Appendix I

Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan

Appendix I: Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan

The Bureau of Ocean Energy Management (BOEM) has made a Finding of Adverse Effect under Section 106 of the National Historic Preservation Act (NHPA) pursuant to 36 Code of Federal Regulations (CFR) 800.5 for the undertaking, defined as the construction and installation, operations and maintenance (O&M), and conceptual decommissioning of the Atlantic Shores Offshore Wind South Project (Project), as described in the Atlantic Shores Offshore Wind Project 1, LLC (Atlantic Shores Project 1 Company) and Atlantic Shores Offshore Wind Project 2, LLC (Atlantic Shores Project 2 Company) Construction and Operations Plan (COP) (Atlantic Shores 2023). As Atlantic Shores (Atlantic Shores Offshore Wind, LLC) is the owner and an affiliate of both the Atlantic Shores Project 1 Company and the Atlantic Shores Project 2 Company, for ease of reference, the term *Atlantic Shores* is used to refer interchangeably to the Project Companies. The Project is anticipated to have adverse effects on historic properties. As defined in 36 CFR 800.16(l)(1), the term *historic property* means "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP; National Register] maintained by the Secretary of the Interior." The term *historic property* also includes National Historic Landmarks (NHLs) as well as resources of traditional religious and cultural importance to tribal nations that meet National Register criteria.

BOEM finds that the undertaking would adversely affect the following historic properties:

- 37 ancient submerged landform features (ASLFs) with potential archaeological or traditional cultural property (TCP) significance (Table I-5; Section I.3.1.1, *Assessment of Effects on Historic Properties in the Marine APE*)
- One terrestrial archaeological resource (Table I-6; Section I.3.1.2, *Assessment of Effects on Historic Properties in the Terrestrial APE*)
- 28 historic aboveground resources: one in the terrestrial portion of the area of potential effects (APE) and 27 in the visual portion of the APE, including two NHLs (Tables I-6 and I-8; Section I.3.1.2, *Assessment of Effects on Historic Properties in the Terrestrial APE*, and Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*)

Per 36 CFR 800.5(a)(1), the Project would cause adverse effects on a historic property by altering, directly or indirectly, characteristics that qualify the historic property for inclusion in the National Register (see Section I.3, *Application of the Criteria of Adverse Effect*).

Construction of the Project would cause physical adverse effects on historic properties that are ASLFs in the marine portion of the APE and terrestrial archaeological and historic aboveground resources in the terrestrial portion of the APE, as Project components and/or associated work zones are proposed for locations within the defined areas of these resources (COP Volume II, Appendices II-Q1, II-P1, and II-N1;

Atlantic Shores 2023). Additional terrestrial archaeological resources subject to adverse effects from the Project may be identified during Atlantic Shores' process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (COP Volume II, Appendix II-P1; Atlantic Shores 2023; Section I.5, *Phased Identification and Evaluation*).

The Project would also cause visual effects and contribute to cumulative effects from Offshore Project component visibility on 27 historic aboveground resources that are historic properties in the visual portion of the APE (COP Volume II, Appendix II-O; Atlantic Shores 2023; BOEM 2023). These resources have ocean views that are character-defining features contributing to their NRHP eligibility; these ocean views are subject to adverse effects by the Project. For compliance with NHPA Section 110(f) at 36 CFR 800.10, which applies specifically to NHLs, BOEM has determined that two NHLs (i.e., Atlantic City Convention Hall and Lucy, The Margate Elephant) would be adversely affected by the Project, and as such, BOEM, to the maximum extent possible, will undertake planning and actions as may be necessary to minimize harm to the NHLs (COP Volume II, Appendix II-O; Atlantic Shores 2023; BOEM 2023).

BOEM elected to use the National Environmental Policy Act (NEPA) substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. The regulations at 36 CFR 800.8(c) provide for use of the NEPA substitution process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR 800.3 through 800.6. The NEPA substitution process is described at https://www.achp.gov/integrating_nepa_106. Both NEPA and Section 106 allow participation of consulting parties. Consistent with use of the NEPA substitution process to fulfill Section 106 requirements, BOEM will document the mitigation measures to resolve the adverse effects in a Memorandum of Agreement (MOA) pursuant to 36 CFR 800.8(c)(4)(i)(B). See Attachment A*, Memorandum of Agreement*, for the Draft MOA.

I.1 Project Overview

In March 2021, BOEM received a COP from Atlantic Shores proposing an offshore wind energy facility within part of Renewable Energy Lease Number OCS-A 0499 (Lease Area), offshore New Jersey. In addition, Atlantic Shores submitted updates to the COP or supplemental materials in August, September, October, and December of 2021; in January, March, April, August, September, October, November, and December of 2022; and in January, February, and March of 2023. In its COP, Atlantic Shores proposes construction and installation, O&M, and conceptual decommissioning of two offshore wind energy facilities (Project 1 and Project 2) consisting of up to 200 offshore wind turbine generators (WTGs) and their foundations; up to 10 offshore substations (OSSs) and their foundations; one meteorological (met) tower and its foundation; scour protection for foundations; interarray or interlink cables linking the individual turbines to the OSSs; offshore export cables and an onshore export cable system; two landfall locations in Sea Girt, New Jersey, and Atlantic City, New Jersey; two onshore substations and/or converter stations (i.e., at the Fire Road Site and one of three site options at Lanes Pond Road, Brook Road, or Randolph Road); connections to the existing electrical grid in New Jersey; and an O&M facility in Atlantic City, New Jersey (see Figure I-1). Project 1 and Project 2 are known collectively as the Atlantic Shores South Project and will occupy Lease Area OCS-A 0499.

At its nearest point, WTG and OSS components of the Project would be approximately 8.7 miles (14 kilometers) from the New Jersey shoreline. Offshore Project components would be on the Outer Continental Shelf (OCS) with the exception of portions of the offshore export cables within New Jersey state waters. Atlantic Shores is utilizing a Project Design Envelope (PDE) in its COP, which represents a reasonable range of design parameters that may be used for the Project. In reviewing the PDE, BOEM is analyzing the maximum design scenario that could occur from key project components, including the type and number of WTGs, foundation types, OSS types, cable types, and installation techniques. BOEM's analysis and review of the PDE may result in the approval of a project that is constructed within that range or a subset of design parameters within the proposed range. Additional information on design envelopes is found in the draft guidance document at https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope-Guidance.pdf.

Separately from, but in part to facilitate, the Proposed Action, a connected action has been proposed for an approximately 20.6-acre (8.3-hectare) site within Atlantic City's Inlet Marina area. These activities are proposed to include the repair and/or replacement of an existing bulkhead to be conducted by Atlantic Shores under a U.S. Army Corps of Engineers (USACE) Nationwide Permit 3 or Nationwide Permit 13 and implementation of a maintenance dredging program to be conducted in coordination with the City of Atlantic City under a USACE Department of the Army (DA) Permit (CENAP-OPR-2021-00573-95) and a New Jersey Department of Environmental Protection (NJDEP) Dredge Permit (No. 0102.20.0001.1 LUP 210001). Activities associated with the connected action would be conducted regardless of the construction and installation of the Proposed Action. However, the bulkhead repair and/or replacement and dredging are necessary for the use of the O&M facility included in the Proposed Action. Therefore, the bulkhead and dredging activities are considered to be a connected action under NEPA. The maintenance dredging program has undergone Section 106 review under the aforementioned USACE DA Permit and NJDEP Dredge Permit, and resulted in a finding of no effect on historic properties. Subsequently, activities related to the repair and/or replacement of the existing bulkhead under the connected action will require Section 106 review, with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if those findings change BOEM's final determinations and finding of effects for this undertaking. See Sections I.1.2, *Undertaking,* and I.1.3.4, *O&M Facility APE,* for additional details on the Proposed Action and connected action activities proposed at the O&M facility.

If approved by BOEM and other agencies with authority to approve Project components outside of BOEM's jurisdiction, Atlantic Shores would be allowed to construct and operate WTGs, export cables to shore, and associated facilities, including those outside BOEM's jurisdiction, for a specified term. BOEM is now conducting its environmental and technical reviews of the COP and the connected action under NEPA; its decision regarding approval of the plan is provided in this Draft Environmental Impact Statement (EIS). A detailed description of the proposed Project can be found in Chapter 2, *Alternatives,* Section 2.1.2, *Alternative B – Proposed Action,* of the Draft EIS. This Draft EIS considers reasonably foreseeable impacts of the Project, including impacts on cultural resources, which include historic properties.

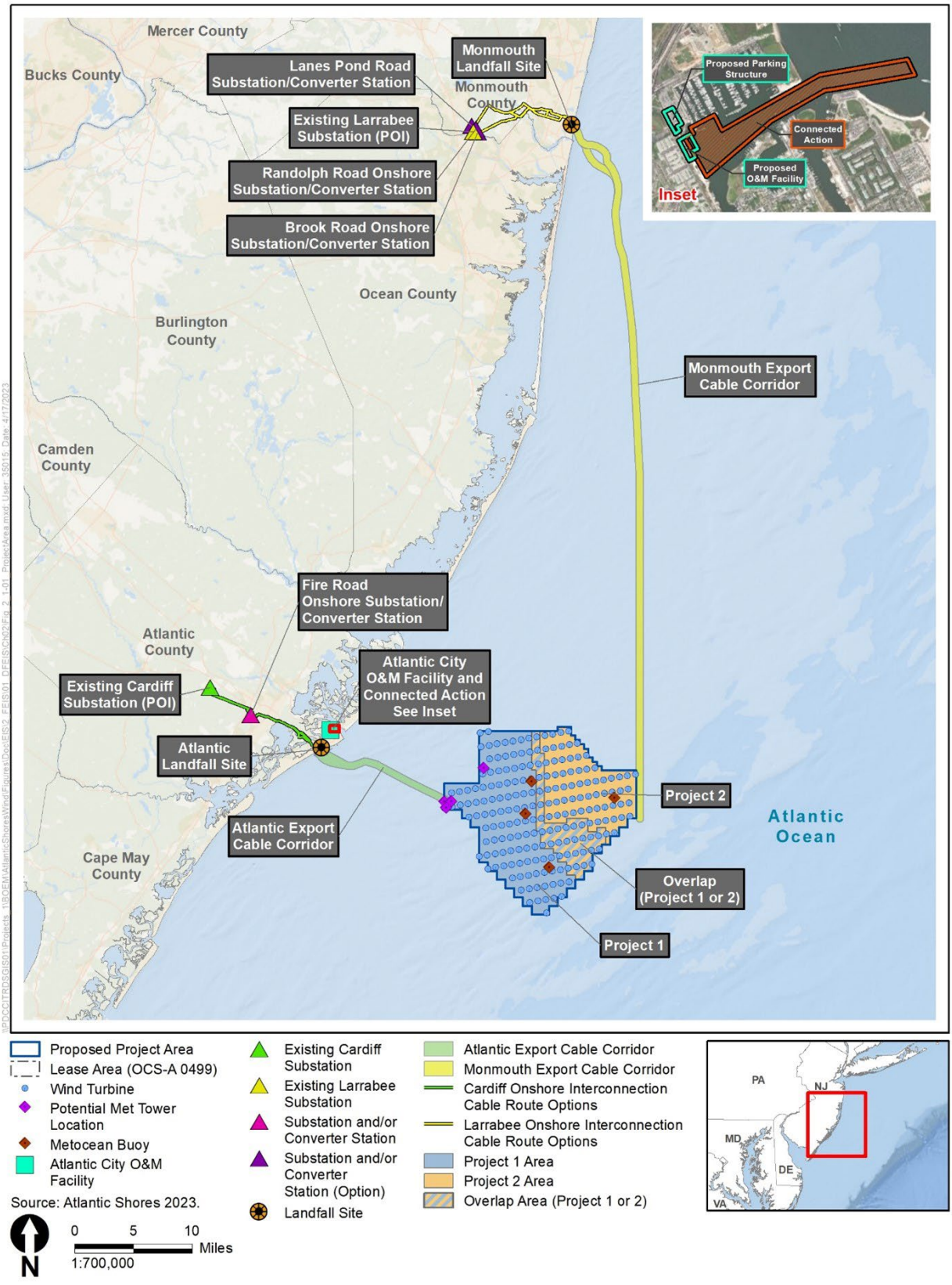

Figure I-1. Atlantic Shores South Project components

I.1.1 Background

The Project is within a commercial lease area that has received previous Section 106 review by BOEM regarding the issuance of the commercial lease and approval of site assessment activities and is subject to two prior Programmatic Agreements. In 2012, BOEM executed a Programmatic Agreement among the State Historic Preservation Officers (SHPOs) of Delaware, Maryland, New Jersey, and Virginia; the Advisory Council on Historic Preservation (ACHP); the Narragansett Indian Tribe; and the Shinnecock Indian Nation (see https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/MidAtlantic-PA_Executed.pdf). This Programmatic Agreement expired in 2022 but was in effect for issuance of the commercial lease and approval of site assessment activities for the Project. Additionally, in 2016, BOEM executed a Programmatic Agreement among the SHPOs of New York and New Jersey, the Shinnecock Indian Nation, and ACHP to consider renewable energy activities offshore New York and New Jersey (see https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/NY-NJ-Programmatic-Agreement-Executed.pdf).

BOEM prepared an environmental assessment to analyze the environmental impacts associated with issuing commercial wind leases and approving site assessment activities within the New Jersey Wind Energy Area (WEA) and approved the site assessment plan (SAP) for Lease Area OCS-A 0499 on April 8, 2021. On April 29, 2019, BOEM received an application from EDF Renewables Development, Inc. to assign 100 percent of commercial lease OCS-A 0499 to Atlantic Shores Offshore Wind, LLC. BOEM approved the lease assignment on August 13, 2019. Under the terms of the lease, Atlantic Shores has the exclusive right to submit a COP for activities within the Lease Area, and it has submitted a COP to BOEM proposing the construction and installation, O&M, and conceptual decommissioning of two offshore wind energy facilities in Lease Area OCS-A-0499 (the Atlantic Shores South Project) in accordance with BOEM's COP regulations under 30 CFR 585.626, et seq.

The Atlantic Shores South Project COP proposed to develop two offshore wind energy generation facilities in the Lease Area, including up to 200 WTGs (between 105 and 136 WTGs for Project 1 and between 64 and 95 WTGs for Project 2), up to 10 OSSs (up to 5 in each Project), up to 1 permanent met tower, up to 4 temporary meteorological and oceanographic (metocean) buoys (up to 1 met tower and 3 metocean buoys in Project 1 and 1 metocean buoy in Project 2), interarray and interlink cables, 2 offshore export cable corridors (ECCs; Monmouth and Atlantic), up to 2 onshore substations and/or converter stations, 1 O&M facility, and up to 8 transmission cables making landfall at two New Jersey locations. The Monmouth offshore ECC is proposed for landfall in Sea Girt, New Jersey, with an onshore route to the existing Larrabee substation point of interconnection (POI). The Atlantic offshore ECC is proposed for landfall in Atlantic City, New Jersey, with an onshore route to the existing Cardiff substation POI. Project 1 would have a capacity of 1,510 megawatts (MW); Project 2's capacity is not yet determined, but Atlantic Shores has a goal of 1,327 MW.

The exact locations and numbers of OSSs, metocean buoy locations, and met tower location have not yet been finalized. The known locations of the elements of Project 1 and Project 2 would be in an approximately 102,124-acre (167-hectare) Wind Turbine Area (WTA) in Lease Area OCS-A 0499. Project 1 would be in the western 54,175 acres (21,924 hectares) of the WTA and Project 2 would be in the

eastern 31,847 acres (12,888 hectares) of the WTA, with a 16,102-acre (6,516-hectare) Overlap Area that could be used by either Project 1 or Project 2. The Overlap Area is included in the event engineering or technical challenges arise at certain locations in the WTA, to provide flexibility for final selection of a WTG supplier for the Atlantic Shores South Project (which would determine the final number of WTG positions needed for Project 1 and Project 2), and for environmental or other considerations. The OSSs would be along the same east-northeast to west-northwest rows as the WTGs. Small OSSs would be no closer than 12 miles (19.3 kilometers) from shore, whereas medium and large OSSs would be at least 13.5 miles (21.7 kilometers) from shore.

The proposed Project has a designed life span of up to 30 years; some installations and components may remain fit for continued service after this time. Atlantic Shores is proposing a new O&M facility in Atlantic City, New Jersey, to support the Project's operations. The O&M facility would be used solely by Atlantic Shores as the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Construction of the O&M facility is expected to involve a new building and associated parking structure, repairs to the existing docks, and installation of new dock facilities. The O&M facility may also be supported with the use of existing warehouse or office space within an industrial, commercial, or waterfront area. Atlantic Shores may use other ports to support O&M activities such as some crew transfer, bunkering, spare part storage, load-out of spares to vessels, and refueling and supply replenishment.

O&M activities would include inspections, preventative maintenance, and, as needed, corrective maintenance for onshore substations, onshore export cables, and grid connections. Atlantic Shores would conduct annual maintenance of WTGs, including cleaning, safety surveys, blade maintenance, painting, and replacement of consumable components (e.g., lubrication, oil) as needed. Atlantic Shores would also conduct annual OSS maintenance of medium-voltage and high-voltage systems, auxiliary systems, and safety systems, topside structural inspections, diesel generator maintenance and refueling, and reapplication of corrosion-resistant coating, as needed. Foundation inspections both above and underwater would occur at regular intervals to check for corrosion, cracking, and marine growth. The offshore export cables and interarray or interlink cables would use a monitoring system, and cable surveys would be performed at regular intervals, including annual surveys in the first few years of operation and less frequent surveys for the rest of the service life provided that no abnormal conditions are detected in the initial surveys. Atlantic Shores would need to use vessels, vehicles, and aircraft during O&M activities described above.

Once installed and commissioned, the proposed Project is designed to operate for up to 30 years. Atlantic Shores would remove or decommission all facilities, projects, cables, pipelines, and obstructions and clear the seabed of all obstructions created by activities within the leased area. Absent permission from BOEM, removal or decommissioning activities must be completed within 2 years after lease termination (whether by expiration, cancellation, contraction, or relinquishment), and all offshore facilities must be removed to 15 feet (4.5 meters) below the mudline, unless otherwise authorized by BOEM (30 CFR 585.910(a)). Atlantic Shores would either reuse, recycle, scrap, or responsibly dispose of all materials removed. Section 106 review would be conducted at the decommissioning stage.

I.1.2 Undertaking

BOEM has determined that the Project constitutes an undertaking subject to Section 106 of the NHPA as amended (54 United States Code [USC] 306108) and its implementing regulations (36 CFR Part 800), and the Project activities proposed under the COP have the potential to affect historic properties. The connected action and its associated activities also constitute an undertaking with the potential to affect historic properties. The portion of the connected action involving the maintenance dredging program has undergone Section 106 review for the City of Atlantic City's DA Permit, with USACE serving as the lead federal agency and resulting in a finding of no effect on historic properties.[1] The portion of the connected action involving repair and/or replacement of the existing bulkhead under Atlantic Shores' USACE Nationwide Permit 3 or Nationwide Permit 13 application will undergo Section 106 review with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if those findings change BOEM's final determinations and findings of effects for this undertaking (see Sections I.1, *Project Overview,* and Section I.1.3.4, *O&M Facility APE,* for additional details). Confidential Section 106 appendices to the COP referenced in this document, along with other Section 106 documents and associated information, were sent electronically to all consulting parties on May 4, 2023. The COP, as well as its public and confidential appendices, is hereby incorporated by reference (see Section I.2.1, *Technical Studies and Reports*, for additional information).

As described in Section 2.1.2 of the Draft EIS, the Proposed Action would include the construction and installation, O&M, and eventual decommissioning of two wind energy facilities on the OCS offshore New Jersey, occurring within the range of design parameters outlined in the COP (Atlantic Shores 2023), subject to applicable mitigation measures. BOEM's election to use NEPA substitution for the Section 106 review of the Project includes the identification and evaluation of historic properties for the undertaking and assessment of effects for all the action alternatives identified during the NEPA review and as presented in the Draft EIS. For BOEM's assessment of the action alternatives, see Section I.4.1, *Alternatives Considered*.

I.1.3 Area of Potential Effects

Per 36 CFR 800.16(d), the APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." BOEM (2020) defines the APE for the undertaking to include the following areas:

- The depth and breadth of the seabed potentially impacted by any bottom-disturbing activities, constituting the marine portion of the APE;

[1] BOEM verified this finding of no effect on historic properties through a review of USACE's statement of findings for the City of Atlantic City's DA Permit Application CENAP-OPR-2021-00573-95. Attachment E is the USACE Public Notice for DA Permit Application CENAP OPR 2021-00573-95.

- The depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities, constituting the terrestrial portion of the APE;
- The viewshed from which renewable energy structures, whether offshore or onshore, would be visible, constituting the visual portion of the APE; and
- Any temporary or permanent construction or staging areas, both onshore and offshore, which may fall into any of the above portions of the APE.

These are described below in greater detail with respect to the proposed activities, consistent with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM 2020). See Attachment B, Figure I.B-1 for an overview map of the Project APE.

I.1.3.1 Marine Portion of the APE

The marine portion of the APE (hereafter *marine APE*) for the Project is the depth and breadth of the seabed potentially impacted by any bottom-disturbing activities and temporary or permanent offshore construction or staging areas. It includes a conservative PDE that can accommodate a number of potential designs, whether piled, suction bucket, or gravity-based foundations are used and installed by jack-up vessels as well as support vessels and barges. The marine APE (Figure I.B-2) encompasses activities within the Lease Area (Figure I.B-3), Atlantic offshore ECC (Figure I.B-4), and Monmouth offshore ECC (Figure I.B-5). See Section I.1.3.4 for a description of the APE at the proposed O&M facility.

The Project would occur within the approximately 102,124-acre (41,328-hectare) Lease Area. Atlantic Shores proposes a combined maximum of up to 200 WTGs, up to 10 OSSs, up to 1 permanent met tower, and up to 4 temporary metocean buoys within the extent of the WTA. WTGs and OSSs would be connected by a system of interarray cables. Up to 8 export cables would be installed within the Atlantic and Monmouth ECCs. The Atlantic ECC measures approximately 12 miles (19 kilometers) long and travels from the western tip of the WTA westward to the Atlantic Landfall Site in Atlantic City, New Jersey. The Monmouth ECC measures approximately 61 miles (98 kilometers) long and travels from the eastern corner of the WTA along the eastern edge of the Lease Area to the Monmouth Landfall Site in Sea Girt, New Jersey. The width of each ECC corresponds to the width of the marine survey corridors and ranges from approximately 3,300 to 4,200 feet (1,000 to 1,280 meters) for all of the Monmouth ECC and most of the Atlantic ECC, though the Atlantic ECC widens to approximately 5,900 feet (1,800 meters) near the Atlantic Landfall Site.

The approximate maximum horizontal area and vertical depth of seabed disturbance associated with the construction or installation each of these aforementioned Offshore Project components are considered in the delineation of the marine APE (Table I-1).

Table I-1. Summary of marine APE based on approximate maximum horizontal and vertical extents of seabed disturbance for construction of Offshore Project components

Project Component		Seabed Disturbance	
		Maximum Horizontal Area	Maximum Vertical Depth
Per WTG foundation		1,969 ft (600 m) diameter centered on foundation	262.5 ft (80 m)
Per OSS foundation		1,969 ft (600 m) diameter centered on foundation	229.7 ft (70 m)
Met tower		Same as WTG foundation	
Metocean buoys		0.005 mi^2 (0.013 km^2)	3.3 ft (1.0 m)
Interarray and interlink cables		3.36 mi^2 (8.70 km^2)	9.8 ft (3.0 m)
Offshore ECC	Atlantic ECC	1.20 mi^2 (3.11 km^2)	9.8 ft (3.0 m)
	Monmouth ECC	2.87 mi^2 (7.44 km^2)	

Source: COP Volume I, Chapter 4.0 and Table 4.11-1; Atlantic Shores 2023.
ft = feet; km^2 = square kilometers; m = meters; mi^2 = square miles

I.1.3.2 Terrestrial Portion of the APE

The terrestrial portion of the APE (hereafter *terrestrial APE*) includes the depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities and temporary or permanent onshore construction or staging areas. It includes a conservative PDE that includes the proposed Cardiff and Larrabee Project facilities, including Atlantic and Monmouth Landfall Sites, interconnection cables, POIs, and substations and/or converter stations. The APE at the proposed O&M facility is discussed separately in Section I.1.3.4. Attachment B contains figures depicting the terrestrial APE for Cardiff Facilities (Figure I.B-6) and Larrabee Facilities (Figure I.B-7). The defined vertical extents of the terrestrial APE, as discussed below, vary based on the type of Onshore Project component and account for the maximum burial depth and vertical ground disturbance identified for each of those Project components and their installation.

As part of the Cardiff Project facilities, offshore export cables in the Atlantic ECC would connect to onshore interconnection cables at the sea-to-shore transition Atlantic Landfall Site. From the Atlantic Landfall Site, cables would be installed underground within a 20-foot (6-meter) wide corridor, along the approximately 12.4- to 22.6-mile (20.0- to 36.4-kilometer) long Cardiff Onshore Interconnection Cable Route and connect to the proposed onshore substation and/or converter station at the Fire Road Site. Atlantic Shores has proposed several route options for the Cardiff Onshore Interconnection Cable Route in the PDE; these are all considered in the delineation of the terrestrial APE.

As part of the Larrabee Project facilities, offshore export cables in the Monmouth ECC would connect to onshore interconnection cables at the Monmouth Landfall Site. From the Monmouth Landfall Site, cables would be installed underground within a 20-foot (6-meter) wide corridor, along an approximately 9.8- to 23.0-mile (15.8- to 37.0-kilometer) long Larrabee Onshore Interconnection Cable Route and connect to an onshore substation and/or converter station at three potential locations: the Lanes Pond Road, Brook Road, or Randolph Road Sites. Atlantic Shores has proposed several route options for the Larrabee Onshore Interconnection Cable Route in the PDE; these are all considered in the delineation of the terrestrial APE.

The approximate maximum horizontal area and vertical depth of ground disturbance associated with the construction or installation each of these aforementioned Onshore Project components are considered in the delineation of the terrestrial APE (Table I-2).

Table I-2. Summary of terrestrial APE based on approximate maximum horizontal and vertical extents of ground disturbance for construction of Onshore Project components

Project Component			Ground Disturbance	
			Maximum Horizontal Area	Maximum Vertical Depth
Cardiff Facilities	Atlantic Landfall Site		2.03 ac (0.82 ha)	16.8 ft (5.12 m)
	Cardiff Onshore Interconnection Cable Route		Trenching: 20 ft (6 m); 297.83 ac (120.53 ha)	Open trenching: 11.5 ft (3.5 m); Specialty installation: 30 ft (9 m)
	Onshore Substation/ Converter Station	Fire Road Site	19.71 ac (7.98 ha)	60 ft (18.3 m)
Larrabee Facilities	Monmouth Landfall Site		3.06 ac (1.24 ha)	16.8 ft (5.12 m)
	Larrabee Onshore Interconnection Cable Route		Trenching: 20 ft (6 m) 200.66 ac (81.20 ha)	Open trenching: 11.5 ft (3.5 m); Specialty installation: 30 ft (9 m)
	Onshore Substation/ Converter Station	Lanes Pond Road	16.27 ac (6.58 ha)	60 ft (18.3 m)
		Brook Road	99.37 ac (40.21 ha)	60 ft (18.3 m)
		Randolph Road	24.64 ac (9.98 ha)	60 ft (18.3 m)

Source: COP Volume II, Table 6.2-1; Atlantic Shores 2023.
Ac = acres; ft = feet; ha = hectare; m = meters

I.1.3.3 Visual Portion of the APE

The visual portion of the APE (hereafter *visual APE*) includes the viewshed from which renewable energy structures—whether offshore or onshore—would be visible. The proposed Cardiff and Larrabee onshore interconnection cables would be underground and are not anticipated to cause potential visual adverse effects on aboveground historic properties. It is anticipated that a 40-mile (64.4-kilometer) viewshed buffer is a conservative distance for the purpose of evaluating visual effects of offshore WTGs. Atlantic Shores elected to extend the viewshed buffer to 45.1 miles (72.6 kilometers) to assess the Project's potential visual effects on aboveground historic properties located in Cape May, New Jersey. The visual APE for Offshore Project components includes a boundary of 45.1 miles (72.6 kilometers) radial distance from the WTA, which is the approximate maximum theoretical distance at which the WTGs could be visible based on the maximum height of the WTGs and OSSs, their location, curvature of the Earth, atmospheric conditions, and human visual acuity (COP Volume II, Appendix II-O; Atlantic Shores 2023). See Attachment B, Figure I.B-8 through Figure I.B-10, which show the visual APE for Offshore Project components.

The visual APE for Onshore Project components includes all areas within 1 mile (1.6 kilometers) from the property boundaries of the proposed onshore substation and/or converter sites, including the Fire Road Site for the proposed Cardiff Facilities (Figure I.B-11) and Brook Road (Figure I.B-12), Lanes Pond Road (Figure I.B-13), and Randolph Road (Figure I.B-14) options for the Larrabee Facilities with potential

visibility of these components as determined through viewshed analysis. The APE at the proposed O&M facility is discussed separately in Section I.1.3.4. A 1-mile (1.6-kilometer) area is considered the maximum limit within which aboveground historic properties could be subject to adverse visual effects given the size of the proposed O&M facility and the screening provided by existing topography, building/structures and/or adjacent developed areas, and vegetation (COP Volume II, Appendix II-N1; Atlantic Shores 2023).

I.1.3.4 O&M Facility APE

Once operational, the Project would be supported by a new O&M facility that Atlantic Shores is proposing in Atlantic City, New Jersey, on a site previously used for vessel docking or other port activities. Separately from, but in part to facilitate, the Proposed Action (the undertaking), a connected action has been proposed within an approximately 20.6-acre (8.3-hectare) site within Atlantic City's Inlet Marina area. The connected action activities are proposed to include the repair and/or replacement of an existing bulkhead to be conducted by Atlantic Shores under a USACE Nationwide Permit 3 or Nationwide Permit 13 and implementation of a maintenance dredging program to be conducted in coordination with the City of Atlantic City under a USACE DA Permit (CENAP-OPR-2021-00573-95) and a NJDEP Dredge Permit (No. 0102.20.0001.1 LUP 210001). The area of the connected action activities overlaps with portions of the APE for the O&M facility. USACE's NHPA Section 106 finding of no effect in DA Permit CENAP-OPR-2021-00573-95 applies to a permit area encompassing but larger than the marine area of the physical APE for the O&M facility. The area of repair and/or replacement of the existing bulkhead is also encompassed by the APE for the O&M facility. The repair and/or replacement of the existing bulkhead under Atlantic Shores' USACE Nationwide Permit 3 or Nationwide Permit 13 application will undergo Section 106 review with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if these findings change BOEM's final determinations and findings of effects for this undertaking.

The O&M facility APE includes all areas subject to physical and visual effects from the undertaking as described in Section I.1.3. The physical APE for the O&M facility encompasses both marine and terrestrial areas and includes the depth and breadth of seabed and terrestrial areas potentially impacted by bottom- or ground-disturbing activities in an approximate maximum area of 3.22 acres (1.3 hectares) and vertical depth of 60 feet (18.3 meters) (Figure I.B-15; COP Volume II, Table 6.2-1 and Appendix II-P2; Atlantic Shores 2023). The visual APE for the O&M facility includes all areas within 1 mile (1.6 kilometers) of the proposed O&M facility with potential visibility (based on a viewshed analysis) of the facility. A 1-mile (1.6-kilometer) area is considered the maximum limit within which aboveground historic properties could be subject to adverse visual effects given the size of the proposed O&M facility and the screening provided by existing topography, building/structures and/or adjacent developed areas, and vegetation (Figure I.B-16; COP Volume II, Appendix II-N2; Atlantic Shores 2023).

I.2 Steps Taken to Identify Historic Properties

I.2.1 Technical Studies and Reports

To support the identification of historic properties in the APE, Atlantic Shores has provided technical reports detailing the results of cultural resource investigations in the marine, terrestrial, visual, and O&M facility portions of the APE. Table I-3 provides a summary of these efforts to identify historic properties and the results and key findings of each investigation. Collectively, BOEM finds that these reports represent a good-faith effort to identify historic properties in portions of the Project APE that are not subject to the phased identification process and are consistent with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. The documents summarized in Table I-3 have been shared with consulting parties and are hereby incorporated by reference.

BOEM has reviewed the reports summarized in Table I-3, found them sufficient for proceeding with consultations with federally recognized Tribes, SHPOs, ACHP, and other Section 106 consulting parties, and reached the following conclusions:

- BOEM has reviewed the Marine Archaeological Resources Assessment (MARA) and has determined that the data are sufficient for identifying historic properties in the marine APE.
- BOEM has reviewed the Terrestrial Archaeological Resources Assessment (TARA) and Phased Identification Plan (PIP) and determined that the completed and planned investigations summarized in the documents will be sufficient for identifying historic properties in the terrestrial APE. Efforts conducted for the TARA thus far are sufficient for determining effects on some identified historic properties, but given logistical limitations, not all of the terrestrial APE has been fully investigated. Atlantic Shores will be using phased identification of historic properties, as defined in 36 CFR 800.4(b)(2), for completion of archaeological investigations in the terrestrial APE, a process specifically provided for in the MOA that will be issued pursuant to 36 CFR 800.8(c)(4)(i)(B). See Section I.5, *Phased Identification and Evaluation* for additional details on the phased process, and Attachment A for the Draft MOA.
- BOEM has reviewed the Historic Resource Visual Effects Assessment (HRVEA) and Historic Resource Effects Assessment (HREA) and determined the studies and reports are sufficient for identifying and assessing effects on historic properties in the visual APE. BOEM finds that the APE for potential visual effects analyzed is appropriate for the scale and scope of the undertaking.

In addition to these conclusions, BOEM has found that the assessment of effects on historic properties in the marine, terrestrial, visual, and O&M facility APEs contained in these reports is sufficient to apply the criteria of adverse effects and continue consultations with consulting parties for resolving adverse effects on historic properties.

Table I-3. Summary of cultural resources investigations performed by Atlantic Shores in the Project APE

Portion of APE	Report	Description	Key Findings/Recommendations
Marine	*Marine Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project, Construction and Operations Plan* (COP Volume II, Appendix II-Q1; Atlantic Shores 2023)	MARA prepared by SEARCH, Inc. Assessment of HRG survey data collected during non-intrusive survey campaign conducted by marine survey contractors and geotechnical investigations in marine APE representing the extent of anticipated seabed effects associated with the Project.	SEARCH identified 21 targets, consisting of magnetic anomalies, acoustic contacts, or buried reflectors within the HRG survey data that could represent potential marine archaeological resources ([redacted]): 8 within the WTA (i.e., 6 in the Project 1 area, 2 in the Project 2 area, and none in the Overlap Area); 4 within the Atlantic offshore ECC; and 9 within the offshore Monmouth ECC. SEARCH recommends avoidance of each marine archaeological resource. SEARCH also identified 37 ASLFs in the marine APE ([redacted]). SEARCH recommends effect avoidance or minimization measures for identified ASLFs. SEARCH also recommends that additional archaeological surveys or analyses may enable refining targets or further delimiting landform extents within the target areas to assess integrity, significance, and NRHP eligibility.
Marine	*Marine Archaeological Resources Sensitivity Assessment (MARSA)* (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2023)	Prepared by RCG&A, who initially served as the QMA at the beginning of the Project. Background research, site file searches, and descriptions of the preliminary HRG surveys performed for the Project.	This assessment demonstrated that the potential exists within the Project area for pre-Contact archaeological deposits. Additionally, as a result of the intensive historical use of shipping lanes in the region and as evidenced by the density of charted wrecks, the Project area was determined to have a moderate to high probability of containing charted maritime cultural resources.
Marine	*Technical Memorandum. Atlantic Shores Offshore Wind Project Geoarchaeological Analyses* (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2023)	Prepared by RCG&A, who initially served as the QMA at the beginning of the Project. Results of the geoarchaeological campaign and vibracore analysis conducted to assess Project area for archaeological potential.	RCG&A cut nine VC cores, photographed the core sections, and retrieved 81 subsamples for later radiocarbon sampling refinement in the first phase. SEARCH (COP Volume II, Appendix II-Q1; Atlantic Shores 2023) processed the subsamples for radiocarbon material. In total, 10 VC and 9 borehole core locations were assessed. RCG&A subsampled 10 VC locations, and the subsamples were processed by SEARCH (COP Volume II, Appendix II-Q1; Atlantic Shores 2023). RCG&A's findings were incorporated into the MARSA (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2023) and MARA (COP Volume II, Appendix II-Q1; Atlantic Shores 2023).

Portion of APE	Report	Description	Key Findings/Recommendations
Terrestrial	*Phase IA Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project, Onshore Interconnection Facilities, Monmouth and Atlantic County, New Jersey* (COP Volume II, Appendix II-P1; Atlantic Shores 2023)	TARA: Onshore Interconnection Facilities. Prepared by EDR. Background research of known cultural resources, assessment of archaeological sensitivity, and reconnaissance-level field assessment of existing field conditions within the portion of the terrestrial APE for proposed onshore interconnection facilities in Monmouth and Atlantic Counties, New Jersey.	This assessment found one previously identified terrestrial archaeological resource in this portion of the terrestrial PAPE. Aside from this resource, in the opinion of EDR, there is very little likelihood for intact or potentially significant archaeological resources to be in this portion of the terrestrial APE, outside of the possibility of contributing archaeological elements of the West Jersey and Atlantic Railroad Historic District. EDR recommends continued consultation with NJHPO to assess the criteria supporting the eligibility of and potential project effects on the West Jersey and Atlantic Historic District. Additional Phase IB archaeological investigation is recommended in several areas of the terrestrial APE assessed as being "potentially undisturbed"; these include portions of the Monmouth Landfall Site, targeted areas of the Larrabee and Cardiff Onshore Routes, and portions of the Fire Road Site. EDR states the need for additional archaeological testing will be determined in consultation with BOEM and NJHPO.
Terrestrial	*Phased Identification Plan: Terrestrial Archaeological Resources, Atlantic Shores South Offshore Wind Project – Onshore Facilities, Monmouth and Atlantic County, New Jersey* (COP Volume II, Appendix II-P1; Atlantic Shores 2023)	PIP for terrestrial archaeology. Prepared by EDR. Overview of Project and PAPE. Plan for completion of phased historic property identification and completion of the TARA.	Atlantic Shores will be using a process of phased identification and evaluation of historic properties to complete the TARA. Preparation of the TARA is ongoing while property access permissions are acquired to conduct Phase IB archaeological investigations for potential substation locations, landfalls, and associated onshore cable routes. The PIP serves as a process document detailing the areas where phased identification survey will be conducted, the steps Atlantic Shores will take to complete the required cultural resources survey, and a schedule of associated milestones.
Visual	*Offshore Historic Resources Visual Effects Assessment (HRVEA)* (COP Volume II, Appendix II-O; Atlantic Shores 2023)	HRVEA: Offshore Project components. Prepared by EDR. Background research of known aboveground historic properties and TCPs in the visual APE for Offshore Project components.	This assessment included a desktop review of records of state and federal agencies, geographic information system databases, previous cultural resource surveys, and historical collections to develop an inventory of previously identified historic properties (i.e., historic aboveground resources). A viewshed analysis was completed to determine which of these properties were in the visual PAPE for Offshore Project components. Field surveys were completed to document the setting of newly identified and previously identified aboveground historic properties, assess property

Portion of APE	Report	Description	Key Findings/Recommendations
			eligibility, and evaluate the potential views of the Project. As a result of field verification of Project views and an evaluation of significance, a total of 123 historic aboveground resources were identified and surveyed in this portion of the visual PAPE. Of these 123 properties, a total of 27 aboveground historic properties, including 2 NHLs, have potential to experience an adverse effect.
Visual	*Historic Resources Effects Assessment (HREA), Atlantic Shores Offshore Wind Onshore Interconnection Facilities* (COP Volume II, Appendix II-N1; Atlantic Shores 2023)	Prepared by EDR. Background research of known aboveground historic properties and identification of potential aboveground historic properties in the visual APE for the onshore interconnection facilities.	This assessment focused on potential effects on historic aboveground resources in the visual APE for the proposed onshore substation and/or converter facilities (i.e., the Fire Road Site, Lanes Pond Road, Brook Road, and Randolph Road). The report includes a brief history of each site and previous cultural resource investigations. A total of three previously identified historic districts were identified in this portion of the visual PAPE for Onshore Project components: the New Jersey Southern Railroad Historic District; the West Jersey and Atlantic Railroad Historic District; and the Garden State Parkway Historic District. The report recommends that no adverse effects on historic properties will occur.
Visual	*Intensive-Level Architectural Survey Report* (COP Volume II, Appendix II-W; Atlantic Shores 2023)	Prepared by EDR. Summary of aboveground historic properties in the visual APE and survey forms.	This report includes a summary of the HRVEA and HREA reports and includes the survey forms for aboveground historic properties as required by the NJHPO.
O&M (Physical)	*Phase IA Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project, Operations and Maintenance Facility, Atlantic City, Atlantic County, New Jersey* (COP Volume II, Appendix II-P2; Atlantic Shores 2023)	Prepared by EDR. Background research of known cultural resources, assessment of archaeological sensitivity, and reconnaissance-level field assessment of existing field conditions within the portion of the terrestrial APE for the proposed O&M facility in Atlantic City, Atlantic County, New Jersey.	This assessment found that no previously identified archaeological resources are within this portion of the terrestrial PAPE. Background research and field reconnaissance indicated that the onshore portions of this portion of the terrestrial APE have likely been significantly disturbed by land reclamation and construction throughout the 20th century. Therefore, in the opinion of EDR, there is low potential for intact or potentially significant archaeological resources to be within this portion of the terrestrial APE, and no further archaeological investigation was recommended.

Portion of APE	Report	Description	Key Findings/Recommendations
O&M (Visual)	*Historic Resources Effects Assessment (HREA) – O&M Facility* (COP Volume II, Appendix II-N2; Atlantic Shores 2023)	Prepared by EDR. Background research of known aboveground historic properties in the visual APE for the onshore O&M facility.	This assessment focused on potential effects on aboveground historic properties in the visual APE for the onshore O&M facility in Atlantic City, New Jersey. A total of seven previously identified aboveground historic properties were identified in the visual APE for the O&M facility, all of which are NRHP-listed or NRHP-eligible. None of the seven historic properties are anticipated to experience an adverse effect.

Source: COP Volume II, Appendices II-N, II-O, II-P, and II-Q; Atlantic Shores 2023.
EDR = Environment Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C.; HRG = high-resolution geophysical; NJHPO = New Jersey Historic Preservation Office; PAPE = preliminary area of potential effects; QMA = Qualified Marine Archaeologist; RCG&A = R.C. Goodwin and Associates, Inc.; TARA = Terrestrial Archaeological Resources Assessment; VC = culture vibracores

Consequent to the reports prepared for the COP submittal, ICF prepared for BOEM a technical report to support BOEM's cumulative effects analysis, the *Cumulative Historic Resources Visual Effects Analysis – Atlantic Shores Offshore Wind South Project* (BOEM 2023). The *Cumulative Historic Resources Visual Effects Analysis* (CHRVEA) presents the analysis of cumulative visual effects where BOEM has determined, in review of the HRVEA (COP Volume II, Appendix II-O; Atlantic Shores 2023), that historic properties would be adversely affected by the Offshore Project components. The effects of ongoing and planned wind energy development activities are additive to those adverse effects from the Project, resulting in cumulative effects. Twenty-seven historic properties within the viewshed of WTGs for the Project and other ongoing and planned offshore wind energy development activities would be adversely affected by cumulative visual effects (Table I-8; BOEM 2023).

I.2.2 Consultation and Coordination with the Parties and Public

I.2.2.1 Early Coordination

Since 2009, BOEM has coordinated OCS renewable energy activities offshore New Jersey with its federal, state, local, and tribal government partners through its Intergovernmental Renewable Energy Task Force. BOEM has met regularly with federally recognized tribes that may be affected by renewable energy activities in the area since 2011, specifically during planning for the issuance of leases and review of site assessment activities. BOEM also hosts public information meetings to help keep interested stakeholders updated on major renewable energy milestones. Information pertaining to BOEM's Intergovernmental Renewable Energy Task Force meetings is available at https://www.boem.gov/renewable-energy/state-activities/renewable-energy-task-force-meetings-1, and information pertaining to BOEM's stakeholder engagement efforts is available at https://www.boem.gov/renewable-energy/state-activities/new-jersey-public-information-meetings.

I.2.2.2 NEPA Scoping and Public Hearing

On September 30, 2021, BOEM announced its Notice of Intent (NOI) to prepare an EIS for the proposed Project. The purpose of the NOI was to solicit input on issues and potential alternatives for consideration in the EIS. Throughout the scoping process, federal agencies; tribal, state, and local governments; and the general public had the opportunity to help BOEM determine significant resources and issues, impact-producing factors (IPFs), reasonable alternatives, and potential mitigation measures to be analyzed in the EIS, as well as provide additional information. BOEM also used the NEPA commenting process to allow for public involvement in the NHPA Section 106 consultation process (54 USC 300101 et seq.), as permitted by 36 CFR 800.2(d)(3). Through this notice, BOEM announced its intention to inform its NHPA Section 106 consultation using the NEPA commenting process and invited public comment and input regarding the identification of historic properties or potential effects on historic properties from activities associated with approval of the COP.

Additionally, BOEM held virtual public scoping meetings, which included specific opportunities for engaging on issues relative to NHPA Section 106 for the COP, on October 19, 21, and 25, 2021. Virtual

public scoping meeting materials and records are available at https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-scoping-virtual-meetings.

Through this NEPA scoping process, BOEM received comments related to cultural, historic, archaeological, or tribal resources. These are presented in BOEM's EIS Scoping Report (BOEM 2022) and are summarized as follows:

- BOEM should ensure compliance with Section 106 of the NHPA including adequate consultation with SHPOs and other stakeholders throughout the EIS process.
- USACE commented that collective federal responsibilities under Section 106 of the NHPA and related statutes should accommodate requirements specified at 33 CFR 325 Appendix C.
- The U.S. Environmental Protection Agency (USEPA) recommended that Tribes be invited to participate in the development of an unanticipated (post-review) discovery plan for offshore and onshore construction activities.
- Commenters requested that BOEM ensure compliance with NEPA by assessing all potential effects from the proposed Project on historic properties in the EIS, including visual effects, physical and experiential effects on a landscape or seascape scale, and night sky effects on the historic setting of a historic property.
- Commenters also requested that the effects analysis for cultural resources in the EIS include an analysis of intangible cultural resources such as maritime heritage and occupational traditions.
- Commenters identified cultural sites that they recommended BOEM consider in its effects analysis, including NHLs and historic lighthouses.
- A commenter related that they felt the visual impact analysis in the COP is too limited in scope and does not provide adequate information to assess potential impacts on historic properties, including visual and lighting impacts.

On May 19, 2023, BOEM published a Notice of Availability for the Draft EIS, which commences a 45-day public comment period. The input received via this process will be used to inform preparation of the Final EIS.

I.2.2.3 NHPA Section 106 Consultations

On October 15, 2021, BOEM contacted the New Jersey Historic Preservation Office (NJHPO) and ACHP to provide Project information and notify of BOEM's intention to use the NEPA substitution process to fulfill Section 106 obligations under 36 CFR 800.8(c) in lieu of the procedures set forth in 36 CFR 800.3 through 800.6. ACHP responded with acknowledgement on October 20, 2021.

On November 5 and 8, 2021, BOEM contacted 11 federally recognized Tribes with information about the Project, and an invitation to be a consulting party to the NHPA Section 106 review of the COP. The Tribes

contacted include: the Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Mashantucket (Western) Pequot Tribe, Mashpee Wampanoag Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, The Delaware Nation, The Narragansett Indian Tribe, The Shinnecock Indian Nation, and Wampanoag Tribe of Gay Head (Aquinnah). BOEM also used this correspondence to notify of its intention to use the NEPA substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. The Stockbridge-Munsee Community Band of Mohican Indians declined to participate as a consulting party for the Project on November 12, 2021. The Mashantucket (Western) Pequot Tribe initially declined to participate in consultations for the Project on November 22, 2021; however, on April 19, 2023, they indicated the Project is in their revised area of interest and therefore requested to receive notifications for the Project. As a result, BOEM added the Mashantucket (Western) Pequot Tribe as a consulting party for the Project. The Absentee-Shawnee Tribe of Indians of Oklahoma indicated that the Project area is not in their area of interest on January 30, 2023. BOEM has included any Tribe that did not respond to the invitation to consult in all consulting party communications and considers them consulting parties for the Project.

Between November 5 and December 20, 2021, BOEM corresponded with a total of 259 points of contact from governments and organizations by mail and email, including information about the Project, an invitation to be a consulting party to the NHPA Section 106 review of the COP, and the NOI to prepare an EIS. BOEM also used this correspondence to notify of its intention to use the NEPA substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. To aid those consulting parties not familiar with the NEPA substitution process, BOEM developed a *NNEPA Substitution for Section 106 Consulting Party Guide* (available at https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NEPA-Substitution-Consulting-Party-Guide.pdf), which was included as an attachment to this correspondence.

During the period of November 19 to 23 and December 13 to 15, 2021, additional follow-up outreach was conducted by phone and email to confirm receipt of correspondence among the governments and organizations that had not responded to the invitation to consult and to provide the aforementioned materials. The list of the governments and organizations contacted is included in Attachment C. Entities that responded to BOEM's invitation or were subsequently made known to BOEM were added as consulting parties and are listed in Attachment D.

On August 30, 2022, BOEM held virtual NHPA Section 106 Consultation Meeting #1. The presentation included a brief Project overview, review of NEPA Substitution for NHPA Section 106 Process, overview of Section 106 consultation opportunities for the Project, NHPA Section 110(f) compliance requirements, and a question-and-answer session with discussion.

On May 4, 2023, BOEM shared with consulting parties the cultural resource technical reports prepared by Atlantic Shores (see Table I-3) and CHRVEA report prepared by BOEM (BOEM 2023). At that time, BOEM also shared with consulting parties the technical memorandum delineating the APE for the Project, BOEM's Section 106 finding of effect for the Project (this document, Appendix I), a draft of the Memorandum of Agreement (Attachment A), and the Visual Impacts Assessment (VIA) and associated

visual simulations (COP Volume II, Appendix II-M; Atlantic Shores 2023). BOEM also extended invitations to consult on the Project to property owners and other representatives of adversely affected aboveground historic properties on May 4, 2023.

On May 19, 2023, BOEM distributed a Notice of Availability to notify the consulting parties that the Draft EIS was available for public review and comment for the period of May 19 to July 3, 2023.

In June 2023, BOEM plans to hold virtual NHPA Section 106 Consultation Meeting #2. The presentation will include a discussion of the documents distributed for consulting party review and a question-and-answer session with discussion.

A third consultation meeting will be held to consult on BOEM's finding of effect on historic properties and the draft MOA. A fourth consultation meeting will be held to consult on measures to avoid, minimize, and mitigate adverse effects on historic properties. Additional consultation meetings may be scheduled between the Draft EIS and issuance of the Record of Decision (ROD) if further consultation is needed to resolve adverse effects via the MOA. Additional consultation will also occur if alternatives that required phased identification are selected for the final Project design (COP Volume II, Appendix II-P1; Atlantic Shores 2023; Section I.5, *Phased Identification and Evaluation*).

The list of the governments and organizations invited to participate as consulting parties is included in Attachment C. Entities that responded to BOEM's invitation or were subsequently made known to BOEM and added as consulting parties are listed in Attachment D.

I.3 Application of the Criteria of Adverse Effect

The Criteria of Adverse Effect under NHPA Section 106 (36 CFR 800.5(a)(1)) states that an undertaking has an adverse effect on a historic property if the following occurs:

> when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association…Adverse Effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

According to regulation, adverse effects on historic properties include, but are not limited to (36 CFR 800.5(a)(2)):

i. Physical destruction of or damage to all or part of the property;

ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

iii. Removal of the property from its historic location;

iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

v. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;

vi. Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

vii. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

I.3.1 Assessment of Effects on Historic Properties

This section documents the assessment of effects for the affected historic properties in the marine, terrestrial, visual, and O&M facility portions of the APE.

I.3.1.1 Assessment of Effects on Historic Properties in the Marine APE

This section assesses effects on marine cultural resources (i.e., marine archaeological resources and ASLFs) in the marine APE. Based on the information presented below, BOEM finds that historic properties would be adversely affected in the marine APE.

Marine Archaeological Resources

Marine geophysical archaeological surveys performed for the Proposed Action identified a total of 21 magnetic anomalies, acoustic contacts, and buried reflectors representing potential marine archaeological resources in the marine APE (Table I-4). Eight resources are within the WTA: six in the Project 1 area (i.e., [redacted]), two in the Project 2 area (i.e., [redacted]), and none in the Overlap Area. The other resources are in the offshore ECCs: four within the Atlantic ECC (i.e., [redacted]) and nine within the Monmouth ECC (i.e., [redacted]). Because the ages and NRHP eligibility of these resources cannot be confirmed through the current marine cultural investigations, these resources are all assumed to be archaeological and potentially eligible for listing in the NRHP; as such, they are considered historic properties. Additional archaeological surveys or analyses, if completed, may enable more refined assessments of integrity, significance, and eligibility for listing these resources in the NRHP. The majority of potential marine archaeological resources likely relate to recent debris, industrial objects, and non-cultural geological features, although many may represent known and potential shipwrecks and related debris fields from the post-Contact period (COP Volume II, Appendix II-Q; Atlantic Shores 2023).

Table I-4. Marine archaeological resources in the marine APE

Resource ID	Possible Source	Location in Marine APE	Finding of Effect
[redacted]	Possible [redacted] shipwreck	Monmouth ECC	No effect
[redacted]	Possible [redacted] shipwreck	Monmouth ECC	No effect
[redacted]	Unknown debris	Monmouth ECC	No effect
[redacted]	Unknown debris	Monmouth ECC	No effect

Resource ID	Possible Source	Location in Marine APE	Finding of Effect
[redacted]	Unknown shipwreck	Monmouth ECC	No effect
[redacted]	Unknown shipwreck	Monmouth ECC	No effect
[redacted]	Possible [redacted] shipwreck	Monmouth ECC	No effect
[redacted]	Possible [redacted] shipwreck	WTA (Project 1 Area)	No effect
[redacted]	Possible [redacted] shipwreck	WTA (Project 1 Area)	No effect
[redacted]	Possible [redacted] shipwreck	WTA (Project 1 Area)	No effect
[redacted]	Unknown debris	WTA (Project 1 Area)	No effect
[redacted]	Historic anchor	WTA (Project 2 Area)	No effect
[redacted]	[redacted] shipwreck per [redacted]	WTA (Project 2 Area)	No effect
[redacted]	Unknown shipwreck per [redacted]	Atlantic ECC	No effect
[redacted]	Unknown debris	Atlantic ECC	No effect
[redacted]	Possible unknown debris per [redacted]	Atlantic ECC	No effect
[redacted]	Unknown debris	Atlantic ECC	No effect
[redacted]	Unknown debris	Monmouth ECC	No effect
[redacted]	Unknown debris	Monmouth ECC	No effect
[redacted]	Unknown debris	WTA (Project 1 Area)	No effect
[redacted]	Unknown debris	WTA (Project 1 Area)	No effect

Source: COP Volume II, Appendix II-Q, Atlantic Shores 2023.
AWOIS = Automated Wreck and Obstruction Information System; ID = identification

Avoidance of [redacted] is recommended by a minimum vertical distance of 3.2 feet (1 meter) and a minimum horizontal distance of 164 feet (50 meters) from the extent of the outer edge of the magnetic anomalies or acoustic contacts (COP Volume II, Appendix II-Q; Atlantic Shores 2023). In instances where SEARCH is confident that a defined acoustic contact is the source, the target avoidance buffer has been developed to originate from the contact, rather than the anomaly perimeter, but still encompasses the entirety of the anomaly. Modifications to the recommended avoidance buffers of these resources may be adjusted through ongoing analysis and consultation. However, due to Atlantic Shores' commitment to avoidance of marine archaeological resources (CUL-18; Appendix G, *Mitigation and Monitoring,* Table G-1), no effects on these historic properties are anticipated.

Ancient Submerged Landform Features

ASLFs may be individually eligible for listing in the NRHP or considered contributing elements to a TCP eligible for listing in the NRHP. ASLFs in the marine APE are considered archaeologically sensitive. Although the marine geophysical remote-sensing studies performed to identify historic properties did not find direct evidence of pre-Contact Native American cultural materials, they do represent a good-faith effort to identify submerged historic properties in the APE potentially affected by the undertaking, as defined at 36 CFR 800.4. If undiscovered archaeological resources are present within the identified ASLFs and they retain sufficient integrity, these resources could be eligible for listing in the NRHP under Criterion D. Furthermore, ASLFs are considered by Native American Tribes in the region to be culturally significant resources as the lands where their ancestors lived and as locations where events described in tribal histories occurred prior to inundation. In addition, BOEM recognizes these landforms are similar to

features previously determined to be TCPs and that are presumed to be eligible for listing in the NRHP under Criterion A.

Atlantic Shores' marine geophysical archaeological surveys in the marine APE identified a total of 37 geomorphic features representing potential ASLFs (Table I-5). Of these landforms 14 are within the WTA, 4 are within the Atlantic ECC, 18 are within the Monmouth ECC, and 1 is within both the WTA and Monmouth ECC. The extent of marine cultural investigations performed for the Proposed Action does not enable conclusive determinations of eligibility for listing identified resources in the NRHP; as such, all identified ASLFs are considered eligible for the purposes of this assessment, and therefore, considered historic properties. Additional archaeological surveys or analyses, if completed, may enable more refined assessments of integrity, significance, and eligibility for listing these resources in the NRHP.

Table I-5. ASLFs in the marine APE

Resource Identification	Jurisdictional Waters	Location in Marine APE	Finding of Effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Monmouth ECC	Adverse effect
[redacted]	Federal	WTA and Monmouth ECC	Adverse effect
[redacted]	New Jersey State	Atlantic ECC	Adverse effect
[redacted]	New Jersey State	Atlantic ECC	Adverse effect
[redacted]	Federal	Atlantic ECC	Adverse effect
[redacted]	Federal	Atlantic ECC	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect

Resource Identification	Jurisdictional Waters	Location in Marine APE	Finding of Effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect
[redacted]	Federal	WTA	Adverse effect

Source: COP Volume II, Appendix II-Q; Atlantic Shores 2023.
[1] BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of avoidance, minimization, and mitigation (AMM) measures. BOEM anticipates that the number of adversely affected ASLFs may be refined through ongoing Section 106 consultations.

