	70	10YR 5/6, Yellowish Brown	Silt Loam	NCM	Subsoil
	V	70	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	Subsoil
D1.32	I	0	8	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Fill
	II	8	42	10YR 4/3, Brown	Silt Loam	NCM	Plowzone
	III	42	71	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	IV	71	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.33	I	0	5	10YR 3/1, Very Dark Gray	Sandy Loam	NCM	Landscape A/imported sod
	II	5	66	10YR 4/4, Dark Yellowish Brown	Silt Loam	Modern Material (not collected)	Buried Ap, asphalt, glass
	III	66	100	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.34	I	0	15	10YR 3/4	Sandy Loam	NCM	Fill
	II	15	30	10YR 5/4, Yellowish Brown	Silt Loam	Modern Material (not collected)	Compact with asphalt pieces
	III	30	50	10YR 4/2, Dark Grayish Brown	Silt Loam	Historic-Period Artifacts	One green and four colorless fragments of early to mid-20th century vessel glass - photographed and discarded
	IV	50	70	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	None
	V	70	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
D1.35	I	0	8	10YR 3/3, Dark Brown	Sandy Loam	NCM	Landscaped A
	II	8	50	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried plowzone
	III	50	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.36	I	0	15	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	25% rock
	II	15	45	10YR 4/3, Brown	Silt Loam	Modern Material (not collected)	Asphalt chunks and 1 piece of industrial porcelain
	III	45	54	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	None
	IV	54	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.37	I	0	9	10YR 2/1, Black	Sandy Loam	NCM	Landscape A
	II	9	12	10YR 5/3, Brown	Sandy Loam	Modern Material (not collected)	Fill, asphalt chunks
	III	12	22	10YR 2/2, Very Dark Brown	Sandy Loam	Modern Material (not collected)	Fill, asphalt across bottom - impasse
D1.38	I	0	17	10YR 2/1, Black	Sandy Loam	NCM	Lens of 10YR 5/4, Yellowish Brown Sa
	II	17	25	2.5Y 3/1, Very Dark Gray	Sandy Clay Loam	NCM	Fill, compacted; STP stopped at unmarked sprinkler line (parallel to road), private utility not damaged in any way
D1.39	I	0	11	10YR 3/3, Dark Brown	Sandy Loam	NCM	Landscape A
	II	11	23	10YR 4/2, Dark Grayish Brown	Sandy Loam	NCM	Fill, very compacted
	III	23	27	10YR 5/2, Grayish Brown	Sand	Modern Material (not collected)	Fill, brick pieces, glass, extremely compacted - impasse

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.40	I	0	10	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscaped A
	II	10	50	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried plowzone; unmarked sprinkler line (parallel to road) visible in east wall near top of stratum, private utility not damaged in any way
	III	50	60	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B horizon
	IV	60	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	None
D1.41	I	0	18	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	With 10YR 6/2, Light Brownish Gray sandy clay lens at base
	II	18	37	10YR 4/3, Brown	Silt Loam	NCM	None
	III	37	52	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	IV	52	68	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	V	68	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.42	I	0	12	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Fill
	II	12	48	10YR 4/2, Dark Grayish Brown	Silt Loam	NCM	Plow zone
	III	48	70	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	None
	IV	70	100	10YR 6/2, Light Brownish Gray	Loam	NCM	None
D1.43	I	0	13	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscape A
	II	13	46	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried Ap
	III	46	100	2.5Y 5/3, Light Olive Brown	Silt	NCM	C
D1.44	I	0	38	10YR 4/3, Brown	Silt Loam	NCM	None
	II	38	54	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	III	54	75	7.5YR 5/6, Strong Brown	Sand	NCM	None
	IV	75	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.45	I	0	10	10YR 4/3, Brown	Sand	NCM	Mixed with 10YR 5/4, Yellowish Brown and 10YR 7/1, Light Gray, fill layer
	II	10	36	10YR 4/1, Dark Gray	Silt Loam	NCM	None
	III	36	60	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	IV	60	100	10YR 6/1, Gray	Loamy Sand	NCM	None
D1.46	I	0	9	10YR 5/3, Brown	Silt Loam	NCM	Fill mottled with 2.5Y 6/3, Light Yellowish Brown silt loam
	II	9	35	10YR 3/3, Dark Brown	Silt Loam	Modern Material (not collected)	Landscape A, brick, asphalt