The severity of effects would depend on the extent to which integral or significant components of the affected ASLF are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property's eligibility for listing in the NRHP. Resource-specific avoidance, minimization, and mitigation (AMM) measures for each of the identified ASLFs will be determined through consultations. Such measures could include establishing minimum avoidance buffers around the mapped extent of a landform, micrositing facilities and work zones away from features and avoidance buffers, or adjusting burial depth of cabling across features. Should avoidance of an ASLF be adopted, this measure would entail the implementation of a protective buffer measuring a minimum horizontal distance of 328 feet (100 meters) from the landform (COP Volume II, Appendix II-Q; Atlantic Shores 2023).

However, development of the final Project design is ongoing, and Atlantic Shores may not be able to avoid effects on the identified ASLFs. As such, the undertaking is currently anticipated to have adverse effects on the 37 ASLFs identified in the marine APE. Adverse effects on these resources may potentially be avoided, minimized, or mitigated in the final Project design. BOEM also anticipates that the number of adversely affected ASLFs may be refined through ongoing Section 106 consultations.

I.3.1.2 Assessment of Effects on Historic Properties in the Terrestrial APE

Cultural resource investigations completed for the Proposed Action identified historic properties in the terrestrial APE (COP Volume II, Appendices II-P1 and II-N1; Atlantic Shores 2023). Based on the information presented below, BOEM finds that historic properties would be adversely affected in the terrestrial APE.

Terrestrial Archaeological Resources

As of December 2022, Atlantic Shores' investigations have identified one previously recorded terrestrial archaeological resource in the terrestrial APE (Table I-6; COP Volume II, Appendix II-P1; Atlantic Shores 2023). Additionally, one historic aboveground resource (i.e., West Jersey and Atlantic Railroad Historic District) was identified in the terrestrial APE and may or may not contain contributing archaeological elements that may be affected by the undertaking; further discussion of this historic district is provided in the *Historic Aboveground Resources* section below. Terrestrial archaeological investigations have not been fully completed in the terrestrial APE. As such, potential, presently undiscovered terrestrial archaeological resources may be present in the terrestrial APE and subject to adverse effects from the Proposed Action; these may be identified during Atlantic Shores' process of phased identification and

evaluation of historic properties (COP Volume II, Appendix II-P1; Atlantic Shores 2023; Section I.5, *Phased Identification and Evaluation*). The investigations performed for the Proposed Action as of December 2022 do not enable conclusive determinations of eligibility of the one identified terrestrial archaeological resource for listing in the NRHP. As such, BOEM assumes the resource is eligible for listing in the NRHP under Criteria A, B, C, and/or D and is, therefore, a historic property. BOEM anticipates that the number of identified terrestrial archaeological resources and historic properties in the terrestrial APE may be refined through the phased identification process and ongoing Section 106 consultations.

Table I-6. Terrestrial archaeological resources in the terrestrial APE

Resource ID	Cultural Component	Location in Terrestrial APE	Finding of Effect[1]
[redacted]	[redacted]	[redacted]	Adverse effect

Source: COP Volume II, Appendix II-P1; Atlantic Shores 2023.

[1] BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of AMM measures. Additionally, BOEM anticipates that the number of adversely affected terrestrial archaeological resources may be refined through ongoing Section 106 consultations.
ID = identification.

The severity of effects would depend on the extent to which integral or significant components of the affected terrestrial archaeological resource are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property's eligibility for listing in the NRHP. [redacted]; targeted archaeological testing has been recommended within 0.76 of the 8.32 acres (0.31 of the 3.37 hectares) (approximately 9.1 percent) of this area assessed as having medium-high sensitivity for containing archaeological resources (COP Volume II, Appendix II-P1; Atlantic Shores 2023).

Development of the final Project design is ongoing, and Atlantic Shores may not be able to avoid effects on terrestrial archaeological resources. Atlantic Shores will be using a process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) for the unsurveyed areas of the terrestrial APE. Completion of Phase IB archaeological surveys during the phased process may lead to the identification of archaeological resources in the terrestrial APE. As such, the undertaking is currently anticipated to have adverse effects on the one known terrestrial archaeological resource identified in the terrestrial APE. Adverse effects on this resource may potentially be avoided, minimized, or mitigated in the final Project design. BOEM also anticipates that the number of adversely affected terrestrial archaeological resources may be refined through the phased process and ongoing Section 106 consultations, which may involve refining the assessments of integrity, significance, and eligibility for listing identified resources in the NRHP. BOEM will use the MOA to establish commitments for reviewing the sufficiency of any supplemental terrestrial archaeological investigations as phased identification; assessing effects on historic properties; and implementing measures to avoid, minimize, or mitigate effects in these areas prior to construction. See COP Volume II, Appendix II-P1 (Atlantic Shores 2023) for Atlantic Shores' PIP and Section I.5, *Phased Identification and Evaluation*, and Attachment A, *Memorandum of Agreement*, for additional details.

Cemeteries

Two post-Contact period cemeteries have been identified outside of but near the terrestrial APE and have been considered for potential effects from the Proposed Action due to their proximity to ground-disturbing activities that may occur within the terrestrial APE (Table I-7; COP Volume II, Appendix II-P1; Atlantic Shores 2023).

Table I-7. Cemeteries near the terrestrial APE and considered for potential adverse effects

Resource Name	Cultural Component	Location in Terrestrial APE	Finding of Effect
Allenwood Church Cemetery	Post-Contact (19th century to present)	Outside but near Larrabee Onshore Interconnection Cable Route	No effect
Greenwood Cemetery	Post-Contact (19th century)	Outside but near Cardiff Onshore Interconnection Cable Route	No effect

Source: COP Volume II, Appendix II-P1; Atlantic Shores 2023.

The severity of Project effects would depend on the extent to which a cemetery is disturbed, damaged, or destroyed. However, based on Atlantic Shores' cultural resource investigations, neither cemetery is anticipated to be subject to adverse effects due to distance from the terrestrial APE and existing road rights-of-way located between the cemeteries and the terrestrial APE. New Jersey State Law prohibits the unlawful disturbance, movement, or concealment of human remains (per New Jersey Statutes Annotated 2C:22-1(a)(1) as cited by COP Volume II, Appendix II-P1; Atlantic Shores 2023). As such, Atlantic Shores intends for all construction and installation activities associated with the Project to avoid all cemeteries and burials. Based on Atlantic Shores' background research, archaeological monitoring of ground-disturbing activities near the Greenwood Cemetery has been recommended as a precaution for avoiding effects on this cemetery (COP Volume II, Appendix II-P1; Atlantic Shores 2023). Additionally, Atlantic Shores' Terrestrial Archaeology Monitoring and Post-Review Discovery Plan (MPRDP) will be in effect for all ground-disturbing activities occurring in the terrestrial APE to provide guidance and instructions to all contractors on how to proceed in the unlikely event of encountering unanticipated cultural resources, grave shafts, or burials during work in areas near these cemeteries (see Attachment 6 of Attachment A, *Memorandum of Agreement*).

At this time, BOEM anticipates that the Project would have no effect on these cemeteries. BOEM will use the MOA to establish commitments for implementing avoidance, minimization, and mitigation measures for avoiding effects on these resources prior to construction.

Historic Aboveground Resources

One historic aboveground resource has been identified in the terrestrial APE: the West Jersey and Atlantic Railroad Historic District (COP Volume II, Appendix II-N1; Atlantic Shores 2023). This district has been previously determined eligible by NJHPO for listing in the NRHP and is therefore considered a historic property. Ground-disturbing activities associated with the installation of the proposed Cardiff Onshore Route may adversely affect potential contributing archaeological elements of the historic district. It is currently unknown whether there are archaeological elements of this historic district in the terrestrial APE or if such elements would contribute to the historic district's eligibility for listing in the

NRHP. Additional analyses and consultation with the NJHPO may enable the determination of whether such elements are present. If no contributing archaeological elements of this historic district are identified in the terrestrial APE, then the Proposed Action may be found to have no adverse effects on this historic property. However, at present, BOEM assumes the presence of such archaeological elements and therefore anticipates that the undertaking would have adverse effects on the West Jersey and Atlantic Railroad Historic District.

BOEM will use the MOA to establish commitments for implementing measures to avoid, minimize, or mitigate effects on historic properties prior to construction. Minimization and mitigation treatment options may include detailed site documentation, historic research, and historic preservation studies; preparation of digital media or museum-type exhibits for public interpretation; installation of historic markers or signs; or contributions to historical preservation organizations or specific preservation projects. Additional mitigation options could be identified through consultation with BOEM, NJHPO, and consulting parties.

I.3.1.3 Assessment of Effects on Historic Properties in the Visual APE

Cultural resource investigations completed for the Proposed Action have identified historic properties in the visual APE. Cultural resource investigations completed for the Proposed Action have identified 123 aboveground historic properties, including 2 NHLs (i.e., Atlantic City Convention Hall and Lucy, The Margate Elephant), in the visual APE for Offshore Project components (COP Volume II, Appendix II-O; Atlantic Shores 2023), and 3 aboveground historic properties in the visual APE for Onshore Project components (COP Volume II, Appendices II-N1 and II-N2; Atlantic Shores 2023); 7 additional aboveground historic properties identified in the visual APE at the O&M facility are discussed separately in Section I.3.1.4. Atlantic Shores included tall buildings in Atlantic City, including hotels, that offer commanding views of the ocean and the Project in its assessment of potential effects. In addition, Atlantic Shores evaluated the potential effects of the Project on lighthouses, including Absecon Lighthouse, Barnegat Lighthouse, Brigantine Lighthouse, Hereford Lighthouse, and the Cape May Lighthouse (COP Volume II, Appendices II-N1 and II-O; Atlantic Shores 2023). Based on the information presented below, BOEM finds historic properties would be adversely affected in the visual APE.

Of the 126 aboveground historic properties identified in the visual APE, 27 that are located in the visual APE for Offshore Project components, including both NHLs (i.e., Atlantic City Convention Hall and Lucy, The Margate Elephant), would be adversely affected by visual effects from Offshore Project components (Table I-8). The Project would introduce new human-made features to the seascape horizon, which includes few existing, fixed, modern, visual elements. The introduction of the WTGs would likely constitute a change in the physical environment of these 27 aboveground historic properties within the APE for which open views of the ocean are integral. In some cases, the potential visual effects on aboveground historic properties may be mitigated by the presence of modern infrastructure, which diminishes the existing integrity of setting; the presence of commercial shipping vessels on the ocean; and the effect of distance on visibility (COP Volume II, Appendix II-O; Atlantic Shores 2023).

Table I-8. Adversely affected aboveground historic properties in the visual APE for Offshore Project components[1]

Resource Name	Location	Distance to Nearest WTG[2] (miles)	NRHP Status
Atlantic City Boardwalk Historic District	Atlantic City, New Jersey	10.47	Eligible (Determined by NJHPO)
Atlantic City Convention Hall	2301 Boardwalk, Atlantic City, New Jersey	11.4	National Historic Landmark
Brigantine Hotel	1400 Ocean Avenue, Brigantine City, New Jersey	9.91	Potentially eligible
Brighton Park	1801 Boardwalk, Atlantic City, New Jersey	11.16	Potentially eligible contributing element to the Atlantic City Boardwalk Historic District
Central Pier	1400 Boardwalk, Atlantic City, New Jersey	10.85	Eligible (Determined by NJHPO)
Colonial Revival Residence at 120 Atlantic Avenue	120 Atlantic Avenue, Atlantic City, New Jersey	10.65	Potentially eligible
Folk Victorian Residence at 5231-5229 Central Avenue	5231-5229 Central Avenue, Ocean City, New Jersey	20.82	Potentially eligible
Gillian's Wonderland Pier	600 Boardwalk, Ocean City, New Jersey	17.01	Eligible (Determined by NJHPO)
John Stafford Historic District	Ventnor City, New Jersey	12.47	Listed
Little Egg Harbor U.S. Life Saving Station #23	800 Great Bay Boulevard, Little Egg Harbor Township, New Jersey	11.95	Eligible (Determined by NJHPO)
Lucy, The Margate Elephant	Decatur and Atlantic Avenues, Margate City, New Jersey	14.4	National Historic Landmark
Margate Fishing Pier	121 S. Exeter Avenue, Margate City, New Jersey	13.6	Potentially eligible
Missouri Avenue Beach (Chicken Bone Beach)	Atlantic City, New Jersey	11.2	Eligible (Determined by NJHPO)
Music Pier	825 Boardwalk, Ocean City, New Jersey	17.2	Eligible (Determined by NJHPO)
Ocean City Boardwalk	Ocean City, New Jersey	16.9	Eligible (Determined by NJHPO)
Residence at 114 South Harvard Avenue	114 South Harvard Avenue, Ventnor City, New Jersey	13.01	Eligible (Determined by NJHPO)
Residence at 125 South Montgomery Avenue	125 S. Montgomery Avenue, Atlantic City, New Jersey	12.4	Potentially eligible
Ritz Carlton Hotel	2715 Boardwalk, Atlantic City, New Jersey	11.66	Eligible (Determined by NJHPO)
Riviera Apartments	116 S. Raleigh Avenue, Atlantic City, New Jersey	12.3	Eligible (Determined by NJHPO)
Saint Leonard's Tract Historic District	Ventnor City, New Jersey	12.69	Eligible (Determined by NJHPO)

Resource Name	Location	Distance to Nearest WTG[2] (miles)	NRHP Status
Seaview Golf Club, Clarence Geist Pavilion	401 South New York Road, Galloway Township, New Jersey	15.6	Potentially eligible
Two-and-a-Half-Story Residence at 124 Atlantic Avenue	124 Atlantic Avenue, Atlantic City, New Jersey	10.65	Potentially eligible
Two-Story Residence at 108 South Gladstone Avenue	108 South Gladstone Avenue, Margate City, New Jersey	13.82	Eligible (Determined by NJHPO)
Two-Story Residence at 114 South Osborne Avenue	114 South Osborne Avenue, Margate City, New Jersey	14.11	Eligible (Determined by BOEM)
U.S. Coast Guard Station	900 Beach Thorofare, Atlantic City, New Jersey	11.46	Eligible (Determined by NJHPO)
Vassar Square Condominiums	4800 Boardwalk, Ventnor City, New Jersey	12.45	Eligible (Determined by BOEM)
Ventnor City Fishing Pier	Cambridge Avenue at the Ventnor City Boardwalk, Ventnor City, New Jersey	12.83	Potentially eligible

Source: COP, Volume II, Appendix II-O; Atlantic Shores 2023.

[1] BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of AMM measures. Additionally, BOEM anticipates that the number of adversely affected historic properties may be refined through ongoing Section 106 consultations.

[2] For the Proposed Action.

Atlantic City Boardwalk Historic District (Atlantic City, New Jersey)

The Atlantic City Boardwalk Historic District encompasses approximately 1.4 miles (2.3 kilometers) of boardwalk in Atlantic City, stretching from the Atlantic City Convention Hall in the south to the Garden Pier in the north, and contains many of the iconic Atlantic City resorts along the boardwalk. Originally constructed in 1870, the Atlantic City Boardwalk is one of the most famous attractions on the New Jersey shore and boasts the typical attractions seen on boardwalks, including amusement park rides, entertainment piers, food and drinks, and the iconic tram cars, in addition to renowned hotels and resorts. The Atlantic City Boardwalk Historic District retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Atlantic City. Despite its fluid construction history, its significance as an enduring vacation destination provides the District with sufficient integrity to convey its eligibility to the NRHP under Criterion A (Entertainment/Recreation) (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023).

The Atlantic City Boardwalk Historic District has a clear maritime setting and is located adjacent to the Atlantic Ocean, overlooking the beaches at Atlantic City. There would be unobstructed views of the Project due to the historic district's location on the boardwalk. Although the immediate shoreline and waters in proximity to the beaches along the district are critical elements of the historic setting, distant ocean views contribute to the district's integrity of feeling and association. Based on the proximity and the expansive ocean views available from within the district, the Project would be a significant focus of attention (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the district.

As described in the CHRVEA, this property is 10.47 miles (16.9 kilometers) from the nearest WTG associated with the Project and 8.62 miles (13.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs (up to blade tip) from this property is up to 876; 200 theoretically visible WTGs (22.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2023).

Atlantic City Convention Hall (National Historic Landmark in Atlantic City, New Jersey)

The Atlantic City Convention Hall NHL is located on the Atlantic City Boardwalk, with the building's primary orientation toward the Atlantic Ocean. The building's arcade is constructed to provide views of the beach and is anchored by public bath houses adjacent to the beach. The Atlantic City Convention Hall NHL was constructed in 1926–1929 by Lockwood-Greene and Co. and exhibits Beaux Arts and Romanesque style elements and features a cut limestone façade and curved arcade fronting the beach. The arcade features a covered double row of columns anchored by public bath houses on each end. The façade of the building features massive columns supporting Romanesque arches, and the recessed entrances feature large arched windows. Decorative motifs include elements popular on the Atlantic

City Boardwalk in the 1920s and include cut stone ocean flora and fauna. The massive auditorium behind the public entrance façade is clad in brick with an arched roof. The Atlantic City Convention Hall has been designated as an NHL with significance in architecture, engineering, and recreation. It is significant for its monumental architecture and represents significant engineering feats, containing at the time of its construction, the largest room with an unobstructed view ever built. The building is also significant for its role in the recreation of Atlantic City and the nation, becoming one of America's most popular venues for shows and events (COP Volume II, Appendix II-O, page 56; Atlantic Shores 2023).

The building's location on the Atlantic Coast lends to its historic significance as a beachside attraction within Atlantic City. A visual simulation from the Atlantic City Convention Hall NHL is included in the COP (see KOP AC02; COP Volume II, Appendix II-T; Atlantic Shores 2023). The KOP is located on the Boardwalk between Pacific, Mississippi, and Florida Avenues in Atlantic City, approximately 11.4 miles (18.3 kilometers) from the nearest proposed WTG. Viewshed analysis suggests that Project visibility from this general area would be largely limited to the open beach and boardwalk, and a few small parcels of open land that extend inland from there. Ground-level view of the Project would be completely blocked by the first inland row of built structures as one moves into the city. As shown in the visual simulation from KOP AC02, with the Project in place, numerous WTGs would be visible above the horizon line. The number and mass of the WTGs interrupt the horizon and dominate the view, despite being softened by their light color and distance from the viewer. The towers are not evenly spaced in this view, with the WTGs clustered densely at the center of the view. When clustered together, the WTGs appear as larger shapes than a single WTG. The WTGs are less clustered and more widely spaced at the edges of the view. The slightly hazy conditions soften the edges of the WTGs somewhat, but the proposed WTGs would dominate the viewer’s attention from this view (COP Volume II, Appendix II-O, page 56; Atlantic Shores 2023).

The Project is anticipated to result in potential visual adverse effects on the Atlantic City Convention Hall. The NHL would have unobstructed views of the Project due to the NHL’s location on the boardwalk. The Convention Hall and boardwalk both have a historic relationship to views of the ocean and the high level of sensitivity to visual effects, as publicly accessible recreation venues specifically designed for access to the beach and enjoyment of the ocean horizon. Although the primary association with historic recreation pertains to events held inside the Hall, and the critical association of the property to the Atlantic City Boardwalk would be unaffected by the Project, the property's design elements, siting, and orientation underscore the significance of the beach and ocean views to the Hall's historic setting. The proximity of the Project to this property suggests the WTGs would be a significant focus of visitor attention when the property is experienced from the boardwalk or other exterior vantages (COP Volume II, Appendix II-O, pages 56–57; Atlantic Shores 2023).

As described in the CHRVEA, the Atlantic City Convention Hall is 11.4 miles (18.4 kilometers) from the nearest WTG associated with the Project and 9.12 miles (14.7 kilometers) from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from the Atlantic City Convention Hall is 749. Of these, 200 theoretically visible WTGs (26.7 percent) would be from the proposed Project. As such, BOEM determined the Project would

add to the cumulative visual effects on the Atlantic City Convention Hall when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Brigantine Hotel (Brigantine City, New Jersey)

The Brigantine Hotel was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Art Deco style hotel was built in 1927 as a 10-story high-rise hotel situated on the southeast side of Ocean Avenue between 14th Street South and 15th Street South, bordering the beach. It is considered the first desegregated hotel of its type in New Jersey, starting with the purchase of the hotel by the International Peace Mission Movement in 1941. The movement consisted of followers of spiritual leader Reverend M.J. Divine (also known as Father Divine) and his economic plan. The hotel was purchased by African American entrepreneur, civil rights leader, and philanthropist Sarah Spencer Washington, and the beach in front of the hotel was one of the area's first integrated beach areas. The historical association with racially integrated beach recreation on the New Jersey shore is an integral element of the property's significance. The building currently functions as a beach resort with a beachfront restaurant and bar. The Brigantine Hotel is potentially eligible under NRHP Criterion A for its association with Entertainment/Recreation, African American Heritage, and Community Planning and Development. The resource retains architectural integrity and is also eligible under Criterion C as an example of an Art Deco hotel (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Brigantine Hotel was constructed as a seaside hotel with an associated beach area. The hotel has unobstructed views of Brigantine Beach and the Atlantic Ocean, and is an imposing building that can be seen from most areas of Brigantine Beach. There would be unobstructed views of the Project due to the historic property's location on the shoreline. The Project would be a major focus of attention when viewed from the property due to proximity and expansive views of the affected ocean horizon from the hotel and associated shoreline (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 9.91 miles (16 kilometers) from the nearest WTG associated with the Project and 9.61 miles (15.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 722; 200 theoretically visible WTGs (27.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Brighton Park (Atlantic City, New Jersey)

Brighton Park is located just to the north of the Atlantic City Boardwalk Historic District and just to the south of the contributing Claridge Hotel. The park is visible in aerial photographs dating to 1920, with the current concrete and brick walkways and decorative stone and concrete fountain in the middle of the park adhering to the historic park layout and design. The southern portion of the park consists of a stepped concrete amphitheater added between 1984 and 1995, and a Korean War Memorial that was

dedicated in 2000. This resource is recommended as a contributing resource to the Atlantic City Boardwalk Historic District (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

Brighton Park has a clear maritime setting and is located adjacent to the Atlantic Ocean. There would be unobstructed views of the Project due to the property's location on the boardwalk. The proximity to the beaches is a critical element of the historic setting for the Atlantic Boardwalk Historic District and this contributing property, and distant ocean views contribute to the district's integrity of feeling and association. Based on the proximity and the expansive ocean views available from the park, the Project would be a significant focus of attention (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 11.16 miles (18.7 kilometers) from the nearest WTG associated with the Project and 9.02 miles (14.52 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 557; 200 theoretically visible WTGs (35.9 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Central Pier (Atlantic City, New Jersey)

The Central Pier is a two-story, seven-bay building located on the Atlantic City beach adjacent to the boardwalk. The pier is significant for its association with recreation and entertainment on the Atlantic City boardwalk under Criterion A and for its architecture under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Central Pier has a maritime setting on the Atlantic City beach adjacent to the boardwalk with unobstructed views of the ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, the Central Pier is 10.85 miles (17.46 kilometers) from the nearest WTG associated with the Project and 8.77 miles (14.11 kilometers) from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible WTGs from the property is 592. Of these, 200 theoretically visible WTGs (33.8 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Atlantic City Convention Hall when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Colonial Revival Residence at 120 Atlantic Avenue (Atlantic City, New Jersey)

The property at 120 Atlantic Avenue is a two-and-a-half story Colonial Revival style residence resting on a raised foundation. The building is clad in brick and capped by a side gable roof covered in asphalt

shingles. The symmetrical full-width first floor porch with Doric columns supports a heavy entablature featuring brackets and dentils and second-story balcony with a balustrade interrupted by wide, squared piers. Three triangular pedimented dormers pierce the roof on the façade, and two-story projecting bays are located on the side elevations. The fenestration consists of nine-over-nine, twelve-over-twelve, windows with stone lintels and keystones. The main entrance is surrounded by multi-pane sidelights and transom. The building represents an excellent surviving example of the Colonial Revival style in Atlantic City and is potentially eligible for the NRHP under Criterion C for Architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The property at 120 Atlantic Avenue is located approximately 365 feet (111 meters) west of the Absecon Inlet and approximately 0.3 mile (0.5 kilometer) north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Project, but demolition of intervening buildings once located to the east of the house has substantially increased the ocean views. Therefore, the property would have unobstructed views of the Project due to the surrounding vacant land. The proximity of the property to the Project suggests the WTGs would be a major focus of attention and may detract from the historic shoreline setting and integrity of feeling associated with the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 10.65 miles (17.14 kilometers) from the nearest WTG associated with the Project and 9.03 miles (14.53 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 597; 200 theoretically visible WTGs (33.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Folk Victorian Residence at 5231-5229 Central Avenue (Ocean City, New Jersey)

The Folk Victorian Residence at 5231-5229 Central Avenue is located on the southeast side of Ocean Avenue within a dense residential block. The simple porches, strong bilateral symmetry and massing of the house are characteristic of duplex beachfront historic homes of its era. The house stands as a rare example of a Folk Victorian dwelling in Ocean City, and it retains sufficient integrity to convey its significance under NRHP Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The southeast (rear) elevation of the house has clear unobstructed views of Ocean City Beach and the Atlantic Ocean, and the parcel has private beach access. There would be unobstructed views from the rear of the property to the Project (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 20.82 miles (33.51 kilometers) from the nearest WTG associated with the Project and 11.86 miles (10.09 kilometers) from the nearest potential WTG location

for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 628; 200 theoretically visible WTGs (31.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Gillian's Wonderland Pier (Ocean City, New Jersey)

Gillian's Wonderland Pier was previously identified by NJHPO but was not evaluated for listing in the NRHP. The entertainment pier was opened in 1930 by David Gillian and is currently operated by third generation owner Jay Gillian. The pier retains sufficient integrity for eligibility in the NRHP under Criterion A for its association with Commerce and Community Planning and Development in Ocean City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

Gillian's Wonderland Pier is located on the southwest side of 6th Street, and the resource fronts the Ocean City Boardwalk. The Pier was built to serve patrons of the beach and boardwalk, and its proximity to the beach and ocean is one of its character-defining features. There would be unobstructed views to the Project from the Pier (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 17.01 miles (27.38 kilometers) from the nearest WTG associated with the Project and 10.9 miles (17.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 616; 200 theoretically visible WTGs (32.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

John Stafford Historic District (Ventnor City, New Jersey)

The John Stafford Historic District is significant under Criterion A as a planned community associated with important figures of the area, including prominent turn-of-the-20th-century real estate developer John Stafford and Philadelphia-based architect Frank Seeburger. It is also significant under Criterion C for its early-20th century Colonial Revival architecture. The development included early examples of zoning-type restrictions to ensure consistency and coherence of the neighborhood. Several contributing resources were commissioned works of prominent architects built for local hoteliers. The district was developed as a seaside resort that, unlike other places on the shore, was easily accessible by automobile. The periods of significance span 1900 to 1924 and 1925 to 1949 (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023).

The John Stafford Historic District was designed as a resort planned community located on the shoreline of the Atlantic Ocean. The district shares some parallels with other oceanside residential neighborhoods that developed in response to the late-19th century expansion of passenger rail service along the New

Jersey shore, but it reflects a greater emphasis on roadways designed to accommodate automobiles. The district's relationship to the shoreline and ocean are integral to its planned design. There would be unobstructed views of the Project from contributing resources along shoreline. The WTGs are expected to be a significant focus of viewers' attention from shoreline locations within the district's boundaries (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.47 miles (20.07 kilometers) from the nearest WTG associated with the Project and 9.63 miles (15.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 575; 200 theoretically visible WTGs (34.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Little Egg Harbor U.S. Life Saving Station #23 (Little Egg Harbor Township, New Jersey)

The Little Egg Harbor U.S. Life Saving Station #23 is located at the end of a private wooden boardwalk approximately 0.25 mile (0.4 kilometer) to the southwest of the terminus of Great Bay Boulevard within the Great Bay Boulevard Wildlife Management Area. The Station overlooks Great Bay and is located to the northwest of the Little Egg Inlet between Long Beach and North Brigantine. The Station was initially constructed as a lifesaving station in 1937, and its location in proximity to the ocean was imperative in order for rescuers to reach nearby shipwrecks on the Atlantic Ocean. The Little Egg Harbor U.S. Life Saving Station #23 was previously determined to be eligible for listing in the NRHP by NJHPO. It retains sufficient integrity to convey its significance under Criterion A for its association with Maritime History. The facility currently houses the Rutgers University Mullica River Field Station (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

There would be unobstructed views of the Project due to location of the Station. Although some screening of the Project would be provided by the barrier islands, expansive views of the Project would alter the historic viewshed and maritime setting of the lifesaving station (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 11.95 miles (19.23 kilometers) from the nearest WTG associated with the Project and 11.56 miles (18.6 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 659; 200 theoretically visible WTGs (30.3 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Lucy, the Margate Elephant (National Historic Landmark in Margate City, New Jersey)

Lucy, the Margate Elephant NHL is located at the corner of South Decatur and Atlantic Avenues in Margate City, one block west of the beach overlooking the Atlantic Ocean. The NHL was built in 1881 by as a real estate marketing gimmick by James Lafferty, who patented zoomorphic architecture. His "Elephant Bazaar" (dubbed "Lucy" by subsequent owners) had a wood frame and tin-clad wood sheathing; the frame has since been reinforced with steel. At 65 feet (20 meters) tall and 60 feet (18.3 meters) long, it is one of the largest statue-like structures in America and the oldest roadside tourist attraction. In 1970, after threats of demolition, Lucy was moved to a nearby city-owned lot and restored. It was designated as a NHL in 1976 (Pitts, 1976b as cited in COP Volume II, Appendix II-O; Atlantic Shores 2023).

A visual simulation taken from Lucy, the Margate Elephant NHL (KOP MC02 in the VIA; COP, Appendix II-T; Atlantic Shores 2023) is included in the COP (COP, Appendix II-O, Attachment E; Atlantic Shores 2023). The NHL is approximately 14.4 miles (23.2 kilometers) from the nearest proposed WTG. The photograph used for the simulation is taken from the vantage point of Lucy, the Margate Elephant's howdah, elevated approximately 60 feet (18.3 meters) above the ground. To the east from this viewpoint there are numerous, tall (multi-story), modern buildings and other structures in the immediate foreground, backed by a fenced and planted dune restoration area. Due to the elevated location of this viewpoint, the sky is unbroken by features like overhead utility poles and lines, but a high-rise apartment building is visible on the left side of the view (COP Volume II, Appendix II-O; Atlantic Shores 2023).

As shown in the visual simulation from KOP MC02, with the proposed Project in place, the WTGs will be visible with nacelles and rotors in full view above the horizon, occupying nearly the full field of view. Some of the Project's WTGs are concealed behind the apartment building on the left side of the view. The Project is anticipated to result in potential adverse visual effects on Lucy, the Margate Elephant. Due to the proximity of the Project to this NHL, views from within Lucy will allow for direct lines of site to the WTGs and will be a significant focus of visitor attention when viewing the ocean from the howdah or the portal windows (COP Volume II, Appendix II-O; Atlantic Shores 2023).

As described in the CHRVEA, Lucy, the Margate Elephant is 14.4 miles (23.2 kilometers) from the nearest WTG associated with the Project and 10.73 miles (17.27 kilometers) from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible WTGs from Lucy is 568. Of these, 200 theoretically visible WTGs (35.2 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on Lucy, the Margate Elephant when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Margate Fishing Pier (Margate City, New Jersey)

The Margate Fishing Pier was built in 1923 by the Anglers Club of Absecon Island, a members-only nonprofit club. The Pier extends approximately 733 feet (223 meters) into the Atlantic Ocean from Margate Beach. The Pier was constructed exclusively for the purpose of fishing by the Anglers Club, and,

as a result, it has full and unobstructed views of the ocean. The repair and replacement of historic materials is an inherent characteristic of wood piers. Although the pier has undergone various repairs over the course of the 20th century and after Super Storm Sandy in 2013, the pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with the Maritime History of Margate and Absecon Island (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

There would be unobstructed views of the Project due to the pier's location on the beach over the ocean. Views of the ocean horizon are characteristic of historic piers projecting into the Atlantic Ocean and are intimately associated with the historic setting and feeling of this property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 13.6 miles (21.9 kilometers) from the nearest WTG associated with the Project and 10.22 miles (16.45 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tip) from this property is up to 564; 200 theoretically visible WTGs (35.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Missouri Avenue Beach (Chicken Bone Beach) (Atlantic City, New Jersey)

From the end of the 1920s to the 1960s, Missouri Avenue Beach was effectively Atlantic City's official black beach. African American members of the Atlantic City Beach Patrol were assigned exclusively to what locals came to call Chicken Bone Beach. Missouri Avenue Beach (Chicken Bone Beach) is significant under NRHP Criterion A for its association with the African American history of Atlantic City. The significance of the Missouri Avenue Beach (Chicken Bone Beach) is directly related to its maritime setting as a beach for the African American community from the end of the 1920s to the 1960s (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

There would be unobstructed views of the Project due to the location of the beach. Unobstructed ocean views are characteristic of the beach setting both historically and currently. The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 11.2 miles (18.0 kilometers) from the nearest WTG associated with the Project and 8.97 miles (14.44 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 557; 200 theoretically visible WTGs (35.9 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Music Pier (Ocean City, New Jersey)

The Music Pier at Ocean City was opened in the summer of 1929. It was constructed after a fire destroyed a large portion of the boardwalk, including businesses and nearby homes. The Spanish Colonial style pier included a large concert hall and was used for conventions, bazaars, dances, and free summer concerts. At the onset of American involvement in World War II, a lookout tower was constructed on top of the pier to watch for submarines and U-boats on the Atlantic Ocean. Volunteers, ranging in age from teenagers to retirees, kept watch in the tower during the duration the war, and eventually the tower was used to spot aircrafts. Volunteers were recruited and trained by the local American Legion. The tower was dismantled in 1968. The Music Pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with Entertainment/Recreation and Maritime History in Ocean City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Music Pier is located on the southeast side of the Ocean City boardwalk at Moorlyn Terrace. The pier extends approximately 218 feet (66 meters) over the beach and provides expansive views of the ocean from inside and outside of the building. The location of the property on the beach and off the boardwalk is one of the character-defining features of the pier. There would be unobstructed views to the Project from the Pier (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 17.2 miles (27.7 kilometers) from the nearest WTG associated with the Project and 10.97 miles (17.65 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 616; 200 theoretically visible WTGs (32.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Ocean City Boardwalk (Ocean City, New Jersey)

The Ocean City Boardwalk was originally constructed in 1905, replacing a wooden walkway that was constructed in 1880. Hotels, recreational, and entertainment venues were constructed in the early 20th century. In 1927, the boardwalk and many surrounding buildings were destroyed by fire. When the boardwalk was reconstructed in 1928, it was moved closer to the Atlantic Ocean. Although portions of the boardwalk have been replaced, the Ocean City Boardwalk retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Ocean City (COP Volume II, Appendix II-O, Attachment D; Atlantic Shores 2023).

The Ocean City Boardwalk has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Ocean City (COP Volume II, Appendix II-O, Attachment D; Atlantic Shores 2023). There would be unobstructed views of the Project from multiple areas along the boardwalk. Unobstructed ocean views are characteristic of the boardwalk's historic setting. The introduction of the

intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 16.9 miles (27.2 kilometers) from the nearest WTG associated with the Project and 10.87 miles (17.49 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 589; 200 theoretically visible WTGs (34.0 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Residence at 114 South Harvard Avenue (Ventor City, New Jersey)

The residence at 114 South Harvard Avenue is a two-and-a-half story French Eclectic Style structure with a side porch, an attached garage, and a short stair turret tucked into the ell. The house is stuccoed with colored asphalt shingles on the roof. The entry porch is arched and has a small balustrade on the roof. This resource has sufficient integrity to convey its eligibility for the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The property is a beachfront home. Its primary orientation is to the street, but the second-floor side porch and windows have unobstructed views of the Atlantic Ocean. The property would have unobstructed views to the Project from these elevated vantage points (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 13.01 miles (20.94 kilometers) from the nearest WTG associated with the Project and 9.92 miles (15.96 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 568; 200 theoretically visible WTGs (35.2 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Residence at 125 South Montgomery Avenue (Atlantic City, New Jersey)

The residence at 125 South Montgomery Avenue is a ca. 1910 two-story Spanish Colonial dwelling covered in stucco and capped by a hipped roof covered in clay tile. The building includes two projecting wings on the southwest (primary) elevation connected by a one-story central arcaded entry porch with three round arches supported by Corinthian columns. The windows are decorated with round arch surrounds on the second floor and decorative entablatures on the first floor. A carriage house/garage is attached to the northwest elevation. The house retains sufficient integrity to convey its significance under National Register Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The residence at 125 South Montgomery Avenue is located immediately to the northwest of the Atlantic City Boardwalk and beaches. Although the house is oriented toward South Montgomery Avenue and not the ocean, it has a clear maritime setting as the views from the southeast elevation offer unobstructed views toward the ocean. The Project is expected to be a significant focus of viewer attention from this area due to the proximity of WTGs to the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.4 miles (19.9 kilometers) from the nearest WTG associated with the Project and 9.6 miles (15.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 561; 200 theoretically visible WTGs (35.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Ritz Carlton Hotel (Atlantic City, New Jersey)

The Ritz Carlton Hotel is an 18-story building clad in brick that opened in June of 1921. Constructed with elements of the Beaux Arts style, the building was a prominent hotel in Atlantic City in the 1920s and housed prominent guests such as Calvin Coolidge, Warren G. Harding, and Al Capone. The hotel was converted to army barracks during World War II, and in 1969 was converted into apartments. In 1982 the building was converted into condominiums. Today the building survives as a rare representation of 1920s hotel architecture on the Atlantic City Boardwalk. It has been determined eligible for NRHP listing under Criteria A and C by NJHPO (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Ritz Carlton Hotel is located on the Atlantic City Boardwalk. The building's primary orientation is toward the ocean, and the building is designed to provide views toward the sea. The building's location on the coast lends to its historic significance as a beachside resort hotel. Demolition and redevelopment of surrounding parcels has diminished the integrity of setting for the property, but the critical relationship of the historic hotel to the boardwalk and adjacent shoreline has been retained. Due to the surrounding modern structures and infrastructure, the historic property would have unobstructed views of the Project. The Project would affect the most intact surviving elements of the property's historic setting (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 11.66 miles (18.77 kilometers) from the nearest WTG associated with the Project and 9.26 miles (14.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 807; 200 theoretically visible WTGs (24.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects

on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Riviera Apartments (Atlantic City, New Jersey)

The Riviera Apartments building was designed by architect Henry Sternfeld and was constructed between 1929 and 1930. The building has been determined eligible for the NRHP by NJHPO under Criterion C for its Spanish and Art Deco-style architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Riviera Apartments building is located on the Atlantic City boardwalk with clear ocean views from the main façade and partial views from the northern and southern elevations (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.3 miles (19.8 kilometers) from the nearest WTG associated with the Project and 9.54 miles (15.35 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 557; 200 theoretically visible WTGs (35.9 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Saint Leonard's Tract Historic District (Ventnor City, New Jersey)

The Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930. The buildings are eligible for the NRHP under Criterion A and C for as a designed community with strict building requirements for its architecture. The St. Leonard's Land Company purchased the land in 1896 and designed the district in a grid pattern (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023).

The Saint Leonard's Tract Historic District is located between the Atlantic Ocean and the Intercoastal Waterway with many residences having views of one or both bodies of water. The setting of the district on a coastal barrier and the presence of water views along the perimeter of the neighborhood are integral to its character and feeling. There would be unobstructed views of the Project from contributing resources along the shoreline (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.69 miles (20.42 kilometers) from the nearest WTG associated with the Project and 9.75 miles (15.69 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 731; 200 theoretically visible WTGs (27.4 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual

effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Seaview Golf Club, Clarence Geist Pavilion (Galloway Township, New Jersey)

The Seaview Golf Club consists of a 296-room hotel and a Colonial Revival-style clubhouse set on 697 acres (282 hectares) in Galloway Township. The property features two 18-hole golf courses. The Bay Course was opened in 1914 and was designed by Hugh Wilson and Donald Ross. This course is situated along the bay and provides bayside views and distant views of Brigantine on the barrier island. The Pines Course was opened in 1929 and was designed by William Flynn and Howard Toomey. This course is located to the west of the clubhouse and hotels and winds through New Jersey pinelands. The golf club is currently the site of the ShopRite LPGA Classic and hosted nine holes in the 1942 PGA Championship. This resource is recommended eligible for the NRHP under Criteria A and C under Recreation and Architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Seaview Golf Club is located approximately 6 miles (9.7 kilometers) northwest of the Atlantic Ocean and borders Reeds Bay with views of the bay from the Bay Course. Ocean views are in important component of the setting reflected in the course design and layout. The Project would be visible from the Bay Course on the eastern portion of the historic property, as well as in small areas of the property to the west of S. New York Road including the hotel and clubhouse (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 15.6 miles (25.1 kilometers) from the nearest WTG associated with the Project and 14.92 miles (24.01 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 655; 200 theoretically visible WTGs (30.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Two-and-a-Half-Story Residence at 124 Atlantic Avenue (Atlantic City, New Jersey)

This property is a two-and-a-half-story Dutch Colonial residence set on a raised foundation. It is clad in brick on the first floor and wood shingle on the upper floors, and is capped by a cross-gable roof, with a gambrel gable on the front façade, covered in asphalt shingles. The residence features a full width, curved front porch, with a flat roof supported by wood columns resting on brick supports. Arched windows and arcade are located in the raised basement and first floor, and a large Palladian window is located on the second-floor façade. This resource is potentially eligible for the NRHP under Criterion C for Architecture as an excellent and exceedingly rare example of the Dutch Colonial Revival style architecture in northern Atlantic City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

This resource is located approximately 430 feet (137 meters) west of the Absecon Inlet and approximately 0.3 mile (0.5 kilometer) north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Project, but demolition of intervening buildings once located to the east of the house has substantially increased the ocean views. Therefore, the property would have unobstructed views of the Project due to the surrounding vacant land. The proximity of the property to the Project suggests that the WTGs would be a major focus of attention and may detract from the historic shoreline setting and integrity of feeling associated with the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 10.65 miles (17.14 kilometers) from the nearest WTG associated with the Project and 9.03 miles (14.53 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 594; 200 theoretically visible WTGs (33.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Two-Story Residence at 108 South Gladstone Avenue (Margate City, New Jersey)

The residence at 108 South Gladstone Avenue is a two-story French Eclectic built ca. 1930 of stone. It has a hipped roof with flaring eaves, a stone chimney, a centered tower entry, and a one-story side porch with arched openings. A Juliet balcony in the tower and dormer balconies over the side porch have wrought iron rails. The property has sufficient integrity to convey its eligibility to the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

Though the façade is oriented to face the street, this residence is a beachfront property, and the side porch and upper windows face the ocean (COP, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 14.11 miles (22.71 kilometers) from the nearest WTG associated with the Project and 10.44 miles (16.8 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 577; 200 theoretically visible WTGs (34.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Two-Story Residence at 114 South Osborne Avenue (Margate City, New Jersey)

The residence at 114 South Osborne Avenue is a Colonial Revival structure with brick walls laid in Flemish bond. It has chimneys on the side gables, keystones over the windows, a fan light and sidelights

at the entry, and modillions under the front eave and in the porch entablature. Though some alterations in the windows have been made, the house retains sufficient integrity to convey its eligibility to the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

From the street level, the sand dune topography limits views of the water. Though the façade is oriented to face the street, this residence is a beachfront property and the windows on the south elevation appear to have clear unobstructed views of the ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 14.11 miles (22.71 kilometers) from the nearest WTG associated with the Project and 10.63 miles (17.11 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 577; 200 theoretically visible WTGs (34.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

U.S. Coast Guard Station (Atlantic City, New Jersey)

The U.S. Coast Guard (USCG) Station at Atlantic City was constructed in 1939 and was at that time the largest lifeboat station in the Guard. It replaced a series of earlier stations that had served the area. Though renovated in 1988, it retains sufficient integrity to convey its eligibility to the NRHP under Criterion A (Military), as determined by NJHPO (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The USCG Station is located to the junction of Clam Creek and Absecon Inlet, where the moorings are protected but are only 1 mile (1.6 kilometers) from the open ocean. The setting and function of the property are maritime in character, and the property has partial views of the ocean. The majority of the proposed WTGs would be visible from the property and could be a significant focus of viewer attention based on proximity (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 11.46 miles (18.44 kilometers) from the nearest WTG associated with the Project and 9.91 miles (15.95 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 604; 200 theoretically visible WTGs (33.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Vassar Square Condominiums (Ventnor City, New Jersey)

The Vassar Square Condominiums are sited in a high-rise brick and glass-clad 20-story building located directly on the Boardwalk. Construction on the building began in 1968, and it originally contained apartments. Following the real estate boom in the region in the 1970s, the building was converted into condominiums, the first high-rise building to make that conversion on the Ventnor Boardwalk. The building is recommended eligible for the NRHP under Criterion C for its architecture. The building exhibits elements of Modern architecture including the cantilevered curved balconies with glass railings and curved columns (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Vassar Square Condominiums are located on the Boardwalk, and the building was designed for views toward the ocean. There would be unobstructed views of the Project from the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.45 miles (20.04 kilometers) from the nearest WTG associated with the Project and 9.62 miles (15.48 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 800; 200 theoretically visible WTGs (25.0 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

Ventnor City Fishing Pier (Ventnor City, New Jersey)

The Ventnor City Pier was constructed in 1963 and was the fourth pier built at this site and is the longest fishing pier in New Jersey. The repair and replacement of historic materials is an inherent characteristic of wood piers. The Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric. Although the pier underwent extensive renovations in 2017, it retains sufficient integrity to convey its significance under Criterion A for its association with the Maritime History of Ventnor City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023).

The Ventnor City Fishing Pier extends approximately 990 feet (302 meters) from the boardwalk into the Atlantic Ocean. As the pier was constructed primarily for fishing, there are full and unobstructed views to the Atlantic Ocean from the pier (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2023). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

As described in the CHRVEA, this property is 12.83 miles (20.7 kilometers) from the nearest WTG associated with the Project and 9.72 miles (15.6 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 568; 200 theoretically visible WTGs (35.2 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects

on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2023).

I.3.1.4 Assessment of Effects on Historic Properties in the O&M Facility APE

Cultural resource investigations completed for the Proposed Action identified seven historic properties in the visual portion of the O&M facility APE (COP Volume II, Appendices II-P2 and II-N2; Atlantic Shores 2023). Based on the information presented below, BOEM finds that historic properties would not be adversely affected in the O&M facility APE.

Physical Effects in the O&M Facility APE

No cultural resources have been identified in the physical APE for the O&M facility. Atlantic Shores' Phase IA reconnaissance investigations found no marine or terrestrial archaeological or historic aboveground resources in the physical APE for the O&M facility (COP Volume II, Appendix II-P2; Atlantic Shores 2023). Cultural resource investigations completed for the Proposed Action have found that the bulkhead subject to repair or replacement under the connected action is not itself a historic property eligible for listing in the NRHP and subject to adverse effects. The terrestrial area of the physical APE is paved, and therefore no Phase IB subsurface archaeological investigations could be performed. However, Atlantic Shores found this area has been significantly disturbed and thus has a low likelihood to contain intact or potentially significant archaeological resources. Additionally, the marine area of the physical APE coincides with an area proposed for a maintenance dredging program under the connected action (see Figure I.B-15); USACE's statement of findings for this program's DA Permit found no effect on historic properties within the area overlapping with the O&M facility APE.[2] Based on this information, BOEM finds that no historic properties are subject to physical adverse effects in the O&M facility APE.

Atlantic Shores' Marine and Terrestrial Archaeology MPRDPs will be in effect for all bottom- or ground-disturbing activities occurring in the O&M facility APE; these plans would provide guidance and instructions to all contractors on how to proceed in the unlikely event of encountering unanticipated cultural resources, grave shafts, or burials during work. BOEM will use the MOA to establish commitments for implementing these MPRDPs and measures to minimize or mitigate effects in these areas if unanticipated discoveries are encountered. See Attachments 5 and 6 of Attachment A, *Memorandum of Agreement*, for the MPRDPs.

Visual Effects in the O&M Facility APE

Seven aboveground historic properties were identified within the visual APE for the O&M facility. All seven properties are listed in or eligible for listing in the NRHP. The setting of the proposed O&M facility is urban and developed and is characterized by modern marinas and residential and commercial

[2] USACE's NHPA Section 106 finding of no effect in DA Permit CENAP-OPR-2021-00573-95 applies to a permit area encompassing but larger than the marine area of the physical APE. See Attachment A, *Draft Memorandum of Agreement*, for BOEM's formal incorporation of USACE's finding of no effect for this permit area into BOEM's finding of effect for this undertaking where relevant.

development. Due to the intervening development and vegetation, the visibility of the O&M facility from the three historic properties identified within the APE will be limited. The O&M facility will not adversely affect the historic and architectural characteristics and significance or the setting of any of the seven properties. Finally, the construction and operation of the O&M facility will not result in physical effects on any of the seven properties (COP Volume II, Appendix II-N2; Atlantic Shores 2023).

I.3.2 Summary of Adversely Affected Historic Properties

I.3.2.1 Adverse Effects on Historic Properties in the Marine APE

The Project would have no effect on the 21 marine archaeological resources in the marine APE due to Atlantic Shores' commitment to avoidance of these historic properties. However, the Project would have adverse effects on the 37 ASLFs that are historic properties in the marine APE. Development of the final Project design is ongoing, and it is currently unclear whether Atlantic Shores would be able to avoid adverse effects on the ASLFs. Therefore, BOEM has determined the undertaking would have adverse effects on historic properties in the marine APE. BOEM anticipates that the number of adversely affected historic properties in the marine APE may be refined through ongoing Section 106 consultations.

I.3.2.2 Adverse Effects on Historic Properties in the Terrestrial APE

The Project would have adverse effects on known historic properties in the terrestrial APE: one terrestrial archaeological resource and one historic aboveground resource (COP Volume II, Appendices II-N1 and II-P1; Atlantic Shores 2023). Additional investigations and consultation with the NJHPO may enable a conclusive determination of whether the terrestrial archaeological resource is a historic property eligible for listing in the NRHP subject to adverse effects and whether archaeological elements contributing to the NRHP eligibility of the historic aboveground resource are present in the terrestrial APE. However, at present, BOEM has determined these two resources to be historic properties in the terrestrial APE on which the undertaking will have adverse effects.

Additional terrestrial archaeological resources subject to adverse effects from the Project may be identified during Atlantic Shores' process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (Section I.5, *Phased Identification and Evaluation*). As detailed in the Atlantic Shores' PIP (COP Volume II, Appendix II-P1; Atlantic Shores 2023), AMM measures will be determined or refined following the completion of the remaining terrestrial archaeological survey and analysis. BOEM will use the MOA to establish commitments for reviewing the sufficiency of any supplemental terrestrial archaeological investigations as phased identification; assessing effects; and implementing measures to avoid, minimize, or mitigate effects in these areas prior to construction. BOEM anticipates that the number of adversely affected historic properties in the terrestrial APE may be refined through the phased process and ongoing Section 106 consultations.

I.3.2.3 Adverse Effects on Historic Properties in the Visual APE

Based on the information BOEM has available from the studies conducted to identify historic properties in the visual APE of the Project and the assessment of effects upon those properties determined in consultation with the consulting parties, BOEM has found that the Proposed Action would have direct visual adverse effects on a total of 27 aboveground historic properties, including 2 NHLs: the Atlantic City Convention Hall and Lucy, The Margate Elephant (see Table I-8). The undertaking would introduce visual elements that are out of character with the historic setting that contributes to the historic property's significance. However, BOEM has determined that, due to the distance and open viewshed between the historic properties and affecting Project components, the integrity of the historic properties would not be so diminished as to *disqualify* any of them from NRHP eligibility. The adverse effects on the viewshed of the aboveground historic properties would occupy the space for approximately 30 years, but they are unavoidable for reasons discussed in Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*. This application of the criteria of adverse effect and determination that the effects are direct are based on pertinent NRHP bulletins, subsequent clarification and guidance by ACHP and the National Park Service (NPS), and other documentation, including professionally prepared viewshed assessments and computer-simulated photographs.

Where BOEM determined adverse effects would occur from Offshore Project actions on historic properties, BOEM then assessed if those effects would add to the potential adverse effects of other reasonably foreseeable actions and thereby result in cumulative effects, which are additive effects. Where BOEM found adverse visual effects on historic properties in the visual APE for Offshore Project components (see Table I-8), BOEM also determined that the undertaking would cause cumulative visual effects (BOEM 2023).

I.3.2.4 Adverse Effects on Historic Properties in the O&M Facility APE

BOEM anticipates the undertaking would have no effect on historic properties in the O&M facility APE. BOEM will use the MOA to establish commitments for implementing the Marine and Terrestrial Archaeology MPRDPs and measures to minimize or mitigate effects in these areas if unanticipated discoveries are encountered. See Attachment A, *Memorandum of Agreement*, for additional details.

I.4 Actions to Avoid, Minimize, or Mitigate Adverse Effects

As a requirement of COP approval, BOEM will stipulate measures to avoid, minimize, or mitigate adverse effects, including cumulative visual effects, on historic properties identified in the APE as caused by the Project. This includes considering all prudent and feasible alternatives to avoid adverse effects as discussed in Section I.4.1, *Alternatives Considered*. Specifically, BOEM will stipulate measures for marine archaeological resources, ASLFs, terrestrial archaeological resources, and historic aboveground resources determined to be historic properties listed or eligible for listing in the NRHP. BOEM will also stipulate mitigation measures that would be triggered in cases where there is unanticipated discovery of previously unknown marine or terrestrial archaeological resources that are not currently found to be subject to adverse effects from the Project.

BOEM, with the assistance of Atlantic Shores, will develop and implement one or multiple Historic Property Treatment Plans (HPTPs) in consultation with consulting parties, including any property owners, who have demonstrated interest in specific historic properties to address effects on these resources if they cannot be avoided. HPTPs will also provide details and specifications for actions consisting of mitigation measures to resolve adverse effects. See Attachments 7 through 20 of Attachment A, *Memorandum of Agreement*, for draft HPTPs prepared by Atlantic Shores.

I.4.1 Alternatives Considered

BOEM's election to use NEPA substitution for the Section 106 review of the Project includes the identification and evaluation of historic properties for the undertaking and assessment of effects for all the action alternatives identified during the NEPA review and as presented in the Draft EIS. The Draft EIS analyzes the impacts of the Project on the human environment and specifically on cultural resources, including historic properties. The NEPA Draft EIS and Section 106 review analyze a total of six alternatives (i.e., A through F) as summarized in Table I-9. Additional details on the action alternatives can be found in Chapter 2 of the Draft EIS.

Table I-9. Summary of alternatives analyzed in the Draft EIS and Section 106 review

Alternative	Description
Alternative A – No Action	Under Alternative A, BOEM would not approve the COP; the Project's construction and installation, O&M, and eventual decommissioning would not occur; and no additional permits or authorizations for the Project would be required. Any potential environmental and socioeconomic impacts, including benefits, associated with the Project as described under the Proposed Action would not occur. Under the No Action Alternative, impacts on marine mammals incidental to construction activities would not occur. Therefore, the National Marine Fisheries Service (NMFS) would not issue the requested authorization to the applicant under the Marine Mammal Protection Act (MMPA). The current resource conditions, trends, and effects from ongoing activities under the No Action Alternative serve as the existing baseline against which all action alternatives are evaluated. Over the life of the proposed Project, other reasonably foreseeable future impact-producing offshore wind and non-offshore wind activities are expected to occur, which would cause changes to the existing baseline conditions even in the absence of the Proposed Action. The continuation of all other existing and reasonably foreseeable future activities described in Appendix D, *Ongoing and Planned Activities Scenario,* without the Proposed Action, serves as the baseline for the evaluation of cumulative impacts.
Alternative B – Proposed Action	Under Alternative B (see Figure 2.1-1 in Chapter 2), the construction and installation, O&M, and eventual decommissioning of the Atlantic Shores South Project, which consists of two wind energy facilities (Project 1 and Project 2) on the OCS offshore of New Jersey, would be built within the range of the design parameters outlined in the Atlantic Shores South COP (Atlantic Shores 2023), subject to applicable mitigation measures. The Atlantic Shores South Project would include up to 200 total WTGs (between 105 and 136 WTGs for Project 1, and between 64 and 95 WTGs for Project 2), up to 10 OSSs (up to 5 in each Project), up to 1 permanent met tower, and up to 4 temporary metocean buoys (up to 1 met tower and 3 metocean buoys in Project 1, and 1 metocean buoy in Project 2), interarray and interlink cables, 2 onshore substations, 1 O&M facility, and up to 8 transmission cables making landfall at two New Jersey locations. The proposed landfall locations are the Monmouth landfall in Sea Girt, New Jersey, with an onshore route to the existing Larrabee Substation POI and the Atlantic landfall in Atlantic City, New Jersey, with an onshore route to the existing Cardiff

Alternative	Description
	Substation POI. Project 1 would have a capacity of 1,510 MW. Project 2's capacity is not yet determined, but Atlantic Shores has a goal of 1,327 MW, which would align with the interconnection service agreement Atlantic Shores intends to execute for both projects with the regional transmission organization (RTO), PJM.[1]
Alternative C – Habitat Impact Minimization/ Fisheries Habitat Impact Minimization[2]	Under Alternative C, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, the layout and maximum number of WTGs and OSSs would be adjusted to avoid and minimize potential impacts on important habitats. NMFS identified two areas of concern (AOCs) within the Lease Area that have pronounced bottom features and produce habitat value. AOC 1 is part of a designated recreational fishing area called "Lobster Hole." AOC 2 is part of a sand ridge (ridge and trough) complex. • **Alternative C1: Lobster Hole Avoidance** (Figure 2.1-8) Up to 16 WTGs, 1 OSS, and associated interarray cables within the Lobster Hole designated area as identified by NMFS would be removed. • **Alternative C2: Sand Ridge Complex Avoidance** (Figure 2.1-9) Up to 13 WTGs and associated interarray cables within the NMFS-identified sand ridge complex would be removed. • **Alternative C3: Demarcated Sand Ridge Complex Avoidance** (Figure 2.1-10) Up to 6 WTGs and associated interarray cables within 1,000 feet (305 meters) of the sand ridge complex area identified by NMFS, but further demarcated through the use of the National Oceanic and Atmospheric Administration's (NOAA's) Benthic Terrain Modeler and bathymetry data provided by Atlantic Shores, would be removed. • **Alternative C4: Micrositing** This alternative consists of micrositing 29 WTGs, 1 OSS, and associated interarray cables outside of 1,000-foot (305-meter) buffers of ridges and swales within AOC 1 and AOC 2.
Alternative D – No Surface Occupancy at Select Locations to Reduce Visual Impacts	Under Alternative D, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, the no surface occupancy would occur at select WTG positions to reduce the visual impacts of the proposed Project. • **Alternative D1: No Surface Occupancy of Up to 12 Miles (19.3 Kilometers) from Shore: Removal of Up to 21 Turbines** (Figure 2.1-11) This alternative would exclude placement of WTGs up to 12 miles (19.3 kilometers) from shore, resulting in the removal of up to 21 WTGs from Project 1 and associated interarray cables. The remaining turbines in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) above mean sea level (AMSL) and maximum blade tip height of 932 feet (284 meters) AMSL. • **Alternative D2: No Surface Occupancy of Up to 12.75 Miles (20.5 Kilometers) from Shore: Removal of Up to 31 Turbines** (Figure 2.1-12) The up to 31 WTGs sited closest to shore would be removed, as well as the associated interarray cables. The remaining WTGs in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) AMSL and maximum blade tip height of 932 feet (284 meters) AMSL. • **Alternative D3: No Surface Occupancy of Up to 10.8 Miles (17.4 Kilometers) from Shore: Removal of Up to 6 Turbines** (Figure 2.1-13) The up to 6 WTGs sited closest to shore would be removed, as well as the associated interarray cables. The remaining WTGs in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) AMSL and maximum blade tip height of 932 feet (284 meters) AMSL.

Alternative	Description
Alternative E – Wind Turbine Layout Modification to Establish a Setback between Atlantic Shores South and Ocean Wind 1	Under Alternative E (Figure 2.1-14), the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, modifications would be made to the wind turbine array layout to create a 0.81-nautical-mile (1,500-meter) to 1.08-nautical-mile (2,000-meter) setback range between WTGs in the Atlantic Shores South Lease Area (OCS-A 0499) and WTGs in the Ocean Wind 1 Lease Area (OCS-A 0498) to reduce impacts on existing ocean uses, such as commercial and recreational fishing and marine (surface and aerial) navigation. There would be no surface occupancy along the southern boundary of the Atlantic Shores South Lease Area through the exclusion or micrositing of up to four to five WTG positions to allow for a 0.81-nautical-mile (1,500-meter) to 1.08-nautical-mile (2,000-meter) separation between WTGs in the Atlantic Shores South Lease Area and WTGs in the Ocean Wind 1 Lease Area.
Alternative F – Foundation Structures	Under Alternative F, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. This includes a range of foundation types (of monopile and piled jacket, suction bucket, and gravity-based). To assess the extent of potential impacts of each foundation type for up to 211 foundations (inclusive of WTGs, OSSs, and 1 permanent met tower [Project 1]), this Draft EIS analyzes the following: • **Alternative F1: Piled Foundations** The use of monopile and piled jacket foundations only is analyzed for the maximum extent of impacts. • **Alternative F2: Suction Bucket Foundations** The use of the mono-bucket, suction bucket jacket, and suction bucket tetrahedron base foundations only is analyzed for the maximum extent of impacts. • **Alternative F3: Gravity-Based Foundations** The use of gravity-pad tetrahedron and gravity-based structure foundations only is analyzed for the maximum extent of impacts.

[1] Atlantic Shores plans to enter into interconnection service agreements and interconnection construction service agreements with PJM to fund improvements to the onshore Cardiff and Larrabee substations, along with required grid updates. These agreements are distinct from purchase power agreements (PPAs) (applicable in Connecticut, Massachusetts, and Rhode Island) and Offshore Wind Renewable Energy Certificates (ORECs) (applicable in Maryland, New Jersey, and New York). An OREC represents the environmental attributes of 1 megawatt hour (MWh) of electric generation from an offshore wind project. The New Jersey Board of Public Utilities (BPU) awards ORECs through a competitive bidding process and they represent a long-term contract with the State of New Jersey.

[2] The number of WTGs that could be removed may be reduced if this alternative is selected and combined with another alternative that requires removal of additional WTG positions, and if that combination of alternatives would fail to meet the purpose and need, including any awarded offtake agreement(s).

I.4.1.1 Action Alternatives that Would Minimize the Adverse Effect of the Project

While some of the action alternatives and sub-alternatives identified for the Project may avoid, minimize, or mitigate adverse effects on some historic properties, no alternative that meets the purpose and need of Project development in the Lease Area would fully avoid adverse effects on historic properties, including from visual effects on NHLs. The following sections compare the other action alternatives to the Proposed Action and discuss which would avoid or minimize the adverse effect of the Project on historic properties. See Chapter 3, Section 3.6.2, *Cultural Resources,* of the Draft EIS for

additional details on each alternative as applicable to cultural resources and historic properties and for NEPA analyses of the potential impacts of these alternatives on cultural resources.

Minimization of Physical Effects on Historic Properties

The Proposed Action (Alternative B) is anticipated to have physical adverse effects on historic properties; specifically, these include 37 ASLFs in the marine APE (i.e., [redacted]), and 1 terrestrial archaeological resource and 1 historic aboveground resource (i.e., the West Jersey and Atlantic Railroad Historic District) in the terrestrial APE.

Alternatives C, D, E, and F all involve a potential reduction in the number of Offshore Project components that would be built for the Project or a change in foundation type, thereby potentially reducing seabed-disturbing activities that could cause physical adverse effects on historic properties. Physical adverse effects on the terrestrial archaeological resource and historic aboveground resource would not be avoided or minimized under any of these action alternatives. However, the reduction in number of WTGs, OSSs, and associated interlink cables may minimize effects on ASLFs depending on the locations of the removed components in relation to the specific locations of these historic properties. ASLFs located within the area from which Offshore Project components would be removed would experience no or reduced effects from the Project. Additionally, removal of Offshore Project components under these alternatives would reduce potential physical adverse effects on presently undiscovered marine archaeological resources in these areas. However, while these alternatives may minimize adverse effects on some specific historic properties, they may also introduce adverse effects on others. A discussion of each alternative and sub-alternative is provided below.

Alternative C includes four sub-alternatives (C1, C2, C3, and C4) that would involve the adjustment of layout or maximum number of WTGs and OSSs (i.e., removal of WTGs, OSSs, and associated interlink cables). Alternative C1 would result in a reduction but not full avoidance of adverse effects on three ASLFs (i.e., [redacted]). Both Alternatives C2 and C3 would result in a reduction of adverse effects on two ASLFs (i.e., [redacted]). Additionally, Alternative C2 could result in full avoidance of effects on these resources and Alternative C3 could result in full avoidance of effects on [redacted] depending on Atlantic Shores' implementation of avoidance buffers around the defined resource boundaries. Alternative C4 would result in the same adverse effects on ASLFs as the Proposed Action.

Alternative D includes three sub-alternatives (D1, D2, and D3) that would involve adjustments to the layout and maximum number of WTGs (i.e., removal of WTGs, and associated interlink cables and reduction of height of remaining WTGs in the Lease Area). Alternative D1 would result in a reduction but not full avoidance of adverse effects on two ASLFs ([redacted]). Alternative D2 would also result in a reduction of adverse effects on two ASLFs (i.e., [redacted]). Additionally, Alternative D2 may allow for full avoidance of [redacted] depending on Atlantic Shores' implementation of avoidance buffers around the defined resource boundary. Alternative D3 would result in the same adverse effects on ASLFs as the Proposed Action.

Alternative E would involve modifications to the wind turbine array layout to create a setback between the WTGs in the lease areas of Atlantic Shores South (OCS-A 0499) and Ocean Wind 1 (OCS-A 0498) (i.e.,

removal or micrositing of WTGs and associated interlink cables). A setback of 0.81 to 1.08 nautical miles (1,500 to 2,000 meters) would occur along the southern boundary of the Lease Area through the exclusion or relocation of up to four to five WTG positions proposed under the Proposed Action. Alternative E would result in a reduction but not full avoidance of adverse effects on three ASLFs ([redacted]).

Alternative F includes three sub-alternatives (F1, F2, and F3) to analyze the maximum design scenario for each of the three different foundation categories that could be used for WTGs, OSSs, and met tower. Alternative F1 involves the use of piled foundations for all foundations. Alternative F2 involves the use of suction bucket foundations for all foundations. Lastly, Alternative F3 involves the use of gravity foundations for all foundations. Effects on ASLFs may be reduced, the same, similar, or increased compared to those under the Proposed Action depending on the final foundation type(s) selected under the Proposed Action and specific locations of ASLFs in relation to the proposed WTGs, OSSs, and met tower. The severity of effect on these historic properties increases with the size of the foundation type and anticipated seabed disturbance. However, overall, the nature and physical extent of proposed activities under this alternative would be largely comparable to those of the Proposed Action.

Overall, the potential reduced scale of Alternatives C, D, E, and F may minimize physical adverse effects on historic properties. However, and despite the relatively substantial area that would not be disturbed under Alternatives D1 and D2, the majority of ASLFs subject to effect under the Proposed Action are located in other areas of the marine APE that are unchanged under Alternatives C, D, E, and F. As a result, these alternatives may reduce adverse effects on specific individual ASLFs but would not avoid or substantially minimize adverse effects on ASLFs in general. Because of all these factors, the only alternative that BOEM was able to identify that avoids any Project effects on these historic properties was the No Action Alternative.

Minimization of Visual and Cumulative Visual Effects on Historic Properties

The Proposed Action (Alternative B) is anticipated to have visual adverse effects on historic properties; specifically, these are 27 historic aboveground resources, including 2 NHLs, that would experience adverse effects in the visual APE for Offshore Project components (see Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE* for a list of these historic properties). A discussion specific to NHLs is provided in *Minimization of Adverse Effects on National Historic Landmarks* below.

Alternatives C, D, and E all involve the reduction in Offshore Project components that would be built for the Project, thereby reducing Project visibility that could cause visual adverse effects on historic properties. Alternative F would not reduce Project visibility and therefore would have the same visual adverse effects as the Proposed Action.

Alternative C includes four sub-alternatives (C1, C2, C3, and C4) that involve the adjustment of layout or maximum number of WTGs and OSSs (i.e., removal of WTGs, OSSs, and associated interlink cables). Given the size, locations, and number of WTGs unaffected by removal under this alternative and its sub-alternatives, Alternative C would not result in substantial minimization of visual adverse effects of the Project on historic aboveground resources in the visual APE for Offshore Project components.

Alternative D includes three sub-alternatives (D1, D2, and D3) that involve adjustments to the layout and maximum number of WTGs (i.e., removal of WTGs and associated interlink cables, and reduction of height of remaining WTGs in the Lease Area). Alternative D1 would remove up to 21 WTGs closest to shore, Alternative D2 would remove up to 31 WTGs closest to shore, and Alternative D3 would remove up to 6 WTGs closest to shore. While each of these sub-alternatives would reduce Project visibility from historic aboveground resources, only Alternatives D1 and D2 would involve a substantial enough reduction in visibility as to minimize or potentially fully avoid adverse effects on specific individual historic properties.

Alternative E would involve modifications to the wind turbine array layout to create a setback between the WTGs in the lease areas of Atlantic Shores South (OCS-A 0499) and Ocean Wind 1 (OCS-A 0498) (i.e., removal or micrositing of WTGs and associated interlink cables). A setback of 0.81 to 1.08 nautical miles (1,500 to 2,000 meters) would occur along the southern boundary of the Lease Area through the exclusion or relocation of up to four to five WTG positions proposed under the Proposed Action. Similar to Alternative C, Alternative E would not result in substantial minimization of visual adverse effects of the Project on historic aboveground resources in the visual APE for Offshore Project components given the size, locations, and number of WTGs unaffected by removal or relocation under this alternative.

Overall, Alternatives C, D, and E would reduce Project visibility from aboveground historic properties; however, Alternatives C, D3, and E are unlikely to result in a substantial minimization of visual adverse effects. Alternatives D1 and D2, which involve the removal of 21 and 31 WTGs closest to shore, respectively, would avoid or reduce adverse effects on historic properties. The No Action Alternative would fully avoid any Project effects on these historic properties.

Contributing to the potential 1,021 WTGs modeled in a maximum-case scenario for other future offshore wind activities, all the action alternatives (B through F) would result in visual adverse effects from offshore WTG structure visibility and lighting, including from navigational and aviation hazard lighting systems. Due to cumulative effects from other offshore wind activities, the same 27 historic properties in the visual APE for Offshore Project components would continue to be adversely affected by offshore structure and lighting visibility under Alternatives C through F as under the Proposed Action. The cumulative visual effects and lighting on historic properties in the visual APE associated with Alternatives C through F, when combined with past, present, and reasonably foreseeable activities, would be long-term and adverse, until decommissioning of the Project.

Minimization of Adverse Effects on National Historic Landmarks

The implementing regulations for Section 106 of the NHPA at 36 CFR 800.10 provide special requirements for protecting NHLs and complying with the NHPA Section 110(f). NHPA Section 110(f) applies specifically to NHLs. NPS, which administers the NHL program for the Secretary of the Interior, describes NHLs and requirements for NHLs as follows:

> NHL are designated by the Secretary under the authority of the Historic Sites Act of 1935, which authorizes the Secretary to identify historic and archaeological sites, buildings, and objects which "possess exceptional value as commemorating or illustrating the history of the United States" Section 110(f) of the

> NHPA requires that Federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect NHLs. The law requires that agencies, "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark." In those cases when an agency's undertaking directly and adversely affects an NHL, or when Federal permits, licenses, grants, and other programs and projects under its jurisdiction or carried out by a state or local government pursuant to a Federal delegation or approval so affect an NHL, the agency should consider all prudent and feasible alternatives to avoid an adverse effect on the NHL.

BOEM is implementing the special set of requirements for protecting NHLs and for compliance with NHPA Section 110(f) at 36 CFR 800.10, which, in summary:

- Requires the agency official, to the maximum extent possible, to undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking;
- Requires the agency official to request the participation of ACHP in any consultation conducted under 36 CFR 800.6 to resolve adverse effects on NHLs; and
- Further directs the agency to notify the Secretary of the Interior of any consultation involving an NHL and to invite the Secretary of the Interior to participate in consultation where there may be an adverse effect.

BOEM has planned and is taking action to avoid adverse effects on NHLs in accordance with NHPA 110(f) and pursuant to *The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act* (NPS 2021). BOEM has determined that two NHLs, the Atlantic City Convention Hall and Lucy, The Margate Elephant, would be adversely affected by the Proposed Action. BOEM has notified NPS (as the delegate of the Secretary of the Interior) and ACHP of this determination with distribution of this Finding. ACHP and NPS have been active consulting parties on the Project since BOEM invited them to consult at the initiation of the NHPA Section 106 process on the Project on October 14 and October 18, 2021, respectively. BOEM is fulfilling its responsibilities to give a higher level of consideration to minimizing harm to NHLs, as required by NHPA Section 110(f), through implementation of the special requirements outlined at 36 CFR 800.10.

In the Draft EIS and as described herein (Table I-9), BOEM has identified alternatives that could reduce the number of WTGs from the maximum-case scenario of the Proposed Action (i.e., Alternatives C, D, and E). While the differences between alternatives may be variable, all alternatives under which a reduction in WTGs is proposed would reduce the visibility of the Project from the NHLs. However, under Alternatives C, D3, E, and F, BOEM has determined that the Atlantic City Convention Hall and Lucy, The Margate Elephant would still be adversely affected by the Project given the size, location, and number of proposed WTGs and distance of the WTA to the shoreline of Atlantic City under these alternatives. Alternatives D1 and D2, which involve the removal of 21 and 31 WTGs closest to shore, respectively, would avoid or reduce adverse effects on these NHLs. The No Action Alternative would fully avoid any Project effects on these historic properties.

When prudent and feasible alternatives "appear to require undue cost or to compromise the undertaking's goals and objectives, the agency must balance those goals and objectives with the intent of section 110(f)" (NPS 2021). In this balancing, NPS suggests that agencies should consider "(1) the magnitude of the undertaking's harm to the historical, archaeological and cultural qualities of the NHL; (2) the public interest in the NHL and in the undertaking as proposed, and (3) the effect a mitigation action would have on meeting the goals and objectives of the undertaking" (NPS 2021). For the Project, the magnitude of the visual effects on the Atlantic City Convention Hall and Lucy, The Margate Elephant would be minimized by the distance between proposed offshore WTGs and NHLs and through environmental factors, including weather and atmospheric conditions, that limit views of the Project WTGs from the NHLs. Moreover, while the undertaking would affect the historic setting of the NHLs, it would not affect other character-defining features or aspects of the NHLs' integrity. The Atlantic City Convention Hall and Lucy, The Margate Elephant, should the undertaking proceed, would still illustrate their regional and national significance, and continue to exemplify their national importance.

Through consultation, BOEM will refine minimization measures to the maximum extent feasible and further develop mitigation measures to resolve adverse effects that remain at the Atlantic City Convention Hall and Lucy, The Margate Elephant after the application of minimization efforts. BOEM would identify and finalize mitigation measures specific to the NHLs with the consulting parties through development of the MOA. Mitigation measures for adverse effects on the NHLs must be reasonable in cost and not be determined using inflexible criteria, as described by NPS (2021). Mitigation of adverse effects on the NHLs would meet the following requirements:

- Reflect the heightened, national importance of the property and be appropriate in magnitude, extent, nature, and location of the adverse effect;
- Focus on replacing lost historic resource values with outcomes that are in the public interest, such as through development of products that convey the important history of the property;
- Comply with The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (NPS 2017).

In transmittal of this Finding of Adverse Effect document to NPS, BOEM will specifically request to consult with ACHP and the NPS's NHL Program pursuant to 36 CFR 800.10(c), to which the Secretary of the Interior has delegated consultation authority and will address this request to the NHL Program lead for the region.

I.4.2 Avoidance, Minimization, and Mitigation Measures

BOEM will consult with federally recognized Tribes, SHPOs, ACHP, and consulting parties to develop AMM measures for addressing adverse effects on historic properties adversely affected by the Project. Specifically, BOEM's consultation will develop measures to prioritize avoidance of known marine cultural resources (i.e., marine archaeological resources and ASLFs) and terrestrial archaeological resources that are historic properties and minimize visual effects on aboveground historic properties. BOEM will also

consult to develop mitigation measures that would be triggered in cases where avoidance of known terrestrial archaeological or marine historic properties is not feasible. The Project's MPRDPs, created for marine and terrestrial archaeological resources, will include a consultation process to determine appropriate mitigation in cases where there is unanticipated discovery of a previously unknown marine or terrestrial archaeological resource that is not currently found to be subject to adverse effects from the Project.

As part of the NHPA Section 106 process, Atlantic Shores has committed to AMM measures as conditions for approval of issuance of BOEM's permit (COP Volume II, Chapter 6.0; Atlantic Shores 2023), including the following:

1. Atlantic Shores will continue to engage with relevant stakeholders to determine additional avoidance, minimization, or mitigation measures regarding potential effects on aboveground historic properties as required by 30 CFR 585.626(b)(15).
2. The Project is in a designated offshore wind development area that has been identified by BOEM as suitable for development.
3. The OSSs will be set back sufficiently to minimize their visibility from the shore.
4. The WTGs will be painted no lighter than Pure White (RAL 9010) and no darker than Light Grey (RAL 7035) as recommended by BOEM and the Federal Aviation Administration (FAA). Turbines of this color eliminate the need for daytime warning lights or red paint marking of the blade tips.
5. ADLS or related means (e.g., dimming or shielding) will be used to limit visual effect, pursuant to approval by FAA and BOEM, commercial and technical feasibility at the time of FDR/FIR approval, and dialogue with stakeholders.
6. Onshore interconnection cables will be installed underground, thus avoiding potential effects on the visual setting of historic properties.
7. Onshore substations and converter stations will be sited near existing substations or on parcels zoned for commercial and industrial/utility use.
8. Screening will be implemented at the onshore substation and converter station sites to the maximum extent practicable to reduce potential visibility and noise.
9. Electrical equipment will be installed within certified enclosures to reduce potential noise impacts.
10. Research and investigative studies related to preserving existing shoreline and coastal features that contribute to historic settings of the affected properties may be completed.
11. HPTPs will be drafted for aboveground properties determined by BOEM to be adversely affected by the Project.

12. Onshore facilities have been primarily sited within previously disturbed and developed areas (e.g., roadways, rights-of-way, previously developed industrial/commercial areas) to the maximum extent practicable to avoid or minimize effects on previously unrecorded archaeological resources.

13. Additional archaeological testing may be appropriate where the proposed onshore facilities are sited within those portions of the APE categorized as "Potentially Undisturbed." Potential Phase IB techniques and methodologies are outlined in COP Volume II, Appendix II-P1 (Atlantic Shores 2023), and any Phase IB workplan will be developed in consultation with NJHPO. The results of any Phase IB investigations will inform decisions regarding any necessary avoidance or mitigation in those areas.

14. In the event the lessee cannot avoid and will encroach on the avoidance buffers for one or more resources in the terrestrial APE, to resolve the adverse effects on these resources, Atlantic Shores must conduct Phase III data recovery investigations or implement another appropriate mitigation measure as determined through consultation for the purposes of resolving adverse effects in accordance with 36 CFR 800.6.

15. Onshore facilities have been sited in areas where there are no previously identified archaeological resources, thereby avoiding and minimizing effects on known terrestrial archaeological resources.

16. Continued consultation with the NJHPO will be conducted to assess the factors contributing to the NRHP eligibility of the West Jersey and Atlantic Railroad Historic District.

17. A Post-Review Discovery Plan will be implemented that will include stop-work and notification procedures to be followed if a cultural resource is encountered during construction.

18. Historic post-Contact period marine archaeological resources and ASLFs that are the most likely locations for pre-Contact archaeological sites and that retain preservation potential will be identified.

19. Protective buffers recommended by the Qualified Marine Archaeologist measuring approximately 164 feet (50 meters) will be established around each identified post-Contact period marine archaeological resource or potential marine archaeological, as well as 328-foot (100-meter) horizontal and 3.3-foot (1-meter) vertical protective buffers for each ASLF to minimize the risk of disturbance during construction. Protective buffers extend outward from the maximum discernable limit of each resource. Additional details are provided in Appendix D of the Marine Archaeological Resource Assessment report (see COP Volume II, Appendix II-Q: Atlantic Shores 2023).

20. All survey data, including potential marine archaeological resource locations and characteristics, will be considered to guide the siting, design, and engineering of Offshore Project components, including WTG and OSS foundations and offshore cables (export, interarray, and interlink cables) and planning for associated temporary construction activities (vessel jacking and anchoring).

21. An Unanticipated Discovery Plan [MPRDP] for offshore construction activities will be developed and implemented (included as Appendix J of the Marine Archaeological Resource Assessment; see COP Volume II, Appendix II-Q; Atlantic Shores 2023).

22. If warranted, Atlantic Shores will conduct supplemental surveys or other investigations to support NRHP eligibility determinations and to mitigate unavoidable adverse effects on submerged historic properties.

23. Atlantic Shores will continue to proactively consult with BOEM, SHPO(s), and other relevant parties to pursue feasible means of avoiding, minimizing, and/or mitigating potential effects on all submerged historic properties. Avoidance of effects on all identified ASLFs may not be feasible based on current information and planning efforts. If no prudent and feasible means of avoiding one or more ASLFs are available, Atlantic Shores anticipates that the mitigation process for submerged landscapes will proceed in a phased manner with the following procedural and consultation steps:

    a. All geologic landforms identified within the Preliminary APE have been mapped to encompass the maximum extent of potential effects from proposed construction operations.

    b. Efforts are being made to develop the mitigation, avoidance, and treatment plan while also evaluating the preservation potential and probability modeling for these landscapes to be considered for archaeological criteria in informing these plans.

    c. In consideration of any comments provided by consulting parties during the BOEM-led Section 106 consultations, data collected and a phased mitigation framework developed by Atlantic Shores will be presented to stakeholders/consulting parties for review and comment.

    d. In consultation with stakeholders/consulting parties, BOEM, and subject matter experts, Atlantic Shores will develop a treatment plan based on the mitigation framework to address potential submerged historic properties that would be affected by construction activities.

    e. Atlantic Shores will be responsible for implementing all mitigation measures documented in the treatment plan.

BOEM has also proposed several AMM measures to minimize impacts on cultural resources and historic properties (Chapter 3, Section 3.6.2, *Cultural Resources*; Appendix G, Table G-2, *Potential Mitigation and Monitoring Measures Analyzed*). The NHPA Section 106 consultation process is ongoing for the Project and will culminate in an MOA detailing avoidance, minimization, and mitigation measures to resolve adverse effects on historic properties. BOEM will continue to consult in good faith with federally recognized tribes, NJHPO, and other consulting parties to resolve adverse effects.

I.5 Phased Identification and Evaluation

In consultation with BOEM and NJHPO, Atlantic Shores will be using a process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2). This includes any presently unsurveyed areas of the terrestrial APE that would require phased identification of historic properties and any Project alternatives that may require phased identification of historic properties.

Atlantic Shores has developed a Section 106 PIP for the process of completing additional required cultural resource investigations (COP Volume II, Appendix II-P1; Atlantic Shores 2023). As of December 2022, efforts to identify and evaluate terrestrial archaeological resources in the terrestrial APE have encompassed areas proposed for Onshore Project components in New Jersey. However, the identification and evaluation of historic properties for the entire terrestrial APE is incomplete. Archaeological surveys conducted during the phased process may lead to the identification of additional archaeological resources and historic properties in the terrestrial APE. Additionally, if any Project alternatives are approved or there are any changes to the current Project design for either onshore or Offshore Project components that result in Project components falling outside of the previously assessed APE, updated technical studies and reports will be required. While additional information regarding the identification of historic properties may be obtained after the publication of the Draft EIS and presented in the Final EIS, additional information may not be available until after the Final EIS.

BOEM will use the MOA to establish commitments for reviewing the sufficiency of any updated studies and reports as phased identification and evaluation of historic properties in the APE, amending the APE per the final Project design, as necessary, and consulting on the post-ROD finding of effects (Attachment A, *Memorandum of Agreement*). Information pertaining to identification of historic properties for some Project alternatives may not be available until after the ROD is issued. The approach for phased identification and evaluation will be in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585* and ensure potential historic properties are identified, effects are assessed, and adverse effects are resolved prior to construction.

I.6 References Cited

Atlantic Shores Offshore Wind, LLC (Atlantic Shores). 2023. *Atlantic Shores Offshore Wind, Construction and Operations Plan, Lease Area OCS-A 0499*. May.

Bureau of Ocean and Energy Management (BOEM). 2020. *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. May 27. Available: https://www.boem.gov/sites/default/files/documents/about-boem/Archaeology%20and%20Historic%20Property%20Guidelines.pdf.

Bureau of Ocean Energy Management (BOEM). 2022. *Atlantic Shores South Construction and Operations Plan Scoping Report*. March.

Bureau of Ocean and Energy Management (BOEM). 2023. *Cumulative Historic Resources Visual Effects Assessment for the Atlantic Shores South Project*. April.

National Park Service (NPS). 2017. *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. Available: https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf. Accessed: September 29, 2022.

National Park Service (NPS). 2021. Section 110 of the National Historic Preservation Act. Available: https://www.nps.gov/fpi/Section110.html. Accessed: September 29, 2022.

ATTACHMENT A. MEMORANDUM OF AGREEMENT

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DRAFT
MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

WHEREAS, the Bureau of Ocean Energy Management (BOEM) plans to authorize construction and operation of the Atlantic Shores Offshore Wind South Project pursuant to subsection 8(p)(1)(C) of the Outer Continental Shelf (OCS) Lands Act (43 United States Code [USC] 1337(p)(1)(C)), and in accordance with BOEM's Renewable Energy Regulations at 30 Code of Federal Regulations (CFR) Part 585; and

WHEREAS, BOEM determined that the Project constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA), as amended (54 USC 306108), and its implementing regulations (36 CFR 800), and consistent with the Programmatic Agreement (NJ-NY PA) regarding the review of OCS renewable energy activities offshore New Jersey and New York (*Programmatic Agreement Among The U.S. Department of the Interior, Bureau of Ocean Energy Management, The State Historic Preservation Officers of New Jersey and New York, The Shinnecock Indian Nation, and The Advisory Council on Historic Preservation Regarding Review of Outer Continental Shelf Renewable Energy Activities Offshore New Jersey and New York Under Section 106 of the National Historic Preservation Act*); and

WHEREAS, BOEM plans [to approve, approve with conditions, or disapprove (This clause is subject to change; BOEM will make the final decision by the Final Environmental Impact Statement [EIS] and before this Memorandum of Agreement [MOA] is executed.)] the Project Construction and Operations Plan (COP) submitted by Atlantic Shores Offshore Wind Project 1, LLC (Atlantic Shores Project 1 Company) and Atlantic Shores Offshore Wind Project 2, LLC (Atlantic Shores Project 2 Company) (Project Companies) of which Atlantic Shores Offshore Wind, LLC (hereafter *lessee*) is the owner and an affiliate of both Project Companies; and

WHEREAS, BOEM determined the construction, installation, operations and maintenance (O&M), and conceptual decommissioning of two offshore wind energy facilities (Project 1 and Project 2), known collectively as the Atlantic Shores Offshore Wind South Project (Project), planned for Lease Area OCS-A 0499 and to include up to 200 offshore wind turbine generators (WTGs) and their foundations, up to 10 offshore substations (OSSs) and their foundations, one meteorological (met) tower and its foundation, scour protection for foundations, interarray or interlink cables linking the individual turbines to the OSSs, offshore export cables and an onshore export cable system, two landfall locations in Sea Girt, New Jersey and Atlantic City, New Jersey, two onshore substations and/or converter stations (i.e., at the Fire Road Site and one of three site options at Lanes Pond Road, Brook Road, or Randolph Road), connections to the existing electrical grid in New Jersey, and an O&M facility in Atlantic City, New Jersey, has the potential to adversely affect historic properties as defined under 36 CFR 800.16(l); and

WHEREAS, BOEM is preparing an Environmental Impact Statement (EIS) for the Project pursuant to the National Environmental Policy Act (42 USC 4321 et seq.) (NEPA) and elected to use the NEPA substitution process with its Section 106 consultation pursuant to 36 CFR 800.8(c); and

WHEREAS, in accordance with 36 CFR 800.3, on October 15, 2021, BOEM invited the New Jersey State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation (ACHP) to consult on the Project and notified New Jersey SHPO and ACHP of its decision to use NEPA

substitution and follow the standards for developing environmental documents to comply with the Section 106 consultation for this Project pursuant to 36 CFR 800.8(c), and New Jersey SHPO accepted through participation in consultation after that date, and ACHP responded with acknowledgement on October 20, 2021; and

WHEREAS, the Project is within a commercial lease area that was subject to previous NHPA Section 106 review pursuant to the *Programmatic Agreement Among the U.S. Department of the Interior, Bureau of Ocean Energy Management; the State Historic Preservation Officers of Delaware, Maryland, New Jersey, and Virginia; the Advisory Council on Historic Preservation; the Narragansett Indian Tribe; and the Shinnecock Indian Nation Regarding the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia* by BOEM regarding the issuance of the commercial lease, and BOEM issued a finding of No Historic Properties Affected on July 11, 2012; and

WHEREAS, the Project is within a commercial lease area that was subject to previous NHPA Section 106 review pursuant to the NJ-NY PA by BOEM regarding approval of a Site Assessment Plan (SAP), BOEM determined that no historic properties were affected by site assessment activities proposed in the SAP pursuant to the NJ-NY PA, and BOEM approved the SAP on April 8, 2021; and

WHEREAS, consistent with 36 CFR 800.16(d) and BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (May 27, 2020), BOEM defined the area of potential effects (APE) for the undertaking as the depth and breadth of the seabed potentially impacted by any bottom-disturbing activities, constituting the marine portion of the APE (marine APE); the depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities, constituting the terrestrial portion of the APE (terrestrial APE); the viewshed from which offshore or onshore renewable energy structures would be visible, constituting the visual portion of the APE (visual APE); all areas subject to physical and visual effects from the undertaking at the O&M facility (O&M facility APE); and any temporary or permanent construction or staging areas that may fall into any of the aforementioned offshore or onshore portions of the APE (see Attachment 1, *APE Maps*); and

WHEREAS, BOEM identified the following historic properties in the APE: 21 marine archaeological resources and 37 ancient submerged landform features (ASLFs) in the marine APE; one (1) terrestrial archaeological resource and one (1) historic aboveground resource in the terrestrial APE [additional historic properties may be identified in the terrestrial APE through the phased identification process]; and 133 aboveground historic properties in the visual APE (i.e., 123 in the visual APE for Offshore Project components, three [3] in the visual APE for Onshore Project components, and seven [7] in the visual portion of the O&M facility APE); and

WHEREAS, BOEM identified two (2) National Historic Landmarks (NHLs) in the visual APE for Offshore Project components (i.e., Atlantic City Convention Hall and Lucy, The Margate Elephant); and

WHEREAS, BOEM determined that the implementation of the avoidance measures identified in this MOA will avoid adverse effects on certain historic properties: 21 marine archaeological resources (i.e., [redacted]) and [number] ASLFs (i.e., [Resource IDs]) in the marine APE [number and list of ASLFs that would be avoided by the project to be determined through consultations]; and [number] terrestrial archaeological resources (i.e., [Resource IDs]) in the terrestrial APE [number and list of terrestrial archaeological resources that would be avoided by the project to be determined through consultation and the phased identification process]; and 96 aboveground historic properties in the visual APE for Offshore Project components, three (3) aboveground historic properties in the visual APE for Onshore Project components, and seven (7) aboveground historic properties in the visual portion of the O&M facility APE; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined the 37 ASLFs identified in the marine APE (i.e., [redacted]) are eligible for listing in the NRHP under Criteria A and D and would be adversely affected by physical disturbance from offshore Project construction within the avoidance buffers of these resources [avoidance, minimization, mitigation, and/or monitoring measures for ASLFs to be determined through consultation]; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined one (1) terrestrial archaeological resource (i.e., [redacted]) and one (1) historic aboveground resource (i.e., West Jersey and Atlantic Railroad Historic District) in the terrestrial APE would be adversely affected by physical disturbance from Onshore Project construction [avoidance, minimization, mitigation, and/or monitoring measures for historic properties in the terrestrial to be determined through consultation and the phased identification process]; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined the following 27 historic aboveground resources in the visual APE in New Jersey would be visually adversely affected by the Project: Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County; Atlantic City Convention Hall (NHL) in Atlantic City, Atlantic County; Brigantine Hotel in Brigantine City, Atlantic County; Brighton Park in Atlantic City, Atlantic County; Central Pier in Atlantic City, Atlantic County; Colonial Revival Residence at 120 Atlantic Avenue in Atlantic City, Atlantic County; Folk Victorian Residence at 5231-5229 Central Avenue in Ocean City, Cape May County; Gillian's Wonderland Pier in Ocean City, Cape May County; John Stafford Historic District in Ventnor City, Atlantic County; Little Egg Harbor U.S. Life Saving Station #23 in Little Egg Harbor, Ocean County; Lucy, The Margate Elephant (NHL) in Margate City, Atlantic County; Margate Fishing Pier in Margate City, Atlantic County; Missouri Avenue Beach (Chicken Bone Beach); Music Pier in Ocean City, Cape May County; Ocean City Boardwalk in Ocean City, Cape May County; Residence at 114 South Harvard Avenue in Ventnor City, Atlantic County; Residence at 125 South Montgomery Avenue in Atlantic City, Atlantic County; Ritz Carlton Hotel in Atlantic City, Atlantic County; Riviera Apartments in Atlantic City, Atlantic County; Saint Leonard's Tract Historic District in Ventnor City, Atlantic County; Seaview Golf Club, Clarence Geist Pavilion in Galloway Township, Atlantic County; Two-and-a-Half-Story Residence at 124 Atlantic Avenue in Atlantic City, Atlantic County; Two-Story Residence at 108 South Gladstone Avenue in Margate City, Atlantic County; Two-Story Residence at 114 South Osborne Avenue in Margate City, Atlantic County; U.S. Coast Guard Station in Atlantic City, Atlantic County; Vassar Square Condominiums in Ventnor City, Atlantic County; and Ventnor City Fishing Pier in Ventnor City, Atlantic County; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined there would be a visual adverse effect on two (2) NHLs in the visual APE for offshore Project components (i.e., Atlantic City Convention Hall and Lucy, The Margate Elephant); and

WHEREAS, BOEM has planned and is taking action to minimize harm, as required by NHPA Section 110(f) at 36 CFR 800.10 to the two (2) adversely affected NHLs in the visual APE, Atlantic City Convention Hall and Lucy, The Margate Elephant, as explained in BOEM's 2023 *Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan* (hereinafter, the Finding of Effect, and dated May 2023); and

WHEREAS, New Jersey SHPO concurred with BOEM's finding of adverse effect on [insert date of SHPO concurrence]; and

WHEREAS, throughout this document the terms "Tribe" and "Tribal Nation" have the same meaning as "Indian Tribe" as defined at 36 CFR 800.16(m); and

WHEREAS, BOEM invited the following federally recognized Tribes to consult on this Project: the Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Mashantucket (Western) Pequot Tribe, Mashpee Wampanoag Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, The Delaware Nation, The Narragansett Indian Tribe, The Shinnecock Indian Nation, and Wampanoag Tribe of Gay Head (Aquinnah); and

WHEREAS, the Mashantucket (Western) Pequot Tribe accepted BOEM's invitation to consult, and BOEM invited this Tribe to sign this MOA as a concurring party; and

WHEREAS, the Absentee-Shawnee Tribe of Indians of Oklahoma and Stockbridge-Munsee Community Band of Mohican Indians declined BOEM's invitation to consult; and

WHEREAS, the Delaware Tribe of Indians, Mashpee Wampanoag Tribe, The Delaware Nation, and The Shinnecock Indian Nation did not respond to BOEM's initiation of consultation but have participated in consultation on the Project, and BOEM has included these Tribal Nations in all consulting party communications and invited them to sign this MOA as concurring parties; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, The Narragansett Indian Tribe, and Wampanoag Tribe of Gay Head (Aquinnah) did not respond to BOEM's invitation to consult; however, BOEM has included these Tribal Nations in all consulting party communications; and

WHEREAS, in accordance with 36 CFR 800.3, BOEM invited other federal agencies, state and local governments, and consulting parties with a demonstrated interest in the undertaking to participate in this consultation; the list of those invited and accepting participation to direct invitations are listed in the *Lists of Invited and Participating Consulting Parties* (Attachment 2); and

WHEREAS, BOEM has consulted with the lessee in its capacity as the applicant seeking federal approval of the COP, and, because the lessee has responsibilities under the MOA, BOEM has invited the applicant to be an invited signatory to this MOA; and

WHEREAS, construction of the Project requires a Department of the Army (DA) permit from the United States Army Corps of Engineers (USACE) for activities that would result in the discharge of dredged or fill material into jurisdictional wetlands and/or other waters of the United States pursuant to Section 404 of the Clean Water Act, activities occurring in or affecting navigable waters of the United States pursuant to Section 10 of the Rivers and Harbors Act, and activities associated with ocean disposal of dredged materials under Section 103 of the Marine Protection, Research, and Sanctuaries Act, and requires Section 408 permission under Section 14 of the Rivers and Harbors Act for any alterations that have the potential to alter, occupy, or use any federally authorized civil works projects; and

WHEREAS, BOEM invited USACE to consult since USACE has the authority to issue any needed permits and permissions for this Project under Section 404 of the Clean Water Act (33 USC 1344), Sections 10 and 14 of the Rivers and Harbors Act (33 USC 403), and Section 103 of the Marine Protection, Research, and Sanctuaries Act; and

[TBD: **WHEREAS,** USACE designated BOEM as the Lead Federal Agency pursuant to 36 CFR 800.2(a)(2) to act on its behalf for purposes of compliance with Section 106 for this Project (in a letter dated [Month XX, 20XX], BOEM invited USACE to sign this MOA as a concurring party; [and USACE accepted the invitation to sign this MOA as a concurring party;] and]

WHEREAS, USACE is or will be the Lead Federal Agency responsible for reviewing and authorizing a connected action, which includes the repair and/or replacement of an existing bulkhead to be conducted by the lessee under a USACE Nationwide Permit 3 or Nationwide Permit 13 and implementation of a maintenance dredging program to be conducted in coordination with the City of

Atlantic City under an approved USACE DA Permit (CENAP-OPR-2021-00573-95) and a New Jersey Department of Environmental Protection (NJDEP) Dredge Permit (No. 0102.20.0001.1 LUP 210001), which BOEM has reviewed as part of the Project; and

WHEREAS, USACE's permitted area for the connected action of the maintenance dredging program per DA Permit CENAP-OPR-2021-00573-95 encompasses a portion of BOEM's O&M facility APE, BOEM has reviewed and agrees with USACE's Finding of No Effect on Historic Properties per this DA Permit for areas in which the USACE permitted area for the connected action and O&M facility APE overlap; and

WHEREAS, BOEM will participate in the Section 106 review for the repair and/or replacement of an existing bulkhead under USACE Nationwide Permit 3 or Nationwide Permit 13, which will occur at a later date, with USACE serving as Lead Federal Agency, and BOEM will consult with signatories, invited signatories, and consulting parties if this Section 106 review requires alteration of the conclusions reached in the Finding of Effect for this Project; and

WHEREAS, BOEM notified and invited the Secretary of the Interior (SOI; represented by the National Park Service [NPS]) to consult regarding this Project pursuant to the Section 106 regulations, including consideration of the potential effects on NHLs as required under NHPA Section 110(f) (54 USC 306107) and 36 CFR 800.10, and NPS accepted BOEM's invitation to consult on November 22, 2021, and BOEM invited NPS to sign this MOA as a concurring party; and

WHEREAS, BOEM has consulted with the signatories, invited signatories, and consulting parties participating in the development of this MOA regarding the definition of the undertaking, delineation of the APEs, identification and evaluation of historic properties, assessment of potential effects on the historic properties, and measures to avoid, minimize, and mitigate adverse effects on historic properties; and

WHEREAS, pursuant to 36 CFR 800.6, BOEM invited the lessee to sign as an invited signatory and the consulting parties as listed in the *Lists of Invited and Participating Consulting Parties* (Attachment 2) to sign as concurring parties; however, the refusal of any consulting party to sign this MOA or otherwise concur does not invalidate or affect the effective date of this MOA, and consulting parties who choose not to sign this MOA will continue to receive information if requested and have an opportunity to participate in consultation as specified in this MOA; and

WHEREAS, the signatories (required signatories and invited signatories) agree, consistent with 36 CFR 800.6(b)(2), that adverse effects will be resolved in the manner set forth in this MOA; and

WHEREAS, BOEM sought and considered the views of the public regarding Section 106 for this Project through the NEPA process by holding virtual public scoping meetings when initiating the NEPA and NHPA Section 106 review on October 19, 21, and 25, 2021, and [in-person and/or virtual] public hearings related to the Draft EIS on [Date] and [Date]; and

WHEREAS, BOEM made the first Draft MOA available to the public for review and comment from May 19, 2023 through July 3, 2023, and made an updated version of the Draft MOA available to the public from [Date], to [Date], using BOEM's Project website, and BOEM [did or did not receive any comments from the public]; and

NOW, THEREFORE, BOEM, New Jersey SHPO, ACHP, and the lessee agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

BOEM, with the assistance of the lessee, shall ensure that the following measures are carried out as conditions of its approval of the undertaking:

I. MEASURES TO AVOID ADVERSE EFFECTS ON IDENTIFIED HISTORIC PROPERTIES

A. BOEM will ensure the following measures for avoiding adverse effects on historic properties located in the Project APE are required as conditions of approval of the Project COP:

1. Marine APE

i. BOEM will include the following measures for avoiding adverse effects on historic properties in the marine APE as described in the lessee's 2023 *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3) and 2023 *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4):

a. The lessee will comply with protective buffers recommended by the QMA for all 21 marine archaeological resources (i.e., [redacted]). Protective buffers measure a minimum of 50 meters from the outer edge of magnetic anomalies or acoustic contacts for each of the resources as described in Attachment 3.

b. The lessee will comply with protective buffers recommended by the QMA for [number] ASLFs (i.e., [Resource IDs]) [avoidance measures for ASLFs may be determined through consultation]

ii. Marine cultural resource avoidance or additional investigation. The lessee must avoid any identified marine archaeological resource or ASLF. If avoidance of a resource is not feasible, additional investigations must be conducted for the purpose of determining eligibility for listing in the NRHP, or BOEM will assume the resource to be eligible for listing in the NRHP. If any such resource is determined eligible for listing, or if BOEM assumes the resource to be eligible for listing, the lessee must conduct Phase III data recovery investigations or implement another appropriate mitigation measure as determined through consultation for the purposes of resolving adverse effects in accordance with 36 CFR 800.6. Mitigation is described under Stipulation III below.

2. Terrestrial APE

i. BOEM will include the following measures for avoiding adverse effects on historic properties in the terrestrial APE as described in the lessee's 2023 *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3) and 2023 *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5):

a. [avoidance measures for historic properties in the terrestrial APE may be determined through consultation]

ii. Terrestrial archaeological resource avoidance or additional investigation. The lessee must avoid any identified terrestrial archaeological resource. If avoidance of a resource which has not yet been evaluated for listing in the NRHP is not feasible, additional investigations must be conducted for the purpose of determining eligibility for listing in the NRHP or BOEM will assume the resource to be eligible for listing in the NRHP. If any such resource is determined eligible for listing or if BOEM assumes the resource to be eligible for listing, the lessee must conduct Phase III data recovery investigations or

implement another appropriate mitigation measure as determined through consultation for the purposes of resolving adverse effects in accordance with 36 CFR 800.6. Mitigation is described under Stipulation III below.

3. Visual APE

    i. To maintain avoidance of adverse effects on historic properties in the visual APE where BOEM determined no adverse effects or where no effects would occur, BOEM will require the lessee to ensure Project structures are within the design envelope, sizes, scale, locations, lighting prescriptions, and distances that were used by BOEM to inform the definition of the APE for the Project and for determining effects in the Finding of Effect (see the Atlantic Shores South COP [2023]).

II. MEASURES TO MINIMIZE ADVERSE EFFECTS ON IDENTIFIED HISTORIC PROPERTIES

A. BOEM will ensure the following measures for minimizing adverse effects on historic properties located in the Project APE are required as conditions of approval of the Project COP:

1. Marine APE

    i. BOEM will include the following measures for minimizing adverse effects on historic properties in the marine APE as described in the lessee's 2023 *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3) and 2023 *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4):

        a. Native American Tribal representatives and other consulting party members were/will be invited to participate in the following:

            1) Pre-Survey Meetings;

            2) Preliminary Geologic Modeling;

            3) Preliminary Geotechnical Sampling;

            4) Preliminary Carbon-14 (C14) dating;

            5) Selected Cultural Vibracore Sampling;

            6) C14 and Geophysical Ground Modeling;

            7) Qualified Marine Archaeologist (QMA) Lab processing of Selected Cores; and

            8) Video Documentation of Core Processing.

        b. The lessee will follow the Notification of the Discovery of Shipwrecks on the Seafloor per 30 CFR 250.194(c), 30 CFR 250.1009(c)(4), and 30 CFR 251.7(b)(5)(B)(iii).

        c. Completed Geophysical and Geotechnical (G&G) campaigns have been proactive in targeting and collecting culturally pertinent samples and information to be used in a robust ground model, which will inform the lessee's design decisions moving forward.

ii. ASLF monitoring program and post-review discovery plan. The lessee will establish and implement a monitoring program and post-review discovery plan to review impacts of construction or any seabed-disturbing activities on ASLFs if such landforms will not be avoided and will be impacted. Implementation of a post-review discovery plan (Attachment 4), which would include procedures for the discovery of a potential cultural resource in federal and New Jersey state waters per federal and state laws and regulations, archaeological resource identification training for Project personnel, and guidance for supplemental archaeological investigations of post-review discoveries.

iii. Should full avoidance not be feasible for known marine archaeological resources and ASLFs, the lessee in consultation with BOEM will minimize the extent of Project disturbance to these resources. Disturbed portions of marine archaeological resources and ASLFs will be addressed under mitigation measures at MOA Stipulation III below. Actions during minimization and mitigation at marine archaeological resources and ASLFs would require consultation with Tribal Nations.

2. Terrestrial APE

i. BOEM will include the following measures for minimizing adverse effects on historic properties in the terrestrial APE as described in the lessee's 2023 *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3) and 2023 *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5):

a. The lessee must conduct archaeological monitoring during onshore construction in areas identified as having high or moderate archaeological sensitivity (including "medium-high" or "medium" archaeological sensitivity as described in Attachment 3), including undisturbed, paved areas within 1,000 feet of a previously identified archaeological site, and must prepare and implement a terrestrial archaeological post-review discoveries plan (Attachment 5). The post-review discovery plan will include procedures guiding the discovery of unanticipated terrestrial archaeological resources and human remains during construction in New Jersey per federal and state laws and regulations.

1) Monitoring in New Jersey. BOEM will include the procedures as described in Attachment 5 and the related Archaeological Monitoring Stipulation (Stipulation XII) as conditions of approval of the Project COP.

2) Post-Review Discoveries in New Jersey. BOEM will include the procedures as described in Attachment 5 and the related Archaeological Monitoring Stipulation (Stipulation XII) as conditions of approval of the Project COP.

3. Visual APE

i. BOEM has undertaken planning and actions to minimize adverse effects on aboveground historic properties in the visual APE. BOEM will include the following measures for minimizing adverse effects on historic properties in the visual APE as described in the lessee's 2023 *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3):

a. The lessee will engage with relevant stakeholders to determine additional avoidance, minimization, or mitigation measures regarding potential effects on aboveground historic properties as required by 30 CFR 585.626(b)(15);

b. WTGs will have uniform design, height, and rotor diameter.

c. The Project is located in a designated offshore wind development area that has been identified by BOEM as suitable for development.

d. The OSSs will be set back sufficiently to minimize their visibility from the shore.

e. The WTGs will be painted no lighter than Pure White (RAL 9010) and no darker than Light Grey (RAL 7035) as required by BOEM and the FAA. WTGs of this color white generally blend well with the sky at the horizon and eliminate the need for daytime warning lights or red paint marking of the blade tips.

f. The WTGs and OSSs will be lit and marked in accordance with BOEM and USCG requirements for aviation and navigation obstruction lighting, respectively.

g. The lessee will use Aircraft Detection Lighting System (ADLS) or related means (e.g., dimming or shielding) to limit visual impact, pursuant to approval by the FAA and BOEM, commercial and technical feasibility at the time of FDR/FIR approval, and dialogue with stakeholders. If successfully implemented, ADLS would limit the activation of the Aeronautical Obstruction Lights (AOLs) to approximately 11 hours per year (Capitol Airspace, 2021), thus substantially limiting the nighttime visibility and visual impact of the Project.

h. [Other minimization measures TBD]

III. MEASURES TO MITIGATE ADVERSE EFFECTS ON IDENTIFIED HISTORIC PROPERTIES

[The mitigation measures, including Historic Property Treatment Plans (HPTPs), described below and attached to this MOA are in draft form and are provided as potential mitigation measures that may be completed as conditions of approval of the Project COP. BOEM will develop mitigation measures based on the interests of federally recognized Tribes, New Jersey SHPO, and consulting parties and anticipates that additional mitigation may be required to resolve adverse effects on historic properties.]

A. Marine APE

1. In the event the lessee cannot avoid and will encroach on the avoidance buffers for one or more of the 37 ASLFs (i.e., [redacted]), to resolve the adverse effects on these historic properties, BOEM will include the procedures as described in the Historic Property Treatment Plan (HPTP) for ASLFs (Attachment 6) as conditions of approval of the Project COP and require the lessee to fund and fulfill the following as mitigation measures prior to construction: [avoidance, minimization, and mitigation measures for ASLFs will be determined through consultation, including the identification of other measures aside from or in addition to the following]

    i. Postconstruction ASLF Investigation per the purpose and intended outcome, standards, scope of work, methodology, and documentation procedures described in Section 4.1 of the HPTP for ASLFs (Attachment 6); and

    ii. Open-Source GIS, Story Maps, and Animations per the purpose and intended outcome, standards, scope of work, methodology, and documentation procedures described in Section 4.2 of the HPTP for ASLFs (Attachment 6).

iii. [Other mitigation measures TBD]

B. Terrestrial APE

1. In the event the lessee cannot avoid and will encroach on the avoidance buffers for one or more resources in the terrestrial APE, to resolve the adverse effects on these resources, per Stipulation I.A.2.ii, the lessee must conduct Phase III data recovery investigations or implement another appropriate mitigation measure as determined through consultation for the purposes of resolving adverse effects in accordance with 36 CFR 800.6. BOEM will include the procedures as described in the HPTP for [Resource Name] as conditions of approval of the Project COP and require the lessee to fund and fulfill the following as mitigation measures prior to construction: [The need for this stipulation and development of an HPTP for any resources in the terrestrial APE is to be determined through consultation and the phased identification process. BOEM anticipates that Phase III data recovery investigations will become a standard mitigation measure for terrestrial archaeological resources.]