	III	35	42	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Truncated and buried Ap
	IV	42	81	2.5Y 5/3, Light Olive Brown	Silt	NCM	C
	V	81	100	7.5YR 5/6, Strong Brown	Silt Loam	NCM	C
D1.47	I	0	32	10YR 4/2, Dark Grayish Brown	Silt Loam	NCM	None
	II	32	65	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	III	65	100	10YR 6/1, Gray	Loam	NCM	None
D1.48	I	0	9	10YR 5/3, Brown	Silt Loam	NCM	Fill; broken rocks
	II	9	46	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscaped A; broken rocks
	III	46	54	10YR 5/6, Yellowish Brown	Silt Loam	NCM	Truncated B horizon
	IV	54	73	2.5Y 5/3, Light Olive Brown	Silt Loam	NCM	None
	V	73	100	7.5YR 5/6, Strong Brown	Sandy Loam	NCM	None
D1.49	I	0	36	10YR 4/2, Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Some chunks of asphalt
	II	36	72	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	III	72	100	10YR 6/2, Light Brownish Gray	Sand	NCM	Coarse sand
D1.50	I	0	40	10YR 2/1, Black	Sandy Loam	NCM	Landscape A
	II	40	70	7.5YR 3/3, Dark Brown	Sandy Loam	NCM	Fill with small pebbles and stones
	III	70	100	2.5Y 5/3, Light Olive Brown	Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.51	I	0	37	10YR 4/3, Brown	Sandy Loam	Modern Material (not collected)	Compact with chunks of asphalt
	II	37	57	10YR 6/8, Brownish Yellow	Sandy Loam	NCM	None
	III	57	78	10YR 6/1, Gray	Loamy Sand	NCM	None
	IV	78	90	10YR 5/8, Yellowish Brown	Loamy Sand	NCM	None
	V	90	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None
D1.52	I	0	8	10YR 3/3, Dark Brown	Sandy Loam	NCM	Landscape A
	II	8	15	10YR 6/4, Light Yellowish Brown	Silt	Modern Material (not collected)	Fill, plastic
	III	15	50	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried Ap
	IV	50	100	10YR 5/8, Yellowish Brown	Silt	NCM	B
D1.53	I	0	18	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Compact sand
	II	18	50	10YR 4/2, Dark Grayish Brown	Silt Loam	NCM	Compact
	III	50	86	10YR 5/6, Yellowish Brown	Loamy Sand	NCM	Compact
	IV	86	100	10YR 6/2, Light Brownish Gray	Loamy Sand	NCM	None
D1.54	I	0	8	10YR 3/2, Very Dark Grayish Brown	Silt Loam	Modern Material (not collected)	Landscaped A; plastic and brick
	II	8	42	10YR 4/4, Dark Yellowish Brown	Silt Loam	Modern Material (not collected)	Buried plowzone; Styrofoam and plastic
	III	42	60	10YR 5/6, Yellowish Brown	Silt Loam	NCM	B horizon; compact
	IV	60	100	2.5Y 5/3, Light Olive Brown	Sandy Loam	NCM	None
D1.55	I	0	8	10YR 3/2, Very Dark Grayish Brown	Sand	NCM	Fill
	II	8	12	10YR 6/4, Light Yellowish Brown	Sand	NCM	Fill
	III	12	46	10YR 4/3, Brown	Silt Loam	NCM	Plowzone
	IV	46	88	10YR 5/4, Yellowish Brown	Sandy Loam	NCM	None
	V	88	100	10YR 6/3, Pale Brown	Loamy Sand	NCM	None

Shovel Test	Stratum	Minimum Stratum Depth (cm)	Maximum Stratum Depth (cm)	Soil Color	Soil Texture	Contents	Comments
D1.56	I	0	8	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscape A, plastic
	II	8	13	10YR 5/3, Brown	Sandy Loam	Modern Material (not collected)	Fill; plastic, glass
	III	13	46	10YR 4/4, Dark Yellowish Brown	Silt Loam	Modern Material (not collected)	Buried Ap; plastic, glass
	IV	46	84	2.5Y 5/3, Light Olive Brown	Silt Loam	NCM	C horizon, STP stopped at unmarked buried electric utility (PVC pipe running parallel to road), utility not damaged in any way, utility likely bored since soil profile is undisturbed
D1.57	I	0	8	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	Modern Material (not collected)	Landscaped A; modern colorless glass
	II	8	44	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried plowzone
	III	44	54	10YR 5/6, Yellowish Brown	Silt Loam	NCM	Truncated B horizon
	IV	54	100	2.5Y 5/3, Light Olive Brown	Silt Loam	NCM	None
D1.58	I	0	18	10YR 4/1, Dark Gray	Sandy Loam	Modern Material (not collected)	Mixed with 10YR 5/6, Yellowish Brown, 30% rock, fill layer, with asphalt chunks
	II	18	52	10YR 4/2, Dark Grayish Brown	Silt Loam	NCM	Plowzone
	III	52	66	10YR 5/8, Yellowish Brown	Sandy Loam	NCM	None
	IV	66	100	10YR 6/3, Pale Brown	Sandy Loam	NCM	None
D1.59	I	0	14	10YR 3/2, Very Dark Grayish Brown	Sandy Loam	NCM	Landscape A
	II	14	19	10YR 5/3, Brown	Sand	Modern Material (not collected)	Fill; asphalt glass
	III	19	56	10YR 4/4, Dark Yellowish Brown	Silt Loam	NCM	Buried Ap
	IV	56	65	10YR 5/6, Yellowish Brown	Sandy Loam	NCM	STP stopped at unmarked buried electric utility (PVC pipe running parallel to road), utility not damaged in any way, utility likely bored since soil profile is undisturbed