C. Visual APE

1. BOEM will ensure the lessee will resolve adverse effects on the 27 adversely affected aboveground historic properties in the visual APE through either one or a combination of both of the following measures:

i. Contribution to a Mitigation Fund. The lessee will contribute funding to a mitigation fund to resolve visual adverse effects on the following [number] historic properties: [list of applicable aboveground historic properties to be determined; specific historic properties for which visual adverse effects would be resolved through the mitigation fund would be determined through consultation]. See Attachment 7 for funding amounts, based on input of qualified consultants with experience fulfilling activities similar to those that can be funded through a mitigation fund and for historic properties comparable to those adversely affected by the Project. [Attachment 7, *Mitigation Funding Amounts* is provided as a placeholder. Funding amounts would be determined through assessment by qualified consultants and through consultation. The following are draft provisions and would be finalized through consultations.]

a. In order to mitigate the undertaking's adverse visual impacts to historic properties, the lessee must provide the amount of $[amount to be determined] in support of historic preservation and public interpretive and commemorative activities, which is the total amount of the cost estimates in Attachment 7 of this MOA for visually adversely affected historic properties other than the historic properties mentioned in Stipulation III.C.1.ii [applicability of this text to be determined based on whether HPTPs are adopted for select visually adversely affected historic properties]. [Description of process for developing measures and cost estimates that would be listed in Attachment 7, and description of associated consultations] These measures are appropriate to fully address the nature, scope, size, and magnitude of adverse effects, including cumulative effects caused by the Project, NRHP-qualifying characteristics of each historic property that would be affected, and the heightened significance and concerns of the NHLs. In the specific context of this undertaking, including the numerous privately owned properties involved, the signatories agree that it is appropriate to provide flexibility to implement these or other specific activities for preservation, interpretation, and commemoration to mitigate adverse effects on historic properties, and the signatories agree that the level of funding identified in Attachment 7 is appropriate.

b. Within 90 days of initiating offshore construction of wind turbines, the lessee must pay this amount to an escrow account. Those funds will be deposited into a fund which will be managed by a third-party administrator for the purpose of providing grants until the fund balance is expended. The lessee's deposit of such funds into this fund will satisfy the lessee's obligations as they relate to mitigation for adverse visual impacts to the historic properties listed in Stipulation III.C.1.i, unless additional consultation is required in the event of unallocated funds, as described below. These grants are to support mitigation activities for the preservation, interpretation, or commemoration of historic sites, buildings, or events. Grants will be awarded for the long-term protection, preservation, and commemoration of adversely affected historical properties in the following order of preference. Grants must first be awarded to the historic properties listed in Stipulation III.C.1.i. If after two years from the date the administrator begins accepting grant applications, there are funds still unapplied, then grants should be awarded for activities for any adversely affected historic property identified in the Finding of Effect.

c. If after five years from the date the administrator begins accepting applications any funds are unallocated, then BOEM will consult with the consulting parties on appropriate use of the remaining funds to resolve adverse effects. The signatories agree that the existence of unapplied funds does not constitute a breach of this agreement.

d. BOEM and the lessee will identify an appropriate non-profit or governmental historic preservation organization, such as New Jersey Historic Trust or another similarly situated entity, to administer the fund and the funded activities, to ensure the effectiveness of these activities as mitigation for the undertaking's adverse effect on the historic properties. The third-party administrator shall consult with BOEM and the New Jersey SHPO prior to making any grants. The third-party administrator's fees and administrative costs will be paid from the fund and must not exceed 6% of the fund amount. The third-party administrator must ensure that all granted funds are used exclusively for the purposes described in Stipulation III.C for direct costs of preservation, interpretation, or commemoration of the historic properties adversely affected by the undertaking, and the mitigation fund administrator must prohibit the use of grant funds for indirect costs, such as accountant fees, employee salaries or benefits, or legal fees. BOEM and the lessee will consult on the selection of the fund administrator with the consulting parties. The fund administrator must be acceptable to BOEM. The same consultation process would be followed in the case of replacement of a fund administrator, if needed. BOEM will consult with the third-party administrator to develop operating procedures for the mitigation fund, and BOEM will review and approve the final operating procedures. BOEM will ensure that the third-party administrator has procedures under which it will provide a copy of all grants made and an annual report on expenditure of funds and activities to BOEM, New Jersey SHPO and the lessee. Funded mitigation activities, progress, completion, and outcomes will also be provided in the annual report per the Monitoring and Reporting Stipulation (Stipulation XV), with sufficient detail for BOEM to ensure that the mitigation is being implemented according to this section.

e. BOEM will ensure that the operating procedures include the following: Where Historic American Buildings Survey (HABS) documentation and HABS-like documentation mitigation is implemented, the grantee shall first consult with the historic property owner to identify photographic documentation specifications. Where Historic Structure Report mitigation is implemented, the documentation shall

be prepared in accordance with New Jersey SHPO's 2015 *Historic Structure Reports and Preservation Plans: A Preparation Guide – Second Edition*, as may be amended, and the project team must include an individual meeting the SOI's qualifications standards for Historic Architecture. Where applicable, such as in the implementation of funding for visitor experience, public access, and climate resiliency, all projects must meet the SOI's Standards for the Treatment of Historic Properties and these projects should not constitute adverse effects themselves on the historic properties.

f. Consistent with NHPA Section 110(f) and as described in the Finding of Effect, BOEM has undertaking planning and actions as may be necessary to minimize harm to NHLs. The mitigation funding for NHLs under this MOA does not replace any other planning and actions BOEM has taken to comply with that statutory requirement.

ii. Funding and Implementation of Historic Property Treatment Plans. BOEM will ensure the following measures described in HPTPs to resolve adverse effects on the 27 adversely affected aboveground historic properties in the visual APE are required as conditions of approval of the Project COP and are funded and implemented by the lessee prior to the construction of any part of this undertaking: [the following draft mitigation measures are those that have been proposed by the lessee and will be revised as necessary through consultations. As described above, the mitigation fund may be implemented in lieu of some or all of these HPTPs.]

a. Atlantic City Boardwalk Historic District. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for the Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County, New Jersey (Attachment 8):

1) Provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the property.

b. Atlantic City Convention Hall (NHL). The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Atlantic City Convention Hall (NHL) (Attachment 9):

1) Provide funding for the planning or implementation of restoration, rehabilitation, preservation, weatherization, cyclical maintenance, disaster recovery, or other associated activities to ensure the long-term preservation of the NHL.

c. Brigantine Hotel. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Brigantine Hotel in Brigantine City, Atlantic County, New Jersey (Attachment 10):

1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster

recovery, or other associated activities to ensure the long-term preservation of the property.

d. Brighton Park. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for the Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County, New Jersey (Attachment 8):

    1) Provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the property.

e. Central Pier. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for the Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County, New Jersey (Attachment 8):

    1) Provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the property.

f. Colonial Revival Residence at 120 Atlantic Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 125 S. Montgomery Avenue, 120 Atlantic Avenue, and 124 Atlantic Avenue in Atlantic City, Atlantic County, New Jersey (Attachment 11):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Atlantic City.

g. Folk Victorian Residence at 5231-5229 Central Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Folk Victorian Residence at 5231-5229 Central Avenue in Ocean City, Cape May County, New Jersey (Attachment 12):

    1) Provide funding to hire a qualified consultant to develop a National Register of Historic Places Nomination Form for 5231-5229 Central Avenue. In addition, or in lieu of the above, funding may be used to subsidize the cost of

flood insurance to be distributed annually throughout the period of operation of the Project.

h. Gillian's Wonderland Pier. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for Music Pier, Gillian's Wonderland Pier, and Ocean City Boardwalk in Ocean City, Cape May County, New Jersey (Attachment 13):

    1) Provide funding to hire a qualified consultant to develop a National Register of Historic Places Nomination Form for the Ocean City Boardwalk. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these properties.

i. John Stafford Historic District. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, John Stafford Historic District, and Vassar Square Condominiums in Ventnor City, Atlantic County, New Jersey (Attachment 14):

    1) Provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey. The plan will provide guidelines for historic property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

j. Little Egg Harbor U.S. Life Saving Station #23. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Little Egg Harbor U.S. Life Saving Station #23 in Little Egg Harbor, Ocean County, New Jersey (Attachment 15):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property.

k. Lucy, The Margate Elephant (NHL). The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Lucy, The Margate Elephant (NHL) in Margate City, Atlantic County, New Jersey (Attachment 16):

    1) Provide funding for the planning or implementation of restoration, cyclical maintenance, disaster recovery, or other associated activities to ensure the long-term preservation of this NHL.

l. Margate Fishing Pier. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 114 South Osborne Avenue, 108 South Gladstone Avenue, and Margate Fishing Pier in Margate City, Atlantic County, New Jersey (Attachment 17):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Margate City.

m. Missouri Avenue Beach (Chicken Bone Beach). The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Missouri Avenue Beach in Atlantic City, Atlantic County, New Jersey (Chicken Bone Beach) (Attachment 18):

    1) Provide funding to hire a SOI-qualified professional to document the history and significance of the property in the form of a National Register of Historic Places Nomination Form. In addition, funding may be used to provide an interpretive exhibit or signage to increase public awareness of this historic property.

n. Music Pier. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for Music Pier, Gillian's Wonderland Pier, and Ocean City Boardwalk in Ocean City, Cape May County, New Jersey (Attachment 13):

    1) Provide funding to hire a qualified consultant to develop a National Register of Historic Places Nomination Form for the Ocean City Boardwalk. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these properties.

o. Ocean City Boardwalk. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for Music Pier, Gillian's Wonderland Pier, and Ocean City Boardwalk in Ocean City, Cape May County, New Jersey (Attachment 13):

    1) Provide funding to hire a qualified consultant to develop a National Register of Historic Places Nomination Form for the Ocean City Boardwalk. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these properties.

p. Residence at 114 South Harvard Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, John Stafford Historic District, and Vassar Square Condominiums in Ventnor City, Atlantic County, New Jersey (Attachment 14):

1) Provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey. The plan will provide guidelines for historic property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

q. Residence at 125 South Montgomery Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 125 S. Montgomery Avenue, 120 Atlantic Avenue, and 124 Atlantic Avenue in Atlantic City, Atlantic County, New Jersey (Attachment 11):

1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Atlantic City.

r. Ritz Carlton Hotel. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for the Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County, New Jersey (Attachment 8):

1) Provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the property.

s. Riviera Apartments. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for the Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County, New Jersey (Attachment 8):

1) Provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the property.

t. Saint Leonard's Tract Historic District. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, John Stafford Historic District, and Vassar Square Condominiums in Ventnor City, Atlantic County, New Jersey (Attachment 14):

    1) Provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey. The plan will provide guidelines for historic property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

u. Seaview Golf Club, Clarence Geist Pavilion. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for Seaview Golf Club, Clarence Geist Pavilion in Galloway Township, Atlantic County, New Jersey (Attachment 19):

    1) Provide funding to hire a qualified consultant to develop a cultural landscape and management plan to assist with the changing environment of competitive golf. In addition, the funding may also be used for the development an interpretive element to be displayed/distributed at the Seaview Golf Club to increase public awareness of the history and significance of this historic golf course.

v. Two-and-a-Half-Story Residence at 124 Atlantic Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 125 S. Montgomery Avenue, 120 Atlantic Avenue, and 124 Atlantic Avenue in Atlantic City, Atlantic County, New Jersey (Attachment 11):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Atlantic City.

w. Two-Story Residence at 108 South Gladstone Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 114 South Osborne Avenue, 108 South Gladstone Avenue, and Margate Fishing Pier in Margate City, Atlantic County, New Jersey (Attachment 17):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of

this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Margate City.

x. Two-Story Residence at 114 South Osborne Avenue. The following mitigation measure would be implemented to resolve adverse effects on this historic property and two (2) other historic properties as described in the HPTP for 114 South Osborne Avenue, 108 South Gladstone Avenue, and Margate Fishing Pier in Margate City, Atlantic County, New Jersey (Attachment 17):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Margate City.

y. U.S. Coast Guard Station. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the HPTP for U.S. Coast Guard Station in Atlantic City, Atlantic County, New Jersey (Attachment 20):

    1) Provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this property.

z. Vassar Square Condominiums. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, John Stafford Historic District, and Vassar Square Condominiums in Ventnor City, Atlantic County, New Jersey (Attachment 14):

    1) Provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey. The plan will provide guidelines for historic property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

aa. Ventnor City Fishing Pier. The following mitigation measure would be implemented to resolve adverse effects on this historic property and four (4) other historic properties as described in the HPTP for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, John Stafford Historic District, and Vassar Square Condominiums in Ventnor City, Atlantic County, New Jersey (Attachment 14):

    1) Provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey. The plan will provide guidelines for historic

property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

D. Any Portion of the Project APE

1. [TBD: Additional Mitigation measures identified by BOEM or through Section 106 consultation.]

IV. PHASED IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

A. The final identification and evaluation of historic properties within the terrestrial APE may occur after publication of the DEIS, but before the initiation of construction of the Project. In this circumstance, the Signatories agree that the following describes how BOEM will conduct phased identification and evaluation of terrestrial archaeological resources, pursuant to 36 CFR § 800.4(b)(2) and consistent with the Terrestrial Archaeology Phased Identification Plan (Attachment 21):

1. For identification of historic properties within portions of the terrestrial APE, supplemental technical studies will be conducted by the lessee in accordance with New Jersey state guidelines and recommendations presented in BOEM's most recent *Guidelines*. The developer will coordinate with New Jersey SHPO prior to the initiation of any such identification efforts in the state. Survey efforts shall comply with the New Jersey Historic Preservation Office Requirements for Phase I Archaeological Survey at N.J.A.C. 7:4-8.4. Reports of archaeological survey results shall conform to the Requirements for Archaeological Survey Reports - Standards for Report Sufficiency at N.J.A.C. 7:4-8.5.

    i. BOEM will require that identification efforts be documented in a supplemental Terrestrial Archaeological Resources Assessment that addresses the identification of historic properties and includes an assessment of effects on historic properties due to the Project.

2. BOEM will consult on the results of historic property identification surveys for any portions of the APE that were not addressed in the pre-approval consultations.

3. If project impacts on identified terrestrial archaeological resources cannot be avoided, BOEM will require additional investigation to evaluate the NRHP eligibility of the potentially affected resources. BOEM will treat all identified potential historic properties as eligible for inclusion in the NRHP unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR § 800.4.

4. If BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to these identification efforts, BOEM, with the assistance of the lessee, will notify and consult with the signatories, invited signatories, and consulting parties following the consultation process set forth here in this stipulation.

    i. BOEM, with the assistance of the lessee, will notify all the signatories, invited signatories, and consulting parties about the surveys and BOEM's determination by providing a written summary of the surveys including any maps, a summary of the surveys and/or

research conducted to identify historic properties and assess effects, and copies of the surveys.

ii. BOEM, with the assistance of the lessee, will allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment on the survey reports, the results of the surveys, BOEM's determination, and the documents.

iii. After the 30-calendar-day review period has concluded and no comments require additional consultation, BOEM with the assistance of the lessee will notify the signatories and consulting parties that New Jersey SHPO has concurred with BOEM's determination, if they received any comments, provide a summary of the comments and BOEM's responses.

iv. BOEM, with the assistance of the lessee, will conduct any consultation meetings if requested by the signatories or consulting parties.

v. This MOA will not need to be amended if no additional historic properties are identified and/or adversely affected.

5. If BOEM determines new adverse effects on historic properties will occur due to result of these surveys, BOEM with the assistance of the lessee, will notify and consult with the signatories, invited signatories, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s) including the development of a new HPTP(s) following the consultation process set forth here in this stipulation.

   i. BOEM, with the assistance of the lessee, will notify all signatories, invited signatories, and consulting parties about the surveys and BOEM's determination by providing a written summary of the results including any maps, a summary of the surveys and/or research conducted to identify historic properties and assess effects, copies of the surveys, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

   ii. The signatories, invited signatories, and consulting parties will have 30 calendar days to review and comment on the documents including the adverse effect finding and the proposed resolution of adverse effect(s), including a draft HPTP(s).

   iii. BOEM, with the assistance of the lessee, will conduct additional consultation meetings, if necessary, during consultation on the adverse effect finding and during drafting and finalization of the HPTP(s).

   iv. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

   v. BOEM, with the assistance of the lessee, will send the revised draft final documents to the other signatories, invited signatories, and consulting parties for review and comment during a 30-calendar-day review and comment period. With this same submittal of draft final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

   vi. BOEM, with the assistance of the lessee, will respond to the comments on the draft final documents and make necessary edits to the documents.

   vii. BOEM, with the assistance of the lessee, will notify all the signatories, invited signatories, and consulting parties and provide the final document(s) including the final HPTP(s) and a

summary of comments and BOEM's responses to comments, if they receive any on the draft final documents, after BOEM has received concurrence from New Jersey SHPO on the finding of new adverse effect(s), and BOEM has accepted the final HPTP(s).

viii. The MOA will not need to be amended after the HPTP(s) is accepted by BOEM.

6. If New Jersey SHPO disagrees with BOEM's determination regarding whether an affected property is eligible for inclusion in the NRHP, or if the ACHP or the Secretary so request, the agency official will obtain a determination of eligibility from the Secretary pursuant to 36 CFR Part 63 (36 CFR § 800.4(c)(2)).

V. CONNECTED ACTION RELATED TO O&M FACILITY

USACE will serve as Lead Federal Agency for the portion of the activities under the connected action of repair and/or replacement of an existing bulkhead at the Project O&M facility under a USACE Nationwide Permit 3 or Nationwide Permit 13. BOEM will participate in Section 106 review of the connected action. If this review requires alteration of the conclusions reached in the Finding of Effect for this Project and, thus, requires additional consultation with the signatories, invited signatories, and consulting parties, BOEM will follow the steps outlined in the Project Modifications Stipulation (Stipulation VII) for notification and consultation.

VI. REVIEW PROCESS FOR DOCUMENTS

A. The following process will be used for any document, report, or plan produced in accordance with Stipulations of this MOA:

1. Draft Document

i. The lessee shall provide the document to BOEM for technical review and approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

ii. BOEM, with the assistance of the lessee, shall provide the draft document to consulting parties, except the ACHP, for review and comment.

a. Consulting parties shall have 30 calendar days to review and comment.

b. BOEM, with the assistance of the lessee, shall coordinate a meeting with consulting parties to facilitate comments on the document if requested by a consulting party.

c. BOEM shall consolidate comments received and provide them to the lessee within 15 calendar days of receiving comments from consulting parties.

d. BOEM with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

2. Draft Final Document

i. The lessee shall provide BOEM with the draft final document for technical review and approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

ii. BOEM, with the assistance of the lessee, shall provide the final draft document to consulting parties, except the ACHP, for review and comment. With this submittal of draft final documents, BOEM, with the assistance of the lessee, will provide a summary of all comments received on the documents and BOEM's responses.

a. Consulting parties shall have 30 calendar days to review and comment.

b. BOEM, with the assistance of the lessee, shall coordinate a meeting with consulting parties to facilitate comments on the document if requested by a consulting party.

c. BOEM shall consolidate comments received and provide them to the lessee within 15 calendar days of receiving comments from consulting parties.

d. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

3. Final Document

i. The lessee shall provide BOEM with the final document approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

c. BOEM, with the assistance of the lessee, shall provide the final document to consulting parties, except the ACHP, within 30 calendar days of approving the final document. With this same submittal of final documents, BOEM, with the assistance of the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

VII. PROJECT MODIFICATIONS

A. If the lessee proposes any modifications to the Project that expands the Project beyond the Project Design Envelope included in the COP and/or occurs outside of the defined APEs, or if the proposed modifications change BOEM's final determinations and findings for this Project, the lessee shall notify and provide BOEM with information concerning the proposed modifications. BOEM will determine if these modifications require alteration of the conclusions reached in the Finding of Effect and, thus, will require additional consultation with the signatories, invited signatories, and consulting parties. If BOEM determines additional consultation is required, the lessee will provide the signatories, invited signatories, and consulting parties with the information concerning the proposed changes, and these parties will have 30 calendar days from receipt of this information to comment on the proposed changes. BOEM shall take into account any comments from signatories, invited signatories, and consulting parties prior to agreeing to any proposed changes. Using the procedure below, BOEM will, as necessary, consult with the signatories, invited signatories, and consulting parties to identify and evaluate historic properties in any newly affected areas, assess the effects of the modification, and resolve any adverse effects.

1. If the Project is modified and BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to the modification, BOEM, with the assistance of the lessee, will notify and consult with the signatories, invited signatories, and consulting parties following the consultation process set forth in this Stipulation VII.A.1.

    i. The lessee will notify all the signatories, invited signatories, and consulting parties about this proposed change and BOEM's determination by providing a written summary of the project modification including any maps, a summary of any additional surveys and/or research conducted to identify historic properties and assess effects, and copies of the surveys.

    ii. BOEM and the lessee will allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment on the proposed change, BOEM's determination, and the documents.

    iii. After the 30-calendar-day review period has concluded and no comments require additional consultation, the lessee will notify the signatories and consulting parties that BOEM has approved the project modification and, if they received any comments, provide a summary of the comments and BOEM's responses.

    iv. BOEM, with the assistance of the lessee, will conduct any consultation meetings if requested by the signatories or consulting parties.

    v. This MOA will not need to be amended if no additional historic properties are identified and/or adversely affected.

2. If BOEM determines new adverse effects on historic properties will occur due to Project Modification(s), BOEM with the assistance of the lessee will notify and consult with the signatories, invited signatories, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s) including the development of a new HPTP(s) following the consultation process set forth in this Stipulation VII.A.2.

    i. The lessee will notify all signatories, invited signatories, and consulting parties about this proposed modification, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

    ii. The signatories, invited signatories, and consulting parties will have 30 calendar days to review and comment on the adverse effect finding and the proposed resolution of adverse effect(s), including a draft HPTP(s).

    iii. BOEM, with the assistance of the lessee, will conduct additional consultation meetings, if necessary, during consultation on the adverse effect finding and during drafting and finalization of the HPTP(s).

    iv. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

    v. The lessee will send the revised draft final documents to the other signatories, invited signatories, and consulting parties for review and comment during a 30-calendar-day review and comment period. With this same submittal of draft final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

vi. BOEM, with the assistance of the lessee, will respond to the comments on the draft final documents and make necessary edits to the documents.

vii. The lessee will notify all the signatories, invited signatories, and consulting parties that BOEM has approved the project modification and will provide the final document(s) including the final HPTP(s) and a summary of comments and BOEM's responses to comments, if they receive any on the draft final documents, after BOEM has received concurrence from New Jersey SHPO on the finding of new adverse effect(s), BOEM has accepted the final HPTP(s), and BOEM has approved the Project modification.

viii. The MOA will not need to be amended after the HPTP(s) is accepted by BOEM.

B. If any of the signatories, invited signatories, or consulting parties object to determinations, findings, or resolutions made pursuant to these measures (Stipulation VII.A.1 and 2), BOEM will resolve any such objections pursuant to the dispute resolution process set forth in the Dispute Resolution Stipulation (Stipulation XVI).

VIII. SUBMISSION OF DOCUMENTS

A. Federally recognized tribes, New Jersey SHPO, ACHP, and other consulting parties:

1. All submittals to federally recognized tribes, New Jersey SHPO, ACHP, and other consulting parties will be submitted electronically unless a specific request is made for the submittal to be provided in paper format.

IX. CURATION

A. Collections from federal lands or the OCS:

1. Any archaeological materials removed from federal lands or the OCS as a result of the actions required by this MOA shall be curated in accordance with 36 CFR 79, "Curation of Federally Owned and Administered Archaeological Collections," ACHP's "Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites" published in the Federal Register (64 Fed. Reg. 27085-27087 (May 18, 1999)), or other provisions agreed to by the consulting parties and following applicable State guidelines. No excavation should be initiated before acceptance and approval of a curation plan.

B. Collections from state, local government, and private lands:

1. Archaeological materials from state or local government lands in the APE and the records and documentation associated with these materials shall be curated within the state of their origin at a repository preferred by the SHPO, or an approved and certified repository, in accordance with the standards and guidelines required by New Jersey SHPO for materials collected in New Jersey. Lands as described here may include the seafloor in state waters. No excavation should be initiated before acceptance and approval of a curation plan.

2. Collections from private lands that would remain private property: In cases where archaeological survey and testing are conducted on private land, any recovered collections remain the property of the landowner. In such instances, BOEM and the lessee, in coordination with New Jersey SHPO and affected Tribe(s), will encourage landowners to donate the collection(s) to an appropriate public or Tribal entity. To the extent a private landowner requests that the materials be removed from the site, the lessee will seek to have the materials donated to the repository identified under Stipulation IX.B.1 through a written

donation agreement developed in consultation with the consulting parties. BOEM, assisted by the lessee, will seek to have all materials the state curated together in the same curation facility within the state. In cases where the property owner wishes to transfer ownership of the collection(s) to a public or Tribal entity, BOEM and the lessee will ensure that recovered artifacts and related documentation are curated in a suitable repository as agreed to by BOEM, New Jersey SHPO, and affected Tribe(s), and following New Jersey state guidelines. To the extent feasible, the materials and records resulting from the actions required by this MOA for private lands shall be curated in accordance with 36 CFR 79. No excavation should be initiated before acceptance and approval of a curation.

X. PROFESSIONAL STANDARDS AND QUALIFICATIONS

A. Secretary of the Interior's Standards for Archaeology and Historic Preservation. The lessee will ensure that all work carried out pursuant to this MOA will meet the SOI Standards for Archaeology and Historic Preservation, 48 FR 44716 (September 29, 1983), taking into account the suggested approaches to new construction in the SOI's Standards for Rehabilitation.

B. SOI Professional Qualifications Standards. The lessee will ensure that all work carried out pursuant to this MOA is performed by or under the direct supervision of historic preservation professionals who meet the SOI's Professional Qualifications Standards (48 FR 44738-44739). A "qualified professional" is a person who meets the relevant standards outlined in such SOI's Standards. BOEM, or its designee, will ensure that consultants retained for services pursuant to the MOA meet these standards.

C. Investigations of Marine Archaeological Resources and ASLFs. The lessee will ensure that the additional investigations of marine archaeological resources and ASLFs will be conducted and reports and other materials produced by one or more QMAs and geological specialists who meet the SOI's Professional Qualifications Standards and has experience both in conducting HRG surveys and processing and interpreting the resulting data for archaeological potential, as well as collecting, subsampling, and analyzing cores.

D. Tribal Consultation Experience. The lessee will ensure that all work carried out pursuant to this MOA that requires consultation with Tribes is performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes.

XI. DURATION

A. This MOA will expire at (1) the decommissioning of the Project in the Lease Area, as defined in the lessee's lease with BOEM (Lease Number OCS-A 0499), or (2) 25 years from the date of COP approval, whichever occurs first. Prior to such time, BOEM may consult with the other signatories and invited signatories to reconsider the terms of the MOA and amend it in accordance with Amendments Stipulation (Stipulation XVII).

XII. ARCHAEOLOGICAL MONITORING

A. Implementation of Archaeological Monitoring Plans. The lessee will implement the archaeological monitoring plans found in the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4) and *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5) for the areas identified for archaeological monitoring.

B. In the event of a post-review discovery during archaeological monitoring, the process identified under the Post-Review Discoveries Stipulation (Stipulation XIII) will apply.

XIII. POST-REVIEW DISCOVERIES

A. Implementation of Post-Review Discovery Plans. If properties are discovered that may be historically significant or unanticipated effects on historic properties found, BOEM, with the assistance of the lessee, shall implement the post-review discovery plans found in the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4) and *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5).

1. The signatories acknowledge and agree that it is possible that additional historic properties may be discovered during implementation of the Project, despite the completion of a good-faith effort to identify historic properties throughout the APEs.

B. All Post-Review Discoveries. In the event of a post-review discovery of a property or unanticipated effects on a historic property prior to or during construction, operations, maintenance, or decommissioning of the Project, the lessee will implement the following actions which are consistent with the post-review discovery plans for marine archaeology (Attachment 4) and terrestrial archaeology (Attachment 5): [final procedures to be determined through consultation]

1. Immediately halt all ground- or seafloor-disturbing activities within the area of discovery.

2. Notify BOEM in writing via report within 72 hours of the discovery.

3. Keep the location of the discovery confidential and take no action that may adversely affect the discovered property until BOEM or its designee has made an evaluation and instructs the lessee on how to proceed.

4. Conduct any additional investigations as directed by BOEM or its designee to determine, in consultation with the appropriate SHPO, if the resource is eligible for listing in the NRHP (30 CFR 585.702(b)). BOEM will direct the lessee to complete additional investigations, as BOEM deems appropriate, if:

    i. The site has been impacted by Project activities; or

    ii. Effects on the site from Project activities cannot be avoided.

5. If investigations indicate that the resource is eligible for listing in the NRHP, BOEM, with the assistance of the lessee, will work with the other relevant signatories, invited signatories, and consulting parties to this MOA who have a demonstrated interest in the affected historic property and on the further avoidance, minimization, or mitigation of adverse effects.

6. If there is any evidence that the discovery is from an indigenous society or appears to be a preserved burial site, the lessee will contact the Tribes as identified in the notification lists included in the post-review discovery plans within 72 hours of the discovery with details of what is known about the discovery, and consult with the Tribes pursuant to the post-review discovery plan.

7. If BOEM incurs costs in addressing the discovery, under Section 110(g) of the NHPA, BOEM may charge the lessee reasonable costs for carrying out historic preservation responsibilities, pursuant to its delegated authority under the OCS Lands Act (30 CFR 585.702(c-d)).

XIV. EMERGENCY SITUATIONS

In the event of an emergency or disaster that is declared by the President or the Governor of New Jersey, which represents an imminent threat to public health or safety, or creates a hazardous condition due to impacts from this Project's infrastructure damaged during the emergency and affecting historic properties in the APEs, BOEM with the assistance of the lessee will notify the consulting Tribes, SHPO, and the ACHP of the condition which has initiated the situation and the measures taken to respond to the emergency or hazardous condition. BOEM will make this notification as soon as reasonably possible, but no later than 48 hours from when it becomes aware of the emergency or disaster. Should the consulting Tribes, SHPO, or the ACHP desire to provide technical assistance to BOEM, they shall submit comments within seven calendar days from notification if the nature of the emergency or hazardous condition allows for such coordination.

XV. MONITORING AND REPORTING

At the beginning of each calendar year by January 31, following the execution of this MOA until it expires or is terminated, the lessee will prepare and, following BOEM's review and agreement to share this summary report, provide all signatories, invited signatories, and consulting parties to this MOA a summary report detailing work undertaken pursuant to the MOA. Such report shall include a description of how the stipulations relating to avoidance and minimization measures (Stipulations I and II) were implemented; any scheduling changes proposed; any problems encountered; and any disputes and objections received in BOEM's efforts to carry out the terms of this MOA. The lessee can satisfy its reporting requirement under this stipulation by providing the relevant portions of the annual compliance certification required under 30 CFR 285.633.

XVI. DISPUTE RESOLUTION

A. Should any signatory, invited signatory, or consulting party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, they must notify BOEM in writing of their objection. BOEM shall consult with such party to resolve the objection. If BOEM determines that such objection cannot be resolved, BOEM:

   1. Will forward all documentation relevant to the dispute, including BOEM's proposed resolution, to ACHP. ACHP shall provide BOEM with its advice on the resolution of the objection within 30 calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, BOEM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from ACHP, signatories, invited signatories, and/or consulting parties, and provide them with a copy of this written response. BOEM will make a final decision and proceed accordingly.

   2. May make a final decision on the dispute and proceed accordingly, if ACHP does not provide its advice regarding the dispute within the 30-calendar-day time period. Prior to reaching such a final decision, BOEM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories, invited signatories, or consulting parties to the MOA, and provide them and ACHP with a copy of such written response.

B. BOEM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

C. At any time during the implementation of the measures stipulated in this MOA, should a member of the public object in writing to the signatories regarding the manner in which the measures stipulated in this MOA are being implemented, that signatory will notify BOEM. BOEM shall review the objection and may notify the other signatories as appropriate, and respond to the

objector.

XVII. AMENDMENTS

A. This MOA may be amended when such an amendment is agreed to in writing by all signatories and invited signatories. The amendment will be effective on the date a copy signed by all of the signatories and invited signatories is filed with ACHP.

B. Revisions to any attachment may be proposed by any signatory or invited signatory by submitting a draft of the proposed revisions to all signatories and invited signatories with a notification to the consulting parties. The signatories and invited signatories will consult for no more than 30 calendar days (or another time period agreed upon by all signatories and invited signatories) to consider the proposed revisions to the attachment. If the signatories and invited signatories unanimously agree to revise the attachment, BOEM will provide a copy of the revised attachment to the other signatories, invited signatories, and consulting parties. Revisions to any attachment to this MOA will not require an amendment to the MOA.

XVIII. TERMINATION

If any signatory or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories, invited signatories, and consulting parties to attempt to develop an amendment per the Amendments Stipulation (Stipulation XVII). If within 30 calendar days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory or invited signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, BOEM must either (a) execute an MOA pursuant to 36 CFR 800.6; or (b) request, take into account, and respond to ACHP comments under 36 CFR 800.7. BOEM shall notify the signatories and invited signatories as to the course of action it will pursue.

XIX. COORDINATION WITH OTHER FEDERAL AGENCIES

A. In the event that another federal agency not initially a party to or subject to this MOA receives an application for funding/license/permit for the undertaking as described in this MOA, that agency may fulfill its Section 106 responsibilities by stating in writing it concurs with the terms of this MOA and notifying the signatories and invited signatories that it intends to do so. Such federal agency may become a signatory, invited signatory, or a concurring party (collectively referred to as signing party) to the MOA as a means of complying with its responsibilities under Section 106 and based on its level of involvement in the undertaking. To become a signing party to the MOA, the agency official must provide written notice to the signatories and invited signatories that the agency agrees to the terms of the MOA, specifying the extent of the agency's intent to participate in the MOA. The participation of the agency is subject to approval by the signatories and invited signatories who must respond to the written notice within 30 calendar days or the approval will be considered implicit. Any necessary amendments to the MOA as a result will be considered in accordance with the Amendments Stipulation (Stipulation XVII).

B. Should the signatories and invited signatories approve the federal agency's request to be a signing party to this MOA, an amendment under the Amendments Stipulation (Stipulation XVII) will not be necessary if the federal agency's participation does not change the undertaking in a manner that would require any modifications to the stipulations set forth in this MOA. BOEM will document these conditions and involvement of the federal agency in a written notification to the signatories, invited signatories, and consulting parties, and include a copy of the federal agency's

executed signature page, which will codify the addition of the federal agency as a signing party in lieu of an amendment.

XX. ANTI-DEFICIENCY ACT

Pursuant to 31 USC 1341(a)(1), nothing in this MOA will be construed as binding the United States to expend in any one fiscal year any sum in excess of appropriations made by Congress for this purpose, or to involve the United States in any contract or obligation for the further expenditure of money in excess of such appropriations.

Execution of this MOA by BOEM, New Jersey SHPO, ACHP, and the lessee and implementation of its terms evidence that BOEM has taken into account the effects of this undertaking on historic properties and afforded ACHP an opportunity to comment.

[SIGNATURES COMMENCE ON FOLLOWING PAGE]

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Signatory:

Bureau of Ocean Energy Management (BOEM)

_____ Date:_____
Elizabeth A. Klein
Director
Bureau of Ocean Energy Management

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Signatory:

New Jersey State Historic Preservation Officer (SHPO)

_____ Date:_____
Katherine J. Marcopul, Ph.D., CPM
Administrator and
Deputy State Historic Preservation Officer
New Jersey Department of Environmental Protection

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Signatory:

Advisory Council on Historic Preservation (ACHP)

_____ Date:_____
Reid J. Nelson
Executive Director
Advisory Council on Historic Preservation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Invited Signatory:

Atlantic Shores Offshore Wind Project 1, LLC

_____ Date:_____
[Name]
[Title]
Atlantic Shores Offshore Wind Project 1, LLC

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Invited Signatory:

Atlantic Shores Offshore Wind Project 2, LLC

_____ Date:_____
[Name]
[Title]
Atlantic Shores Offshore Wind Project 2, LLC

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

Mashantucket (Western) Pequot Tribe

_____ Date:_____
Rodney Butler
Chairman
Mashantucket (Western) Pequot Tribe

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

Mashpee Wampanoag Tribe

_____ Date:_____
Brian Weeden
Chairman
Mashpee Wampanoag Tribe

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

The Delaware Nation

_____ Date:_____
Deborah Dotson
President of the Executive Committee
The Delaware Nation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

The Delaware Tribe of Indians

_____ Date:_____
Brad KillsCrow
Chief
The Delaware Tribe of Indians

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

The Shinnecock Indian Nation

_____ Date:_____
Bryan Polite
Chairman
The Shinnecock Indian Nation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

United States Army Corps of Engineers

_____ Date:_____
[Name]
[Title]
United States Army Corps of Engineers

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

United States National Park Service

_____ Date:_____
[Name]
[Title]
United States National Park Service

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

Concurring Party:

[Organization]

_____ Date:_____
[Name]
[Title]
[Organization]

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, AND
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT

LIST OF ATTACHMENTS TO THE MOA

ATTACHMENT 15 – HISTORIC PROPERTY TREATMENT PLAN FOR LITTLE EGG HARBOR LIFESAVING STATION #23 IN LITTLE EGG HARBOR, OCEAN COUNTY, NEW JERSEY

ATTACHMENT 16 – HISTORIC PROPERTY TREATMENT PLAN FOR LUCY, THE MARGATE ELEPHANT IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 17 – HISTORIC PROPERTY TREATMENT PLAN FOR 114 SOUTH OSBORNE AVENUE, 108 SOUTH GLADSTONE AVENUE, AND MARGATE FISHING PIER IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 18 – HISTORIC PROPERTY TREATMENT PLAN FOR MISSOURI AVENUE BEACH (CHICKEN BONE BEACH) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 19 – HISTORIC PROPERTY TREATMENT PLAN FOR SEAVIEW GOLF CLUB IN GALLOWAY TOWNSHIP, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 20 – HISTORIC PROPERTY TREATMENT PLAN FOR U.S. COAST GUARD STATION IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 21 – TERRESTRIAL ARCHAEOLOGY PHASED IDENTIFICATION PLAN

ATTACHMENT 1 – APE MAPS

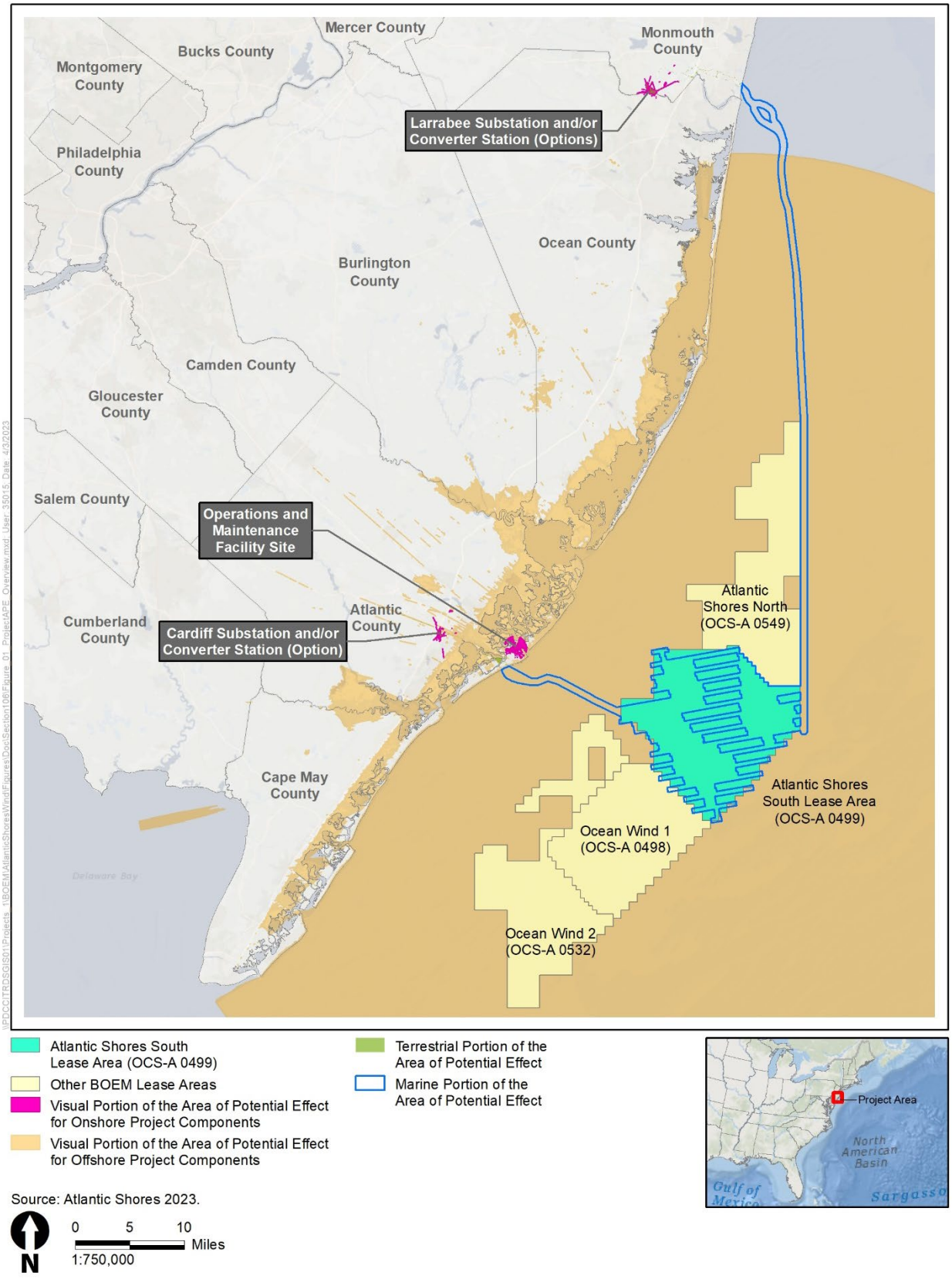


Figure 1. Overview of Project APE

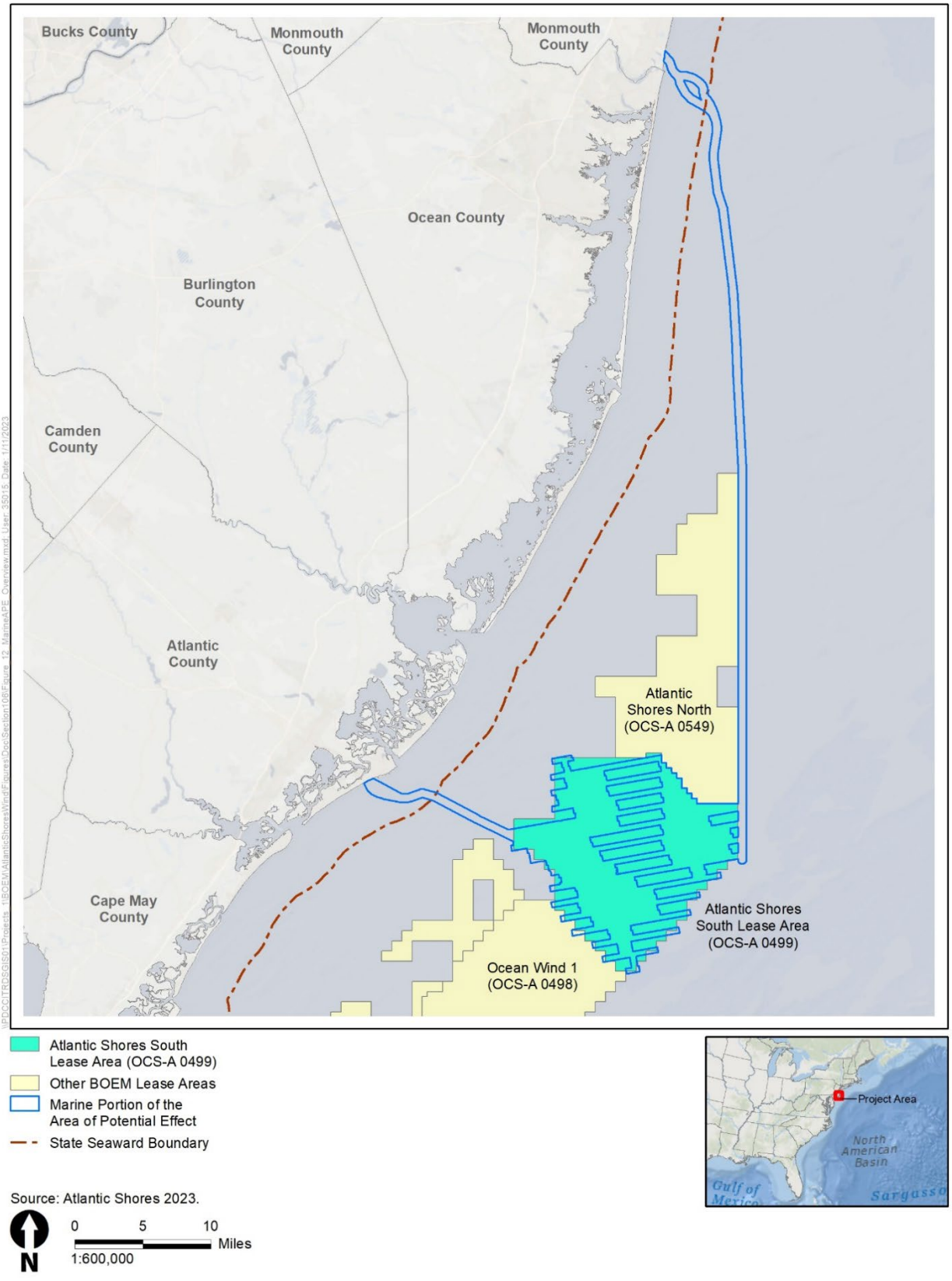


Figure 2. Overview of marine APE

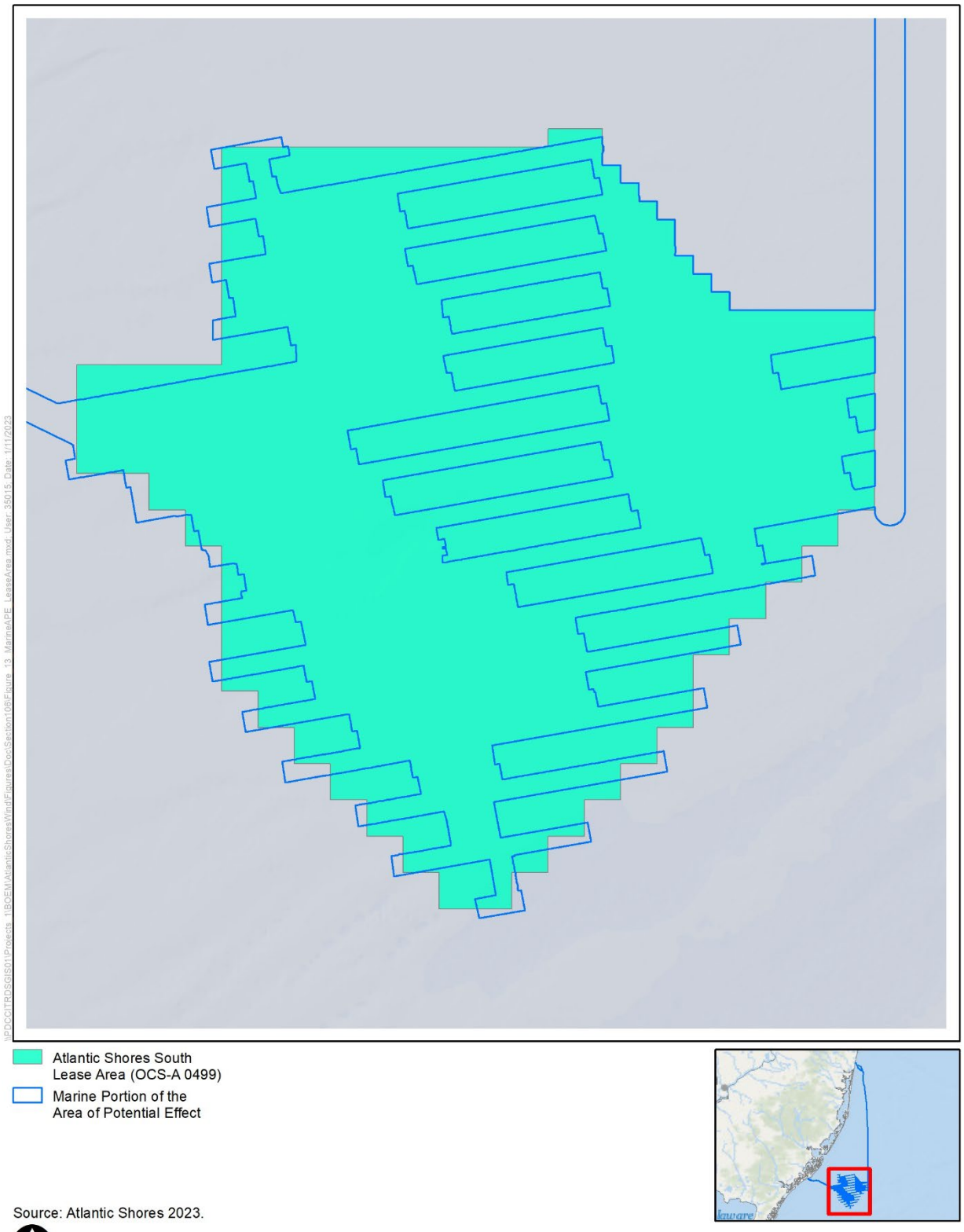


Figure 3. Detail of marine APE within the Lease Area

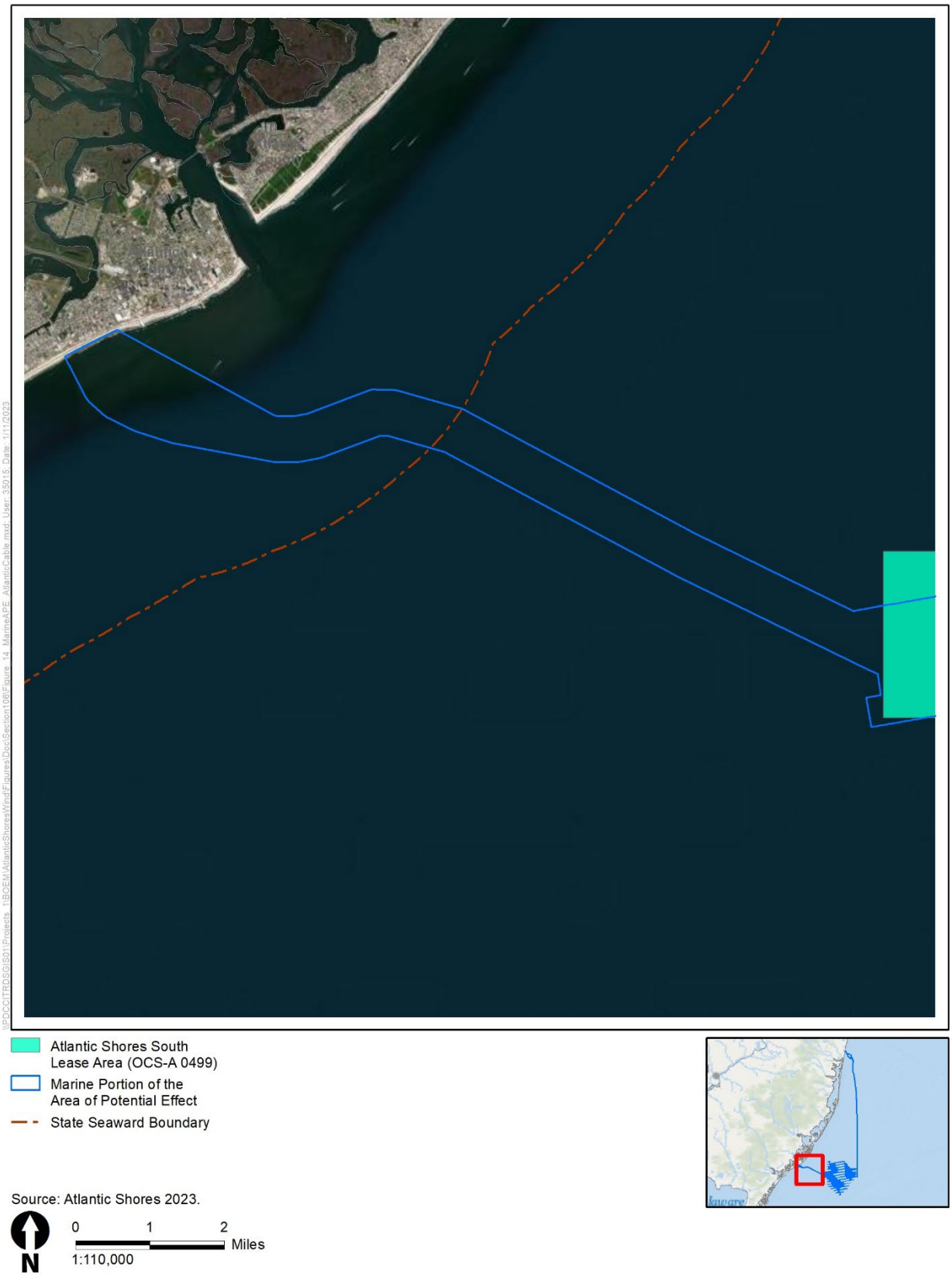


Figure 4. Detail of marine APE within the Atlantic Offshore ECC

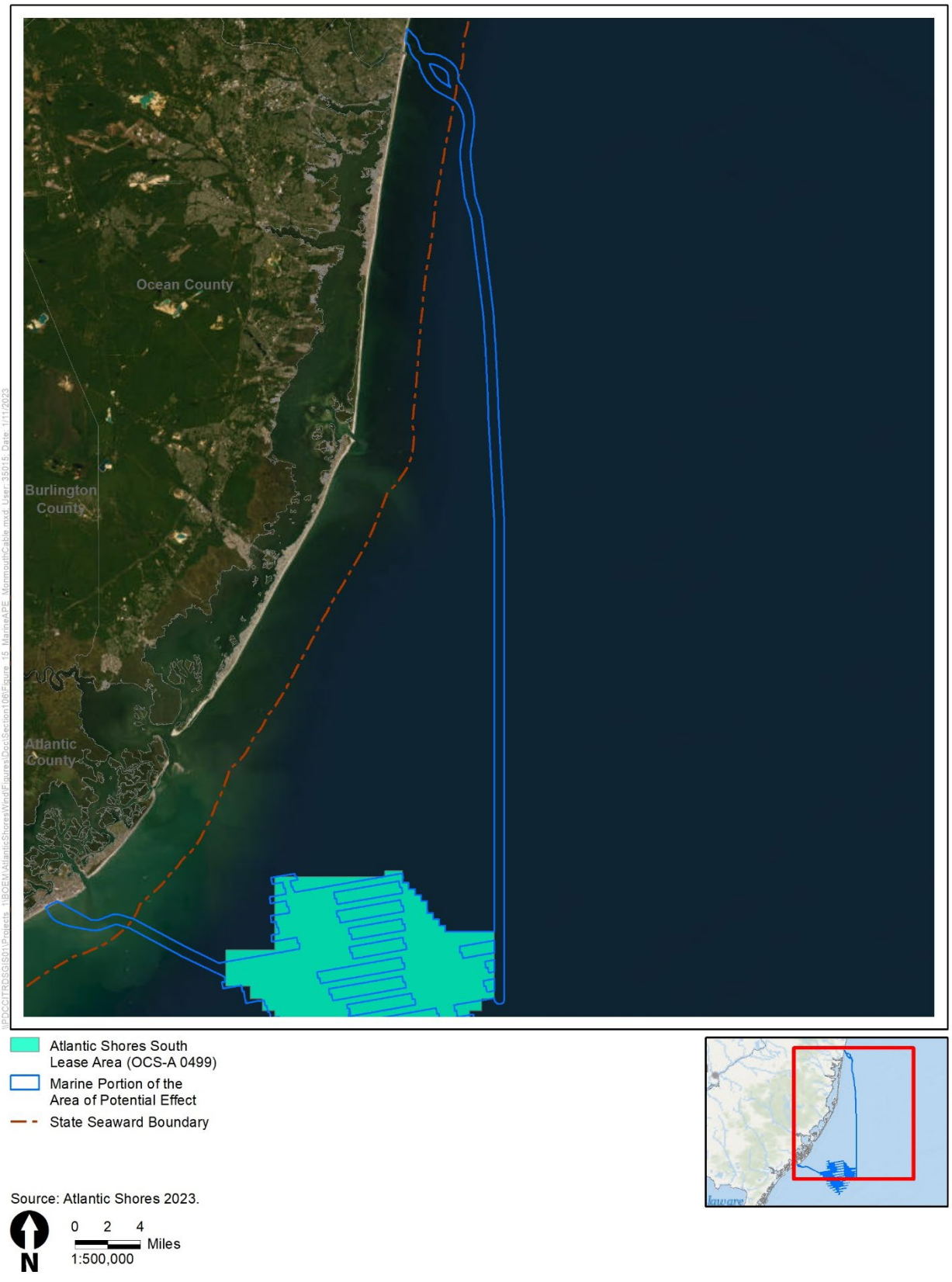


Figure 5. Detail of the marine APE within the Monmouth Offshore ECC

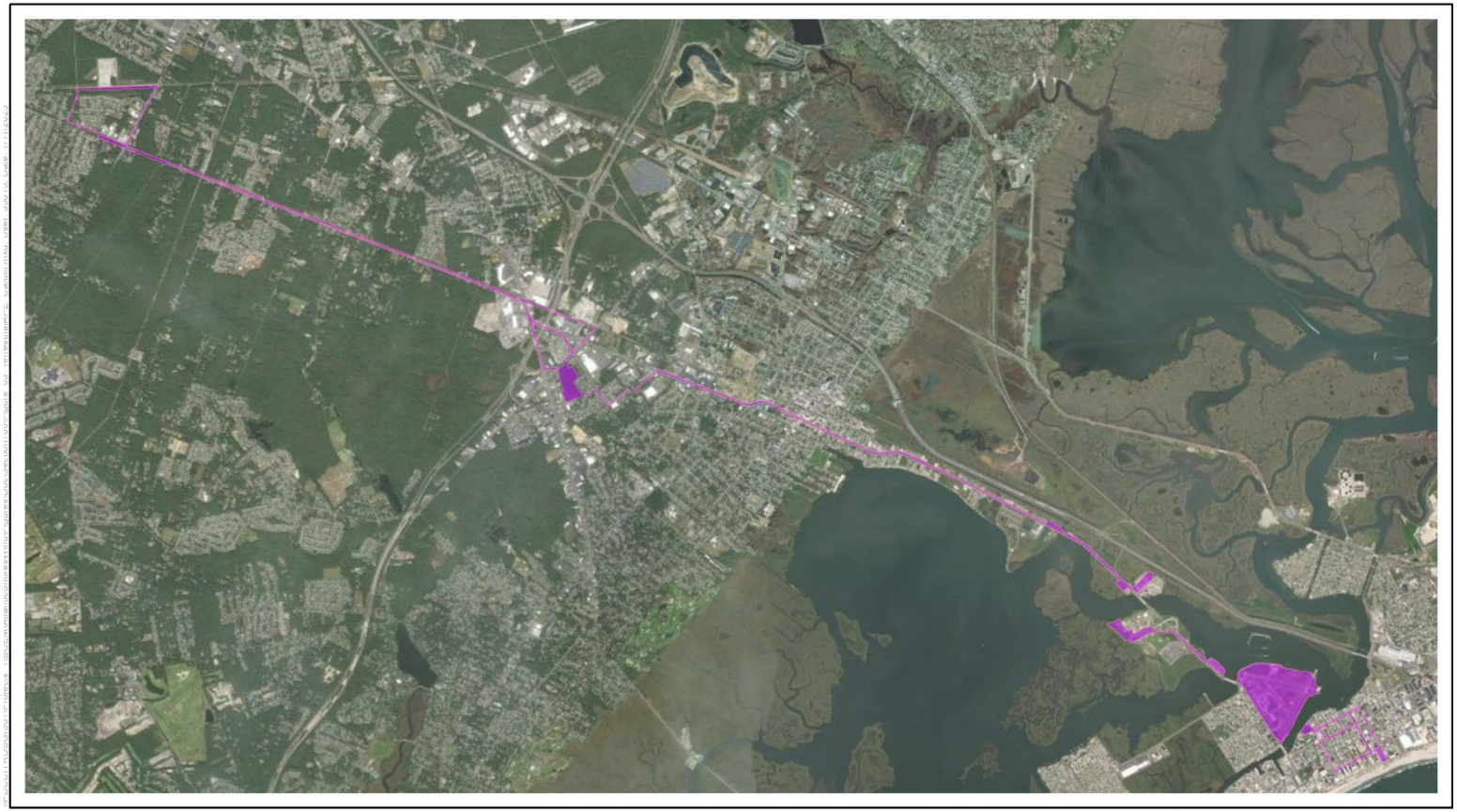


Figure 6. Detail of terrestrial APE for Cardiff facilities

Terrestrial Portion of the Area of Potential Effect

Source: Atlantic Shores 2023.

0 0.5 1 Mile

N

1:60,000

Figure 7. Detail of terrestrial APE for Larrabee Facilities

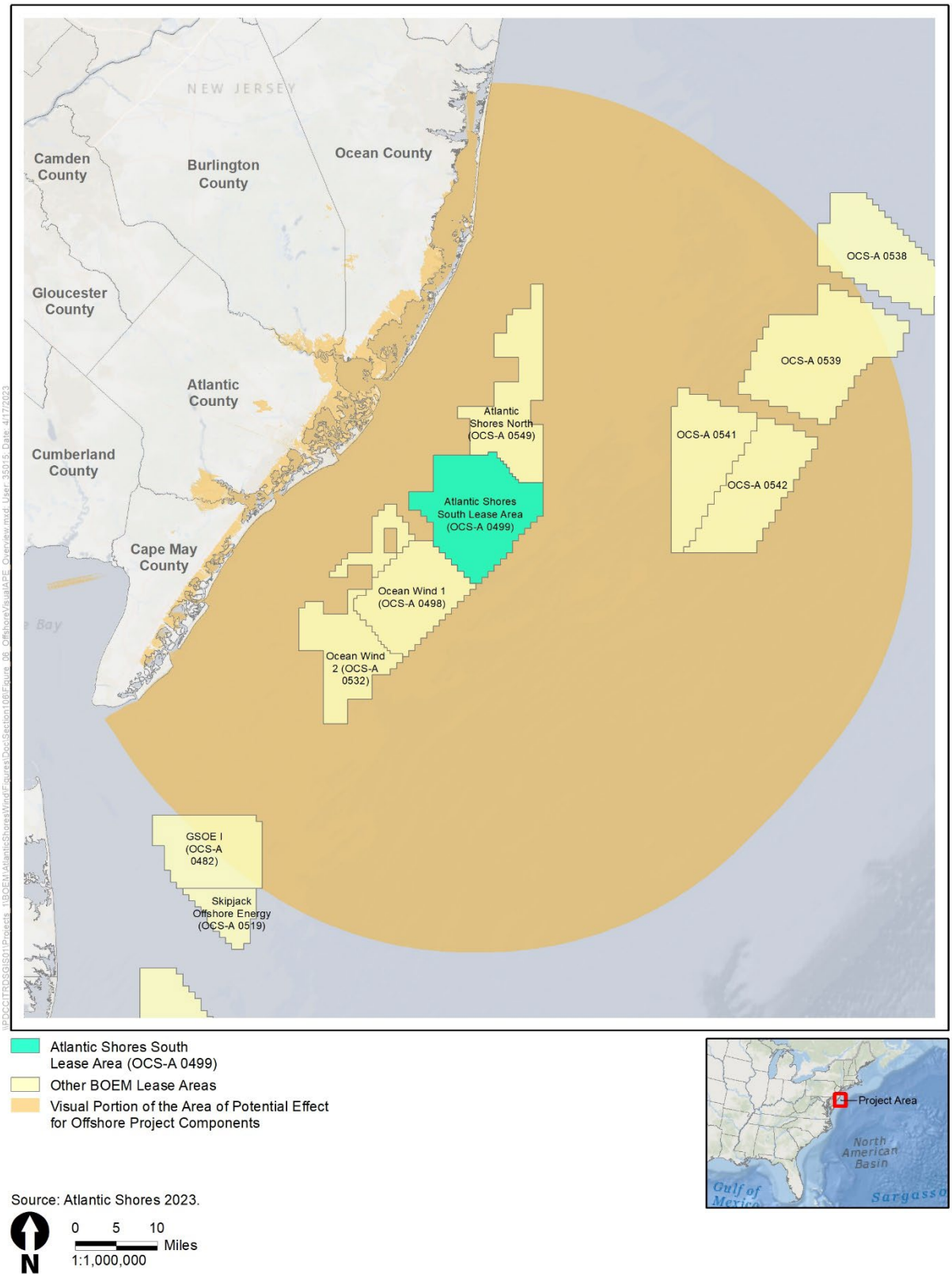


Figure 8. Overview of the visual APE for Offshore Project components

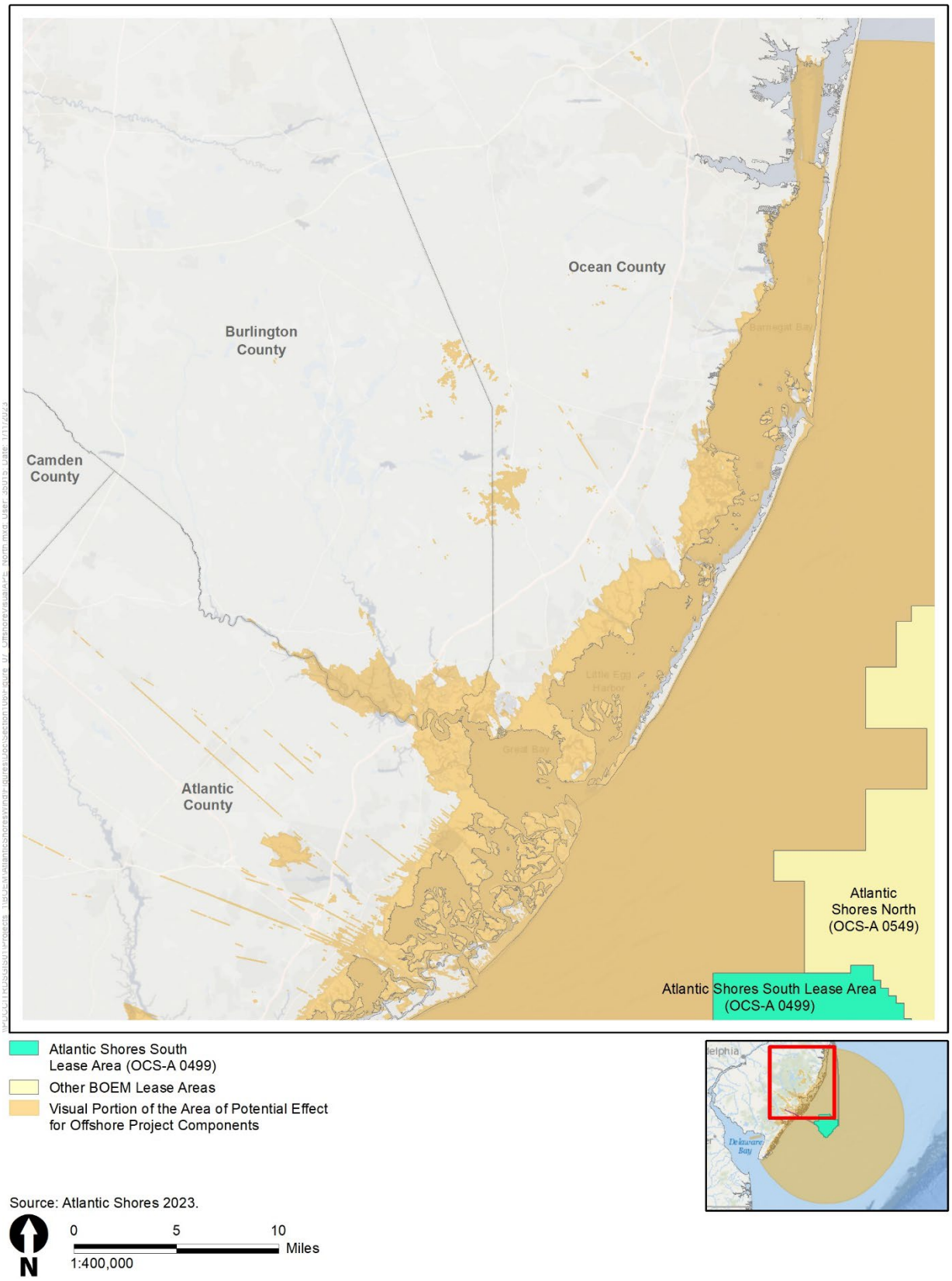


Figure 9. Detail of the visual APE for Offshore Project components, sheet 1 of 2

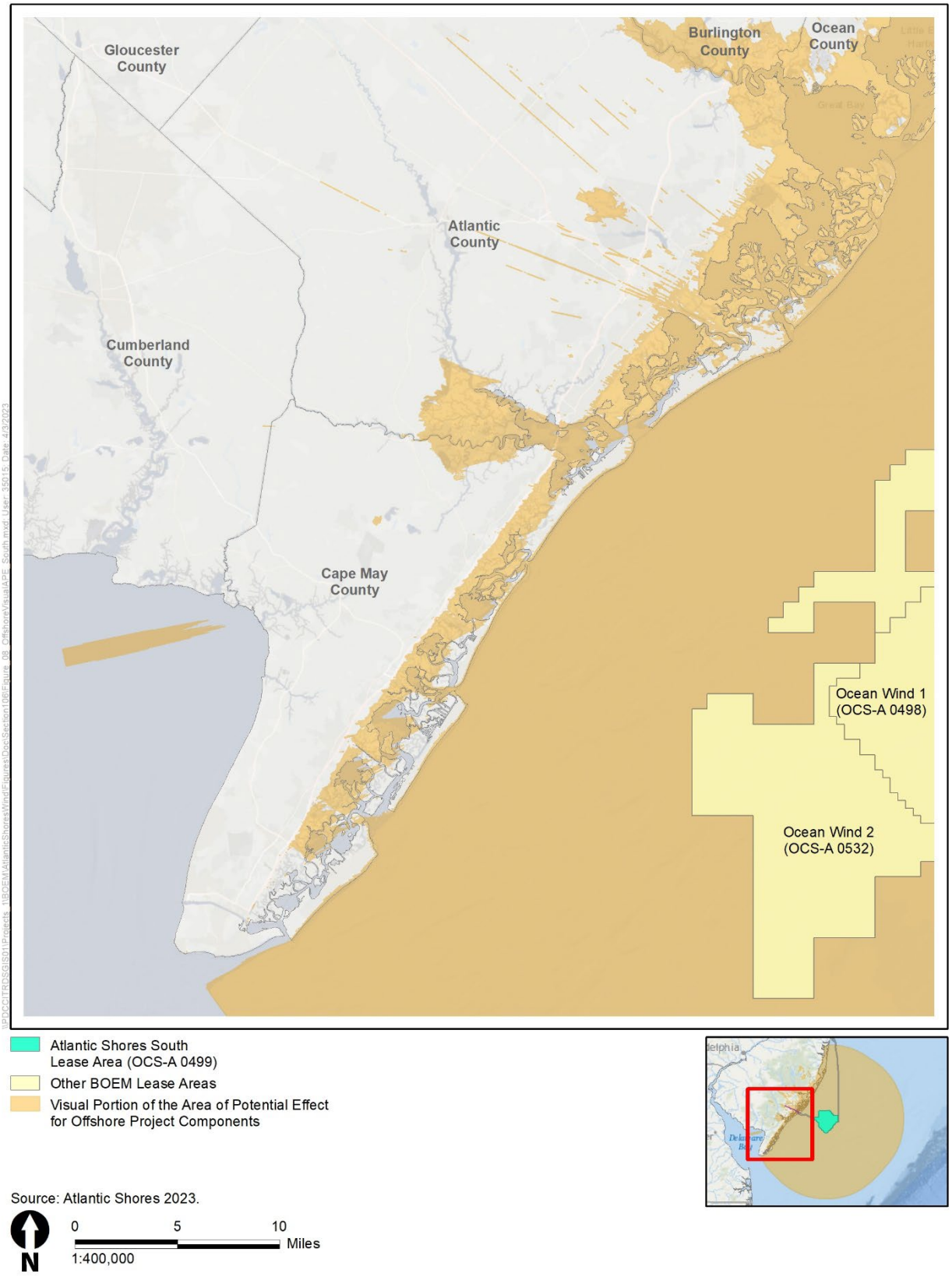


Figure 10. Detail of the visual APE for Offshore Project components, sheet 2 of 2

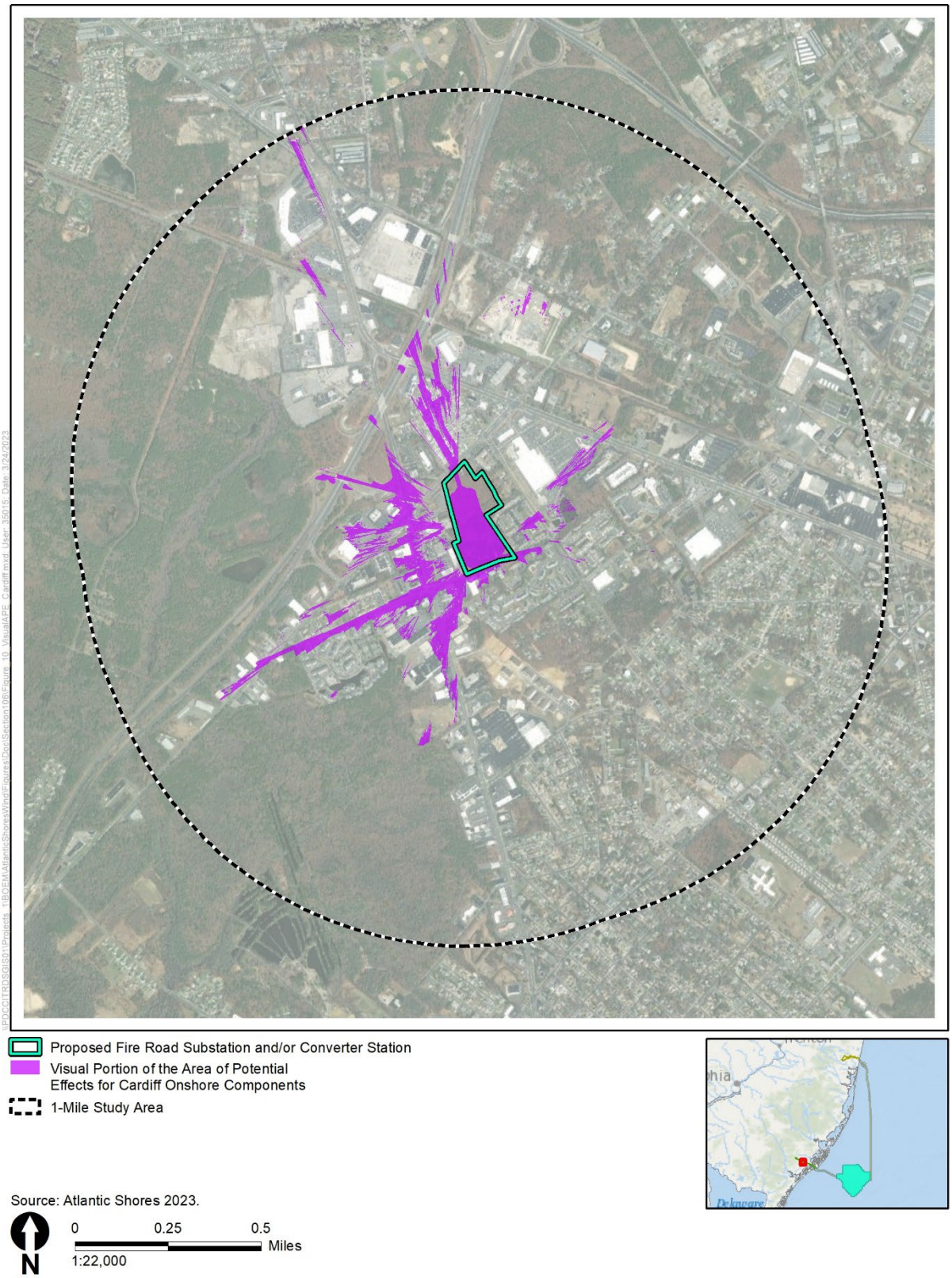


Figure 11. Detail of visual APE for Onshore Project components proposed for the Cardiff Facilities: Fire Road Site

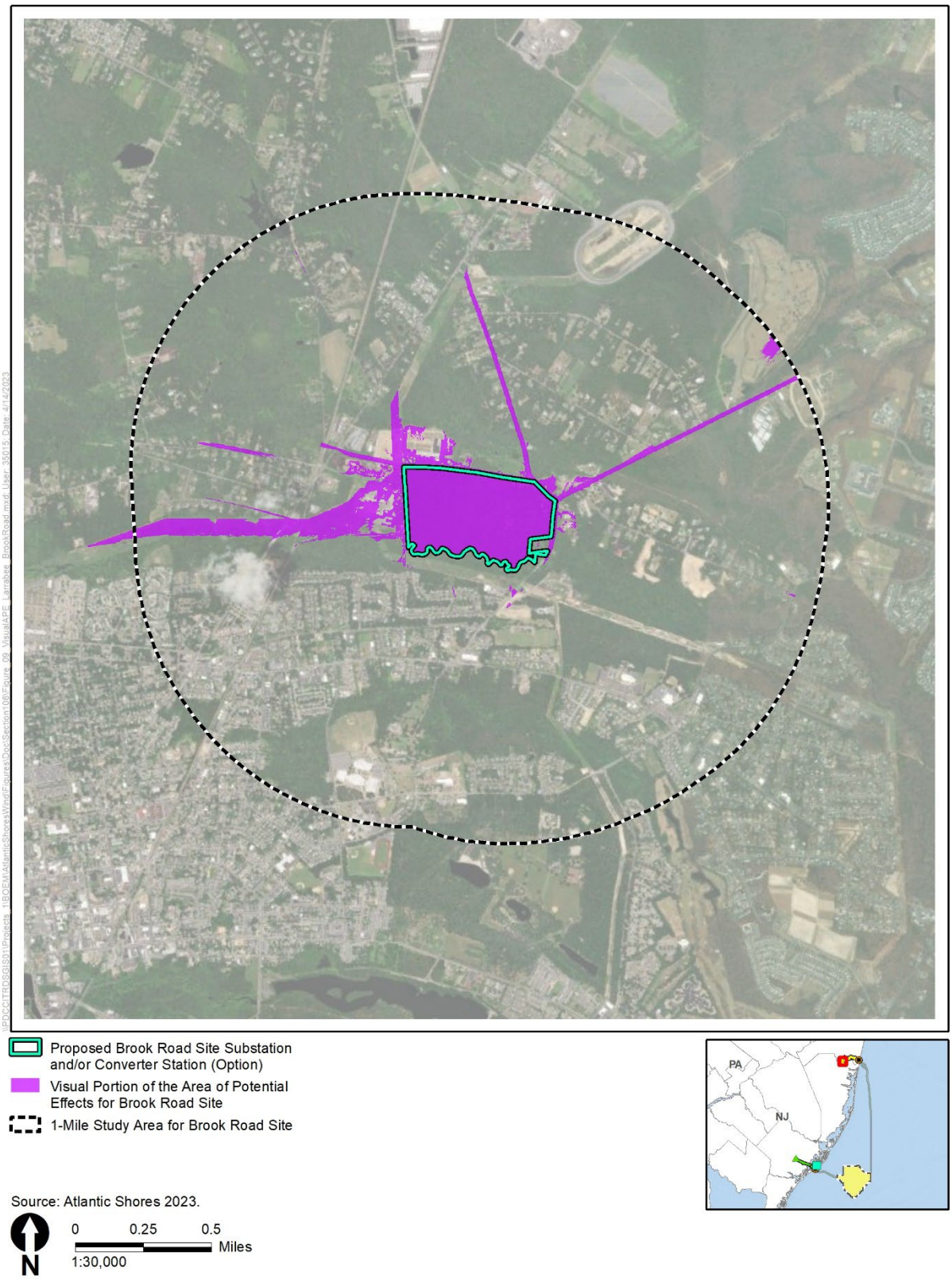


Figure 12. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Brook Road Site

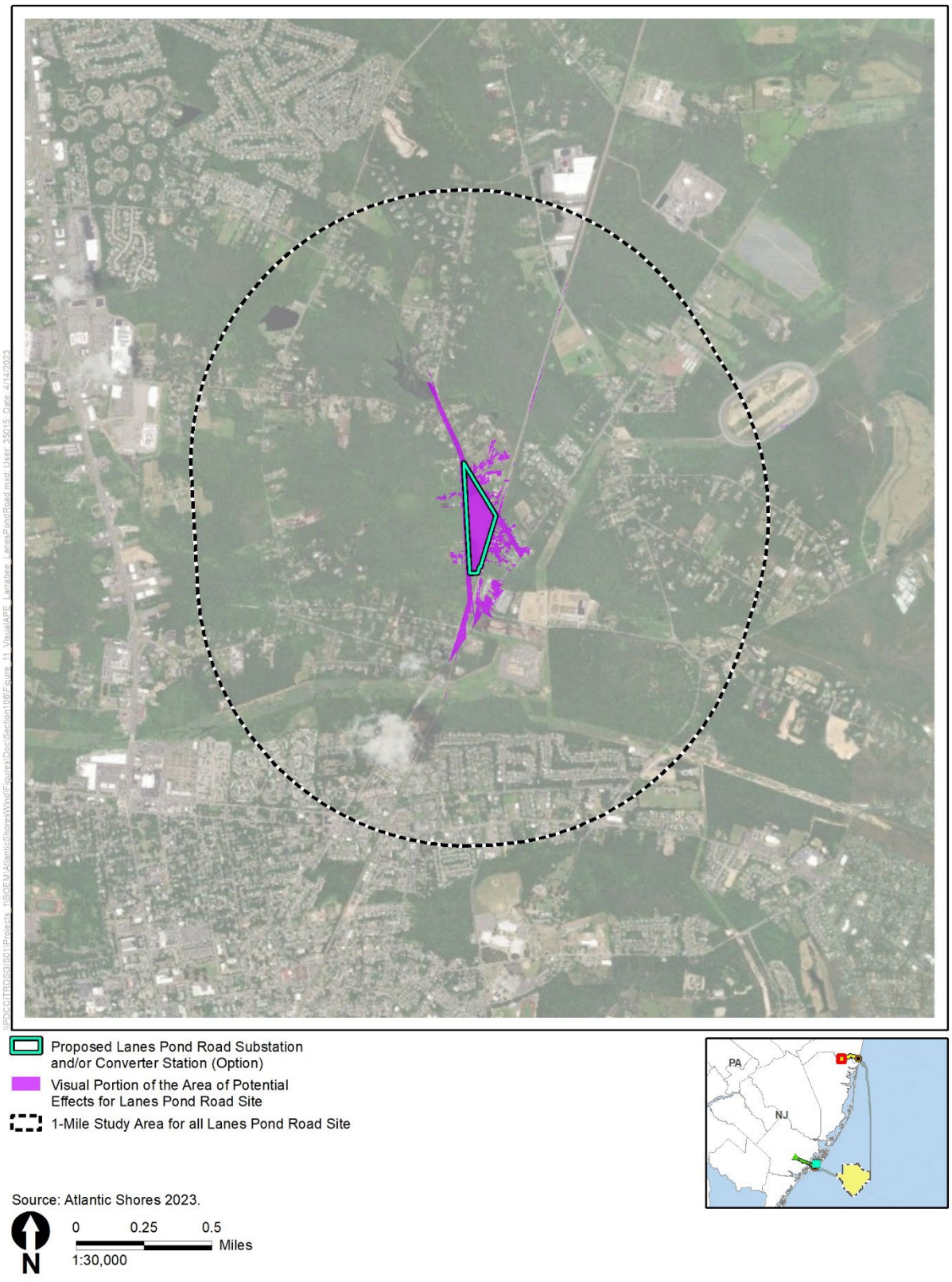


Figure 13. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Lanes Pond Road Site

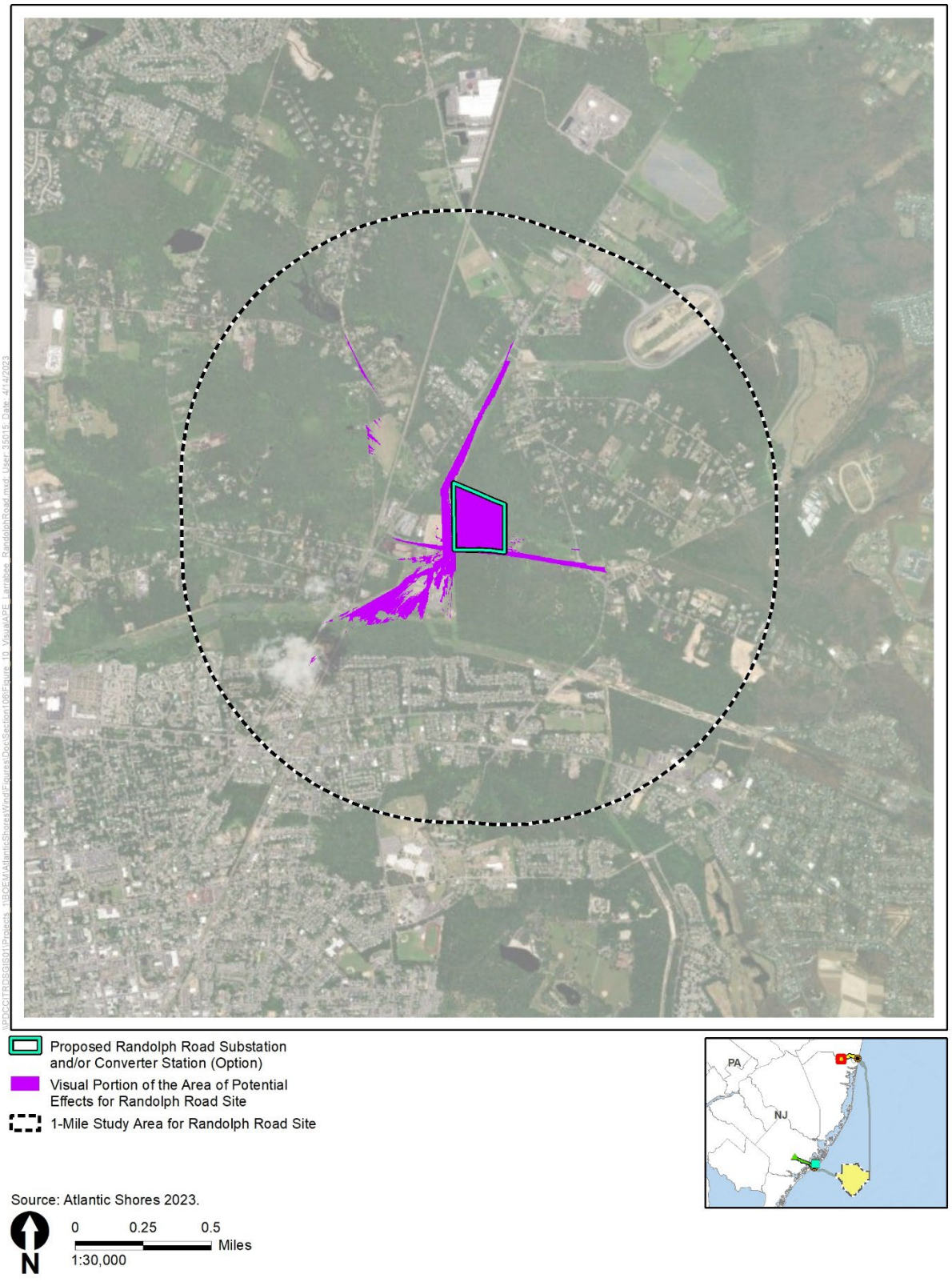


Figure 14. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Randolph Road Site

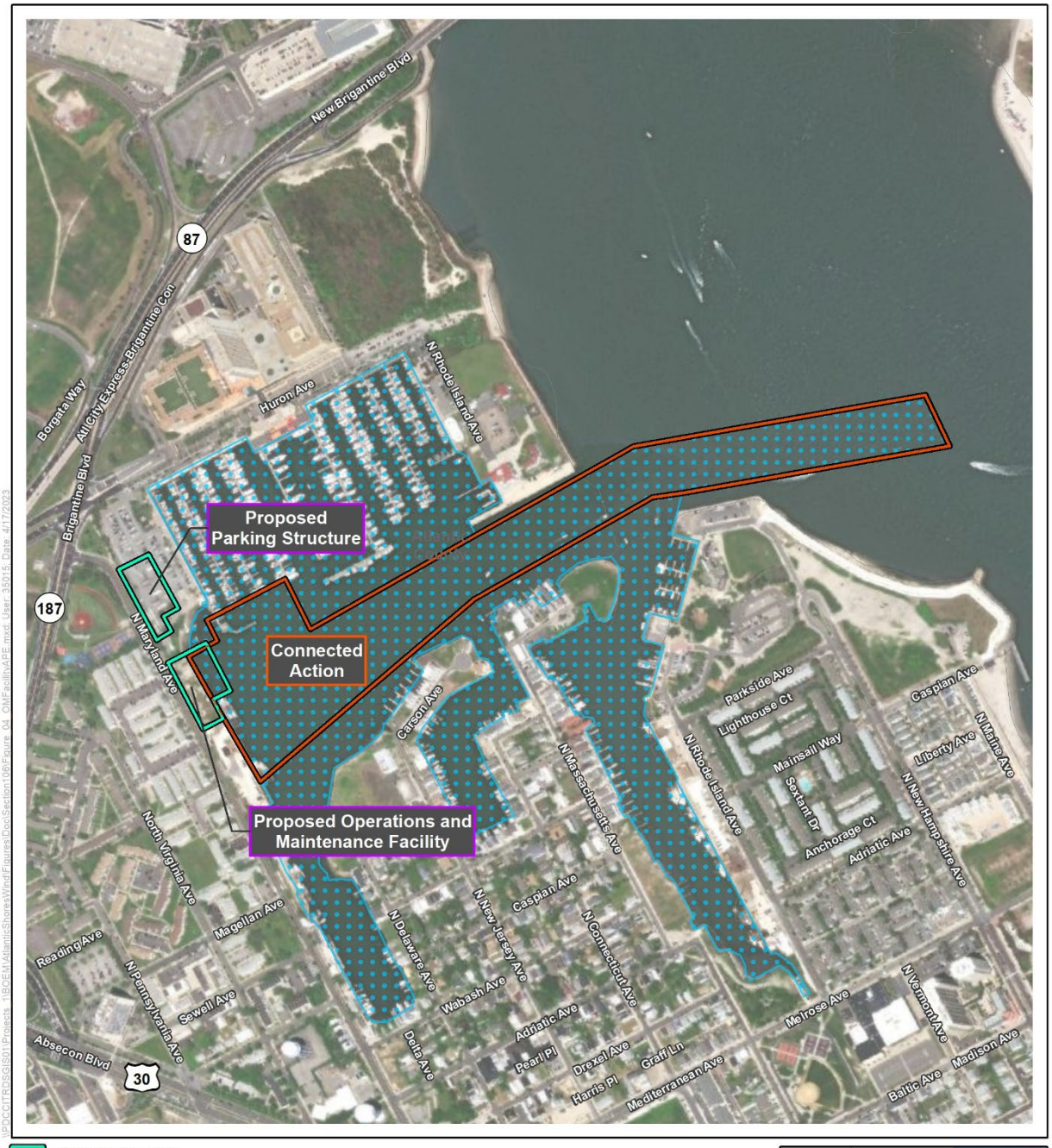


Figure 15. Detail of APE for the O&M facility

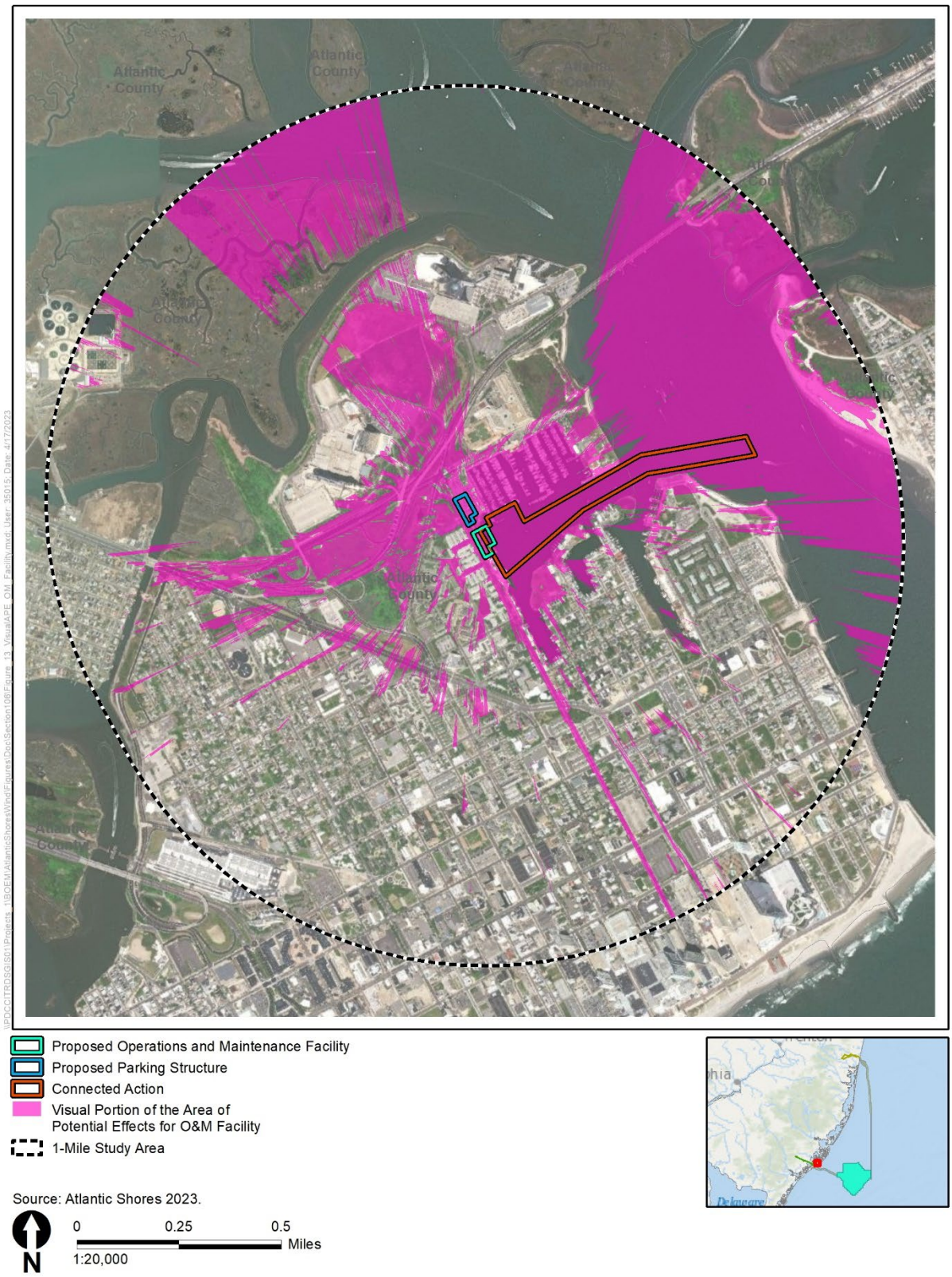


Figure 16. Detail of visual portion of the APE for Onshore Project components for the proposed O&M facility

ATTACHMENT 2 – LISTS OF INVITED AND PARTICIPATING CONSULTING PARTIES

Table 1. Parties Invited to Participate in NHPA Section 106 Consultation

Organization Type	Invited Organization Name
SHPOs and State Agencies	New Jersey Department of Environmental Protection
	New Jersey Department of Environmental Protection, Historic Preservation Office
Federal Agencies	U.S. Advisory Council on Historic Preservation
	U.S. Army Corps of Engineers
	U.S. Bureau of Safety and Environmental Enforcement
	U.S. Coast Guard
	U.S. Environmental Protection Agency
	U.S. Fish and Wildlife Service
	U.S. National Oceanic and Atmospheric Administration
	U.S. National Park Service
	U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
Federally Recognized Tribes	Absentee-Shawnee Tribe of Indians of Oklahoma
	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Mashantucket (Western) Pequot Tribe
	Mashpee Wampanoag Tribe
	Shawnee Tribe
	Stockbridge-Munsee Community Band of Mohican Indians
	The Delaware Nation
	The Narragansett Indian Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
State Recognized Tribes	Lenape Indian Tribe of Delaware
	Nanticoke Indian Tribe
	Nanticoke Lenni-Lenape Tribe
	Powhatan Renape Nation
	Ramapough Lenape Indian Nation
	Ramapough Mountain Indians
Local Government	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Barnegat Township
	Bass River Township
	Berkeley Township
	Borough of Avalon
	Borough of Barnegat Light
	Borough of Bay Head
	Borough of Beach Haven
	Borough of Cape May Point
	Borough of Harvey Cedars
	Borough of Longport

Organization Type	Invited Organization Name
	Borough of Manasquan
	Borough of Mantoloking
	Borough of Point Pleasant Beach
	Borough of Sea Girt
	Borough of Seaside Park
	Borough of Ship Bottom
	Borough of Stone Harbor
	Borough of Surf City
	Borough of Tuckerton
	Borough of West Cape May
	Borough of West Wildwood
	Borough of Wildwood Crest
	Borough of Woodbine
	Cape May County
	City of Absecon
	City of Atlantic City
	City of Brigantine
	City of Cape May
	City of Egg Harbor City
	City of Linwood
	City of Margate
	City of North Wildwood
	City of Ocean City
	City of Pleasantville
	City of Port Republic
	City of Sea Isle City
	City of Somers Point
	City of Ventnor City
	City of Wildwood
	Dennis Township
	Eagleswood Township
	Galloway Township
	Lacey Township
	Long Beach Township
	Manchester Township
	Middle Township
	Ocean County
	Stafford Township
	Toms River Township
	Town of Hammonton
	Township of Brick
	Township of Egg Harbor
	Township of Hamilton

Organization Type	Invited Organization Name
	Township of Lakewood
	Township of Little Egg Harbor
	Township of Lower
	Township of Ocean
	Township of Upper
	Wall Township
Nongovernmental Organizations or Groups	600 Boardwalk LLC
	Absecon Historical Society
	Absecon Lighthouse
	Anglers Club of Absecon Island
	Atlantic City Convention Center
	Atlantic County Historical Society
	Avalon History Center
	Barnegat Historical Society
	Barnegat Light Museum
	Barnegat Lighthouse State Park
	Belmar Historical Society
	Brigantine Beach Historical Museum
	Cape May Lighthouse
	Caribbean Motel
	Central Pier Associates LLC
	Chicken Bone Beach Historical Foundation, Inc.
	Converse Cottage
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	Friends of Barnegat Lighthouse
	Friends of the Cape May Lighthouse
	Friends of the World War II Tower
	Greater Cape May Historic Society
	Greater Egg Harbor Township Historical Society
	Hereford Inlet Lighthouse
	Historic Cold Spring Village
	Historical Society of Lacey
	Lakewood Historical Society
	Legacy Vacation Resorts
	Linwood Historical Society
	Long Beach Island Historical Association
	Madison Hotel
	Margate Historical Society
	Max Gurwicz Enterprises
	Museum of Cape May County
	New Jersey Casino Reinvestment Development Authority

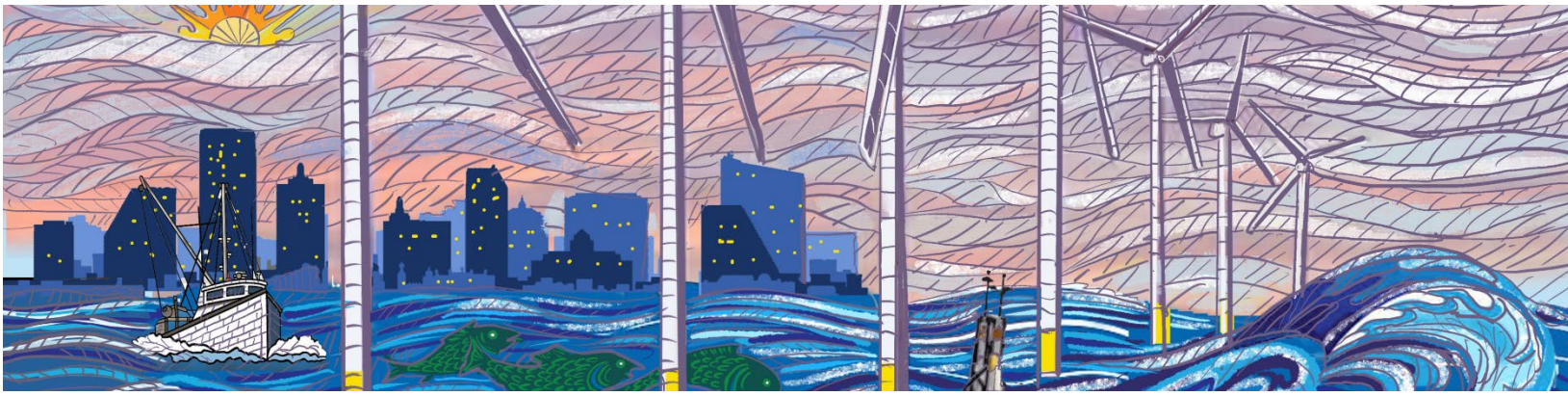
Organization Type	Invited Organization Name
	New Jersey Lighthouse Society
	New Jersey Maritime Museum
	Ocean City Historical Museum
	Ocean City Music Pier
	Ocean County Historical Society
	Old Wall Historical Society
	Patriots for the Somers Mansion
	Preservation New Jersey
	Property Owner of 108 South Gladstone Avenue, Margate, New Jersey
	Property Owner of 114 South Harvard Avenue, Ventnor City, New Jersey
	Property Owner of 114 South Osborne Avenue, Margate, New Jersey
	Property Owner of 120 Atlantic Avenue, Atlantic City, New Jersey
	Property Owner of 124 Atlantic Avenue, Atlantic City, New Jersey
	Property Owner of 125 South Montgomery Avenue, Atlantic City, New Jersey
	Property Owner of 5231 Central Avenue, Ocean City, New Jersey
	Raphael-Gordon House
	Ritz-Carlton Hotel/Condominium Association
	Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences
	Save Long Beach Island, Inc.
	Save Lucy Committee, Inc.
	Seaside Heights Historical Society
	Seaview Resort Acquisition Group LLC
	Squan Village Historical Society
	St. Leonard's Association
	The Flanders Hotel
	The Museum of Cape May County
	The Noyes Museum of Art
	Tuckerton Historical Society
	Vassar Square Condominium Association
	Waretown Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society

Table 2. Consulting Parties Participating in Section 106 Consultation

Organization Type	Participating Organization Name
SHPOs and State Agencies	New Jersey Department of Environmental Protection
	New Jersey Department of Environmental Protection, Historic Preservation Office
Federal Agencies	U.S. Advisory Council on Historic Preservation
	U.S. Army Corps of Engineers
	U.S. Bureau of Safety and Environmental Enforcement
	U.S. Coast Guard
	U.S. National Park Service
	U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
Federally Recognized Tribes	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Mashantucket (Western) Pequot Tribe
	Mashpee Wampanoag Tribe
	Shawnee Tribe
	The Delaware Nation
	The Narragansett Indian Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
State Recognized Tribe	Lenape Indian Tribe of Delaware
Local Government	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Borough of Bay Head
	Borough of Beach Haven
	Borough of Harvey Cedars
	Borough of Point Pleasant Beach
	Borough of Sea Girt
	Borough of Seaside Park
	Borough of Stone Harbor
	Borough of West Cape May
	Cape May County (represented by Cultural Heritage Partners)
	City of Brigantine
	City of Cape May
	City of Linwood
	City of Margate
	City of North Wildwood
	City of Ocean City
	City of Sea Isle City
	City of Somers Point
	Galloway Township
	Long Beach Township
	Stafford Township

Organization Type	Participating Organization Name
	Township of Brick
	Township of Upper
Nongovernmental Organizations or Groups	Greater Cape May Historic Society
	Hereford Inlet Lighthouse
	Save Lucy Committee, Inc. (represented by Rutala Associates, LLC)
	Save Long Beach Island, Inc.
	The Noyes Museum of Art

ATTACHMENT 3 – CULTURAL RESOURCES AVOIDANCE, MINIMIZATION, AND MITIGATION PLAN



Appendix II-N3

Avoidance, Minimization, and Mitigation (AMM) Plan

Cultural Resources Avoidance, Minimization, and Mitigation Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

February 2023, Revised April 2023

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LIST OF ATTACHMENTS

ATTACHMENT A. PHASED IDENTIFICATION PLAN: TERRESTRIAL ARCHAEOLOGICAL RESOURCES (REDACTED VERSION – CONFIDENTIAL AND/OR PRIVILEGED INFORMATION REMOVED) AND MONITORING PLAN AND POST REVIEW DISCOVERY PLAN: TERRESTRIAL ARCHAEOLOGICAL RESOURCES

ATTACHMENT B. MONITORING PLAN AND POST REVIEW DISCOVERY PLAN: SUBMERGED CULTURAL RESOURCES

ATTACHMENT C. HISTORIC PROPERTY TREATMENT PLANS:

1. THE ATLANTIC CITY CONVENTION HALL, ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
2. LUCY, THE MARGATE ELEPHANT, MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY
3. 125 S. MONTGOMERY AVENUE, 120 ATLANTIC AVENUE, AND 124 ATLANTIC AVENUE, ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
4. THE RITZ CARLTON HOTEL, THE RIVIERA APARTMENTS, CENTRAL PIER, BRIGHTON PARK, THE ATLANTIC CITY BOARDWALK HISTORIC DISTRICT, ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
5. MISSOURI AVENUE BEACH (CHICKEN BONE BEACH), ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
6. USCG STATION ATLANTIC CITY, ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
7. THE BRIGANTINE HOTEL, BRIGANTINE CITY, ATLANTIC COUNTY, NEW JERSEY
8. SEAVIEW GOLF CLUB, GALLOWAY TOWNSHIP, ATLANTIC COUNTY, NEW JERSEY
9. LITTLE EGG HARBOR LIFESAVING STATION #23, LITTLE EGG HARBOR, OCEAN COUNTY, NEW JERSEY
10. 114 SOUTH OSBORNE AVENUE, 108 SOUTH GLADSTONE AVENUE, MARGATE FISHING PIER, MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY
11. 5231-5229 CENTRAL AVENUE, OCEAN CITY, CAPE MAY COUNTY, NEW JERSEY
12. MUSIC PIER, GILLIAN'S WONDERLAND PIER, OCEAN CITY BOARDWALK, OCEAN CITY, CAPE MAY COUNTY, NEW JERSEY
13. 114 SOUTH HARVARD AVENUE, VENTNOR CITY FISHING PIER, SAINT LEONARD'S TRACT HISTORIC DISTRICT, JOHN STAFFORD HISTORIC DISTRICT, VASSAR SQUARE CONDOMINIUMS, VENTNOR CITY, ATLANTIC COUNTY, NEW JERSEY
14. ANCIENT SUBMERGED LANDFORMS, OUTER CONTINENTAL SHELF (REDACTED VERSION – CONFIDENTIAL AND/OR PRIVILEGED INFORMATION REMOVED)

LIST OF ACRONYMS

ADLS	Aircraft Detection Lighting Systems
AMSL	Above Mean Sea Level
APE	The Area of Potential Effects (APE) is the area in which the Atlantic Shores Wind Project may have a visual effect on aboveground historic properties; the APE is determined by the responsible federal agency in consultation with relevant SHPOs
Atlantic Shores Offshore Project Area	The offshore area where Atlantic Shores' facilities are physically located
Atlantic Shores Offshore Wind, LLC	The owner and proponent of the Atlantic Shores Project 1 Company and Atlantic Shores Project 2 Company (collectively, Atlantic Shores)
Atlantic Shores Offshore Wind Project	Atlantic Shores' proposal to develop the Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0499 for the generation of renewable energy from offshore wind (The Projects)
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
EDR	Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.
FAA	Federal Aviation Administration
GBS	gravity base structure
GIS	Geographic Information System
GPS	Global Positioning System
HPTP	Historic Property Treatment Plan
HRVEA	Historic Resources Visual Effects Assessment
km	kilometer(s)
km^2	square kilometer(s)
Lease Area	The entire Lease Area OCS-A 0499 that Atlantic Shores acquired from BOEM

LUCY	Look Up Cultural Resources Yourself (NJDEP's cultural resources web mapping service)
m	Meter (1 meter = 3.38 feet)
mile	Statute mile (1 mile = 1.61 kilometers = 0.87 nautical miles)
MDS	Maximum Design Scenario
MW	Megawatt = One million watts
MPRDP	Monitoring Plan and Post Review Discoveries Plan
nm	Nautical Mile (1 nm = 1.15 statute mile)
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966
NHL	National Historic Landmark
NJDEP	New Jersey Department of Environmental Protection
NJHPO	New Jersey Historic Preservation Office
NJID	New Jersey Identification Number
NJWEA	New Jersey Wind Energy Area
NLCD	National Land Cover Dataset. Land cover types classified and mapped by U.S. Geological Survey
NPS	National Park Service
NRHP	National Register of Historic Places
NRHP-Listed Aboveground Historic Property	Buildings, districts, objects, structures and/or sites that have been added to the National Register of Historic Places
NRHP-Eligible Aboveground Historic Property	Buildings, districts, objects, structures and/or sites that have been determined by NJHPO as eligible for listing in the New Jersey and National Register of Historic Places, as indicated by inclusion in the publicly available data on the LUCY website and the NJHPO's quarterly updated listing of NRHP-listed and -eligible aboveground historic properties
OCS	Outer Continental Shelf

O&M facilities	All onshore buildings and infrastructure used to support operations and maintenance activities
OSS	Offshore Substation
PAPE	The Preliminary Area of Potential Effects (PAPE) includes areas from which the proposed offshore Project components may be visible as determined by GIS-based viewshed analysis (see Section 2.3)
PDE	Project Design Envelope, includes the range of development options identified within the Construction and Operations Plan
SHPO	State Historic Preservation Office
sq mi	Square Mile
SIA	Structural Inventory and Appraisal
THPO	Tribal Historic Preservation Office
offshore cable	Atlantic Shores Offshore Wind Project cable located offshore located beneath the seafloor which connects the offshore substation to the landfall site
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey
VIA	Visual Impact Assessment
Viewshed	Area of potential Projects' visibility defined by maximum structure height and mapped topography, vegetation, buildings, and structures within the study area
VSA	The Visual Study Area, defined in the VIA as the area within a 45.1-mile radius of buffer of the entire lease area of OCS-A
WTA	The Wind Turbine Area, the southern portion of Lease Area OCS-A 0499 that will be developed for Atlantic Shores as described in this Historic Resources Visual Effects Assessment
WTG	Wind Turbine Generator
ZVI	Zone of Visual Influence
3D	three-dimensional

EXECUTIVE SUMMARY

Per Section 106 of the National Historic Preservation Act (NHPA) and on behalf of Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US, LLC (Shell), Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) prepared this Cultural Resources Avoidance, Minimization and Mitigation (AMM) Plan in support of the Atlantic Shores Construction and Operations Plan (COP) for two offshore wind energy generation projects within the southern portion of Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0499 for renewable energy generation from offshore wind. The Projects are comprised of up to 200 wind turbine generators (WTGs) and up to 10 offshore substation (OSS) positions (hereinafter, the Projects).[1]

Section 106 of the NHPA requires federal agencies (i.e., BOEM) to consider the potential effect of their undertakings (i.e., the review and approval of the Projects) on historic properties, defined generally to include National Historic Landmarks (NHLs) and properties listed on or eligible for listing on the National Register of Historic Places (NRHP) and can include terrestrial archaeological resources, marine archaeological resources, and aboveground historic properties.

Based on desktop analysis and archaeological reconnaissance presented in the *Terrestrial Archaeological Resources Assessment – Onshore Interconnection Facilities* (TARA; COP Appendix II-P1; EDR, 2023a) and *Phase IA Terrestrial Archaeological Resources Assessment – Operations and Maintenance Facility* (O&M TARA; COP Appendix II-P2; EDR, 2023b), there is a very low likelihood of intact or potentially significant terrestrial archaeological resources to be locate within the Projects' Preliminary Area of Potential Effects (PAPE). Identification level Phase IB archaeological survey is ongoing under a phased identification approach, which will inform future determinations of the Projects potential effects on terrestrial archaeological resources.

As described in the *Marine Archaeological Resources Assessment Atlantic Shores Offshore Wind Project Construction and Operations Plan*, 21 submerged targets were identified (MARA; COP Appendix II-Q1; SEARCH, 2022). Eight targets are located within the Wind Turbine Area; four targets are located in the Atlantic Export Cable Corridors (ECC); nine targets are located along the Monmouth ECC; and 37 ancient, submerged landforms were identified within the Marine PAPE. Physical avoidance buffers of the targets are recommended, and mitigation measures for potential effects to marine resources are proposed.

BOEM's review of the Projects is anticipated (based on precedent) to result in a determination that the Projects will result in adverse effects on historic properties and that mitigation will be required. Based on existing records of state and federal agencies, GIS databases, previous cultural resources surveys, local inventories, historical collections, and field survey, the *Historic Resources Visual Effects Assessment (HRVEA)* (EDR, 2023c) 123 aboveground historic properties were identified within the PAPE. Applying the Criteria of Adverse Effect per NHPA Section 106, 36 Code of Federal Regulations § 800.5, a total of 27 aboveground historic properties will be adversely affected by the Projects.

[1] The two wind energy projects within the Lease Area are more fully described in Volume I (Project Information) of the COP for the Project (EDR, 2022a).

1.0 INTRODUCTION

1.1 Purpose of the Investigation

Per Section 106 of the National Historic Preservation Act (NHPA) and on behalf of Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US, LLC (Shell), Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) prepared this Cultural Resources Avoidance, Minimization and Mitigation Plan (AMM Plan) in support of the Atlantic Shores Construction and Operations Plan (COP; EDR 2022a, 2022b) for two offshore wind energy generation projects within the southern portion of Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0499 for renewable energy generation from offshore wind. The Projects are comprised of up to 200 wind turbine generators (WTGs) and up to 10 offshore substation (OSS) positions (hereinafter, the Projects).

This AMM Plan is intended to assist BOEM, the New Jersey Historic Preservation Office (NJHPO), and other participating agencies and consulting parties/stakeholders with a review of the Projects under Sections 106 and 110(f) of the NHPA, and the National Environmental Policy Act (NEPA). The following framework is an outline of best practices based on Section 106 of the NHPA (Title 54 United States Code § 306108) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800) to avoid, minimize, and/or mitigate adverse effects upon historic properties.

Atlantic Shores has drafted this AMM Plan to describe Applicant-proposed measures that have been developed to avoid, minimize, and mitigate the adverse effects to historic properties resulting from the Projects. Meaningful and appropriate mitigation of the potential adverse effects to aboveground historic properties is best achieved with consulting party input and consultations. The process described below is intended to afford consulting parties information on the Projects, the range of aboveground historic properties identified by Atlantic Shores that will be adversely affected, and the types of feasible measures that Atlantic Shores has identified to avoid, minimize, and mitigate adverse effects.

1.2 Regulatory Context for Review of Effects on Historic Properties

The Projects are considered a federal undertaking and therefore, subject to Section 106 of the NHPA (54 United States Code 306108). Section 106 requires federal agencies (i.e., BOEM) to consider the potential effect of their undertakings (i.e., the review and approval of the COP) on historic properties. Per 36 CFR Part 800.16, historic properties are defined as districts, buildings, structures, objects, or sites that are listed or eligible for listing in the NRHP or which have been designated as National Historic Landmarks (NHLs).

1.3 Overview of the Projects

Atlantic Shores' Lease Area is located on the outer continental shelf (OCS) within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km^2]) Wind Turbine Area (WTA) located in the southern portion of

the Lease Area (see Figure 1.3-1). Project 1 is located in the western 54,175 acres (219.2 km^2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km^2) of the WTA with a 16,102-acre (65.2 km^2) Overlap Area that could be used by either Project 1 or Project 2. Figure 1.3-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

1.3.1 Project Design Envelope

Atlantic Shores has applied a Project Design Envelope (PDE) approach to describe the facilities and activities associated with the Projects. A PDE is defined as "a reasonable range of project designs" associated with various components of a project (e.g., foundation and WTG options) (BOEM, 2018). In accordance with the PDE evaluation approach, the assessment of project effects must include the maximum design case for all project development scenarios. Consistent with BOEM's *Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan* (BOEM, 2018), this AMM Plan considers a maximum design case layout. The layout represents the largest geographic footprint that could be occupied by visible structures and, therefore, the largest percentage of the visible horizon from shoreline locations that may be affected by the Projects. The maximum design case components are described below.

1.3.1 Description of Offshore Components

At its closest point, the WTA is approximately 8.7 miles (mi) (14 kilometers [km]) from the New Jersey shoreline. The WTA will include an array of WTGs and multiple offshore substations (OSSs). A meteorological (met) tower and/or meteorological and oceanographic (metocean) buoys may also be installed in the WTA. The WTA layout is designed to maximize offshore renewable wind energy production while minimizing effects on existing marine uses. The structures will be aligned in a uniform grid with multiple lines of orientation allowing straight transit through the WTA.

For the development of the viewshed analysis, all 200 foundation locations located within the WTA were analyzed using the largest WTGs included within the PDE in order to capture the maximum area of potential visibility. By evaluating the largest WTG currently under consideration, the theoretical WTG visibility increases for distant viewpoints, thereby providing a conservative assessment of visibility of the Projects.

Each WTG will consist of four major components: the foundation, the tower, the nacelle, and the rotor (Figure 1.3-2). The height of the tower, or "hub height" (height from the water's surface to the center of the rotor) will be approximately 574.2 feet (175 m) above mean sea level (AMSL). The nacelle sits atop the tower, and the rotor hub is mounted to the nacelle. Assuming a maximum rotor diameter of 918.6 feet (280 m), the total WTG height (i.e., height AMSL at the highest blade tip position) will be approximately 1046.6 feet (319 m).

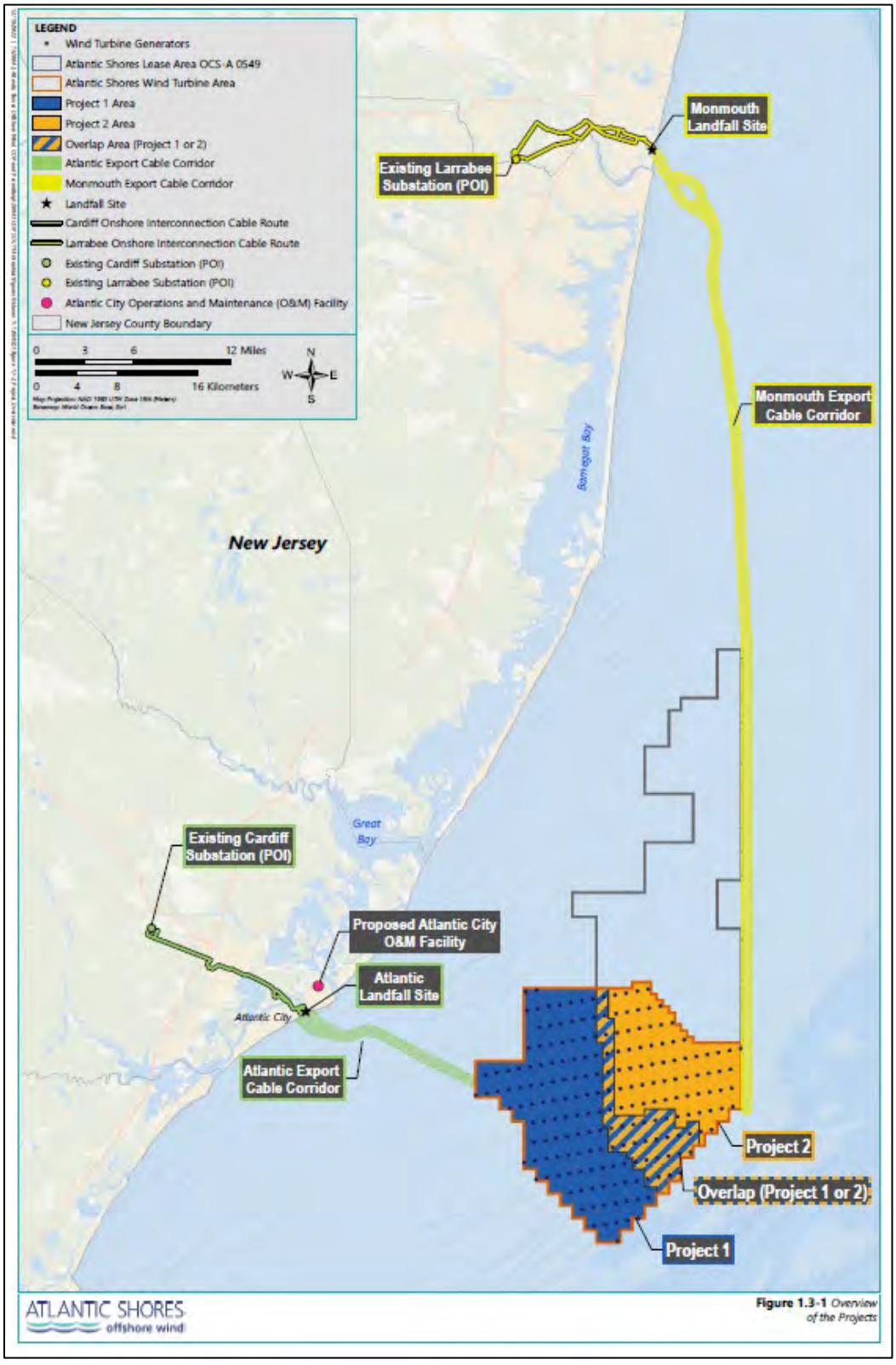

Figure 1.3-1. Overview of the Projects.

Descriptions of each of the proposed WTG components are provided as follows:

Foundation: For the purpose of the offshore HRVEA (Appendix II-O), it was assumed that each of the WTGs will be anchored to the sea floor using a monopile foundation secured with a single steel pile driven into the sea floor. However, the WTGs may utilize suction bucket or concrete gravity base structure (GBS) foundations. The monopile foundation is a tubular steel structure with a diameter of 39.4 feet (12 m) AMSL, upon which the tower transition will be mounted. A suction bucket foundation option consists of a hollow tube embedded in the ocean floor which holds the structure in place through vacuum pressure. The GBS consists of steel-reinforced concrete sunk to the ocean floor and held in place by gravity. The foundation will extend above the water surface, and the exposed portion of the foundation will be yellow in color. A boat landing will be affixed to the foundation with a stairway connecting the landing to a railed deck at the base of the tower.

Tower: The towers used for the Projects are tapered hollow steel structures manufactured in three sections. The assembled towers have a diameter of approximately 32.8 feet (10 m) at the base and 27.9 feet (8.5 m) at the top. Two amber U.S. Coast Guard (USCG) warning lights will be mounted on the deck at the base of each tower. In accordance with the BOEM and Federal Aviation Administration (FAA) obstruction marking standards, the WTG will be painted a light grey (RAL 7035) to pure white (RAL 9010). Additionally, the tower will be equipped with a minimum of three low intensity red flashing lights (L-810) at the approximate mid-section of the tower, which will operate during nighttime hours only.

Nacelle: The main mechanical components of the WTG are housed in the nacelle. These components include the drive train, generator, and transformer. For the purpose of this study, the nacelle is assumed to have maximum dimensions of approximately 82 feet (25 m) long, 52.5 feet (16 m) wide, and 39.4 feet (12 m) in height. Two aviation warning lights are proposed to be located on top of the nacelle, in accordance with BOEM and FAA guidelines. These will be medium intensity, flashing red lights (L-864) that are operated only at night, and will be synchronized with the L-810 lights described above. The WTG nacelle will be the same color as the tower and will not include any obvious lettering, logos, or other exterior markings (FAA, 2018). Where applicable, the lighting parameters presented in the VIA follow the current BOEM guidance for the lighting and marking of WTGs in order to illustrate the potential nighttime visual impacts associated with the Projects. However, lighting requirements may change based on final BOEM/FAA recommendations.

Rotor: A rotor assembly is mounted on the nacelle to operate upwind of the tower. The rotor consists of three composite blades, each approximately 452.8 feet (138 m) in length. The three-bladed rotor assembly will be light grey to white in color (consistent with the tower) and will have a maximum diameter of 918.6 feet (280 m). The rotor blades are rotated along their axis, or "pitched," to enable them to operate efficiently at varying wind speeds. The rotor can spin at varying speeds, but typically rotates at a rate around 10 revolutions per minute.

The OSSs will be an enclosed structure measuring up to 295.3 feet long by 164 feet (90 m × 50 m) wide, with a maximum elevation of up to 131.2 feet (40 m) AMSL. For the purpose of the offshore HRVEA (Appendix II-O), it is assumed that OSSs will be mounted on piled jacket foundations. However, the OSSs

may utilize suction bucket or concrete GBS foundations. Diagram illustrating the appearance and dimensions of the WTG and OSS evaluated in this study are presented in Figure 1.3-2.

Within the WTA, the WTGs and OSSs for Project 1 and Project 2 will be connected by two separate, electrically distinct systems of inter-array cables and/or inter-link cables. Energy from the OSSs will be delivered to shore by export cables that will travel within designed Export Cable Corridors (ECCs) from the WTA through federal and New Jersey state waters to one or two landfall sites on the New Jersey coastline. The Atlantic ECC extends from the western tip of the WTA to the Atlantic Landfall Site in Atlantic City, New Jersey. The Monmouth ECC extends from the eastern corner of the WTA, along the eastern edge of the Lease Area, to the Monmouth Landfall Site in Sea Girt, New Jersey. Both Projects 1 and 2 have the potential to use either ECC, and offshore export cables for each may also be co-located within an ECC.

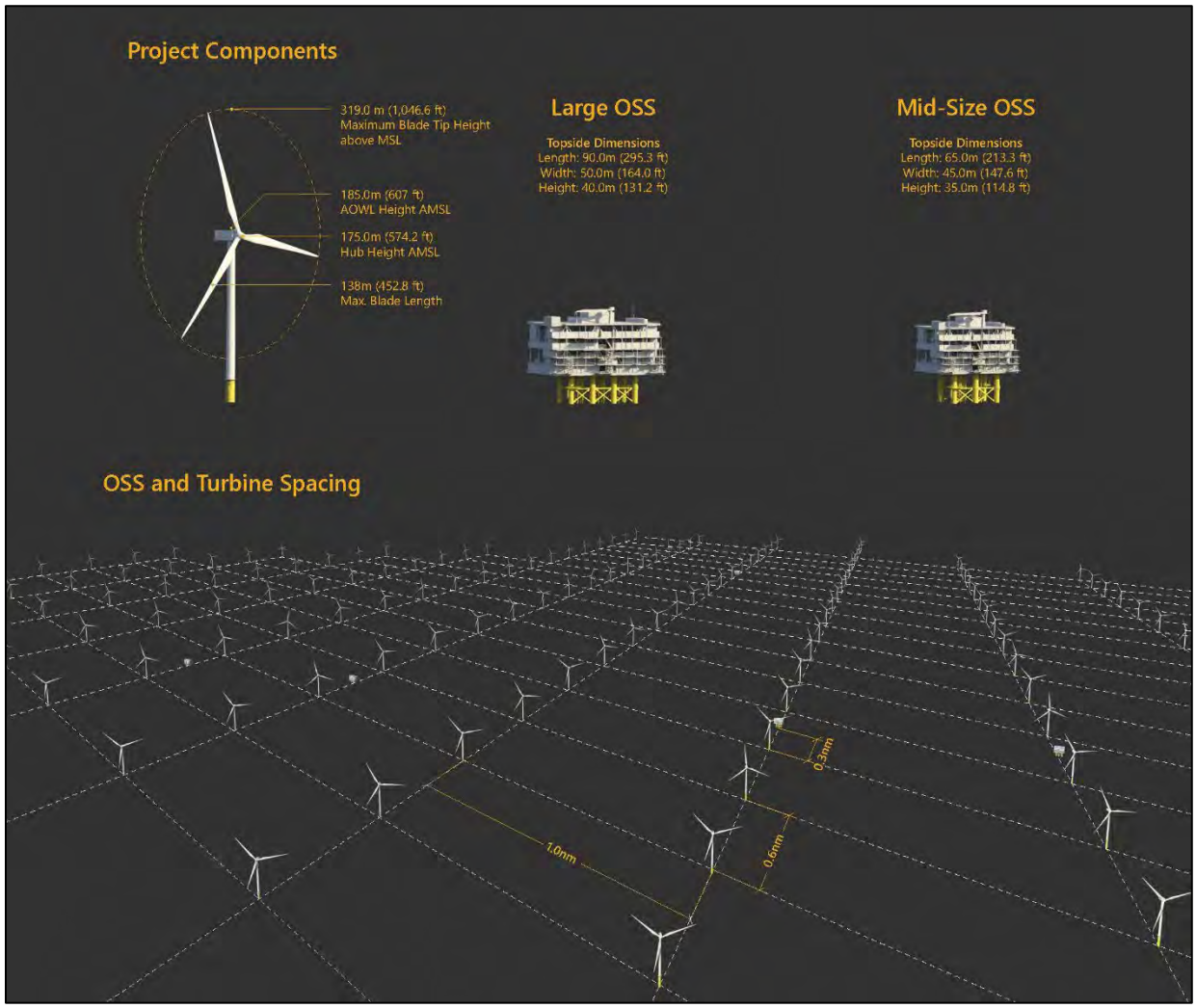

Figure 1.3-2. Computer Model of Offshore Platform and WTG Maximum Dimensions

At both the Monmouth and Atlantic Landfall Sites, horizontal directional drilling (HDD) will be employed to minimize impacts to the intertidal and nearshore habitats and ensure stable burial of the cables. From each landfall site, the onshore interconnection cables will travel underground primarily along existing roadways, utility rights-of-way (ROWs), and/or along bike paths to two new onshore substation and/or converter station sites. From the onshore substations and/or converter stations, the onshore interconnection cables will continue to existing substations where the Projects will be connected into the electrical grid at the Cardiff Substation point of interconnection (POI) in Egg Harbor Township, New Jersey and/or the Larrabee Substation POI in Howell, New Jersey. While both Project 1 and Project 2 will be electrically distinct from one another, both Projects require the ability to interconnect at the two POIs to accommodate the maximum amount of electricity that could be generated by the Projects.

1.3.2 Description of Onshore Substation and Converter Facilities

Each Project will be electrically distinct and will require the use of an onshore substation (if HVAC export cables are used) or a converter station (if HVDC export cables are used). The onshore substation may use either an air-insulated switchgear design or a gas-insulated switchgear design pending the substations' final detailed design. The substation design and specific equipment will depend on whether the onshore interconnection cables are HVAC or HVDC.

Onshore interconnection cables will be installed from the landfall sites underground primarily along existing roadways, utility ROWs, and/or along bike paths to the proposed onshore substation and/or converter station sites. Easements and ROW for private parcels will be acquired where necessary. From the proposed onshore substations and/or converter stations, the onshore interconnection cables will continue to the proposed POIs at the existing Larrabee Substation and existing Cardiff Substation for interconnection to the electrical grid. (See Section 4.0 Project Design and Construction Activities of the COP for additional detailed information.)

If the HVAC option is constructed, each onshore substation will include up to four power transformers, static synchronous compensators (STATCOMs), shunt reactors, service station transformers, harmonic filter banks, and a substation control building. The tallest component of the substation will be the lightning mast which will be up to 80 feet (24.4 m) tall. The substation will receive electricity produced by the offshore components of the Atlantic Shores Offshore Wind Projects via a buried onshore transmission cable to convert the incoming voltage to the voltage at the existing grid POI.

If HVDC is selected, the equipment and facilities installed at the site could include a valve hall, service building, transformers, an AC yard and a DC area, a reactor yard, valve cooling towers, AC filters, and a storage building. At each onshore HVDC converter station, the current will be converted from DC to AC and the voltage will be stepped up or stepped down to match the electrical grid voltage.

Atlantic Shores has identified potential locations for these Facilities (Figure 1.3-3), including the following:

- Three potential locations for the proposed Larrabee Onshore Substation and/or Converter Station**:**[2]

    - The Lanes Pond Road Site (formerly Parcel Area 7 and the Binyan Site) is an approximately 16.3-acre (6.6-ha) parcel consisting of agricultural fields and wooded areas south of the intersection of Miller Road and Lanes Pond Road in Howell Township.
    - The Brook Road Site (formerly Parcel Area 8 and the 100 Acre Site) is an approximately 99.4-acre (40.2-ha) combination of two parcels consisting primarily of forested uplands and some wetlands between Randolph Road and the Metedeconk River in Howell Township.
    - The Randolph Road Site (formerly Arnold Steel Site) is an approximately 24.6-acre (9.97-ha) combination of three parcels consisting of a steel fabrication facility with associated laydown yard, offices, and parking, as well as forested wetlands surrounding Dicks Brook. The site is located north of Randolph Road to the northeast of the existing Larrabee POI in Howell Township.

- The Fire Road Site located at approximately 3038 Fire Road, is situated on approximately 19.71 acres (7.98 ha) of currently wooded and overgrown lots in Egg Harbor Township.

[2] Atlantic Shores previous submitted a memorandum to BOEM in August 2022 with information on eight potential locations (Parcel Areas) for the proposed Larrabee Onshore Substation and/or Converter Station. Design decisions since the transmittal of that memorandum have resulted in the removal of six of the previously identified locations (Parcel Areas 1-6), and the addition of one location (Randolph Road Site/formerly Arnold Steel option). The designations of the two retained locations (Parcel Areas 7/Binyan and 8/100 Acre) have been updated to the Lanes Pond Road Site and Brook Road Site options.

Figure 1.3-3. Regional Substation Locations

1.3.2.1 Onshore Facility Siting

While both Project 1 and Project 2 will be electrically distinct from one another, the Projects require the ability to interconnect at two POIs to accommodate the maximum amount of electricity that could be generated by the Projects. Therefore, the Projects require two POIs and, consequently, two onshore interconnection cable routes and two landfall sites. To identify the locations of the Projects' Onshore Facilities, Atlantic Shores conducted an onshore routing assessment through an inter-related process that identified options for landfall sites and onshore interconnection cable routes to existing POIs. Identification of landfall sites and onshore interconnection cable routes in New Jersey is constrained by the density of development along the shorelines and built infrastructure inland. This siting must also account for the area required for HDD staging areas as well as the physical dimensions required to install an underground transition vault that connects the export cables and the onshore interconnection cables.

1.3.2.2 Points of Interconnection

Five potential POIs within New Jersey (see Table 1-1) were identified based on their proximity to the coastline and their environmental and technical attributes (e.g., substation voltage, potential for expansion, upgrades required to accommodate the Projects' interconnection). These five POIs were used to evaluate potential onshore interconnection cable routes from the landfall sites to the POIs.

Table 1-1. Potential Points of Interconnection

Potential POIs	County
Larrabee	Monmouth
Cardiff	Atlantic
Lewis	Atlantic
Oyster Creek	Ocean
BL England	Cape May

1.3.2.3 Landfall Sites

Atlantic Shores conducted a siting evaluation of potential landfall sites that was largely based on parcel size, surrounding land use, and proximity to established linear development corridors (e.g., roadway and utility ROW) that could serve as an onshore interconnection cable route. The specific siting criteria used to identify potential landfall sites included the following:

- **Technical considerations:**
  - The landfall sites require adequate open space onshore and in proximity to the coastline to accommodate the underground transition vaults and required HDD staging areas.
  - Landfall sites with offshore water depths that are deep enough to accommodate a cable laying vessel at the offshore HDD entrance/exit point are preferred.
- **Site characteristics:** The Projects require areas that are either undeveloped or consist of surface development (i.e., parking lots), without conflicting subsurface infrastructure.

- **Existing uses and sensitive areas:** Preferred landfall sites are not located proximate to residential communities and other sensitive receptors such as wildlife management areas, state parks, and other protected open spaces, which make up most of the open land along the New Jersey coast.

Based on these criteria, aerial photographs of the coastline were manually analyzed to determine candidate landfall sites. A total of 10 potential landfall sites were initially identified, as presented in Table 1-2 and shown on Figure 1.3-4.

Table 1-2. Landfall Sites

Landfall Site	Potential POI	Approximate Size	Latitude	Longitude
Wesley Lake	Larrabee	<1 acre (<0.004 [square kilometer] km^2)	40.218344	-74.004783
Monmouth	Larrabee, Oyster Creek	164 acres (0.66 km^2)	40.121597	-74.033785
Island Beach State Park	Larrabee, Oyster Creek	2,200 acres (8.9 km^2)	39.904109	-74.081359
Abbott Avenue	Larrabee, Oyster Creek	2 acres (0.008 km^2)	39.543841	-74.255182
Jeffrey Avenue	Larrabee, Oyster Creek	<1 acre (<0.004 km^2)	39.539932	-74.259552
Roosevelt Avenue	Larrabee, Oyster Creek	3 acres (0.01 km^2)	39.534552	-74.262262
North Atlantic City	Cardiff, Lewis	<1 acre (<0.004 km^2)	39.364038	-74.413007
Bader Airfield	Cardiff, Lewis	143 acres (0.58 km^2)	39.359757	-74.455573
Atlantic	Cardiff, Lewis	2 acres (0.008 km^2)	39.351952	-74.450009
Corson's Inlet	BL England	42 acres (0.17 km^2)	39.216859	-74.642799

1.3.2.4 Onshore Interconnection Routes

From each landfall site, Atlantic Shores conducted an iterative onshore interconnection cable routing assessment to each of the five POIs. The routing assessment was supported by aerial photography, publicly available Geographic Information Systems (GIS) environmental data, and baseline windshield surveys. Based on this routing analysis, 16 preliminary onshore interconnection cable routes were identified as shown in Figure 1.3-4.

A set of environmental and feasibility criteria were identified and weighted to establish and evaluate each onshore interconnection cable route. Route ranking was based on the following criteria:

- **Technical considerations:**
  - Shorter route lengths are preferred to reduce overall potential impacts and installation costs.
  - A lower number of hard route angles requiring a dead-end or corner transmission structure is preferred since hard route angles are more challenging and costly to construct.
- **Site characteristics:** Routes utilizing established ROWs for larger highways, state routes, existing transmission lines, or railroads are preferred because of the widespread development along the coast that prevents the establishment of a new ROW.
- **Existing uses and sensitive areas:**

- Routes that avoid or minimize the distance of the onshore interconnection cable route in or within proximity to residential neighborhoods are preferred to reduce temporary, construction-related noise impacts.
- Routes that minimize impacts to mapped threatened and endangered species habitat, tidelands, and wetlands are preferred.

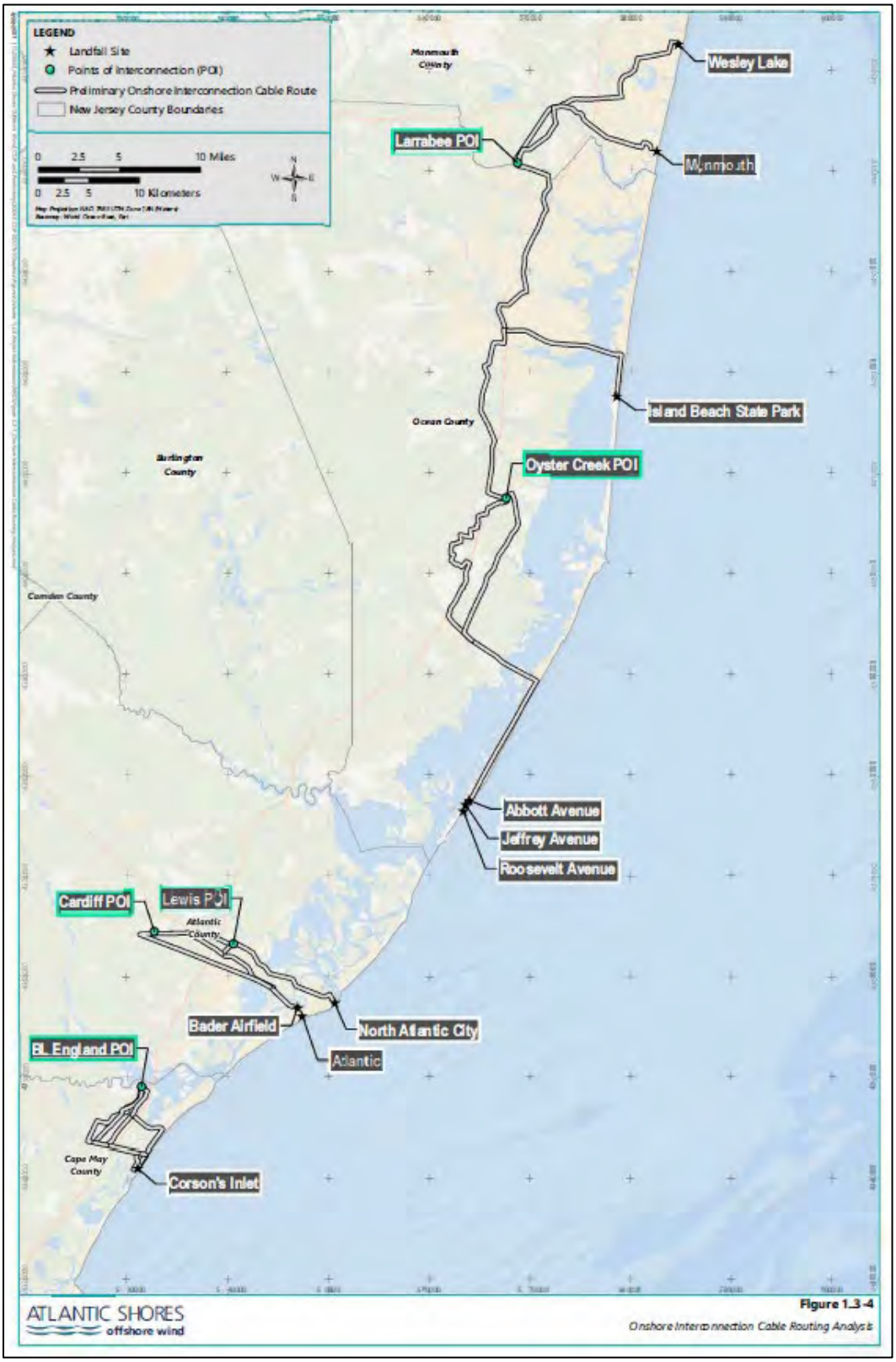

Figure 1.3-4. Onshore Interconnection Cable Routing Analysis

1.3.3 Description of the O&M Facility

Once operational, the Projects will be supported by a new O&M Facility that Atlantic Shores is proposing to establish in Atlantic City, New Jersey. The O&M Facility will be used by Atlantic Shores as the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. The O&M Facility will be designed to provide a safe and efficient operational flow of activities and equipment, and will consist of the following:

- office space, including a server/IT room to house the Project's IT infrastructure, and a control room for surveillance and coordination of offshore activities and Project operations;
- warehouse space, including full-height access for deliveries and equipment storage, a temperature and humidity-controlled electrical storage room, and a lifting facility;
- harbor area and quayside, including but not limited to vessel mooring, unloading capabilities, a crane, berthing area, and emergency spill response equipment; and
- outdoor area and parking structure, including storage space for spare parts and materials.

To establish the O&M Facility, Atlantic Shores intends to purchase and develop the 1.22-acre (0.49 ha) shoreside parcel at 801 North Maryland Avenue in Atlantic City, New Jersey (see Figure 1.3-5). The current owner of the site is listed as Amoco Oil Company in New Jersey Department of Environmental Protection (NJDEP) documents; it is presumed that the parcel was formerly used for oil storage, vessel docking, or other port activities. Construction of the O&M Facility is expected to involve the construction of a new building and associated parking lot structure, repairs to any existing bulkheads/docks, installation of new dock facilities, and limited marine dredging. The associated parking structure and an outdoor area is proposed to occupy an approximately 2.0-acre (0.81-ha) portion of the existing state marina parking lot parcel northwest of the 801 North Maryland Avenue parcel (see Figure 1.3-5). Together, the 1.22-acre (0.49 ha) parcel for the planned O&M Facility and the 2.00-acre (0.81-ha) parking structure and outdoor area comprise the approximately 3.22-acre (1.30-ha) O&M Facility.

Figure 1.3-5. Aerial view of the proposed O&M Facility Site.

1.4 Description of Preliminary Area of Potential Effects (PAPE)

Atlantic Shores has developed Preliminary Areas of Potential Effects (PAPEs) for visual and physical effects to both aboveground and terrestrial archaeological resources, and physical effects to marine archaeological resources. Per the *Atlantic Shores Offshore Wind, Preliminary Area of Potential Effects (PAPE) to Support Review of the Project under Section 106 of the National Historic Preservation Act* memo (EDR, 2021) submitted to BOEM the PAPEs include the following:

- the viewshed from which renewable energy structures, whether located offshore or onshore, would be visible, constituting the viewshed portion of the PAPE; and
- the depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities, constituting the terrestrial archaeological resources portion of the PAPE; and
- the depth and breadth of the seabed potentially impacted by any bottom-disturbing activities, constituting the marine archaeological resources portion of the PAPE; and
- any temporary or permanent construction or staging areas, both onshore and offshore, which may fall into any of the above portions of the PAPE (EDR. 2021).

The final Area of Potential Effects (APE) will be formally determined by BOEM as part of the Section 106 consultation process. The process for identifying and evaluating effects on historic properties resulting from the construction and operation of the Project will involve consultation with BOEM and the NJHPO, Native American Tribes/Nations, and other consulting parties with a demonstrated interest in the historic properties (e.g., historic preservation organizations).

2.0 TERRESTRIAL ARCHAEOLOGICAL RESOURCE AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Atlantic Shores has proposed the Onshore Facilities be located primarily in previously disturbed areas including previously developed parcels, paved roadways, railroad ROWs and bike paths. These areas are likely to have disturbed soils due to the existing infrastructure and structures and there is a very low likelihood of intact or potentially significant archaeological resources to be in these areas. As described in the *Terrestrial Archaeological Resources Assessment – Onshore Interconnection Facilities* (TARA; COP Appendix II-P1; EDR, 2023a) and Phase IA Terrestrial Archaeological Resources Assessment – Operations and Maintenance Facility (O&M TARA; COP Appendix II-P2; EDR, 2023b) the Projects were sited to minimize potential adverse effects to terrestrial archaeological resources. The *"proposed Onshore Facilities associated with the Cardiff and Larrabee Physical Effects PAPEs have been significantly disturbed due to transportation infrastructure development (principally roadways, railroads, and bike paths) and adjoining business and residential neighborhoods"* (EDR, 2023a).

The desktop assessments and archaeological reconnaissance described in the TARA identified areas within the PAPE with the potential to contain intact archaeological resources. Pedestrian survey (with judgmental shovel testing if deemed appropriate based on observed field conditions) was recommended in any low sensitivity, "Potentially Undisturbed" areas adjacent to paved roadways (within which the onshore cables are actually sited) where depth to culturally sterile subsoil is less than approximately 2.0 feet as well as in any wetlands or areas of steep slope. Targeted archaeological shovel testing is recommended within those portions of the proposed Onshore Facilities that are sited within areas of the PAPE categorized as Medium and Medium-High sensitivity and "Potentially Undisturbed". These areas have been designated the "Potential Phase IB Survey Areas". Potentially undisturbed areas which are completely paved within 1,000 ft of previously identified archaeological sites are recommended for archaeological monitoring (see COP Appendix II-P1: Attachments C and D). Subsurface investigations of Onshore Interconnection Cable routes will focus on shovel test pit excavation along potentially intact road margins and within public ROWs to identify archaeological deposits or sites that could extend beneath paved surfaces. Field investigations to date include archaeological reconnaissance of the Onshore Facilities and in-progress Phase IB shovel test survey of the "Potential Phase IB Survey Areas" identified in the TARA analysis.

BOEM has determined, in accordance with Section 106 regulations (36 CFR § 800.4 (b)(2)), that a phased identification approach is appropriate for the survey, reporting, and consultation related to the outstanding Phase IB archaeological investigation. Atlantic Shores developed a Phased Identification Plan (PIP) for Terrestrial Archaeological Resources for the ""Potential Phase IB Survey Areas" identified in the TARA to further evaluate the potential for archaeological sites within the Terrestrial PAPE, and to minimize the risk of unanticipated discoveries or disturbance to archaeological resources during construction (see Attachment A). Given the Onshore Interconnection Cable routes would be buried in existing road ROWs or installed via HDD below the ground surface, no phased identification to identify and evaluate aboveground historic properties is anticipated. The PIP (see Attachment A) serves as a process document detailing the areas where phased identification survey will be conducted, the steps Atlantic Shores will take to complete the required cultural resources survey, and a schedule of associated milestones. All milestones are

anticipated to be completed before issuance of the Final Environmental Impact Statement and BOEM's Record of Decision.

To further mitigate the potential (however unlikely) for encountering archaeological resources during installation of the Onshore Facilities, as part of the PIP, Atlantic Shores has prepared a Monitoring Plan and Post Review Discoveries Plan (MPRDP) for terrestrial archaeological resources, which includes stop-work and notification procedures to be followed if a cultural resource is encountered during installation (see PIP: Attachment C). Atlantic Shores anticipates that the MPRDP will be incorporated in a Memorandum of Agreement (MOA) executed among BOEM, SHPOs, consulting Native American Tribes, and potentially other consulting parties to resolve anticipated adverse effects to identified historic properties and to memorialize specific measures that Atlantic Shores will take to avoid and minimize potential effects to other historic properties in the event of a post-review discovery. The MPRDP outlines the steps for dealing with potential unanticipated discoveries of cultural resources, including human remains, during the construction of the proposed Onshore Facilities. In summary the MPRDP:

- Presents to regulatory and review agencies the plan Atlantic Shores and its contractors and consultants will follow to prepare for and potentially respond to unanticipated cultural resources (i.e., terrestrial archaeological) discoveries;
- Includes provisions and procedures allowing for a Cultural Monitor (Archaeologist) and Tribal Monitors to be present during construction and installation activities conducted in targeted areas of concern as identified in the TARA and through consultation with Native American Tribes; and
- Provides guidance and instruction to Atlantic Shores personnel and its contractors and consultants as to the proper procedures to be followed in the event of an unanticipated cultural resource (i.e., terrestrial archaeological) discovery.

3.0 MARINE ARCHAEOLOGICAL RESOURCE AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

As described in the *Marine Archaeological Resources Assessment Atlantic Shores Offshore Wind Project Construction and Operations Plan* prepared by Atlantic Shore's Qualified Marine Archaeologist (QMA), SEARCH, 21 targets were identified (MARA; COP Appendix II-Q1; SEARCH, 2022). Eight targets are located within the WTA; four targets are located in the Atlantic Export Cable Corridors (ECC); nine targets are located along the Monmouth ECC; and 37 ancient, submerged landforms were identified within the Marine PAPE. In order to avoid the ancient submerged landforms, the report recommends:

1. Avoidance of each of the submerged cultural resources with a recommended a minimum 1-meter (3.2 feet) vertical buffer;
2. Avoidance of the 100 meter (328-foot) recommended buffer from paleolandscapes;
3. Avoidance of a QMA recommended and anomaly-specific buffer from the outer edge of magnetic anomalies or acoustic contacts.

In addition, "SEARCH has identified the paleolandscape features within the Project Areas and recommends refining engineering plans to minimization impacts and/or avoidance measures to identified ancient, submerged landforms and targets. The mitigation process for submerged landscapes will proceed in a phased manner. ASOW will compile a list of targets that cannot be avoided. The data collected and a phased mitigation framework will be presented to stakeholders. Then, a mitigation plan will involve stakeholders and subject matter experts to develop a treatment plan to address targets where impacts cannot be avoided" (SEARCH, 2021).

In addition to the proposed avoidance and minimization measures described above, the MPRDP for Submerged Cultural Resources (Attachment B) will discuss how Atlantic Shores has and will continue to implement the following Applicant-proposed environmental protection measures to avoid, minimize, and/or mitigate potential impacts to marine archaeological resources:

- Native American Tribal representatives and other consulting party members were/will be invited to participate in the following:
    - Pre-Survey Meetings;
    - Preliminary Geologic Modeling;
    - Preliminary Geotechnical Sampling;
    - Preliminary Carbon-14 (C14) dating;
    - Selected Cultural Vibracore Sampling;
    - C14 and Geophysical Ground Modeling;
    - QMA Lab processing of Selected Cores;
    - Video Documentation of Core Processing.
- Shipwrecks and associated historic sites potentially eligible for listing on the NRHP will be avoided within a minimum 50-meter buffer and Atlantic Shores will follow the Notification of the Discovery of Shipwrecks on the Seafloor (30 CFR 250.194(c), 30 CFR 250.1009(c)(4), and 30 CFR

251.7(b)(5)(B)(iii)). As per QMA recommendations (MARA; COP Appendix II-Q1; SEARCH, 2022), the avoidance buffer will be resource specific. The avoidance buffer for magnetic anomalies will be calculated as a radius from a circular polygon delineated from the perimeter of the anomaly. In instances where the anomaly was identified by acoustic contact, the target avoidance buffer originates from the contact rather than the anomaly perimeter but still encompasses the entirety of the anomaly. This avoidance method is designed to account for sensor positional errors which may have occurred during survey, contouring accuracy between survey transects, and to account for potential buried non-ferrous debris and expected types of seafloor impacts.

- Completed Geophysical and Geotechnical (G&G) campaigns have been proactive in targeting and collecting culturally pertinent samples and information to be used in a robust ground model, which will inform Atlantic Shores' design decisions moving forward.
- Atlantic Shores plans to share the robust ground model as a mitigation to impacts to geologic landforms in Lease Area OCS-A 0499. Efforts can be made to make data products and media products available for all interested parties to aid in development of technical or historical retention.
- Where feasible, Atlantic Shores will present visual demonstrations of both the Ancient Submerged Landform Features (ASLFs) and planned infrastructure. As an example, the ground model could be deconstructed into time-elements, in 3D space, and in a manner that tells a sequential geologic history using G&G data, all presented in an easily understood format. This map/landscape reconstruction could:
    - Be developed in collaboration with consulting Native American tribes;
    - Where appropriate, incorporate traditional ecological knowledge shared by tribes;
    - Include illustrations/animations of traditions regarding evolution of seas and lands of the Atlantic OCS;
    - Include reconstruction of ancient landscapes based on Project survey data.

- Atlantic Shores has developed potential measures to mitigate unavoidable adverse visual effects to the affected aboveground historic properties. These conceptual measures are further detailed in the Attachment C Historic Properties Treatment Plan (HPTP) for ASLFs. These potential measures include the following:
    - Open-Source GIS, Story Maps, and Animations
        - Collaboration to strengthen the model as a useable educational tool.
        - Publicizing information by sharing the model and other educational tools with impacted communities.
        - Understanding that the expanse of science and mitigation can extend beyond a 3D ground model into a modern world that is made better through the development

of offshore wind. This step can be part of a contribution from the stakeholder comment period identifying needs that can be fulfilled through our project.

- Postconstruction ASLF Investigation
  - QMA review and analysis of postconstruction geophysical data to identify areas of high preservation potential.
  - Preparation of a draft technical report outlining the methods and findings of the analysis for BOEM review.
  - Distribution of the technical report to Participating Parties.
  - A consultation meeting among the Participating Parties to review the findings and recommendation in the technical report, and to select targeted areas (if any) appropriate for subsequent surveys, inspections, or documentation.
  - Execution of appropriate surveys, inspections, and/or documentation utilizing one or more of the proposed methods outlined in Section 4.1.4.
  - Analysis and reporting of the results of any supplemental surveys/inspections conducted as a result of the postconstruction analyses and consultations.
  - Public and/or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Native American Tribes.

4.0 ABOVEGROUND HISTORIC PROPERTIES

As stated in the HRVEA, Onshore Interconnection Facilities Historic Resources Effect Assessment (HREA), and the O&M Facilities HREA (Appendix II-N1, Appendix II-N2, and Appendix II-O), online data sources, GIS data, public records, NJHPO data, and field surveys were used to review parcels that included previously identified (e.g., NRHP-listed or NJHPO-identified) historic properties within the PAPEs and/or where public records indicated the potential for buildings greater than 40 years in age. EDR's Secretary of Interior Qualified architectural historians performed desktop and field reviews to develop the list of the potential aboveground historic properties within the PAPEs. Following completion of the field surveys these properties were further evaluated for potential NRHP eligibility based on desktop research. Based on the above methodology:

- A total of 123 aboveground historic properties were identified in the HRVEA.
- Three aboveground historic properties were identified in the Onshore Interconnection Facilities HREA.
- Seven aboveground historic properties were identified in the O&M Facilities HREA.

4.1 Applying the Criteria of Adverse Effects

Potential effects on aboveground historic properties resulting from an offshore wind project include physical effects – such as alteration, disturbance, or destruction of a historic property caused by construction activities – as well as other changes such as visual, auditory, or atmospheric effects that diminish the historically significant characteristics of an historic property. No physical impacts to aboveground historic properties will occur as a result of the Projects' activities onshore, on the OCS, or within state waters, nor will any buildings or other potential onshore aboveground historic properties be physically altered by construction of the Projects. Instead, the Projects' potential effects on onshore aboveground historic properties would be a change to a given property's historic setting resulting from the introduction of WTGs and other offshore components, as well as any onshore components. Consistent with recent case law, BOEM, as the lead federal agency, considers visual effects caused by the construction/operation of the onshore and offshore facilities to be direct effects.

Section 106 of the NHPA requires federal agencies to consider the effects of their actions on historic properties that are listed or meet the eligibility criteria for listing in the NRHP. Per NHPA Section 106, 36 CFR § 800.5 (a)(1), the assessment of adverse effects on an historic property requires the following steps:

> *(a) Apply criteria of adverse effect. In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the area of potential effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public* (CFR, 2022).

The Federal Regulations entitled "Protection of Historic Resources" (36 CFR 800) include in Section 800.5(2) a discussion of potential adverse effects on historic properties. The criteria for determining whether a project ("undertaking") may have an adverse effect on historic properties are as follows:

> *(vii) Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative* (CFR, 2022).

As stated in the HRVEA (Appendix II-O EDR, 2023c), the majority of aboveground historic properties that fall within the Projects' viewshed will have partially obstructed views of the Projects due to screening provided by intervening topography, vegetation, and/or buildings and structures. The proposed WTGs are located between 9.78 miles (15.73 km) to 45.24 miles (72.8 km) away from the aboveground historic properties located within the PAPE.

The visual simulations prepared for the Projects in the Visual Impact Assessment (COP Appendix II-M1; EDR, 2022c) show that in some cases views of the ocean will be disrupted by the size and scale of the WTGs. The introduction of vertical elements along the horizon line has the potential to create a pattern of visual disturbance within the natural seascape. Distance may be a mitigating factor in some cases. However, under clear conditions even at distances of 20 miles (32.2 km) away, WTGs spread across the horizon will likely become focal points of viewers from the shore, and the effect of "stacking" can cause multiple individual WTGs to appear as a larger, more substantial form. However, atmospheric conditions will affect the frequency and duration of WTG visibility from historic properties within the PAPE which will minimize the visual effect of the Projects under some conditions.

The Projects have been designed to minimize impacts to aboveground historic properties to the extent feasible; however, applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as previously summarized):

- A total of 27 of the 123 aboveground historic properties identified in the HRVEA and located within the WTA PAPE will be adversely affected (see Table 4-1 and Appendix II-O EDR, 2023c).
- None of the three aboveground historic properties identified in the Onshore Interconnection Facilities Historic Resources Effect Assessment (HREA) will be adversely affected by the Projects (see Appendix II-N1 EDR, 2023d).
- None of the seven aboveground historic properties identified in the Operation and Maintenance Facilities HREA will be adversely affected by the Projects (see Appendix II-N2 EDR, 2023e).

Table 4-1. Aboveground Historic Properties Potentially Adversely Affected

Property ID	Property Name	Address	Municipality	NRHP Status
7	Residence at 125 S Montgomery Avenue	125 S Montgomery Avenue	Atlantic City	NRHP-Eligible (EDR-Recommended)
11	Ritz Carlton Hotel	2715 Boardwalk	Atlantic City	NRHP-Eligible (NJHPO-Determined)
12	USCG Station Atlantic City	900 Beach Thorofare	Atlantic City	NRHP-Eligible (NJHPO-Determined)
13	Atlantic City Convention Hall	Boardwalk between Pacific, Mississippi, and Florida Avenues	Atlantic City	National Historic Landmark
18	Brighton Park	1801 Boardwalk	Atlantic City	NRHP-Eligible as a contributing element to the Atlantic City Boardwalk Historic District (EDR-Recommended)
21	Two-and-a-half-story Residence at 124 Atlantic Avenue	124 Atlantic Avenue	Atlantic City	NRHP-Eligible (EDR-Recommended)
22	Colonial Revival Residence at 120 Atlantic Avenue	120 Atlantic Avenue	Atlantic City	NRHP-Eligible (EDR-Recommended)
24	Atlantic City Boardwalk Historic District	Boardwalk roughly bounded by S. Georgia Avenue to the southwest and Garden Pier to the northeast	Atlantic City	NRHP-Eligible (NJHPO-Determined)
44	Brigantine Hotel	1400 Ocean Avenue	Brigantine City	NRHP-Eligible (EDR-Recommended)
52	Seaview Golf Club (historic), Clarence Geist Pavilion	401 South New York Road	Galloway Township	NRHP-Eligible (EDR-Recommended)
60	Little Egg Harbor US Life Saving Station #23	800 Great Bay Boulevard	Little Egg Harbor Township	NRHP-Eligible (NJHPO-Determined)
63	Lucy, the Margate Elephant	Decatur and Atlantic Avenues	Margate City	National Historic Landmark
64	Two-Story Residence at 114 South Osborne Avenue	114 South Osborne Avenue	Margate City	NRHP-Eligible (Ocean Wind I-Determined)
65	Two-Story Residence at 108 South Gladstone Avenue	108 South Gladstone Avenue	Margate City	NRHP-Eligible (NJHPO-Determined)
66	Margate Fishing Pier	121 S. Exeter Avenue	Margate City	NRHP-Eligible (EDR-Recommended)
74	Folk Victorian Residence at 5231-5229 Central Avenue	5231-5229 Central Avenue	Ocean City	NRHP-Eligible (EDR-Recommended)
76	Music Pier	825 Boardwalk	Ocean City	NRHP-Eligible (NJHPO-Determined)
77	Gillian's Wonderland Pier	600 Boardwalk	Ocean City	NRHP-Eligible (NJHPO-Determined)
101	Residence at 114 South Harvard Avenue	114 South Harvard Avenue	Ventnor City	NRHP-Eligible (NJHPO-Determined)
102	Ventnor City Fishing Pier	Cambridge Avenue at the Ventnor City Boardwalk	Ventnor City	NRHP-Eligible (EDR-Recommended)
103	Saint Leonard's Tract Historic District	Ventnor and Atlantic Avenues roughly bounded by the shoreline, S. Surrey Avenue, N. Cambridge Avenue and the Intercoastal Waterway	Ventnor City	NRHP-Eligible (NJHPO-Determined)

Property ID	Property Name	Address	Municipality	NRHP Status
104	John Stafford Historic District	100 blocks of Vassar Square, Baton Rouge, Marion and Austin Avenues	Ventnor City	NRHP-Listed
105	Vassar Square Condominiums	4800 Boardwalk	Ventnor City	NRHP-Eligible (BOEM-Determined)
113	Ocean City Boardwalk	N/A	Ocean City	NRHP-Eligible (NJHPO-Determined)
114	Missouri Avenue Beach (Chicken Bone Beach)	N/A	Atlantic City	NRHP-Eligible (EDR-Recommended)
115	Riviera Apartments	116 S. Raleigh Avenue	Atlantic City	NRHP-Eligible (NJHPO-Determined)
119	Central Pier	1400 Boardwalk	Atlantic City	NRHP-Eligible (NJHPO-Determined)

Therefore, aboveground historic properties will only be adversely affected by the visual introduction of the offshore components. The onshore components will not adversely affect any aboveground historic properties. The Projects would introduce new man-made features to the seascape horizon, which includes few existing, fixed modern visual elements. The introduction of the WTGs would constitute a change to the historic setting of some aboveground historic properties within the PAPE. This is particularly true for those aboveground historic properties for which open views of the ocean are integral, such as lighthouses and recreation areas. Even for historic properties that were once strongly associated with open ocean views, existing conditions may no longer be representative of the settings related to those properties' periods of significance. Many sections of the WTA PAPE have been subject to multiple phases of development, demolition, and redevelopment. These cycles have substantially altered the historic settings of many historic properties located along the shorelines where unobstructed views of the Projects will be concentrated. In such circumstances, the changes to viewsheds related to the Projects may represent a minor, incremental alteration to some settings that have already been compromised.

4.2 Avoidance and Minimization Measures

Atlantic Shores is prioritizing avoiding and minimizing the adverse effects that will result from the Projects. In order to avoid and/or minimize potential adverse effects on aboveground historic properties, Atlantic Shores will implement the following measures which are based on protocols and procedures successfully implemented for similar offshore projects:

- Atlantic Shores will engage with relevant stakeholders to determine additional avoidance, minimization, or mitigation measures regarding potential effects on aboveground historic properties as required by 30 CFR 585.626(b)(15).
- WTGs will have uniform design, height, and rotor diameter.
- The Project is located in a designated offshore wind development area that has been identified by BOEM as suitable for development.
- The OSSs will be set back sufficient to minimize their visibility from the shore.
- The WTGs will be painted no lighter than Pure White (RAL 9010) and no darker than Light Grey (RAL 7035) as required by BOEM and the FAA. WTGs of this color white generally blend well

with the sky at the horizon and eliminate the need for daytime warning lights or red paint marking of the blade tips.

- The WTGs and OSSs will be lit and marked in accordance with BOEM and USCG requirements for aviation and navigation obstruction lighting, respectively.
- Atlantic Shores will use an Aircraft Detection Lighting System (ADLS) or related means (e.g., dimming or shielding) to limit visual impact, pursuant to approval by the FAA and BOEM, commercial and technical feasibility at the time of FDR/FIR approval, and dialogue with stakeholders. If successfully implemented, ADLS would limit the activation of the Aeronautical Obstruction Lights (AOLs) to approximately 11 hours per year (Capitol Airspace Group, 2021), thus substantially limiting the nighttime visibility and visual impact of the Projects.

4.3 Proposed Mitigation Measures for Adverse Visual Effects

Despite implementation of the above-referenced design measures, unavoidable adverse effects to aboveground historic properties will remain. As stated above, the *Historic Resources Visual Effects Assessment* identified 27 aboveground historic properties where there is a potential for adverse effects resulting from the Projects construction and operation, primarily located along the shorelines of the New Jersey barrier islands. Options to avoid potential adverse visual effects on aboveground historic properties are limited, given the nature of the Projects (i.e., very tall, vertical structures) and its siting criteria (i.e., established OCS lease area). Many of the common measures used for other infrastructure projects are inappropriate for offshore wind developments. For example, visual impacts to aboveground historic properties may be resolved through vegetative screening or landscaping that blocks or screens views of new infrastructure. Such efforts are not appropriate or feasible for many coastal historic properties where views of the ocean and shores are integral to the historic setting, location, uses, and public appreciation of the resources. The project-scale mitigation measures for adverse visual effects summarized below will minimize, but not eliminate, changes to the integrity of historic settings for the affected properties. Therefore, for most wind energy projects, mitigation of impacts to historic properties typically consists of supporting initiatives that benefit historic sites or buildings and/or the public's appreciation of historic resources to offset potential adverse effects to historic properties resulting from the introduction of WTGs into their visual setting.

Atlantic Shores has carefully considered potential Projects-related measures to avoid, minimize, and mitigate potential adverse effects to aboveground historic properties, archaeological sites, and marine archaeological properties. The measures have been developed to appropriately align the specific type and magnitude of adverse effect caused by the Projects with the character-defining aspects of the affected properties. The approach proposed by Atlantic Shores focuses on measures that preserve and enhance the historic maritime settings of these properties, enhance public appreciation and enjoyment of the affected aboveground historic properties, and/or supports public planning and implementation of measures to mitigate long-term risks to the affected aboveground historic properties. The proposed mitigation measures to resolve the Projects' potential adverse visual effects address are focused on the long-term preservation of the aboveground historic properties and, where appropriate, on climate change, sea-level rise, and coastal hazard risks. The affected aboveground historic properties are located in New Jersey where

state, county, and municipal planning efforts are addressing long-term challenges associated with climate change and sea level rise. The problems caused by current sea levels and an increasing frequency/intensity of coastal storms are acute in many shoreline communities, as highlighted in each affected county's Hazard Mitigation Plan, and in the State of New Jersey's Hazard Mitigation Plan, prepared in accordance with state and federal requirements, and other public planning documents reviewed by Atlantic Shores.

Atlantic Shores has developed potential measures to mitigate unavoidable adverse visual effects to the affected aboveground historic properties. These conceptual measures are further detailed in Attachment C Historic Properties Treatment Plans (HPTPs). The fourteen HPTPs are organized by municipality and proposed mitigation measures. The Applicant-proposed mitigation measures include the following:

- The planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of aboveground historic properties.
- Updating existing municipal Intensive-Level Historic Resources Surveys.
- A façade improvement grant.
- Development of NRHP nomination forms.
- Development and implementation of interpretive signage and/or exhibits.
- Development of cultural landscape and management plans.
- Subsidies for the increasing cost of flood insurance due to climate change and sea-level rise.
- Development of a Cultural Resources Hazard Mitigation Plan.

The mitigation measures proposed are appropriate to the scale of the Projects. The proposed mitigation measures are also tailored to the specific historic properties where adverse visual effects are anticipated and focused, where feasible, on the preservation and enhancement of the significant historic maritime settings.

Atlantic Shores intends to have all mitigation measures developed and finalized and funding placed in escrow accounts prior to construction. The implementation of the mitigation measure/s will begin following finalization of the MOA executed among BOEM, SHPOs, consulting Native American Tribes, and potentially other consulting parties.

It is important to stress that these mitigation measures and the associated HPTPs were developed by Atlantic Shores and will be presented to the consulting parties in the below-described informational meetings. In some instances, the measures will be refined and/or updated based on consultation during and after the meetings. All mitigation measures identified are subject to refinement or revision pending discussion with consulting parties.

5.0 APPLICANT-PROPOSED MITIGATION ENGAGEMENT AND REFINEMENT PLAN

Atlantic Shores will host a series of informational meetings with interested parties to refine the mitigation framework summarized above. The intent of the meetings is to solicit feedback on the feasibility and appropriateness of the proposed mitigation measures and to document comments, specific interests, or concerns expressed by the interested parties regarding resolution of the anticipated effects to historic properties. The meetings are voluntary, limited to appropriate stakeholders for given historic properties, and not intended to replace or supplant BOEM's public meetings or associated consultations.

Informational meetings will not, and cannot, replace agency consultations required by the NHPA; for example, the necessity of agency consultations is clear with respect to resolution of expected adverse effects to significant properties associated with Native American Tribes. Atlantic Shores respects tribal sovereignty and the unique relationship among federally-recognized Native American Tribes and the federal government. Where feasible and appropriate, tribal representatives will be invited to further discuss their interests and concerns regarding the Projects and potential effects to resources of concern to the Tribes and how such effects may be feasibly resolved. Likewise, other interested parties may wish to confine their engagement with Atlantic Shores to the formal permitting process.

6.0 SUMMARY

The intent of this AMM Plan is to outline the measures developed to avoid, minimize and/or mitigate the Projects' adverse effects to historic properties. The AMM Plan also describes the process by which Atlantic Shores plans to enhance and refine these measures in cooperation with other interested parties.

Based on desktop analysis and archaeological reconnaissance presented in the *Terrestrial Archaeological Resources Assessment – Onshore Interconnection Facilities* (TARA; COP Appendix II-P1; EDR, 2023a) and *Phase IA Terrestrial Archaeological Resources Assessment – Operations and Maintenance Facility* (O&M TARA; COP Appendix II-P2; EDR, 2023b), there is a very low likelihood of intact or potentially significant terrestrial archaeological resources to be located within the Projects' PAPE. Identification level Phase IB archaeological survey is ongoing under a phased identification approach, which will inform future determinations of the Project's potential effects on terrestrial archaeological resources.

As described in the *Marine Archaeological Resources Assessment Atlantic Shores Offshore Wind Project Construction and Operations Plan*, 21 submerged targets were identified (MARA; COP Appendix II-Q1; SEARCH, 2022). Eight targets are located within the WTA; four targets are located in the Atlantic Export Cable Corridors (ECC); nine targets are located along the Monmouth ECC; and 37 ancient submerged landforms were identified within the Marine PAPE. Physical avoidance buffers of the targets are recommended, and mitigation measures for potential effects to marine resources are proposed.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5, a total of 27 aboveground historic properties will be adversely affected by the Projects.

The steps outlined in this report are based on the current design of the Projects. Alterations to Projects' infrastructure, installation methodology, or workspace requirements have the potential to preclude specific mitigation options proposed herein or require new procedures to adequately approach the mitigation of historic properties.

7.0 REFERENCES

Capitol Airspace Group. 2021. Atlantic Shores Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. Prepared for EDR. February 2021. Alexandria, VA.

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EDR. 2022a. *Atlantic Shores Offshore Wind, Construction and Operations Plan, Lease Area OCS-A 499, Volume I: Project Information*. Prepared for Atlantic Shores Offshore Wind LLC. Syracuse, N.Y. Dated September 2021, revised December 2021, August 2022, and October 2022.

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EDR. 2022c. *Visual Impact Assessment for the Atlantic Shores Offshore Wind Project*. Prepared for Atlantic Shores Offshore Wind LLC. Syracuse, N.Y.

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EDR. 2023b. *Phase IA Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project – Operations and Maintenance Facility, Atlantic City, Atlantic County, New Jersey*. Prepared for Atlantic Shores Offshore Wind, LLC. February 2023. Syracuse, NY.

EDR. 2023c. *Technical Report Historic Resources Visual Effects Assessment, Atlantic Shores Offshore Wind – Wind Turbine Area*. Prepared for Atlantic Shores Offshore Wind, LLC. February 2023. Syracuse, NY.

EDR. 2023d. *Technical Report Historic Resources Effects Assessment, Atlantic Shores Offshore Wind Onshore Interconnection Facilities*. Prepared for Atlantic Shores Offshore Wind, LLC. February 2023. Syracuse, NY.

EDR. 2023e. *Technical Report Historic Resources Effects Assessment, Atlantic Shores Offshore Wind Operation and Maintenance Facilities*. Prepared for Atlantic Shores Offshore Wind, LLC. February 2023. Syracuse, NY.

SEARCH. 2022. *Marine Archaeological Resource Assessment Atlantic Shores Offshore Wind Project Construction and Operations Plan*. Prepared for Atlantic Shores Offshore Wind, LLC. February 2022. Pensacola, FL.

ATTACHMENT A.

PHASED IDENTIFICATION PLAN: TERRESTRIAL ARCHAEOLOGICAL RESOURCES (PIP)

REDACTED VERSION – CONFIDENTIAL AND/OR PRIVILEGED INFORMATION REMOVED

AND MONITORING PLAN AND POST REVIEW DISCOVERY PLAN: TERRESTRIAL ARCHAEOLOGICAL RESOURCES (MPRDP)

Phased Identification Plan: Terrestrial Archaeological Resources
is available for review as
Draft Memorandum of Agreement (MOA) Attachment 21

Monitoring Plan and Post Review Discovery Plan: Terrestrial Archaeological Resources
is available for review as
Draft Memorandum of Agreement (MOA) Attachment 5

ATTACHMENT B.

MONITORING PLAN AND POST REVIEW DISCOVERY PLAN: SUBMERGED CULTURAL RESOURCES

Monitoring Plan and Post Review Discovery Plan: Submerged Cultural Resources
is available for review as
Draft Memorandum of Agreement (MOA) Attachment 4

ATTACHMENT C.

HISTORIC PROPERTY TREATMENT PLANS

REDACTED VERSIONS – CONFIDENTIAL AND/OR PRIVILEGED INFORMATION REMOVED

Historic Property Treatment Plans
are available for review as
Draft Memorandum of Agreement (MOA) Attachments 6 through 20

ATTACHMENT 4 – MARINE ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

Monitoring Plan and Post Review Discoveries Plan: Submerged Cultural Resources

Atlantic Shores South Offshore Wind Project – Offshore Project Area

Outer Continental Shelf, Federal and New Jersey State Waters

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1.0 INTRODUCTION

Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US LLC (Shell) has proposed to construct two offshore wind energy generation projects (the Projects) within the Bureau of Ocean Energy Management (BOEM) Renewable Energy Lease Area OCS-A 0499 (the Lease Area). The Offshore Project Area consists of an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in federal waters on the Atlantic Outer Continental Shelf (OCS). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. There will also be two Export Cable Corridors (ECCs), referred to as the Atlantic ECC and Monmouth ECC, which traverse federal and New Jersey state waters with landfall locations in Atlantic City, New Jersey, and Sea Girt, New Jersey, respectively.

Pursuant to 30 CFR Part 585, *Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf*, BOEM must review and approve the Projects Construction and Operations Plan (COP). As a result, approval of the COP constitutes a federal undertaking as defined in 36 CFR Part 800, and it is therefore subject to review and consultation under Section 106 of the National Historic Preservation Act (NHPA) (Title 54 U.S.C). In addition, the proposed construction in the Offshore Project Area is being reviewed by the New Jersey Department of Environmental Protection (NJDEP), New Jersey State Historic Preservation Office (NJHPO), and other relevant New Jersey State and/or Federal agencies and consulting partners under Section 7:4 of the New Jersey Administrative Code (NJAC), the State of New Jersey Executive Order #215, and the National Environmental Policy Act (NEPA), as applicable. The information and recommendations included in this Monitoring Plan and Post Review Discoveries Plan (MPRDP; the Plan) for submerged cultural resources are intended to assist these agencies in their review of the Project's potential effects.

The purpose of Atlantic Shores multi-year marine survey campaign and associated assessments were to support the identification and characterization of potential submerged cultural resources within the Offshore Project Area. Atlantic Shores conducted HRG and geotechnical surveys of the Preliminary Area of Potential Effects (PAPE) for marine physical effects (defined as the combination of the WTA and ECCs) in 2019, 2020, and 2021 to identify known submerged historic properties as well as to characterize the potential for the PAPE to include previously unidentified submerged cultural resources. These surveys were conducted in accordance with approved Marine High-Resolution Geophysical (HRG) Survey Plans (ASOW 2020, 2021), which were developed in consultation with BOEM, the New Jersey State Historic Preservation Office (NJHPO), and appropriate stakeholders such as the Narragansett Indian Tribe, the Shinnecock Indian Nation, and the Lenape Tribe of Delaware. Building on the HRG and geotechnical surveys and intensive background studies focused on the environmental, geologic, and cultural contexts of the PAPE, Atlantic Shores has completed a Marine Archaeological Resources Assessment (MARA) to identify submerged cultural resources that could be affected by the Projects (SEARCH, 2021; COP: Appendix II-Q) The MARA was conducted by Qualified Marine Archaeologists (QMAs) and in accordance with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. The MARA provides data in support of BOEM's NEPA and Section 106 review of potential effects to submerged historic properties.

The MARA includes recommendations avoidance buffers for each of the identified submerged cultural resources and paleolandscapes. Taking those recommendations into consideration, Atlantic Shores is refining engineering plans to avoid and or/minimize potential impacts to identified targets including potential shipwrecks and ancient submerged landform features (ASLFs). To further mitigate the potential for encountering submerged cultural resources during construction and installation, Atlantic Shores has prepared this MPRDP, which includes discussion of how Atlantic Shores has and will continue to implement the following Applicant-proposed environmental protection measures to avoid, minimize, and/or mitigate potential impacts to submerged cultural resources:

- Consultation with Native American Tribal representatives and other consulting party members;
- Shipwrecks and associated historic sites potentially eligible for listing on the NRHP will be avoided and Atlantic Shores will follow the Notification of the Discovery of Shipwrecks on the Seafloor (30 CFR 250.194(c), 30 CFR 250.1009(c)(4), and 30 CFR 251.7(b)(5)(B)(iii));
- Completed Geophysical and Geotechnical (G&G) campaigns have been proactive in targeting and collecting culturally pertinent samples and information to be used in a robust ground model, which will inform Atlantic Shores' design decisions moving forward;
- Share the robust ground model as a mitigation to impacts to geologic landforms in Lease Area OCS-A 0499; and
- Where feasible, Atlantic Shores will present visual demonstrations of both the ASLFs and planned infrastructure.

Atlantic Shores anticipates that this MPRDP will be incorporated in a Memorandum of Agreement executed among BOEM, SHPOs, and potentially other consulting parties to help resolve potential adverse physical effects to identified submerged cultural resources and to memorialize specific measures that Atlantic Shores will take to avoid and minimize potential effects to other potential submerged cultural resources in the event of a post-review discovery. The Plan outlines the steps for dealing with potential unanticipated discoveries of submerged cultural resources, including human remains, during the proposed construction and installation activities in the Offshore Project Area.

1.1 Purpose

The purpose of the Plan is to:

1. Present to regulatory and review agencies the plan Atlantic Shores and its contractors and consultants will follow to prepare for and potentially respond to unanticipated submerged cultural resources discoveries;

2. Provide guidance and instruction to Atlantic Shores personnel and its contractors and consultants as to the proper procedures to be followed in the event of a potential unanticipated submerged cultural resource discovery.

The following terms are used throughout the Plan:

- **The Offshore Project Area**: The Offshore Project Area consists of an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in federal waters on the Atlantic Outer Continental Shelf (OCS).
- **Marine Physical Effects Preliminary Area of Potential Effect (PAPE)**[1]: All areas of potential seabed disturbance associated with the construction and installation of the proposed offshore infrastructure. The PAPE is defined as the combination of the approximately 102,139-acre (413.3 km^2) WTA and both proposed ECCs (including the 5,362-acre [21.7 km^2] Atlantic ECC and the 26,509-acre [95.1 km^2] Monmouth ECC). Construction activities are expected to affect a small percentage of the seabed encompassed by the Marine Physical Effects PAPE
- **Unanticipated Discovery/Unanticipated Cultural Resource Discovery**: Any indications of the presence of archaeological materials including artifacts, features, animal bone, and/or human remains. Common artifacts encountered may include wooden shipwrecks, metal shipwrecks, downed aircraft, post-Contact artifacts, pre-Contact artifacts, bone and faunal remains.
- **Potential Human Remains**: Any indications of potential human remains, such as bones or bone fragments, which cannot definitely be determined to be non-human.
- **Compliance Manager**: Atlantic Shores' designated on-site/onboard staff person responsible for monitoring compliance with permitting conditions and commitments during construction and installation (see Section 10.0).

[1] The final Area of Potential Effects (APE) will be formally determined by BOEM in consultation with NJHPO as part of the Section 106 consultation process.

- **Qualified Marine Archaeologist (QMA)/Archaeologist**: Atlantic Shores' submerged cultural resources consultant/s (see Section 10.0). Review of any potential unanticipated discoveries will be conducted under the supervision of the QMA, a cultural resource professional who meets the U.S. Secretary of the Interior's Professional Qualifications for Archeology (36 CFR 61) and has experience in conducting HRG surveys and processing and interpreting data for archaeological potential. Review of any potential unanticipated human skeletal remains will be conducted under the supervision of the QMA and/or an experienced subcontractor osteologist/forensic anthropologist who is available to respond in an on-call capacity.

2.0 TRAINING AND ORIENTATION

Atlantic Shores will, in coordination with the QMA/s, provide a summary presentation to the General Construction Manager and construction contractor personnel (hereafter, Construction Personnel) of the relevant results/findings of the MARA, including mapping of each identified submerged cultural resource target and ASLF in the PAPE with recommended avoidance buffers. Atlantic Shores' training for Construction Personnel will also include the following:

- Review and education of federal and state laws protecting cultural resources and BOEMs responsibilities to identify and protect cultural resources and resource integrity;
- An overview of the general cultural history of the Offshore Project Area so that personnel have a greater understanding of what common types of submerged cultural resources can be found on the Atlantic OCS (e.g. wooden shipwrecks, metal shipwrecks, downed aircraft, post-Contact artifacts, pre-Contact artifacts, bone and faunal remains, etc.);
- How to identify potential submerged cultural resources during bottom disturbing activities, including representative photographs/mapping of potential cultural features or finds; and
- Procedures to follow and parties to notify if potential submerged cultural resources/materials are encountered during project activities.

The QMA will develop draft MPRDP awareness training in coordination with Atlantic Shores. The training program will be provided to BOEM and the NJHPO for review and comment before the training program is finalized.

Note that as different construction crews and/or subcontractors join the Project, this training may need to be conducted multiple times to insure everyone is familiar with materials presented in this Plan. Atlantic Shores will extend an invitation to consulting Native American Tribes to participate in these training sessions.

Atlantic Shores will assure that Construction Personnel are made aware of the procedures they must follow in the event of an unanticipated discovery. All construction personnel, including operators of equipment involved seabed disturbance, will be advised of the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery as defined above. Construction personnel will be instructed to immediately contact the Compliance Manager upon the observation of a potential unanticipated discovery as defined in the introduction.

Atlantic Shores will stress the necessity of compliance with this Plan and special emphasis and attention will be given to potential circumstances involving human remains. Atlantic Shores will stress the importance of treating any human remains, or potential human remains, encountered during construction and installation activities with the utmost dignity and respect (see Section 9.2 below concerning human remains).

3.0 DOCUMENTATION

In addition to the training, copies of the complete MPRDP as well an informational graphic summarizing its contents and the materials discussed in the training will be placed in a conspicuous and easily accessible and centralized location (such as a field office or mobilization

point) so that Construction Personnel have readily available access to the MPRDP protocols at all times.

The QMA will develop the informational graphic which will include at minimum:

- Images of common types of submerged cultural resources and materials;
- A flow chart depicting the MPRDP reporting process;
- A notice to all employees of their stop work authority if potential submerged cultural resources are encountered; and
- Contact information for the Compliance Manager responsible for overseeing implementation of the MPRDP, as well as the QMA.

4.0 CULTURAL AND TRIBAL MONITORING

Per Lease stipulation 4.3.5, Atlantic Shores has informed the QMA that they are permitted to be present during HRG surveys and bottom-disturbing activities performed in support of COP submittal to ensure avoidance of potential archaeological resources, and has given the QMA the opportunity to inspect the quality of collected data. This MPRDP assumes that this stipulation will also be applied to any future HRG and/or geotechnical surveys, bottom-disturbing activities, and any underwater Remotely Operated Vehicle (ROV) inspections.

In the event that the QMA indicates that he or she wishes to be present, Atlantic Shores must facilitate the QMA's presence, and provide the QMA the opportunity to inspect data quality (as has occurred with the previously conducted HRG and geotechnical surveys).

Atlantic Shores has/will invite consulting Native American Tribes to designate a Tribal Monitor/s to participate in the following activities (at the Tribes' discretion):

- Pre-Survey Meetings;
- Preliminary Geologic Modeling;
- Preliminary Geotechnical Sampling;

- Preliminary Carbon-14 (C14) dating;
- Selected Cultural Vibracore Sampling;
- C14 and Geophysical Ground Modeling;
- Qualified Marine Archaeologist (QMA) Lab processing of Selected Cores; and
- Video Documentation of Core Processing

For future activities, it will be the responsibility of the QMA to coordinate logistics with ensuring proper access, safety, and time-lines for participation of any Tribal Monitors.

5.0 LOCATIONS WHERE MONITORING IS REQUIRED

As described in the *Marine Archaeological Resources Assessment Atlantic Shores Offshore Wind Project Construction and Operations Plan* prepared by Atlantic Shore's QMA, SEARCH, 21 targets were identified (MARA; COP Appendix II-Q1; SEARCH, 2022). Eight targets are located within the WTA; four targets are located in the Atlantic ECC; nine targets are located along the Monmouth ECC; and 37 ASLFs were identified within the Marine Physical Effects PAPE.

Atlantic Shores anticipates avoidance of the 21 targets and their associated avoidance buffers. Atlantic Shores is currently refining engineering plans to avoid and/or minimize potential impacts to identified ASLFs.

At this time, no locations in which monitoring will be required have been identified. If it is determined that avoidance of any of the identified targets and/or ASLFs is not feasible, and if any potential adverse effects are determined, monitoring of construction and installation activities occurring within the mapped boundaries of those features may be investigated. The scope of any proposed monitoring effort would be developed following Section 106 consultation with BOEM, NJHPO, and consulting Native American Tribes regarding the Projects.

6.0 TEMPORARY AVOIDANCE MEASURES

Avoidance measures will primarily include buffers surrounding both previously identified and potential post review discovery submerged cultural resources. These buffers will be established at a minimum of 50 meters surrounding the outermost discernable extent of the resource. Project construction plans and mapping will indicate avoidance of the area but will not include reference to any archaeological sites or materials.

7.0 PROCESS FOR DETERMINING IF MONITORING A CONSTRUCTION ACTIVITY IS NECESSARY

Cultural monitoring of proposed construction and installation activities may be recommended for targeted portions of the proposed Marine Physical Effects PAPE pending review of the results of the MARA by BOEM, NJHPO, and relevant Consulting Parties. Native American Tribes may also request cultural monitoring in areas they determine to be culturally sensitive during Section 106 consultations. If Construction Personnel have questions about whether monitoring is necessary for a specific construction or installation activity, they will contact the Projects' QMA, who will consult with BOEM cultural staff to receive a decision.

8.0 REPORTING

If monitoring any portion of the Marine Physical Effects PAPE is recommended, the QMA will submit written updates via email (with mapping/photographs, if applicable), end of day on every Friday, providing a summary of the week's activities, and a look-ahead of upcoming activities. Monitoring may not take place every week, however, the QMA will be afforded the opportunity to be onboard and/or review all collected data whenever Construction Personnel are conducting construction and installation activities in the recommended portions of the proposed Marine Physical Effects PAPE. A compiled archaeological report will be provided within 6 months of the

completion of construction and installation activities for the proposed offshore infrastructure. It will include:

- A summary of the construction and installation activities and any monitoring effort;
- Any site form updates (if needed) and/or newly recorded sites that were inadvertently discovered during construction;
- Any Site Specific Treatment Plans devised (if applicable, see Section 9.0 below); and
- Reference to any in-progress Phase II/III survey reports, if applicable.

9.0 POST REVIEW DISCOVERIES

Though extensive preconstruction marine archaeological surveys have been conducted, the possibility remains for previously unidentified submerged cultural resources to be present within the PAPE. At previously identified sites/targets, there is a potential for the discovery of previously unidentified archaeological components, features, or human remains that may require investigation and assessment, while identified historic properties may sustain effects that were not originally anticipated. Given this, the following procedure for the treatment of unanticipated post review discoveries that may occur during construction and installation activities has been developed. The implementation of the MPRDP will be the responsibility of Atlantic Shores and the QMA.

9.1 Post Review Discovery Procedures and Notifications

The Lease includes the following clauses outlining the required steps to be taken in the event of a post review unanticipated discovery:

- **No Impact Without Approval**: As per Lease Stipulation 4.3.6, Atlantic Shores must not knowingly impact a potential archaeological resource without BOEM's prior approval.
- **Post Review Discovery Clauses**: As per Lease Stipulation 4.3.7, if Atlantic Shores discovers a potential archaeological resource, such as the presence of a shipwreck (*e.g.*, a sonar image or visual confirmation of an iron, steel, or wooden hull, wooden timbers, anchors,

concentrations of historic objects, piles of ballast rock), prehistoric artifacts, or ASLFs within the PAPE, Atlantic Shores must:

- Immediately halt seafloor/bottom-disturbing activities within the area of discovery;
- Notify BOEM within 24 hours of discovery;
- Notify BOEM in writing via report within 72 hours of its discovery;
- Keep the location of the discovery confidential and take no action that may adversely affect the archaeological resource until BOEM conducts an evaluation and instructs the applicant on how to proceed; and
- Conduct any additional investigations as directed by the Lessor to determine if the resource is eligible for listing in the National Register of Historic Places.

In the event that a submerged unanticipated archaeological discovery occurs, in addition to the requirements outlined in the Lease, procedures and notifications will include the following:

- **Inadvertent/Unanticipated discovery:** If Atlantic Shores (or its contractors/consultants) believe that an unanticipated discovery has been made, all bottom-disturbing activities within at least 50 meters of the discovery (or further at the discretion of the QMA) will be stopped until such time as it is determined that construction and installation in this area may continue, if ever. Atlantic Shores will be responsible for taking appropriate steps to protect and secure the evidence of the discovery. Construction Personnel will delineate the area of the discovery and its avoidance buffer on Project mapping/construction plans. The area will be regarded as off-limits but will not be identified as an archaeological site in order to protect the resource via discretion and confidentiality. Drilling and/or trenching equipment may be permitted by the QMA's approval to traverse the area surrounding the delineated area if necessary; however, such movement will be minimized to the extent practical, and no vehicles or equipment will be permitted within the delineated area.
- **Initial Assessment of the Unanticipated Discovery**: If potential previously unidentified submerged cultural materials/features are identified during monitoring, Construction Personnel will notify the QMA and provide them with sufficient information/documentation on the potential find to allow the QMA to evaluate the

discovery and determine if the find is a cultural resource. If necessary, the QMA may request to visit the find site or the vessel that recovered the cultural material to inspect the find. The QMA will provide immediate notification to BOEM, NJHPO, consulting Native American Tribes, and other relevant Consulting Parties. If the cultural materials/features can be entirely avoided by the construction and installation activities, a stop-work order is not required, and the previously unidentified cultural materials/features can be summarized as part of the Project reporting (see Section 8.0).

- **Notification Process for Potential Submerged Cultural Resources:** Within 24 hours of the identification of a potentially-significant discovery, as determined by the QMA, Atlantic Shores will notify BOEM, NJHPO, and other applicable Consulting Parties. BOEM and NJHPO contacts are listed in Section 10.0, the Notifications Contact List. No construction activities will be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated by BOEM and NJHPO and the need for and scope of impact mitigation has been determined by BOEM, NJHPO, and other applicable Consulting Parties. Any discovery made on a weekend will be protected until the parties identified above are notified of the discovery. No construction or installation activities shall be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated by BOEM and NJHPO (per the process outlined below) and the need for and scope of impact mitigation has been determined in consultation with BOEM, NJHPO, and Atlantic Shores. If human remains are involved, the procedure described in Section 9.2 concerning human remains will be followed.
- **Notification to BOEM and NJHPO following Site Visit:** Atlantic Shores' Archaeologist will examine/review the finds and provide additional information to BOEM and NJHPO. The additional information will either:
    - Explain why the Archaeologist believes the resource is not significant with respect to the S/NRHP; or
    - Explain why the Archaeologist believes the resource to be potentially significant with respect to the S/NRHP and propose a Site-Specific Treatment Plan for evaluating the significance of the resource and evaluating Onshore Facilities-

related impacts to it. Atlantic Shores anticipates that the proposed Site-Specific Treatment Plan would provide a basis for initiating consultation with BOEM, NJHPO, and applicable Consulting Parties (see Section 10.0). Atlantic Shores and BOEM, in consultation with the NJHPO and Consulting Parties, as necessary, will discuss options and develop a plan for the treatment of unanticipated significant discoveries.

Archaeological investigation of a submerged unanticipated discovery may be necessary in order to evaluate the find, determine its eligibility for listing in the NRHP, and/or assess any construction or installation impacts that may have occurred. The following is a recommended procedure for complying with the MPRDP and providing BOEM and the NJHPO with the necessary information to make informed decisions to approve continuation of bottom disturbing activities. After each step, consultation among the appropriate parties will occur.

- **Site Specific Treatment Plan:** Atlantic Shores will submit the Site-Specific Treatment Plan to BOEM, NJHPO, and other Consulting Parties identified through BOEM's Section 106 consultations within one week of notification to BOEM following the identification of a potentially S/NRHP significant submerged cultural resource. If the proposed mitigation measures within the Site Specific Treatment Plan can reasonably be conducted concurrently with ongoing construction and installation, the submission to BOEM and NJHPO will be accompanied by a request to resume construction and installation in the area of the discovery outside of its QMA recommended avoidance buffer.
- **Written Authorization to Proceed:** Proposed mitigation measures will not proceed until Atlantic Shores receives written authorization, following consultation with BOEM, NJHPO, and applicable Consulting Parties. Atlantic Shores will notify BOEM and NJHPO at the completion of all mitigation measures. If construction has been halted during mitigation, Atlantic Shores will also request authorization from BOEM and NJHPO to resume construction and installation at the conclusion of mitigation.
- **Summary Report:** Atlantic Shores will submit a summary report describing the results of the Site Specific Treatment Plan's mitigation measures to BOEM within a reasonable

timeframe from the completion of mitigation fieldwork. The time required to complete the Summary Report may vary depending on the specific circumstances and the nature of any significant submerged cultural resources subject to mitigation. Atlantic Shores anticipates that reporting of most mitigation activities would be completed within six months of the conclusion of field investigations. All such reporting would be completed within one year of the conclusion of field investigations unless otherwise agreed in writing among Atlantic Shores, BOEM, and NJHPO. Atlantic Shores shall ensure that all archaeological or human remains-related encounters and their handling are reported in the status reports summarizing construction activities.

- **Phase III Report:** If archaeological data recovery is conducted, a full Phase III report will be submitted to BOEM, NJHPO, consulting Native American Tribes, and other Consulting Parties identified through BOEM's Section 106 consultations based on a schedule to be established as part of review of the Site-Specific Treatment Plan.

9.2 Human Remains Protocol

Though unlikely, should potential human remains, evidence of human burials, and/or funerary objects be encountered during marine geotechnical investigation or during marine construction and installation, all work in the vicinity of the find shall be halted until further notice for the remains to be protected from further disturbance. Atlantic Shores will immediately contact BOEM, NJHPO, the county coroner/medical examiner, local law enforcement, and all Consulting Parties identified herein. The potential remains/funerary objects will be treated with respect, left in situ by all on site personnel, and protected from further disturbance. All such remains will be secured and protected pending completion of the notification and consultation procedures described below. If human remains or funerary objects are determined to be Native American, a treatment plan will be developed in consultation with the BOEM and the appropriate Tribal Nations, consistent with established protocols and guidance. This will include the Advisory Council on Historic Preservation's (ACHP) "Policy Statement Regarding Treatment of Burial Sites, Human Remains and

Funerary Objects" (ACHP, 2007; Attachment A) and may be modified based on information gathered through engagement with consulting Tribal Nations.

The ACHP human remains policy requires temporary suspension of activity in the vicinity of the discovery, protection of discovered remains, notification of NJHPO and Native American representatives, and consultation regarding treatment of remains. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological. A decision concerning avoidance or diver recovery of the burial and final disposition of the remains shall be made by BOEM in consultation with the Consulting Parties and consistent with all applicable state/federal statutes and regulations.

If obviously non-human (i.e., animal) skeletal remains are discovered, the procedures outlined in Section 9.1 of this Protocol will be followed. The following protocol for dealing with skeletal remains will be followed during any circumstances in which any possible human skeletal remains are identified during construction activities ("skeletal remains" is defined as any articulated or disarticulated bones or teeth).

- **Respect Human Remains:** It is crucial that all human remains (or possible human remains) be treated with the utmost respect and dignity.
- **Unanticipated Discovery Involving Possible Human Skeletal Remains:** Any member of the Construction Personnel who believes an unanticipated discovery involving possible human skeletal remains has occurred is required to stop work in the immediate vicinity of the discovery and notify the Compliance Manager.
- **Plan of Action:** Human remains and associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- **Area of Discovery:** If Atlantic Shores believes that possible human skeletal remains have been discovered, they will immediately stop all work within 50 meters of the discovery location until it is confirmed that construction may resume. The area will be regarded as

off-limits but will not be identified publicly as an archaeological site or the location of skeletal remains in order to protect the resource via discretion and confidentiality. Drilling or trenching equipment may be allowed to pass through the area surrounding the discovery, if necessary; however, such movement will be minimized, and no equipment will be permitted within the delineated area around the discovery. No additional work or examination will occur until law enforcement have been consulted and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature).

- **Notification Upon Discovery:** Upon the discovery of potential human remains, Atlantic Shores will immediately notify BOEM, NJHPO, the appropriate Native American Nations, Atlantic Shores' Archaeologist, the coroner, and local law enforcement listed in the Notifications Contact List (see Section 10.0), via telephone and email. The Archaeologist (or subconsultant forensic archaeologist) will examine the remains as soon as possible, make a preliminary assessment of their nature (i.e., if they are human or non-human), and immediately notify the parties listed above of the results of the preliminary assessment.
- **Examination of Skeletal Remains:** As soon as possible following the discovery, law enforcement personnel and the Archaeologist will examine the skeletal remains at the site and determine if they are human.
- **Determination of Animal Remains:** If the remains are determined to be animal (i.e., non-human), the Archaeologist will assess whether they occur in an archaeological context. Additionally, if the remains are determined to be animal, Atlantic Shores will immediately notify the parties listed the Notifications Contact List (see Section 10.0) that no human remains were identified.
- **Determination of Animal Remains in an Archaeological Context:** If the remains are non-human and are determined to occur in an archaeological context, the procedures outlined in Section 9.1 of this Protocol will be followed.
- **Determination of Animal Remains without Archaeological Context:** If the remains are non-human and the Archaeologist determines no archaeological resource is present, they will immediately advise the Compliance Manager. Atlantic Shores will consult with BOEM and NJHPO to request that construction may resume at the discovery site. The

Archaeologist will prepare and submit a letter including photographs or images of the (non-) discovery site to Atlantic Shores within a reasonable timeframe.

- **Determination of Human Remains:** If local law enforcement and/or the Archaeologist determines the remains are human, the county coroner, BOEM, NJHPO, and appropriate Native American Nations will be notified immediately (see Section 10.0). No additional work or examination will occur until the county coroner and local law enforcement have arrived on the scene and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature). If the coroner or law enforcement rules the remains to be archaeological in nature, Atlantic Shores will prepare a Site-Specific Treatment Plan (see Section 9.1).
- **Determination of Native American Human Remains:** If the human remains are determined to be archaeological and if the Archaeologist identifies them as Native American in origin, the remains will be left in place and protected from further removal or disturbance until the feasibility of their avoidance by further disturbance can be assessed in consultation with BOEM, appropriate Native American Nations, and NJHPO. Note that Atlantic Shores understands that avoidance is preferred by the NJHPO and the Native American Nations (see ACHP, 2007).
- **Determination of non-Native American Human Remains:** If human remains are determined to be archaeological but non-Native American, they will be left in place and protected until a Site-Specific Treatment Plan for avoidance or removal is developed through consultation with BOEM, NJHPO, and the corresponding County Medical Examiner's Office (see Section 9.1, below).
- **Site-Specific Treatment Plan – Special Consideration:** The Site-Specific Treatment Plan will give special consideration to the presence of human remains. Proposals will also include provisions for evaluating the area for the presence of additional graves.

10.0 NOTIFICATIONS CONTACT LIST

Atlantic Shores Kyle Hilberg Project Developer 281-544-9084 Kyle.Hilberg@atlanticshoreswind.com	**Compliance Manager** TO BE DETERMINED
QMA/Archaeologist Jeff Enright SEARCH 850-607-2846 jeff@searchinc.com	**New Jersey Historic Preservation Office (NJHPO)** Jesse West-Rosenthal Historic Preservation Specialist 2 609-984-6019 Jesse.West-Rosenthal@dep.nj.gov
Bureau of Ocean and Energy Management (BOEM) Sarah Stokely Section 106 Lead 703-787-1085 sarah.stokely@boem.gov	**Lenape Indian Tribe of Delaware** Chief Dennis J. Coker lenapedelaware@comcast.net 4164 North DuPont Highway Suite 6 Dover, DE 19901
Shinnecock Indian Nation Jeremy Dennis and Josephine Smith The Shinnecock Indian Nation P.O. Box 5006, 100 Church Street Southampton, NY 11969 631-566-0486 jeremynative@gmail.com JosephineSmith@Shinnecock.org	**Mashpee Wampanoag Tribe** David Weeden Tribal Historic Preservation Officer 483 Great Neck Road, South Mashpee, MA 02649 774-327-0068 david.weeden@mwtribe-nsn.gov
Unkechaug Indian Nation Chief Harry Wallace 207 Poospatuck Ln Mastic, NY11950-5201 hwal1@aol.com (631) 395-1618	**Nanticoke Lenni-Lenape Tribal Nation** Principal Chief Mark "Quiet Hawk" Gould 75 Westcott Station Road Bridgeton, NJ 08302 TribalCouncil@NLLTribe.com (609) 693-1900
Ramapough Lenape Nation Joseph Hamilton	**Powhatan Renape Nation** Rankokus Indian Reservation

Chairman 189 Stag Hill Road Mahwah, NJ 07430 (201) 529-1171 https://ramapomunsee.net/contact-us/	PO Box 225 Rancocas, NJ 08073
Wampanoag Tribe of Gay Head (Aquinnah) Bettina Washington Tribal Historic Preservation Officer 20 Black Brook Road Aquinnah, MA 02535-1546 508-560-9014 thpo@wampanoagtribe-nsn.gov	**Delaware Tribe of Indians** Susan Bachor Deputy THPO Delaware Tribe Historic Preservation Pennsylvania Office P.O. Box 64 Pocono Lake, PA 18347 570-422-2023 sbachor@delawaretribe.org
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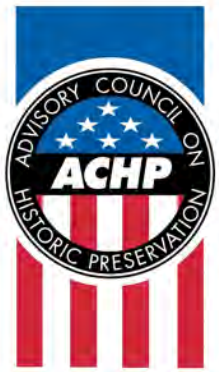
Attachment A
Human Remains Protocols and Guidance



Preserving America s Heritage

ADVISORY COUNCIL ON HISTORIC PRESERVATION

POLICY STATEMENT REGARDING TREATMENT OF BURIAL SITES, HUMAN REMAINS AND FUNERARY OBJECTS

Preamble: This policy offers leadership in resolving how to treat burial sites, human remains, and funerary objects in a respectful and sensitive manner while acknowledging public interest in the past. As such, this policy is designed to guide federal agencies in making decisions about the identification and treatment of burial sites, human remains, and funerary objects encountered in the Section 106 process, in those instances where federal or state law **does not prescribe a course of action**.

This policy applies to all federal agencies with undertakings that are subject to review under Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. § 470f), and its implementing regulations (36 CFR Part 800). To be considered under Section 106, the burial site must be or be a part of a historic property, meaning that it is listed, or eligible for listing, in the National Register of Historic Places.

The Advisory Council on Historic Preservation (ACHP) encourages federal agencies to apply this policy throughout the Section 106 process, including during the identification of those historic properties. In order to identify historic properties, federal agencies must assess the historic significance of burial sites and apply the National Register criteria to determine whether a property is eligible. Burial sites may have several possible areas of significance, such as those that relate to religious and cultural significance, as well as those that relate to scientific significance that can provide important information about the past. This policy does not proscribe any area of significance for burial sites and recognizes that the assessment must be completed on a case-by-case basis through consultation.

The policy is not bound by geography, ethnicity, nationality, or religious belief, but applies to the treatment of all burial sites, human remains, and funerary objects encountered in the Section 106 process, as the treatment and disposition of these sites, remains, and objects are a human rights concern shared by all.

This policy also recognizes the unique legal relationship between the federal government and tribal governments as set forth in the Constitution of the United States, treaties, statutes and court decisions, and acknowledges that, frequently, the remains encountered in Section 106 review are of significance to Indian tribes.

Section 106 requires agencies to seek agreement with consulting parties on measures to avoid, minimize, or mitigate adverse effects to historic properties. Accordingly, and consistent with Section 106, this policy does not recommend a specific outcome from the consultation process. Rather, it focuses on issues and perspectives that federal agencies ought to consider when making their Section 106 decisions. In many cases, federal agencies will be bound by other applicable federal, tribal, state, or local laws that do

prescribe a specific outcome, such as the Native American Graves Protection and Repatriation Act (NAGPRA). The federal agency must identify and follow applicable laws and implement any prescribed outcomes.

For undertakings on federal and tribal land that encounter Native American or Native Hawaiian human remains and funerary objects, NAGPRA applies. NHPA and NAGPRA are separate and distinct laws, with separate and distinct implementing regulations and categories of parties that must be consulted.[1] Compliance with one of these laws does not mean or equal compliance with the other. Implementation of this policy and its principles does not, in any way, change, modify, detract or add to NAGPRA or other applicable laws.

Principles: When burial sites, human remains, or funerary objects will be or are likely to be encountered in the course of Section 106 review, a federal agency should adhere to the following principles:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws**.**

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

[1] The ACHP's publication *Consulting with Indian Tribes in the Section 106 Process* and the National Association of Tribal Historic Preservation Officers' publication *Tribal Consultation: Best Practices in Historic Preservation* provide additional guidance on this matter.

DISCUSSION:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Because the presence of human remains and funerary objects gives a historic property special importance as a burial site or cemetery, federal agencies need to consider fully the values associated with such sites. When working with human remains, the federal agency should maintain an appropriate deference for the dead and the funerary objects associated with them, and demonstrate respect for the customs and beliefs of those who may be descended from them.

Through consultation with descendants, culturally affiliated groups, descendant communities, and other parties, federal agencies should discuss and reach agreement on what constitutes respectful treatment.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Consultation is the hallmark of the Section 106 process. Federal agencies must make a "reasonable and good faith" effort to identify consulting parties and begin consultation early in project planning, after the federal agency determines it has an undertaking and prior to making decisions about project design, location, or scope.

The NHPA, the ACHP's regulations, and Presidential Executive Orders set out basic steps, standards, and criteria in the consultation process, including:

- Federal agencies have an obligation to seek out all consulting parties [36 CFR § 800.2(a)(4)], including the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO) [36 CFR § 800.3(c)].

- Federal agencies must acknowledge the sovereign status of Indian tribes [36 CFR § 800.2(c)(2)(ii)]. Federal agencies are required to consult with Indian tribes on a government-to-government basis in recognition of the unique legal relationship between federal and tribal governments, as set forth in the Constitution of the United States, treaties, statutes, court decisions, and executive orders and memoranda.

- Consultation on a government-to-government level with Indian tribes cannot be delegated to non-federal entities, such as applicants and contractors.

- Federal agencies should solicit tribal views in a manner that is sensitive to the governmental structures of the tribes, recognizing their desire to keep certain kinds of information confidential, and that tribal lines of communication may argue for federal agencies to provide extra time for the exchange of information.

- Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion on the National Register [16 U.S.C. § 470a(d)(6)(A)], and federal agencies must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to such historic properties [16 U.S.C. § 470a(d)(6)(B) and 36 CFR § 800.2(c)(2)(ii)(D)].

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

This principle reiterates existing legal requirements found in federal law, regulation and executive orders, and is consistent with positions that the ACHP has taken over the years to facilitate enfranchisement and promote broad participation in the Section 106 process. Federal agencies must consult with Indian tribes on a government-to-government basis because they are sovereign nations.

Indian tribes and Native Hawaiian organizations bring a special perspective on how a property possesses religious and cultural significance to them. Accordingly, federal agencies should utilize their expertise about, and religious and cultural connection to, burial sites, human remains, and associated funerary objects to inform decision-making in the Section 106 process.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

As a matter of practice, federal agencies should avoid impacting burial sites, human remains, and funerary objects as they carry out their undertakings. If impact to the burial site can be avoided, this policy does not compel federal agencies to remove human remains or funerary objects just so they can be documented.

As this policy advocates, federal agencies should always plan to avoid burial sites, human remains, and funerary objects altogether. When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should minimize disturbance to such sites, remains, and objects. Accordingly, removal of human remains or funerary objects should occur only when other alternatives have been considered and rejected.

When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should then consider any active steps it may take to preserve the burial site in place, perhaps through the intentional covering of the affected area, placement of markers, or granting of restrictive or other legal protections. In many cases, preservation in place may mean that, to the extent allowed by law, the locations of burial sites, human remains, and funerary objects should not be disclosed publicly. Alternatively and consistent with the Section 106 regulations [36 CFR § 800.5(a)(2)(vi)], natural deterioration of the remains may be the acceptable or preferred outcome of the consultation process.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

When the federal agency decides that human remains or funerary objects must be disturbed, they should be removed respectfully and dealt with according to the plan developed by the federal agency in consultation. "Careful" disinterment means that those doing the work should have, or be supervised by people having, appropriate expertise in techniques for recognizing and disinterring human remains.

This policy does not endorse any specific treatment. However, federal agencies must make a reasonable and good faith effort to seek agreement through consultation before making its decision about how human remains and/or funerary objects shall be treated.

The plan for the disinterment and treatment of human remains and/or funerary objects should be negotiated by the federal agency during consultation on a case-by-case basis. However, the plan should provide for an accurate accounting of federal implementation. Depending on agreements reached through the Section 106 consultation process, disinterment may or may not include field recordation. In some instances, such recordation may be so abhorrent to consulting parties that the federal agency may decide it is inappropriate to carry it out. When dealing with Indian tribes, the federal agency must comply with its legal responsibilities regarding tribal consultation, including government-to-government and trust responsibilities, before concluding that human remains or funerary objects must be disinterred.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws.

Federal agencies are responsible for making final decisions in the Section 106 process [36 CFR § 800.2(a)]. The consultation and documentation that are appropriate and necessary to inform and support federal agency decisions in the Section 106 process are set forth in the ACHP's regulations [36 CFR Part 800].

Other laws, however, may affect federal decision-making regarding the treatment of burial sites human remains, and funerary objects. Undertakings located on federal or tribal lands, for example, are subject to the provisions of NAGPRA and the Archaeological Resources Protection Act (ARPA). When burial sites, human remains, or funerary objects are encountered on state and private lands, federal agencies must identify and follow state law when it applies. Section 106 agreement documents should take into account the requirements of any of these applicable laws.

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Encountering burial sites, human remains, or funerary objects during the initial efforts to identify historic properties is not unheard of. Accordingly, the federal agency must determine the scope of the identification effort in consultation with the SHPO/THPO, Indian tribes and Native Hawaiian

organizations, and others before any archaeological testing has begun [36 CFR § 800.4(a)] to ensure the full consideration of avoidance of impact to burial sites, human remains, and funerary objects.

The ACHP's regulations provide federal agencies with the preferred option of reaching an agreement ahead of time to govern the actions to be taken when historic properties are discovered during the implementation of an undertaking. In the absence of prior planning, when the undertaking has been approved and construction has begun, the ACHP's post-review discovery provision [36 CFR § 800.13] requires the federal agency to carry out several actions:

(1) make reasonable efforts to avoid, minimize, or mitigate adverse effects to such discovered historic properties;
(2) notify consulting parties (including Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to the affected property) and the ACHP within 48 hours of the agency's proposed course of action;
(3) take into account the recommendations received; and then
(4) carry out appropriate actions.

NAGPRA prescribes a specific course of action when Native American and Native Hawaiian human remains and funerary objects are discovered on federal or tribal lands in the absence of a plan—cessation of the activity, protection of the material, notification of various parties, consultation on a course of action and its implementation, and then continuation of the activity. However, adherence to the plan under Principle 5 would cause new discoveries to be considered "intentional excavations" under NAGPRA because a plan has already been developed, and can be immediately implemented. Agencies then could avoid the otherwise mandated 30 day cessation of work for "inadvertent discoveries."

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

Under the ACHP's regulations, "descendants" are not identified as consulting parties by right. However, federal agencies shall consult with Indian tribes and Native Hawaiian organizations that attach religious and cultural significance to burial sites, human remains and associated funerary objects, and be cognizant of their expertise in, and religious and cultural connection to, them. In addition, federal agencies should recognize a biological or cultural relationship and invite that individual or community to be a consulting party [36 CFR § 800.3(f)(3)].

When federal or state law does not direct disposition of human remains or funerary objects, or when there is disagreement among claimants, the process set out in NAGPRA may be instructive. In NAGPRA, the "ownership or control" of human remains and associated funerary objects lies with the following in descending order: specific lineal descendants; then tribe on whose tribal lands the items were discovered; then tribe with the closest cultural affiliation; and then tribe aboriginally occupying the land, or with the closest "cultural relationship" to the material.

Definitions Used for the Principles

- **Burial Site**: Any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which as a part of the death rite or ceremony of a culture, individual human remains are deposited [25 U.S.C. 3001.2(1)].
- **Consultation:** The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 review process [36 CFR § 800.16(f)].
- **Consulting parties:** Persons or groups the federal agency consults with during the Section 106 process. They may include the State Historic Preservation Officer; the Tribal Historic Preservation Officer; Indian tribes and Native Hawaiian organizations; representatives of local governments; applicants for federal assistance, permits, licenses, and other approvals; and/or any additional consulting parties [based on 36 CFR § 800.2(c)]. Additional consulting parties may include individuals and organizations with a demonstrated interest in the undertaking due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties [36 CFR § 800.2(c)(6)].
- **Disturbance:** Disturbance of burial sites that are listed in or eligible for listing in the National Register of Historic Places will constitute an adverse effect under Section 106. An adverse effect occurs when "an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, setting, materials, workmanship, feeling, or association" [36 CFR § 800.5(a)(1)].
- **Federal land:** Lands under a federal agency's control. Mere federal funding or permitting of a project does not turn an otherwise non-federal land into federal land (see *Abenaki Nation of Mississquoi* v. *Hughes*, 805 F. Supp. 234 (D. Vt. 1992), aff'd, 990 F. 2d 729 (2d Cir. 1993) (where the court found that a Clean Water Act permit issued by the US Army Corps of Engineers did not place the relevant land under federal "control" for NAGPRA purposes).
- **Funerary objects:** "items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains" [25 U.S.C. 3001(3)(B)].
- **Historic property:** "Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. It includes artifacts, records, and remains that are related to and located within such properties, and it includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register of Historic Places criteria" [36 CFR § 800.16(1)].
- **Human remains:** The physical remains of a human body. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets [see 43 CFR § 10.2(d)(1)].
- **Indian Tribe**: "An Indian tribe, band, nation, or other organized group or community, including a Native village, Regional Corporation or Village Corporation, as those terms are defined in Section 3 of the Alaska Native Claims Settlement Act [43 U.S.C. 1602], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians" [36 CFR § 800.16(m)].
- **Native American:** Of, or relating to, a tribe, people, or culture that is indigenous to the United States [25 U.S.C. 3001 (9)]. Of, or relating to, a tribe, people, or culture indigenous to the Unites States, including Alaska and Hawaii [43 CFR 10.2(d)].

- **Native Hawaiian:** Any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the state of Hawaii [36 CFR § 800.16(s)(2)].
- **Native Hawaiian Organization:** Any organization which serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of historic preservation that are significant to Native Hawaiians [36 CFR § 800.16(s)].
- **Policy statement:** A formal statement, endorsed by the full ACHP membership, representing the membership's collective thinking about what to consider in reaching decisions about select issues, in this case, human remains and funerary objects encountered in undertakings on federal, tribal, state, or private lands. Such statements do not have the binding force of law.
- **Preservation in place:** Taking active steps to ensure the preservation of a property.
- **Protection of Historic Properties**: Regulations [36 CFR Part 800] implementing Section 106 of the National Historic Preservation Act.
- **Section 106**: That part of the National Historic Preservation Act which establishes a federal responsibility to take into account the effects of undertakings on historic properties and to provide the Advisory Council on Historic Preservation a reasonable opportunity to comment with regard to such action.
- **State Historic Preservation Officer:** The official appointed or designated pursuant to Section 101(b)(1) of NHPA to administer the state historic preservation program.
- **Tribal Historic Preservation Officer**: The official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d)(2) of NHPA.
- **Treatment:** Under Section 106, "treatments" are measures developed and implemented through Section 106 agreement documents to avoid, minimize, or mitigate adverse effects to historic properties.

Acronyms Used for the Policy Statement
- **ACHP**: Advisory Council on Historic Preservation.
- **ARPA**: Archaeological Resources Protection Act [16 U.S.C. 470aa-mm].
- **NHPA**: National Historic Preservation Act [16 U.S.C. § 470f].
- **NAGPRA**: The Native American Graves Protection and Repatriation Act [25 U.S.C. 3001 et seq].
- **SHPO**: State Historic Preservation Officer
- **THPO**: Tribal Historic Preservation Officer

[The members of the Advisory Council on Historic Preservation unanimously adopted this policy on February 23, 2007]

ATTACHMENT 5 – TERRESTRIAL ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

Monitoring Plan and Post Review Discoveries Plan: Terrestrial Archaeological Resources

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County, New Jersey

Confidential - Not for Public Distribution

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February 2023

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LIST OF ATTACHMENTS

1.0 INTRODUCTION

Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US LLC (Shell) has proposed to construct the Atlantic Shores Onshore Interconnection Facilities (Onshore Facilities) located in the Boroughs of Manasquan and Borough of Sea Girt, Township of Howell and Township of Wall, Monmouth County, New Jersey and the City of Atlantic City and City of Pleasantville, Egg Harbor Township, Atlantic County, New Jersey. The Onshore Facilities will support Atlantic Shores' proposal to develop two offshore wind energy generation projects (the Project) within Bureau of Ocean and Energy Management (BOEM) Lease Area OCS-A 0499 (the Lease Area). The proposed Onshore Facilities are being reviewed by the New Jersey Department of Environmental Protection (NJDEP), New Jersey State Historic Preservation Office (NJHPO), the Bureau of Ocean and Energy Management (BOEM), and other relevant New Jersey State and/or Federal agencies and consulting partners under Section 7:4 of the New Jersey Administrative Code (NJAC), the State of New Jersey Executive Order #215, the National Environmental Policy Act (NEPA), and/or Section 106 of the National Historic Preservation Act (NHPA), as applicable. The information and recommendations included in this Monitoring Plan and Post Review Discoveries Plan (MPRDP; the Plan) for terrestrial archaeological resources are intended to assist these agencies in their review of the Project's potential effect on terrestrial archaeological resources.

Atlantic Shores proposes to construct, operate, and maintain the Onshore Facilities (including landfalls, onshore interconnection cables, onshore substations and/or converter stations, and an Operations and Maintenance [O&M] facility) to connect the offshore portions of the Projects to existing Points of Interconnection (POIs). Export cables will deliver energy from the offshore generation facilities to proposed landfall sites located in either Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. From the landfall sites, onshore cables will follow onshore interconnection cable routes (onshore routes) proposed within existing roadway, utility rights-of-way (ROWs), and/or along bike paths to existing Points of

Interconnection (POIs) for connection to the electrical grid. Along the onshore routes, onshore substations and/or converter stations are also proposed.

During previous and ongoing consultation between offshore wind developers and Native American Tribes, Tribal representatives have indicated their strong preference for intensive archaeological investigations to be conducted prior to construction of onshore infrastructure, as opposed to relying on archaeological monitoring to identify, evaluate, and respond to the potential presence of archaeological sites within the Preliminary Area of Potential Effect (PAPE). In addition, BOEM has indicated to Atlantic Shores that it will require a Phase IA/IB survey as part of the Section 106 process. Therefore, Atlantic Shores retained EDR to complete Terrestrial Archaeological Resource Assessments (TARAs) of the onshore portions of the PAPE for physical effects (i.e., construction activities and/or ground disturbance) for the proposed Onshore Facilities (EDR, 2021 and 2022b). The purpose of the desktop assessment included in the TARAs is to inventory and characterize previously identified archaeological resources within the PAPE that may be affected by construction of the proposed Onshore Facilities, which will subsequently inform EDR's recommendations of which portions of the proposed PAPE should be subject to systematic Phase IB archaeological survey and/or archaeological monitoring. Additionally, Atlantic Shores will retain EDR to conduct systematic Phase IB archaeological survey and/or archaeological monitoring of the areas recommended in the TARA. Results of any subsequent Phase IB archaeological survey would be included in a subsequent revision or amendment to the TARA report which will be submitted to BOEM and the Consulting Parties prior to the Projects' Record of Decision (ROD).

The TARAs for the Onshore Facilities (EDR, 2021 and 2022b) included background research, archaeological reconnaissance, and desktop assessment. Background research was conducted to review the geology and environmental setting, previously reported archaeological sites and archaeological surveys, regional histories, and historical maps of the PAPE and adjacent areas. These sources were reviewed to prepare historic contexts and to assess the archaeological sensitivity of the PAPE. In addition, reconnaissance-level surveys of the proposed Onshore

Facilities 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 PAPE. Informed by a synthesis of the background research and archaeological reconnaissance, the PAPE was categorized into "Disturbed" and "Potentially Undisturbed" areas. This categorization informed EDR's assessment of the archaeological sensitivity of the proposed Onshore Interconnection Facilities Sites as well as EDR's identification of areas where additional archaeological field investigations are recommended (i.e., Phase IB shovel testing) in a manner consistent with NJHPO's *Guidelines for Phase I Archaeological Investigations: Identification of Archaeological Resources* (hereafter, NJHPO's *Guidelines*; NJHPO, 2019). The TARA will be updated following the results of recommended Phase IB survey (described below).

Atlantic Shores has elected to site the proposed buried onshore cables within existing, previously disturbed road, bike path, and railroad ROWs, where disturbance during construction and installation of the existing infrastructure likely exceeded the depth of potential archaeological deposits. This siting strategy avoids or significantly reduces potential impacts to adjacent undisturbed soils and avoids or minimizes the risk of potentially encountering undisturbed archaeological deposits throughout most of the onshore routes.

The "Potential Phase IB Survey Areas" identified in the TARA (see EDR, 2022: Attachment C and D) illustrate those portions of the proposed Onshore Facilities for which Phase IB archaeological testing (i.e., shovel testing) may be appropriate depending on the proposed ground disturbance when final siting/design of the Onshore Facilities within the PAPE is determined. The purpose of any potential Phase IB testing would be to further evaluate the potential for archaeological sites to be located within the PAPE, and to minimize the risk of unanticipated discoveries or disturbance to archaeological resources during construction. In those portions of the proposed onshore routes with potentially intact, deeply buried soil deposits (such as eolian or alluvial deposits) that overlap with paved roadways or bike paths not suitable for shovel testing, then shovel test pits (STPs) would be excavated within the public ROW on the road shoulder or bike path margins adjacent to the paved areas, as a proxy for what may be beneath the paved areas. This testing strategy is

based on methodologies utilized when evaluating the onshore facilities for similar offshore wind projects reviewed by BOEM (EDR, 2020 and 2022a).

Based on the results of the background research and archaeological reconnaissance, the proposed Project is not anticipated to result in any adverse physical effects to any potentially State/National Register of Historic Places (S/NRHP)-eligible terrestrial archaeological resources. This assessment may be updated pending the results of upcoming Phase IB survey.

To further mitigate the potential (however unlikely) for encountering archaeological resources during installation of the Onshore Facilities, Atlantic Shores has prepared this MPRDP, which includes stop-work and notification procedures to be followed if a cultural resource is encountered during installation. Atlantic Shores anticipates that this MPRDP will be incorporated in a Memorandum of Agreement executed among BOEM, SHPOs, and potentially other consulting parties to resolve anticipated adverse visual effects to identified above ground historic properties (see the Projects' Historic Resources Visual Effects Assessment [HRVEA], EDR, 2022c) and to memorialize specific measures that Atlantic Shores will take to avoid and minimize potential effects to other historic properties in the event of a post-review discovery. The Plan outlines the steps for dealing with potential unanticipated discoveries of cultural resources, including human remains, during the construction of the proposed Onshore Facilities.

1.1 Purpose

The purpose of the Plan is to:

1. Present to regulatory and review agencies the plan Atlantic Shores and its contractors and consultants will follow to prepare for and potentially respond to unanticipated cultural resources (i.e., terrestrial archaeological) discoveries;
2. Include provisions and procedures allowing for a Cultural Monitor (Archaeologist) and Tribal Monitors to be present during construction and installation activities conducted in targeted areas of concern as identified in the TARA and through consultation with Native American Tribes; and

3. Provide guidance and instruction to Atlantic Shores personnel and its contractors and consultants as to the proper procedures to be followed in the event of an unanticipated cultural resource (i.e., terrestrial archaeological) discovery.

The following terms are used throughout the Plan:

- **The Onshore Facilities**: The Onshore Facilities collectively refers to all components of the onshore portions of the Project, including landfalls, onshore interconnection cable routes, onshore substations and/or converter stations, and an O&M facility.
- **Unanticipated Discovery/Unanticipated Cultural Resource Discovery**: Any indications of the presence of archaeological materials including artifacts, stone features, animal bone, and/or human remains. Common artifacts encountered may include bottles/glass, pottery/ceramics, stone foundations, hand-dug wells, brick, nails, miscellaneous metal fragments, charcoal or ash-stained soils, arrowheads/spearheads, stone (chert or "flint") chips or flakes, rough gray, black, or brown pottery, and other stone tools/artifacts of obvious human origin.
- **Potential Human Remains**: Any indications of potential human remains, such as bones or bone fragments, that cannot definitely be determined to be non-human.
- **Preliminary Area of Potential Effect (PAPE)**[1]: All areas of potential soil disturbance associated with the construction and operation of the proposed Onshore Facilities.
- **Compliance Manager**: Atlantic Shores' designated on-site staff person responsible for monitoring compliance with permitting conditions and commitments during construction (see Section 10.0).
- **Archaeologist**: Atlantic Shores' cultural resources consultant/s (see Section 10.0). Review of any potential unanticipated discoveries will be conducted under the supervision of a cultural resource professional who meets the U.S. Secretary of the Interior's Professional Qualifications for Archeology (36 CFR 61). Review of any potential unanticipated human skeletal remains will be conducted under the supervision of EDR's experienced

[1] The final Area of Potential Effects (APE) will be formally determined by BOEM in consultation with NJHPO as part of the Section 106 consultation process.

subcontractor osteologist/forensic anthropologist who is available to respond in an on-call capacity.

2.0 TRAINING AND ORIENTATION

Atlantic Shores will, in coordination with the archaeologist, provide a summary presentation to the General Construction Manager and construction contractor personnel (hereafter, Construction Personnel) of the relevant results/findings of any potential Phase IB archaeological survey. Atlantic Shores' training for Construction Personnel will also include the following:

- Review and education of federal and state laws protecting cultural resources and BOEMs responsibilities to identify and protect cultural resources and resource integrity;
- An overview of the general cultural history of the Onshore Facilities area so that personnel have a greater understanding of what cultural resources may be encountered and so that they can be more readily identified in the field;
- An orientation presentation regarding the types of finds that could be discovered (e.g., artifacts, buried shell deposits), including representative photographs of potential cultural features or finds (see Representative Archaeological Artifacts and Features, Attachment B); and
- An overview of common debris and refuse of modern origins that may be encountered during construction.

Note that as different construction crews and/or subcontractors join the Project, this training may need to be conducted multiple times to insure everyone is familiar with materials presented in this Plan. Atlantic Shores will extend an invitation to consulting Native American Tribes to participate in these training sessions.

Atlantic Shores will assure that Construction Personnel are made aware of the procedures they must follow in the event of an unanticipated discovery. All construction personnel, including operators of equipment involved in grading, stripping, or trenching activities, will be advised of

the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery as defined above. Construction personnel will be instructed to immediately contact the Compliance Manager upon the observation of a potential unanticipated discovery as defined in the introduction.

Atlantic Shores will stress the necessity of compliance with this Plan and special emphasis and attention will be given to potential circumstances involving human remains. Atlantic Shores will stress the importance of treating any human remains, or potential human remains, encountered during construction of the Onshore Facilities with the utmost dignity and respect (see Section 9.2 below concerning human remains).

3.0 DOCUMENTATION

Copies of this MPRDP, as well as the representative photographs provided in Attachment B, will be provided to Construction Personnel at an easily accessible and centralized location (such as a field office or mobilization point) so that they have readily available access to the MPRDP protocols at all times.

4.0 CULTURAL AND TRIBAL MONITORING

Atlantic Shores will retain one onsite Cultural Monitor to conduct the cultural monitoring. Atlantic Shores will also invite consulting Native American Tribes to designate a Tribal Monitor/s to participate in the monitoring effort and be onsite (at the Tribes' discretion). It will be the responsibility of the Cultural Monitor to coordinate logistics with ensuring proper access, safety, and time-lines for participation of any Tribal Monitors. The Cultural Monitor will be in regular communication with the Construction Personnel, to insure Cultural and Tribal Monitors are onsite to observe construction and installation activities when those activities are conducted in the recommended portions of the proposed Onshore Interconnection Facilities.

5.0 LOCATIONS WHERE MONITORING IS REQUIRED

The locations in which monitoring will occur are currently unknown since the results of Phase IB survey of Onshore Facilities have not been assessed. Atlantic Shores will update this Plan with the exact locations and scope of this monitoring following Section 106 consultation with BOEM, NJHPO, and consulting Native American Tribes regarding the Projects. The TARA includes a preliminary recommendation for monitoring to occur in the Pleasantville area of the Cardiff Onshore Route (EDR, 2022b: Section 3.3).

6.0 TEMPORARY AVOIDANCE MEASURES

This section is reserved for the discussion of any site specific avoidance measures that will be enacted for any potential archaeological sites which may be identified within the PAPE following the conclusion of upcoming Phase IB archaeological survey. It is expected that any potential sites that require avoidance and the measures enacted to avoid those sites will be agreed upon as part of the Section 106 consultation process.

Avoidance measures may include the installation of orange safety fencing, t-posting and flagging, signage, and/or monitoring. Any fencing and/or signage will be installed by the Cultural Monitor and/or other archaeological staff. The Cultural Monitor will be given at least a two week notice prior to any construction or installation activities in the area to coordinate installation of the avoidance measures. Avoidance measures will be maintained for the duration of any construction or installation activities in the area and this maintenance will be the responsibility of the Compliance Manager. Signage will indicate avoidance of the area but will not include reference to any archaeological sites or materials.

7.0 PROCESS FOR DETERMINING IF MONITORING A CONSTRUCTION ACTIVITY IS NECESSARY

It is expected that cultural monitoring of construction and installation activities will be recommended for targeted portions of the proposed Onshore Interconnection Facilities pending review of the results of the Phase IB survey by BOEM, NJHPO, and relevant Consulting Parties. Native American Tribes may also request cultural monitoring in areas they determine to be culturally sensitive during Section 106 consultations. If Construction Personnel have questions about whether monitoring is necessary for a specific activity, they will contact the Projects' designated Cultural Monitor (Archaeologist), who will consult with BOEM cultural staff to receive a decision.

8.0 REPORTING

The Cultural Monitor will submit written weekly updates via email (with photographs, if applicable), end of day on every Friday, providing a summary of the week's activities, and a look-ahead of upcoming activities. Monitoring may not take place every week, however, the Cultural Monitor will be onsite whenever Construction Personnel are conducting construction and installation activities in the recommended portions of the proposed Onshore Interconnection Facilities. A compiled Monitoring Report will be provided within 6 months of the completion of construction and installation activities for the proposed Onshore Interconnection Facilities. It will include:

- A summary of the monitoring effort;
- Any site form updates (if needed) and/or newly recorded sites that were inadvertently discovered during construction;
- Any Site Specific Treatment Plans devised (if applicable, see Section 9.0 below); and
- Reference to any in-progress Phase II/III survey reports, if applicable.

9.0 POST REVIEW DISCOVERIES

9.1 Post Review Discovery Procedures and Notifications

In the event that an unanticipated archaeological discovery occurs, procedures and notifications will include the following:

- **Post Review Discovery**: If previously unidentified cultural materials/features are identified during monitoring, Construction Personnel will notify the Cultural Monitor (Archaeologist) and request an expedited field evaluation. The Cultural Monitor will provide immediate notification to BOEM, NJHPO, consulting Native American Tribes, and other relevant Consulting Parties. If the cultural materials/features can be entirely avoided by the construction and installation activities, a stop-work order is not required, and the previously unidentified cultural materials/features can be summarized as part of the

weekly monitoring update and reported on in the Monitoring Report (and any associated Site Form), when construction and installation activities for the Projects are completed (see Section 8.0).

- **Inadvertent/Unanticipated discovery:** If unanticipated archeological discovery of a potentially significant resource occurs during onshore construction, and continuing construction in the immediate vicinity (100 feet) would be incompatible with the objective of preserving the quality and integrity of the resource, Atlantic Shores (or its Contractor) shall stabilize the area, if necessary to protect the resource, and immediately cease all ground-disturbing activities in the immediate vicinity (100 feet) of the find and protect the find from further damage. Atlantic Shores (or its Contractor) will notify the Cultural Monitor (Archaeologist) of the discovery and request an expedited field evaluation. The restricted areas would extend 100 feet from the maximum discernable limit of the archaeological resource, or further at the discretion of the Cultural Monitor (Archaeologist). The only earth-moving activities that may occur within the restricted areas prior to notifications are those necessary for immediate stabilization of the exposed archaeological feature or deposit. Atlantic Shores (or its Contractor) shall flag, fence off, or securely cover with steel plates the archaeological discovery location and take reasonable measures to ensure site security If any member of the construction workforce believes that potential archaeological materials/artifacts or stone features have been encountered and the Archaeologist is not on-site, he/ or she/they will be required to stop work in the immediate vicinity of the find and notify the Compliance Manager. If the Archaeologist is onsite and a potential discovery is made, construction staff will stop work in the immediate vicinity of the find and notify the Archaeologist of the potential findings. If human remains are involved, the procedure described in Section 9.2 concerning human remains will be followed.
- **Do Not Disturb Potential Archaeological Materials:** The potential archaeological features and/or artifacts will be left in place and not disturbed. No materials will be collected or removed until appropriate consultation has taken place and a plan of action has been developed. If artifacts are discovered after they have been removed from the ground, the

Archaeologist will carefully secure such artifacts to prevent further damage. If the Archaeologist is not on-site at the time of discovery, the Compliance Manager will secure any artifacts that have been inadvertently removed from the ground. No artifacts or potential cultural materials shall be removed from the site of the discovery prior to the arrival of the designated Archaeologist/cultural resources consultant.

- **Stop Work Order – Protect and Secure Potential Archaeological Materials**: If Atlantic Shores (or its contractors/consultants) believe that an unanticipated discovery has been made, all ground-disturbing activities within 100 feet of the discovery will be stopped until such time as it is determined that construction in this area may continue. Atlantic Shores will be responsible for taking appropriate steps to protect and secure the evidence of the discovery. Construction personnel will delineate the immediate area of the discovery with flagging tape and/or construction fencing. Open trenches or other excavations will be covered with available materials (such as steel plates, plywood, and/or plastic sheeting) as necessary, to secure the discovery and ensure public safety. The area will be regarded as off-limits but will not be identified as an archaeological site in order to protect the resource via discretion and confidentiality. Vehicles and equipment may be permitted by the Cultural Monitor's approval to traverse the area surrounding the delineated area if necessary; however, such movement will be minimized to the extent practical, and no vehicles or equipment will be permitted within the delineated area.
- **Notification Process for Potential Archaeological Materials:** Within 24 hours of the identification of a potentially-significant discovery, as determined by the Archaeologist, Atlantic Shores will notify BOEM, NJHPO, and other applicable Consulting Parties. BOEM and NJHPO contacts are listed in Section 10.0, the Notifications Contact List. No construction activities will be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated by BOEM and NJHPO and the need for and scope of impact mitigation has been determined by BOEM, NJHPO, and other applicable Consulting Parties. Any discovery made on a weekend will be protected until the parties identified above are notified of the discovery. No construction activities shall be permitted in the vicinity of the find until such time as the significance of the resource

has been evaluated by NJHPO (per the process outlined below) and the need for and scope of impact mitigation has been determined in consultation with BOEM, NJHPO, and Atlantic Shores.

- **Determination of Native American Resource:** If the archaeological resource is Native American in nature, Atlantic Shores will request that BOEM notify representatives of the appropriate Native American Nation(s) listed in the Notifications Contact List (see Section 10.0).
- **Notification to BOEM and NJHPO following Site Visit:** Atlantic Shores' Archaeologist will examine/review the finds and provide additional information to BOEM and NJHPO. The additional information will either:
    - Explain why the Archaeologist believes the resource is not significant with respect to the S/NRHP; or
    - Explain why the Archaeologist believes the resource to be potentially significant with respect to the S/NRHP and propose a Site-Specific Treatment Plan for evaluating the significance of the resource and evaluating Onshore Facilities-related impacts to it. Atlantic Shores anticipates that the proposed Site-Specific Treatment Plan would provide a basis for initiating consultation with BOEM, NJHPO, and applicable Consulting Parties (see Section 10.0). Atlantic Shores and BOEM, in consultation with the NJHPO and Consulting Parties, as necessary, will discuss options and develop a plan for the treatment of unanticipated significant discoveries.
- **Site Specific Treatment Plan:** Atlantic Shores will submit the Site-Specific Treatment Plan to BOEM,NJHPO, and other Consulting Parties identified through BOEM's Section 106 consultations within one week of notification to BOEM following the identification of a potentially S/NRHP significant resource. If the proposed mitigation measures within the Site Specific Treatment Plan can reasonably be conducted concurrently with ongoing Onshore Facilities construction, the submission to BOEM and NJHPO will be accompanied by a request to resume construction in the area of the discovery.

- **Written Authorization to Proceed:** Proposed mitigation measures will not proceed until Atlantic Shores receives written authorization, following consultation with BOEM, NJHPO, and applicable Consulting Parties. Atlantic Shores will notify BOEM and NJHPO at the completion of all mitigation measures. If construction has been halted during mitigation, Atlantic Shores will also request authorization from BOEM and NJHPO to resume construction at the conclusion of mitigation.
- **Summary Report:** Atlantic Shores will submit a summary report describing the results of the Site Specific Treatment Plan's mitigation measures to BOEM within a reasonable timeframe from the completion of mitigation fieldwork. The time required to complete the Summary Report may vary depending on the specific circumstances and the nature of any significant archaeological properties subject to mitigation. Atlantic Shores anticipates that reporting of most mitigation activities would be completed within six months of the conclusion of field investigations. All such reporting would be completed within one year of the conclusion of field investigations unless otherwise agreed in writing among Atlantic Shores, BOEM, and NJHPO. Atlantic Shores shall ensure that all archaeological or human remains-related encounters and their handling are reported in the status reports summarizing construction activities.
- **Phase III Report:** If archaeological data recovery is conducted, a full Phase III report will be submitted to BOEM, NJHPO, consulting Native American Tribes, and other Consulting Parties identified through BOEM's Section 106 consultations based on a schedule to be established as part of review of the Site-Specific Treatment Plan.

9.2 Human Remains Protocol

Should potential human remains, evidence of human burials, and/or funerary objects be encountered during the conduct of archeological fieldwork or during construction, all work in the vicinity of the find shall be halted until further notice for the remains to be protected from further disturbance. Atlantic Shores will immediately contact BOEM, NJHPO, the county coroner/medical examiner, local law enforcement, and all Consulting Parties identified herein. The potential remains/funerary objects will be treated with respect, left in situ by all on site personnel, and

protected from further disturbance. All such remains will be secured and protected pending completion of the notification and consultation procedures described below. If human remains or funerary objects are determined to be Native American, a treatment plan will be developed in consultation with the BOEM and the appropriate Tribal Nations, consistent with established protocols and guidance. This will include the Advisory Council on Historic Preservation's (ACHP) "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (ACHP, 2007; Attachment A) and may be modified based on information gathered through engagement with consulting Tribal Nations.

The ACHP human remains policy requires temporary suspension of activity in the vicinity of the discovery, protection of discovered remains, notification of NJHPO and Native American representatives, and consultation regarding treatment of remains. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological. A decision concerning avoidance or hand excavation of the burial and final disposition of the remains shall be made by BOEM in consultation with the Consulting Parties and consistent with all applicable state statutes and regulations.

If obviously non-human (i.e., animal) skeletal remains are discovered, the procedures outlined in Section 9.1 of this Protocol will be followed. The following protocol for dealing with skeletal remains will be followed during any circumstances in which any possible human skeletal remains are identified during construction activities ("skeletal remains" is defined as any articulated or disarticulated bones or teeth).

- **Respect Human Remains:** It is crucial that all human remains (or possible human remains) be treated with the utmost respect and dignity.
- **Unanticipated Discovery Involving Possible Human Skeletal Remains:** Any member of the construction team who believes an unanticipated discovery involving possible human skeletal remains has occurred is required to stop work in the immediate vicinity of the discovery and notify the Compliance Manager.

- **Plan of Action:** Human remains and associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- **Area of Discovery:** If Atlantic Shores believes that possible human skeletal remains have been discovered, they will immediately stop all work within 100 feet of the discovery location until it is confirmed that construction may resume. The area of the discovery will immediately be protected and secured by (at a minimum) the installation of flagging tape and/or construction fencing delineating the discovery location. The area will be regarded as off-limits but will not be identified publicly as an archaeological site or the location of skeletal remains in order to protect the resource via discretion and confidentiality. Vehicles and equipment may be allowed to pass through the area surrounding the discovery, if necessary; however, such movement will be minimized, and no vehicles or equipment will be permitted within the delineated area around the discovery. No additional work or examination will occur until the county coroner and local law enforcement have arrived on the scene and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature).
- **Notification Upon Discovery:** Upon the discovery of potential human remains, Atlantic Shores will immediately notify BOEM, NJHPO, the appropriate Native American Nations, Atlantic Shores' Archaeologist, the coroner, and local law enforcement listed in the Notifications Contact List (see Section 10.0), via telephone and email. The Archaeologist will examine the remains as soon as possible, make a preliminary assessment of their nature (i.e., if they are human or non-human), and immediately notify the parties listed above of the results of the preliminary assessment.
- **Examination of Skeletal Remains:** As soon as possible following the discovery, law enforcement personnel and the Archaeologist will examine the skeletal remains at the site and determine if they are human.
- **Determination of Animal Remains:** If the remains are determined to be animal (i.e., non-human), the Archaeologist will assess whether they occur in an archaeological context.

Additionally, if the remains are determined to be animal, Atlantic Shores will immediately notify the parties listed the Notifications Contact List (see Section 10.0) that no human remains were identified.

- **Determination of Animal Remains in an Archaeological Context:** If the remains are non-human and are determined to occur in an archaeological context, the procedures outlined in Section 9.1 of this Protocol will be followed.
- **Determination of Animal Remains without Archaeological Context:** If the remains are non-human and the Archaeologist determines no archaeological resource is present, they will immediately advise the Compliance Manager. Atlantic Shores will consult with BOEM and NJHPO to request that construction may resume at the discovery site. The Archaeologist will prepare and submit a letter including photographs of the (non-) discovery site to Atlantic Shores within a reasonable timeframe.
- **Determination of Human Remains:** If local law enforcement and/or the Archaeologist determines the remains are human, the county coroner, BOEM, NJHPO, and appropriate Native American Nations will be notified immediately (see Section 10.0). No additional work or examination will occur until the county coroner and local law enforcement have arrived on the scene and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature). If the coroner or law enforcement rules the remains to be archaeological in nature, Atlantic Shores will prepare a Site-Specific Treatment Plan (see Section 9.1).
- **Determination of Native American Human Remains:** If the human remains are determined to be archaeological and if the Archaeologist identifies them as Native American in origin, the remains will be left in place and protected from further removal or disturbance until the feasibility of their avoidance by further disturbance can be assessed in consultation with BOEM, appropriate Native American Nations, and NJHPO. Note that Atlantic Shores understands that avoidance is preferred by the NJHPO and the Native American Nations (see ACHP, 2007).
- **Determination of non-Native American Human Remains:** If human remains are determined to be archaeological but non-Native American, they will be left in place and

protected until a Site-Specific Treatment Plan for avoidance or removal is developed through consultation with BOEM, NJHPO, and the corresponding County Medical Examiner's Office (see Section 9.1, below).

- **Site-Specific Treatment Plan – Special Consideration:** The Site-Specific Treatment Plan will give special consideration to the presence of human remains. Proposals will also include provisions for evaluating the area for the presence of additional graves.

10.0 NOTIFICATIONS CONTACT LIST

Atlantic Shores Kyle Hilberg Project Developer 281-544-9084 Kyle.Hilberg@atlanticshoreswind.com	**Compliance Manager** TO BE DETERMINED
Cultural Resources Consultant/ Archaeologist Daniel Forrest Environmental Design and Research 860-367-5754 dforrest@edrdpc.com	**New Jersey Historic Preservation Office (NJHPO)** Jesse West-Rosenthal Historic Preservation Specialist 2 609-984-6019 Jesse.West-Rosenthal@dep.nj.gov
Bureau of Ocean and Energy Management (BOEM) Confirm Contact	**Lenape Indian Tribe of Delaware** Chief Dennis J. Coker lenapedelaware@comcast.net 4164 North DuPont Highway Suite 6 Dover, DE 19901
Shinnecock Indian Nation Jeremy Dennis and Josephine Smith The Shinnecock Indian Nation P.O. Box 5006, 100 Church Street Southampton, NY 11969 631-566-0486 jeremynative@gmail.com JosephineSmith@Shinnecock.org	**Mashpee Wampanoag Tribe** David Weeden Tribal Historic Preservation Officer 483 Great Neck Road, South Mashpee, MA 02649 774-327-0068 david.weeden@mwtribe-nsn.gov
Unkechaug Indian Nation Chief Harry Wallace 207 Poospatuck Ln Mastic, NY11950-5201 hwal1@aol.com (631) 395-1618	**Nanticoke Lenni-Lenape Tribal Nation** Principal Chief Mark "Quiet Hawk" Gould 75 Westcott Station Road Bridgeton, NJ 08302 TribalCouncil@NLLTribe.com (609) 693-1900
Ramapough Lenape Nation Joseph Hamilton Chairman	**Powhatan Renape Nation** Rankokus Indian Reservation PO Box 225

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Wampanoag Tribe of Gay Head (Aquinnah) Bettina Washington Tribal Historic Preservation Officer 20 Black Brook Road Aquinnah, MA 02535-1546 508-560-9014 thpo@wampanoagtribe-nsn.gov	**Delaware Tribe of Indians** Susan Bachor Deputy THPO Delaware Tribe Historic Preservation Pennsylvania Office P.O. Box 64 Pocono Lake, PA 18347 570-422-2023 sbachor@delawaretribe.org
Narragansett Indian Tribe John Brown III Tribal Historic Preservation Officer P.O. Box 268 Charlestown, RI 02813 401-491-9459 tashtesook@aol.com	**Absentee-Shawnee Tribe of Indians of Oklahoma** Devon Frazier Tribal Historic Preservation Officer (THPO) Absentee-Shawnee Tribe of Indians of Oklahoma 2025 S. Gordon Cooper Drive Shawnee, OK 74801 dfrazier@astribe.com 106NAGPRA@astribe.com
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The Delaware Nation Carissa Speck Historic Preservation Director The Delaware Nation 310064 US Highway 281, Building 100 PO Box 825, Anadarko, OK 73005 405-247-2488 Ext. 1403 cspeck@delawarenation-nsn.gov	**Pamunkey Indian Tribe** Shaleigh Howells Cultural Resource Director Pamunkey Indian Tribe 1054 Pocahontas Trail King William, VA 23086 Shaleigh.howells@pamunkey.org
Chickahominy Indian Tribe	**Chickahominy Indians Eastern Division**

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The Upper Mattaponi Indian Tribe Leigh Mitchell Environmental and Cultural Protection Director Upper Mattaponi Indian Tribe 13476 King William Road King William, VA 23086 environment@umitribe.org	**Rappahannock Indian Tribe** Chief Anne Richardson Rappahannock Tribal Center 5036 Indian Neck Road Indian Neck, VA 23148 arichardson@rappahannocktribe.org marion@culturalheritagepartners.com
Nansemond Indian Nation Earl L. Bass Chief Nansemond Indian Nation 1001 Pembroke Lane Suffolk, VA 23434 contact@nansemond.org	**Monacan Indian Nation** Kenneth Branham Tribal Chief Monacan Indian Nation 111 Highview Drive Madison Heights, VA 24572 chiefbranham@aol.com
Stockbridge-Munsee Community Band of Mohican Indians Jeff Bendremer, PhD, MA, RPA THPO Stockbridge-Munsee Community Band of Mohican Indians 86 Spring Street Williamstown, MA 01267 thpo@mohican-nsn.gov	
Southern Region Medical Examiner Office (Atlantic County) Woodbine Developmental Center 1175 DeHirsch Avenue Woodbine, NJ 08270-2401 609-861-3355 (Phone) (609) 909-7200 (24-hour line)	**Law Enforcement Agency (Atlantic County)** Atlantic County Sherriff Eric Scheffler 4997 Unami Boulevard Mays Landing, NJ 08330 609-909-7200 (Main Office 609-909-7292 (Fax)
Office of the Medical Examiner (Monmouth County)	**Law Enforcement Agency (Monmouth County)** Monmouth County Sherriff

Office of the Medical Examiner 1490 Livingston Avenue North Brunswick, NJ 08902 732-745-3190 (Phone) 732-745-3491 (Fax)	Shaun Golden 2500 Kozloski Road Freehold, NJ 07728 732-431-6400 (Main Office)

REFERENCES

Advisory Council on Historic Preservation (ACHP). 2007. Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects. ACHP, Washington, DC.

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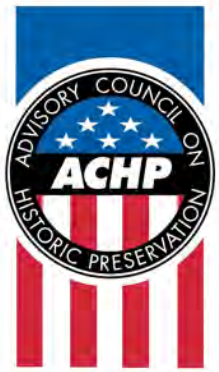
Attachment A
Human Remains Protocols and Guidance



Preserving America s Heritage

ADVISORY COUNCIL ON HISTORIC PRESERVATION

POLICY STATEMENT REGARDING TREATMENT OF BURIAL SITES, HUMAN REMAINS AND FUNERARY OBJECTS

Preamble: This policy offers leadership in resolving how to treat burial sites, human remains, and funerary objects in a respectful and sensitive manner while acknowledging public interest in the past. As such, this policy is designed to guide federal agencies in making decisions about the identification and treatment of burial sites, human remains, and funerary objects encountered in the Section 106 process, in those instances where federal or state law **does not prescribe a course of action**.

This policy applies to all federal agencies with undertakings that are subject to review under Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. § 470f), and its implementing regulations (36 CFR Part 800). To be considered under Section 106, the burial site must be or be a part of a historic property, meaning that it is listed, or eligible for listing, in the National Register of Historic Places.

The Advisory Council on Historic Preservation (ACHP) encourages federal agencies to apply this policy throughout the Section 106 process, including during the identification of those historic properties. In order to identify historic properties, federal agencies must assess the historic significance of burial sites and apply the National Register criteria to determine whether a property is eligible. Burial sites may have several possible areas of significance, such as those that relate to religious and cultural significance, as well as those that relate to scientific significance that can provide important information about the past. This policy does not proscribe any area of significance for burial sites and recognizes that the assessment must be completed on a case-by-case basis through consultation.

The policy is not bound by geography, ethnicity, nationality, or religious belief, but applies to the treatment of all burial sites, human remains, and funerary objects encountered in the Section 106 process, as the treatment and disposition of these sites, remains, and objects are a human rights concern shared by all.

This policy also recognizes the unique legal relationship between the federal government and tribal governments as set forth in the Constitution of the United States, treaties, statutes and court decisions, and acknowledges that, frequently, the remains encountered in Section 106 review are of significance to Indian tribes.

Section 106 requires agencies to seek agreement with consulting parties on measures to avoid, minimize, or mitigate adverse effects to historic properties. Accordingly, and consistent with Section 106, this policy does not recommend a specific outcome from the consultation process. Rather, it focuses on issues and perspectives that federal agencies ought to consider when making their Section 106 decisions. In many cases, federal agencies will be bound by other applicable federal, tribal, state, or local laws that do

prescribe a specific outcome, such as the Native American Graves Protection and Repatriation Act (NAGPRA). The federal agency must identify and follow applicable laws and implement any prescribed outcomes.

For undertakings on federal and tribal land that encounter Native American or Native Hawaiian human remains and funerary objects, NAGPRA applies. NHPA and NAGPRA are separate and distinct laws, with separate and distinct implementing regulations and categories of parties that must be consulted.[1] Compliance with one of these laws does not mean or equal compliance with the other. Implementation of this policy and its principles does not, in any way, change, modify, detract or add to NAGPRA or other applicable laws.

Principles: When burial sites, human remains, or funerary objects will be or are likely to be encountered in the course of Section 106 review, a federal agency should adhere to the following principles:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws**.**

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

[1] The ACHP's publication *Consulting with Indian Tribes in the Section 106 Process* and the National Association of Tribal Historic Preservation Officers' publication *Tribal Consultation: Best Practices in Historic Preservation* provide additional guidance on this matter.

DISCUSSION:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Because the presence of human remains and funerary objects gives a historic property special importance as a burial site or cemetery, federal agencies need to consider fully the values associated with such sites. When working with human remains, the federal agency should maintain an appropriate deference for the dead and the funerary objects associated with them, and demonstrate respect for the customs and beliefs of those who may be descended from them.

Through consultation with descendants, culturally affiliated groups, descendant communities, and other parties, federal agencies should discuss and reach agreement on what constitutes respectful treatment.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Consultation is the hallmark of the Section 106 process. Federal agencies must make a "reasonable and good faith" effort to identify consulting parties and begin consultation early in project planning, after the federal agency determines it has an undertaking and prior to making decisions about project design, location, or scope.

The NHPA, the ACHP's regulations, and Presidential Executive Orders set out basic steps, standards, and criteria in the consultation process, including:

- Federal agencies have an obligation to seek out all consulting parties [36 CFR § 800.2(a)(4)], including the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO) [36 CFR § 800.3(c)].

- Federal agencies must acknowledge the sovereign status of Indian tribes [36 CFR § 800.2(c)(2)(ii)]. Federal agencies are required to consult with Indian tribes on a government-to-government basis in recognition of the unique legal relationship between federal and tribal governments, as set forth in the Constitution of the United States, treaties, statutes, court decisions, and executive orders and memoranda.

- Consultation on a government-to-government level with Indian tribes cannot be delegated to non-federal entities, such as applicants and contractors.

- Federal agencies should solicit tribal views in a manner that is sensitive to the governmental structures of the tribes, recognizing their desire to keep certain kinds of information confidential, and that tribal lines of communication may argue for federal agencies to provide extra time for the exchange of information.

- Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion on the National Register [16 U.S.C. § 470a(d)(6)(A)], and federal agencies must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to such historic properties [16 U.S.C. § 470a(d)(6)(B) and 36 CFR § 800.2(c)(2)(ii)(D)].

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

This principle reiterates existing legal requirements found in federal law, regulation and executive orders, and is consistent with positions that the ACHP has taken over the years to facilitate enfranchisement and promote broad participation in the Section 106 process. Federal agencies must consult with Indian tribes on a government-to-government basis because they are sovereign nations.

Indian tribes and Native Hawaiian organizations bring a special perspective on how a property possesses religious and cultural significance to them. Accordingly, federal agencies should utilize their expertise about, and religious and cultural connection to, burial sites, human remains, and associated funerary objects to inform decision-making in the Section 106 process.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

As a matter of practice, federal agencies should avoid impacting burial sites, human remains, and funerary objects as they carry out their undertakings. If impact to the burial site can be avoided, this policy does not compel federal agencies to remove human remains or funerary objects just so they can be documented.

As this policy advocates, federal agencies should always plan to avoid burial sites, human remains, and funerary objects altogether. When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should minimize disturbance to such sites, remains, and objects. Accordingly, removal of human remains or funerary objects should occur only when other alternatives have been considered and rejected.

When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should then consider any active steps it may take to preserve the burial site in place, perhaps through the intentional covering of the affected area, placement of markers, or granting of restrictive or other legal protections. In many cases, preservation in place may mean that, to the extent allowed by law, the locations of burial sites, human remains, and funerary objects should not be disclosed publicly. Alternatively and consistent with the Section 106 regulations [36 CFR § 800.5(a)(2)(vi)], natural deterioration of the remains may be the acceptable or preferred outcome of the consultation process.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

When the federal agency decides that human remains or funerary objects must be disturbed, they should be removed respectfully and dealt with according to the plan developed by the federal agency in consultation. "Careful" disinterment means that those doing the work should have, or be supervised by people having, appropriate expertise in techniques for recognizing and disinterring human remains.

This policy does not endorse any specific treatment. However, federal agencies must make a reasonable and good faith effort to seek agreement through consultation before making its decision about how human remains and/or funerary objects shall be treated.

The plan for the disinterment and treatment of human remains and/or funerary objects should be negotiated by the federal agency during consultation on a case-by-case basis. However, the plan should provide for an accurate accounting of federal implementation. Depending on agreements reached through the Section 106 consultation process, disinterment may or may not include field recordation. In some instances, such recordation may be so abhorrent to consulting parties that the federal agency may decide it is inappropriate to carry it out. When dealing with Indian tribes, the federal agency must comply with its legal responsibilities regarding tribal consultation, including government-to-government and trust responsibilities, before concluding that human remains or funerary objects must be disinterred.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws.

Federal agencies are responsible for making final decisions in the Section 106 process [36 CFR § 800.2(a)]. The consultation and documentation that are appropriate and necessary to inform and support federal agency decisions in the Section 106 process are set forth in the ACHP's regulations [36 CFR Part 800].

Other laws, however, may affect federal decision-making regarding the treatment of burial sites human remains, and funerary objects. Undertakings located on federal or tribal lands, for example, are subject to the provisions of NAGPRA and the Archaeological Resources Protection Act (ARPA). When burial sites, human remains, or funerary objects are encountered on state and private lands, federal agencies must identify and follow state law when it applies. Section 106 agreement documents should take into account the requirements of any of these applicable laws.

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Encountering burial sites, human remains, or funerary objects during the initial efforts to identify historic properties is not unheard of. Accordingly, the federal agency must determine the scope of the identification effort in consultation with the SHPO/THPO, Indian tribes and Native Hawaiian

organizations, and others before any archaeological testing has begun [36 CFR § 800.4(a)] to ensure the full consideration of avoidance of impact to burial sites, human remains, and funerary objects.

The ACHP's regulations provide federal agencies with the preferred option of reaching an agreement ahead of time to govern the actions to be taken when historic properties are discovered during the implementation of an undertaking. In the absence of prior planning, when the undertaking has been approved and construction has begun, the ACHP's post-review discovery provision [36 CFR § 800.13] requires the federal agency to carry out several actions:

(1) make reasonable efforts to avoid, minimize, or mitigate adverse effects to such discovered historic properties;
(2) notify consulting parties (including Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to the affected property) and the ACHP within 48 hours of the agency's proposed course of action;
(3) take into account the recommendations received; and then
(4) carry out appropriate actions.

NAGPRA prescribes a specific course of action when Native American and Native Hawaiian human remains and funerary objects are discovered on federal or tribal lands in the absence of a plan—cessation of the activity, protection of the material, notification of various parties, consultation on a course of action and its implementation, and then continuation of the activity. However, adherence to the plan under Principle 5 would cause new discoveries to be considered "intentional excavations" under NAGPRA because a plan has already been developed, and can be immediately implemented. Agencies then could avoid the otherwise mandated 30 day cessation of work for "inadvertent discoveries."

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

Under the ACHP's regulations, "descendants" are not identified as consulting parties by right. However, federal agencies shall consult with Indian tribes and Native Hawaiian organizations that attach religious and cultural significance to burial sites, human remains and associated funerary objects, and be cognizant of their expertise in, and religious and cultural connection to, them. In addition, federal agencies should recognize a biological or cultural relationship and invite that individual or community to be a consulting party [36 CFR § 800.3(f)(3)].

When federal or state law does not direct disposition of human remains or funerary objects, or when there is disagreement among claimants, the process set out in NAGPRA may be instructive. In NAGPRA, the "ownership or control" of human remains and associated funerary objects lies with the following in descending order: specific lineal descendants; then tribe on whose tribal lands the items were discovered; then tribe with the closest cultural affiliation; and then tribe aboriginally occupying the land, or with the closest "cultural relationship" to the material.

Definitions Used for the Principles

- **Burial Site**: Any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which as a part of the death rite or ceremony of a culture, individual human remains are deposited [25 U.S.C. 3001.2(1)].
- **Consultation:** The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 review process [36 CFR § 800.16(f)].
- **Consulting parties:** Persons or groups the federal agency consults with during the Section 106 process. They may include the State Historic Preservation Officer; the Tribal Historic Preservation Officer; Indian tribes and Native Hawaiian organizations; representatives of local governments; applicants for federal assistance, permits, licenses, and other approvals; and/or any additional consulting parties [based on 36 CFR § 800.2(c)]. Additional consulting parties may include individuals and organizations with a demonstrated interest in the undertaking due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties [36 CFR § 800.2(c)(6)].
- **Disturbance:** Disturbance of burial sites that are listed in or eligible for listing in the National Register of Historic Places will constitute an adverse effect under Section 106. An adverse effect occurs when "an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, setting, materials, workmanship, feeling, or association" [36 CFR § 800.5(a)(1)].
- **Federal land:** Lands under a federal agency's control. Mere federal funding or permitting of a project does not turn an otherwise non-federal land into federal land (see *Abenaki Nation of Mississquoi* v. *Hughes*, 805 F. Supp. 234 (D. Vt. 1992), aff'd, 990 F. 2d 729 (2d Cir. 1993) (where the court found that a Clean Water Act permit issued by the US Army Corps of Engineers did not place the relevant land under federal "control" for NAGPRA purposes).
- **Funerary objects:** "items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains" [25 U.S.C. 3001(3)(B)].
- **Historic property:** "Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. It includes artifacts, records, and remains that are related to and located within such properties, and it includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register of Historic Places criteria" [36 CFR § 800.16(1)].
- **Human remains:** The physical remains of a human body. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets [see 43 CFR § 10.2(d)(1)].
- **Indian Tribe**: "An Indian tribe, band, nation, or other organized group or community, including a Native village, Regional Corporation or Village Corporation, as those terms are defined in Section 3 of the Alaska Native Claims Settlement Act [43 U.S.C. 1602], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians" [36 CFR § 800.16(m)].
- **Native American:** Of, or relating to, a tribe, people, or culture that is indigenous to the United States [25 U.S.C. 3001 (9)]. Of, or relating to, a tribe, people, or culture indigenous to the Unites States, including Alaska and Hawaii [43 CFR 10.2(d)].

- **Native Hawaiian:** Any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the state of Hawaii [36 CFR § 800.16(s)(2)].
- **Native Hawaiian Organization:** Any organization which serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of historic preservation that are significant to Native Hawaiians [36 CFR § 800.16(s)].
- **Policy statement:** A formal statement, endorsed by the full ACHP membership, representing the membership's collective thinking about what to consider in reaching decisions about select issues, in this case, human remains and funerary objects encountered in undertakings on federal, tribal, state, or private lands. Such statements do not have the binding force of law.
- **Preservation in place:** Taking active steps to ensure the preservation of a property.
- **Protection of Historic Properties**: Regulations [36 CFR Part 800] implementing Section 106 of the National Historic Preservation Act.
- **Section 106**: That part of the National Historic Preservation Act which establishes a federal responsibility to take into account the effects of undertakings on historic properties and to provide the Advisory Council on Historic Preservation a reasonable opportunity to comment with regard to such action.
- **State Historic Preservation Officer:** The official appointed or designated pursuant to Section 101(b)(1) of NHPA to administer the state historic preservation program.
- **Tribal Historic Preservation Officer**: The official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d)(2) of NHPA.
- **Treatment:** Under Section 106, "treatments" are measures developed and implemented through Section 106 agreement documents to avoid, minimize, or mitigate adverse effects to historic properties.

Acronyms Used for the Policy Statement
- **ACHP**: Advisory Council on Historic Preservation.
- **ARPA**: Archaeological Resources Protection Act [16 U.S.C. 470aa-mm].
- **NHPA**: National Historic Preservation Act [16 U.S.C. § 470f].
- **NAGPRA**: The Native American Graves Protection and Repatriation Act [25 U.S.C. 3001 et seq].
- **SHPO**: State Historic Preservation Officer
- **THPO**: Tribal Historic Preservation Officer

[The members of the Advisory Council on Historic Preservation unanimously adopted this policy on February 23, 2007]

Attachment B
Representative Archaeological Artifacts and Features

Photo 1

Native American projectile point example

Photo 2

Native American projectile point example

Photo 3

Native American worked stone tool example

Photo 4

Native American worked stone tool example

Photo 5

Native American worked stone tool example

Photo 6

Native American worked stone tool example

Photo 7

Native American pottery fragments

Photo 8

Native American pottery fragments

Photo 9

A midden is a widespread layer of archaeological material. This is a Native American shell midden

Photo 10

A midden of mostly bottle glass

Photo 11

A cellar feature, defined by the distinct soil color change

Photo 12

Remains of a house foundation

Photo 13

Ceramics

Photo 14

Ceramics, in context

Photo 15

Historical nails and metal

Photo 16

Glass bottles

Photo 17

Large mammal bone, in context

Photo 18

Bone and shell artifacts

ATTACHMENT 6 – HISTORIC PROPERTY TREATMENT PLAN FOR ANCIENT SUBMERGED LANDFORM FEATURES

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Ancient Submerged Landform Features

Outer Continental Shelf, New Jersey State and Federal Waters

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Project	
Location:	Outer Continental Shelf, Offshore New Jersey and New York	
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation	
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Absentee-Shawnee Tribe of Indian of Oklahoma	Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act	
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.	
Potential Adverse Effect Finding for:	Ancient Submerged Landform Features (ASLFs) Outer Continental Shelf, New Jersey State and Federal Waters	
Submitted By:	Atlantic Shores Offshore Wind, LLC	
Date:	April 2023	

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ASLF	Ancient Submerged Landform
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
ECC	Export Cable Corridors
EDR	Environmental Design and Research, D.P.C.
FGDC	Federal Geographic Data Committee
HPTP	Historic Property Treatment Plan
HRG	High-Resolution Geophysical
MARA	Marine Archaeological Resources Assessment
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
QMA	Qualified Marine Archaeologist
RFP	Request for Proposals
ROD	Record of Decision
TCG	Transgressive Channel Group
TCP	Traditional Cultural Property
TEK	Traditional Ecological Knowledge
USCG	United States Coast Guard
WTA	Wind Turbine Area
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Project (the Project) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Ancient Submerged Landform Features (ASLF) provides background data, physical descriptions, and detailed mitigation actions that will be implemented to resolve adverse effects preliminarily identified by the applicant in the *Marine Archaeological Resources Assessment (*MARA), dated February 2022 (SEARCH, 2022), located in Appendix II-Q1 of the Construction and Operations Plan (COP) for the Atlantic Shores Offshore Wind Project. Atlantic Shores Offshore Wind LLC (Atlantic Shores) is providing this draft HPTP prior to the Bureau of Ocean Energy Management (BOEM) making findings of adverse effect for the Undertaking under the National Historic Preservation Act (NHPA), and finalization of this draft HPTP remains subject to BOEM's final finding of adverse effect for the Historic Property.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), , the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Project will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP, identifies the historic properties discussed in this HPTP that will be adversely affected by the Undertaking, and summarizes the pertinent provisions and attachments of the MARA (SEARCH, 2022)

- **Section 3.0, Historic Properties – Significance and Effects**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity; describes the potential visual effect of the Project on the property.

- **Section 4.0, Mitigation Measures,** proposes conceptual measures to conduct the applicant-proposed mitigation actions identified in the COP or alternative measures developed through stakeholder engagement meetings to date. The mitigation action includes a detailed description, intended outcome, methods, standards, requirements for documentation, and reporting instructions. The mitigation action details may be revised pursuant to ongoing discussions with consulting parties.

- **Section 5.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 4.0 of this HPTP. For each/the action, organizational responsibilities are outlined, a timeline is provided, and regulatory reviews are listed.

- **Section 6.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Project

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Project will be located in Lease Area OCS-A 0499, which is 8102,124 acres (413.3 square kilometers [km^2]) in area (see Figure 1). Lease Area OCS-A 0499 is located south of and is adjacent to Atlantic Shores' Lease Area OCS-A 0549. At its closest point, the Lease Area is approximately 8.7 miles (mi) (14 kilometers [km]) from the New Jersey coastline. The facilities to be installed within the Lease Area will include:

- a maximum of 200 wind turbine generators (WTGs);
- up to 10 small, 5 medium, or 4 large offshore substations (OSSs);
- inter-array and/or inter-link cables connecting the WTGs and OSSs;
- up to one permanent meteorological (met) tower; and
- four temporary meteorological and oceanographic (metocean) buoys

The Lease Area layout is designed to maximize offshore renewable wind energy production while minimizing effects on existing marine uses. The structures will be aligned in a uniform grid with multiple lines of orientation allowing straight transit through the Lease Area. Given the proximity to and shared border between the two Atlantic Shores lease areas, the layouts of both lease areas form a continuous regular grid. In developing the layout, existing vessel traffic patterns and feedback from agencies and stakeholders (including the U.S. Coast Guard [USCG] and commercial and recreational fishers) were considered.

Within the Lease Area, the WTGs and OSSs will be connected by two separate, electrically distinct systems of inter-array cables and/or inter-link cables. Energy from the OSSs will be delivered to shore by buried export cables that will travel within designated Export Cable Corridors (ECCs) from the Lease Area through Federal as well as New Jersey State waters to landfall sites on the New Jersey coastline.

The Monmouth ECC extends from south to north along the eastern side of the Lease Area. It then continues north prior to turning west to a terminus and potential landfall site in southern Monmouth County, New Jersey (Monmouth Landfall). The total length of the Monmouth ECC associated with the Project from the Lease Area to the furthest potential landfall location is approximately 342 mi (550 km).

The Atlantic ECC extends from east to west from the westernmost portion of the Lease Area. It continues west to a terminus and potential landfall site in Atlantic City, New Jersey (Atlantic Landfall). The total length of the Atlantic ECC associated with the project from the Lease Area to the furthest potential landfall location is approximately 99 mi (160 km).

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

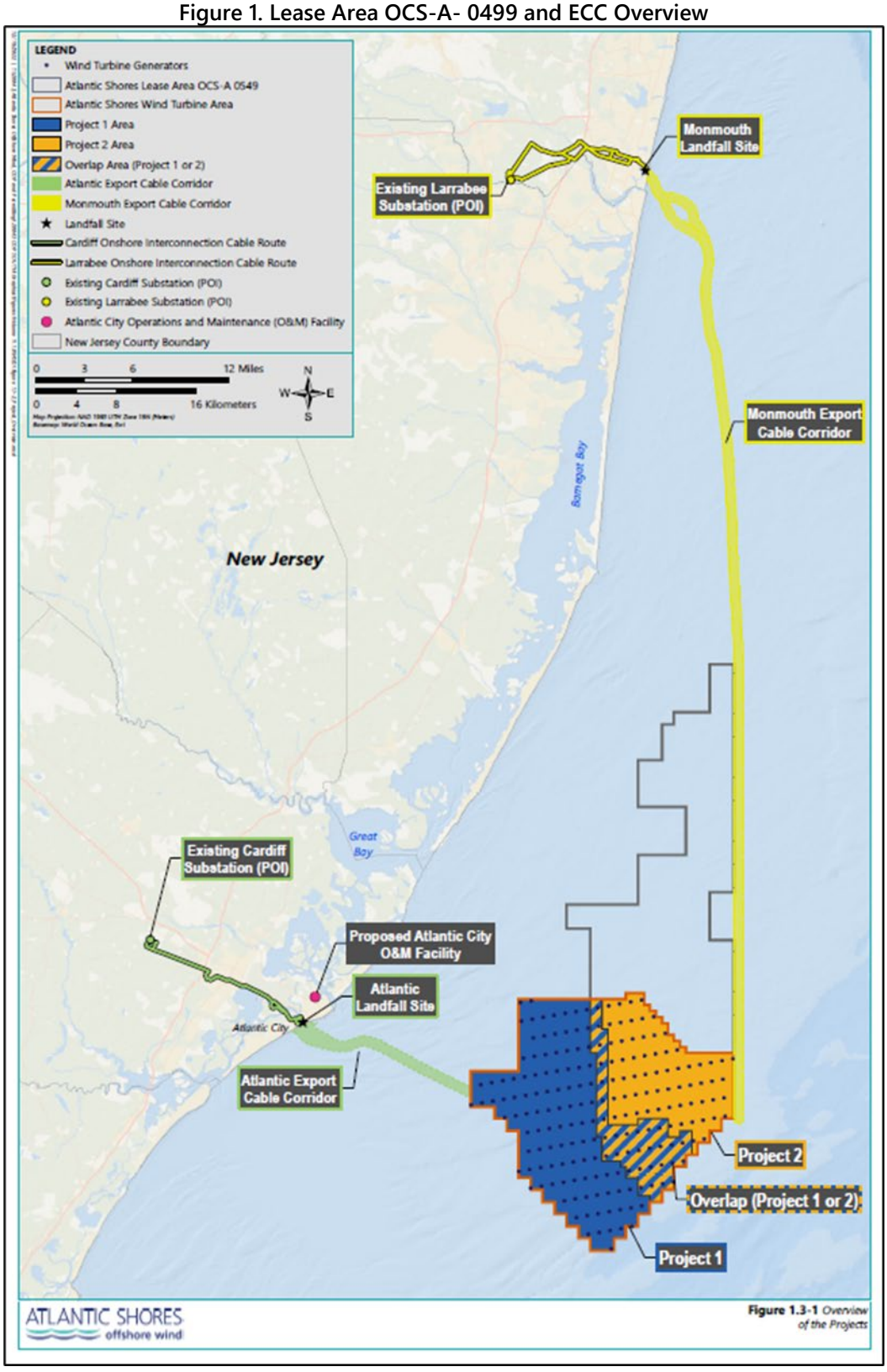
Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the NRHP, or is a NHL. Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.3 Summary of HPTP Development

The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

Figure 1. Lease Area OCS-A- 0499 and ECC Overview



3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

The physical descriptions of each ASLF included in this HPTP (see Sections 3.2.1 through 3.2., below) are reproduced from the MARA (SEARCH, 2022; COP Appendix II-Q1), which contains more detailed mapping and imagery of each ASLF. The physical descriptions herein are followed by a collective narrative summarizing the historic context (Section 3.3), and a collective assessment of applicable NRHP criteria and Potential Adverse Physical Effects (Section 3.4).

3.2 Descriptions and Physical Conditions of Historic Properties

This HPTP describes proposed mitigation measures for 37 ASLFs identified within Lease Area OCS-A 0499 (Section 3.2.1), the Monmouth ECC (3.2.2), and the Atlantic ECC (Section 3.2.3),).

3.2.1 Lease Area OCS-A 0499

The 15 ASLFs identified within Lease Area OCS-A 0499 are summarized in Table 3.2-1 and described in the subsections below.

Table 3.2-1. ASLFs identified in Lease Area OCS-A 0499

Name	Seabed Impact Area	State	Ownership	Feature Description
ASLF Target 40	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margins and eroded surfaces; The eastern major fluvial complex within the PAPE.
ASLF Target 45	OCS-A 0499	N/A	Federal Waters	Intact margin deposits along the right side of the channel; Most likely the northern portion of Target 48
ASLF Target 46	OCS-A 0499	N/A	Federal Waters	Main channel and its banks
ASLF Target 47	OCS-A 0499	N/A	Federal Waters	Channels shape, migration and infill; most likely the southern expansion of Target 46
ASLF Target 48	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margins; The western major fluvial system within the PAPE
ASLF Target 49	OCS-A 0499	N/A	Federal Waters	Major younger channel body with buried margins downcutting an older fluvial system ;
ASLF Target 50	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by an intact margin
ASLF Target 51	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts with variable basal reflectors; Most likely a major tributary of the western channel complex
ASLF Target 52	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits

Name	Seabed Impact Area	State	Ownership	Feature Description
ASLF Target 53	OCS-A 0499	N/A	Federal Waters	A channel with lateral migration and an intact bank on the right side
ASLF Target 54	OCS-A 0499	N/A	Federal Waters	Multiple channel generations downcutting into one another, with buried margins
ASLF Target 55	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 56	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits and related smaller channels
ASLF Target 57	OCS-A 0499	N/A	Federal Waters	A channel characterized by a deeper and shallow downcutting event; Intact margins with an additional channel or lagoonal feature on the left bank
ASLF Target 58	OCS-A 0499	N/A	Federal Waters	Multiple channel cuts separated by intact margins

3.2.1.1 Target 40

Target 40 represents a discontinuous portion of the late Pleistocene paleochannels present within the Monmouth ECC and Lease Area OCS-A 0499 as part of the Transgressive Channel Group (TCG). This target represents a complex of partially preserved and buried channels and margin deposits moving from the Wind Turbine Area (WTA) and cutting across the ECC. Covering approximately 3875.60 ha (9,576.82 ac), the acoustic imagery of Target 40 depicts multiple channel cuts separated by intact margin deposits and eroded surfaces. Target 40 is the eastern major fluvial complex within the PAPE. The acoustic reflector extends to a maximum depth of 23.8 m (78.1 ft) below seabed (bsb). It is 7,547.9 m (24,763.4 ft) at its widest point. The extent of near channel and channel margin reflectors is representative of partially preserved ancient, submerged landforms. Approximately 29% (1,136.91 ha [2,809.37 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 26 % (993.54 ha [2,455.09 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.2 Target 45

Target 45 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a buried channel cutting within the WTA. Covering approximately 103.4 ha (255.5 ac), the acoustic imagery of Target 45 depicts intact margin deposits along the right side of the channel. Target 45 was likely a northern portion of Target 48. The acoustic reflector extends to a maximum depth of 10.2 m (33.5 ft) bsb and is 1,225.7 m (4,021.3 ft) at its widest point. Approximately 37% (38.39 ha [94.88 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 3 % (3.52 ha [8.69 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.3 Target 46

Target 46 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499as part of the TCG. This target represents a well incised buried channel cutting within the WTA. Covering approximately 133.2 ha (329.0 ac), the acoustic imagery of Target 46 depicts the main channel and its banks. The acoustic reflector extends to a maximum depth of 13.6 m (44.6 ft) bsb and is 1,717.3 m (5,634.2 ft) at its widest point. Approximately 45% (60.51 ha [149.53 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 43 % (57.15 ha [141.23 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.4 Target 47

Target 47 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target is a well-incised channel within the WTA. Covering approximately 163.17 ha (403.19 ac), the acoustic imagery of Target 47 depicts the channels shape, migration and infill. Target 47 is likely the southern extension of Target 46 and would have fed into Target 48. The acoustic reflector extends to a maximum depth of 12.8 m (42.0 ft) bsb and is 1,468.22 m (4,816.9 ft) at its widest point Approximately 33% (54.33 ha [134.26 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 18 % (32.18 ha [79.52 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.5 Target 48

Target 48 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels cutting within the WTA. Covering approximately 879.42 ha (2,173.10 ac), the acoustic imagery of Target 48 depicts multiple channel cuts separated by intact margin deposits. Target 48 represents a portion of the major western fluvial system. The acoustic reflector extends to a maximum depth of 11.9 m (39.0 ft) bsb and is 4,815.2 m (15,797.9 ft) at its widest point. Approximately 43% (377.0 ha [931.59 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 33 % (286.49 ha [707.92 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.6 Target 49

Target 49 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a young channel downcutting into an older fluvial system within the WTA. Covering approximately 276.71 ha (683.76 ac), the acoustic imagery of Target 49 depicts the major younger channel body, preserved margins, and older channel base and migration. Target 49 is the western major fluvial system within the WTA. The acoustic reflector extends to a maximum depth of 14.5 m (47.6 ft) bsb and is 3,565.0 m (11,696.2 ft) at its widest point. Approximately 40% (109.77 ha [271.24 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 39 % (106.89 ha [264.14 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.7 Target 50

Target 50 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels cutting within the WTA which may have originally been one major channel. Covering approximately 353.4 ha (873.3 ac), the acoustic imagery of Target 50 depicts the multiple channel cuts separated by an intact margin deposit. The acoustic reflector extends to a maximum depth of 10.2 m (33.5 ft) bsb and is 3,048.5 m (10,001.6 ft) at its widest point. Approximately 28% (97.96 ha [242.06 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 25 % (89.42 ha [220.96 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.8 Target 51

Target 51 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels cutting within the WTA. Covering approximately 611.7 ha (1,511.5 ac), the acoustic imagery of Target 51 depicts multiple channel cuts with variable basal reflectors. This fluvial pathway likely represents a major tributary of the western channel complex. The acoustic reflector extends to a maximum depth of 17.0 m (55.8 ft) bsb and is 5,602.9 m (18,382.1 ft) at its widest point. Approximately 26% (159.53 ha [394.21 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 12 % (76.11 ha [188.08 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.9 Target 52

Target 52 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels cutting within the WTA. Covering approximately 333.69 ha (824.57 ac), the acoustic imagery of Target 52 depicts multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 17.9 m (58.7 ft) bsb and is 5,685.0 m (18,651.5 ft) at its widest point. Figure 4.51-2 depicts the extent of near channel and channel margin reflectors. Approximately 2% (5.78 ha [14.29 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 0.4 % (1.7 ha [3.11 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.10 Target 53

Target 53 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a buried channel within the WTA. Covering approximately 93.2 ha (230.3 ac), the acoustic imagery of Target 53 depicts a channel with lateral migration and an intact bank (right side of channel). The acoustic reflector extends to a maximum depth of 14.5 m (47.6 ft) bsb,and is 1,806.6 m (5,927.1 ft) at its widest point. Approximately 25% (23.21 ha [57.36 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 18.58 % (17.31 ha [42.78 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.11 Target 54

Target 54 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels within the WTA and likely the southeastern most extent of one of the major fluvial systems in the PAPE. Covering approximately 143.2 ha (354.0 ac), the acoustic imagery of Target 54 depicts multiple channel generations downcutting into one another with preserved margins. The acoustic reflector extends to a maximum depth of 8.5 m (27.9 ft) bsb and is 2,479.9 m (8,136.1 ft) at its widest point. Approximately 51% (72.62 ha [179.44 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 5 % (7.07 ha [17.48 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.12 Target 55

Target 55 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels within the WTA. Covering approximately 125.9 ha (311.0 ac), the acoustic imagery of Target 55 depicts multiple channel cuts separated by intact margin deposits. The main basal reflector depicted is likely a tributary of the western major fluvial system, and evidence minimal terracing on the right bank. The acoustic reflector extends to a maximum depth of 8.5 m (27.9 ft) bsb and is 2,232.9 m (7,325.8 ft) at its widest point. Approximately 55% (69.79 ha [172.46 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE and 34 % (43.11 ha [106.53 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.13 Target 56

Target 56 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels within the WTA. Covering approximately 250.8 ha (619.6 ac), the acoustic imagery of Target 56 depicts multiple channel cuts separated by intact margin deposits and related smaller channels. Target 56 resides between the two major fluvial networks present in the WTA and likely represents minor tributaries of these systems. The acoustic reflector extends to a maximum depth of 7.7 m (25.3 ft) bsb and is 3,470.0 m (11,384.5 ft) at its widest point. Approximately 39% (97.88 ha [241.87 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 28% (69.88 ha [172.68 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.14 Target 57

Target 57 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a buried channel with preserved margins within the WTA. Covering approximately 145.6 ha (359.8 ac), the acoustic imagery of Target 57 depicts a channel characterized by a deeper and shallow downcutting event. The associated banks and margins appear intact on either side with an additional channel or lagoonal feature on the left bank. The acoustic reflector extends to a maximum depth of 10.2 m (33.5 ft) bsb and is 2,220.9 m (7,286.4 ft) at its widest point. Approximately 34% (49.43 ha [122.15 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 24% (34.75 ha [85.88 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.1.15 Target 58

Target 58 represents a discontinuous portion of the late Pleistocene paleochannels present within Lease Area OCS-A 0499 as part of the TCG. This target represents a series of buried channels with preserved margins and interfluves within the WTA. Covering approximately 194.0 ha (479.5 ac), the acoustic imagery of Target 58 depicts multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 11.9 m (39.0 ft) bsb and is 2,265.9 m (7,434.0 ft) at its widest point. Approximately 27% (53.28 ha [131.66 ac]) of the near channel and margin deposits are present within the 5.0 m (16 ft) vertical PAPE, and 19% (37.08 ha [91.62 ac]) are within the 3.0 m (9.8 ft) vertical PAPE.

3.2.2 Monmouth ECC

The 16 ASLFs identified within the Monmouth ECC are summarized in Table 3.2-2 and described in the subsections below.

Table 3.2-2. ASLFs identified in the Monmouth ECC

Name	Seabed Impact Area	State	Ownership	Feature Description
ASLF Target 22	Monmouth ECC	New Jersey	State Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 23	Monmouth ECC	New Jersey	State Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 24	Monmouth ECC	New Jersey	State Waters	Meandering portions of buried channels and intact margins
ASLF Target 25	Monmouth ECC	New Jersey	State Waters	Three channel cuts separated by intact margins
ASLF Target 26	Monmouth ECC	New Jersey	State and Federal Waters	Series of preserved and buried channels with intact margins
ASLF Target 27	Monmouth ECC	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 28	Monmouth ECC	N/A	Federal Waters	Series of preserved channels and intact margins
ASLF Target 29	Monmouth ECC	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 30	Monmouth ECC	N/A	Federal Waters	Multiple channel cuts separated by intact margin deposits
ASLF Target 31	Monmouth ECC	N/A	Federal Waters	Three channel cuts separated by intact margins and eroded surfaces
ASLF Target 32	Monmouth ECC	N/A	Federal Waters	One channel downcut with intact margins
ASLF Target 33	Monmouth ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces
ASLF Target 34	Monmouth ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces
ASLF Target 35	Monmouth ECC	N/A	Federal Waters	Localized system of two channel cuts with intact margins and eroded surfaces

Name	Seabed Impact Area	State	Ownership	Feature Description
ASLF Target 36	Monmouth ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces
ASLF Target 37	Monmouth ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces
ASLF Target 38	Monmouth ECC	N/A	Federal Waters	Three channel cuts separated by intact margins
ASLF Target 39	Monmouth ECC	N/A	Federal Waters	Three channel cuts separated by intact margins and eroded surfaces

3.2.2.1 Target 22

Target 22 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) Transgressive Channel Group (TCG). It covers approximately 79.8 ha (197.3 ac), and the acoustic imagery of Target 22 depicts multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.9 m (16.1 ft) below seabed (bsb). It is 958.1 m (3,143.4 ft) at its widest point. These features cover approximately 33.1 ha (81.8 ac) of the ECC horizontal PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) and 3 m (5 ft) vertical ECC PAPE.

3.2.2.2 Target 23

Target 23 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. It covers approximately 79.7 ha (196.9 ac), and the acoustic imagery of Target 23 depicts multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.9 m (16.1 ft) bsb. It is 586.7 m (1,924.9 ft) at its widest point. These features cover approximately 35.0 ha (86.6 ac) of the ECC horizontal PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) vertical ECC PAPE. Approximately 99% (34.6 ha [85.5 ac]) are within the 3 m (10 ft) vertical ECC PAPE.

3.2.2.3 Target 24

Target 24 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. The target represents a meandering section of buried channels cutting across the ECC. It covers approximately 180.0 ha (444.7 ac), and the acoustic imagery of Target 24 depicts two channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.0 m (13.1 ft) bsb. It is 1,121.9 m (3,680.8 ft) at its widest point. These features cover approximately 56.0 ha (138.3 ac) of the ECC horizontal PAPE. Each of the near-channel and margin deposits is within the 5 m vertical ECC PAPE. Approximately 93% (52.2 ha [128.9 ac]) are within the 3 m (10 ft) vertical ECC PAPE.

3.2.2.4 Target 25

Target 25 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. Covering approximately 46.8 ha (115.6 ac), Target 25 consists of three channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.0 m (13.1 ft) bsb. It is 615.4 m (2,019.0 ft) at its widest point. These features cover approximately 9.8 ha (24.3 ac) of the ECC horizontal PAPE. Each of the near channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.5 Target 26

Target 26 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of partially preserved and buried channels cutting across the ECC. Covering approximately 324.4 ha (801.5 ac), Target 26 consists of multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.9 m (16.0 ft) bsb. It is 1,186.6 m (3,893.0 ft) at its widest point. These features cover approximately 68.7 ha (169.8 ac) of the ECC horizontal PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) vertical ECC PAPE. Approximately 95% (65.1 ha [160.8 ac]) are within the 3 m (10 ft) vertical ECC PAPE.

3.2.2.6 Target 27

Target 27 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of buried channels cutting across the ECC. Covering approximately 181.4 ha (448.2 ac), Target 27 consists of multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 3.2 m (10.7 ft) bsb. These features cover approximately 49.9 ha (123.4 ac) of the ECC horizontal PAPE. Each of the near channel and margin deposits is within the 5 m (16 ft) vertical ECC PAPE. Approximately 99% (49.4 ha [122.0 ac]) are within the 3 m (10 ft) vertical ECC PAPE.

3.2.2.7 Target 28

Target 28 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of buried channels cutting across the ECC. Covering approximately 163.4 ha (403.8 ac), Target 28 depicts a single channel cut with intact margin deposits. The acoustic reflector extends to a maximum depth of 2.5 m (8.2 ft) bsb. These features cover approximately 43.8 ha (108.3 ac) of the horizontal ECC PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.8 Target 29

Target 29 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of buried channels cutting across the ECC. Covering approximately 54.7 ha (135.12 ac),

Target 29 consists of multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.0 m (13.1 ft) bsb. It is 1,251.0 m (4,104.3 ft) at its widest point. These features cover approximately 10.1 ha (24.9 ac) of the horizontal ECC PAPE. Each of the near channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.9 Target 30

Target 30 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of buried channels and margin deposits cutting across the ECC. Covering approximately 150.5 ha (372.0 ac), Target 30 consists of multiple channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 4.0 m (13.1 ft) bsb. It is 1,169.0 m (3,835.3 ft) at its widest point. These features cover approximately 41.6 ha (102.8 ac) of the horizontal ECC PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.10 Target 31

Target 31 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents buried channels and margin deposits cutting across the ECC. Covering approximately 37.7 ha (93.2 ac), Target 31 consists of three channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 3.2 m (10.7 ft) bsb. It is 520.6 m (1,708.0 ft) at its widest point. These features cover approximately 12.6 ha (31.3 ac) of the horizontal ECC PAPE. Each of the near channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.11 Target 32

Target 32 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a single buried channel and margin deposits cutting across the ECC. Covering approximately 19.4 ha (48.0 ac), Target 32 consists of one channel cut and the neighboring margin deposits. The acoustic reflector extends to a maximum depth of 3.2 m (10.7 ft) bsb. It is 221.5 m (726.7 ft) at its widest point. These features cover approximately 9.3 ha (23.1 ac) of the horizontal ECC PAPE. Each of the near channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.12 Target 33

Target 33 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a series of buried channels and margin deposits cutting across the ECC. Covering approximately 83.2 ha (205.6 ac), Target 33 consists of four channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 2.5 m (8.2 ft) bsb. It is 765.1 m (2,510.2 ft) at its widest point. These features cover approximately 21.9 ha (54.2 ac) of the horizontal ECC PAPE. Each

of the near-channel and margin deposits is within the 5 m (16 ft) vertical ECC PAPE. Approximately 86% (18.8 ha [46.6 ac]) are within the 3 m (10 ft) vertical ECC PAPE.

3.2.2.13 Target 34

Target 34 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents numerous buried channels and margin deposits cutting across the ECC. Covering approximately 73.2 ha (181.0 ac), Target 34 consists of a series of channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 4.0 m (13.2 ft) bsb. It is 1,144.8 m (3,755.9 ft) at its widest point. These features cover approximately 23.8 ha (58.9 ac) of the horizontal ECC PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.14 Target 35

Target 35 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a localized system of buried channels and margin deposits cutting across the ECC. Covering approximately 34.9 ha (86.2 ac), Target 35 consists of two channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 4.8 m (15.7 ft) bsb. It is 745.4 m (2,445.5 ft) at its widest point. These features cover approximately 10.7 ha (26.5 ac) of the horizontal ECC PAPE. Each of the near-channel and margin deposits is within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.15 Target 36

Target 36 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a system of buried channels and margin deposits cutting across the ECC. Covering approximately 101.3 ha (250.2 ac), the acoustic imagery of Target 36 depicts a series of channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 4.0 m (13.1 ft) bsb. It is 1,182.1 m (3,878.3 ft) at its widest point. These features cover approximately 32.9 ha (81.4 ac) of the horizontal ECC PAPE. All of the near channel and margin deposits are within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.16 Target 37

Target 37 represents a discontinuous portion of the late-Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a localized system of buried channels and margin deposits cutting across the ECC. The feature covers 31.4 ha (77.6 ac), and the acoustic imagery of Target 37 depicts a series of channel cuts separated by intact margin deposits and eroded surfaces. The reflector extends to a maximum depth of 1.6 m (5.2 ft) bsb. It is 518.0 m (1,699.5 ft) at its widest point. These features cover 11.4 ha (28.3 ac) of the horizonal ECC

PAPE. All of the near channel and margin deposits are within the 5 m (16 ft) and 3 m (10 ft) vertical ECC PAPE.

3.2.2.17 Target 38

Target 38 represents a discontinuous portion of the late Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a complex of buried channels and margin deposits cutting across the ECC. Covering approximately 69.9 ha (172.8 ac), the acoustic imagery of Target 38 depicts three channel cuts separated by intact margin deposits. The acoustic reflector extends to a maximum depth of 5.6 m (18.5 ft) bsb. It is 808.1 m (2,651.2 ft) at its widest point. These features cover approximately 33.8 ha (83.6 ac) of the horizontal ECC PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) and 3.0 m (9.8 ft) vertical ECC PAPE.

3.2.2.18 Target 39

Target 39 represents a discontinuous portion of the late Pleistocene paleochannels present within the Monmouth ECC as part of the Late Pleistocene and Early Holocene (28,000-7,400 cal. BP) TCG. This target represents a complex of buried channels and margin deposits cutting across the ECC. Covering approximately 91.9 ha (227.1 ac), the acoustic imagery of Target 39 depicts three channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 5.6 m (18.4 ft) bsb. It is 1,509.8 m (4,953.4 ft) at its widest point. These features cover approximately 28.0 ha (69.1 ac) of the horizontal ECC PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) and 3.0 m (9.8 ft) vertical ECC PAPE.

3.2.3 Atlantic ECC

The four ASLFs identified within the Atlantic ECC are summarized in Table 3.2-3 and described in the subsections below.

Table 3.2-3. ASLFs identified in the Atlantic ECC

Name	Seabed Impact Area	State	Ownership	Feature Description
ASLF Target 41	Atlantic ECC	New Jersey	State Waters	Two channel cuts separated by intact margins and eroded surfaces
ASLF Target 42	Atlantic ECC	New Jersey	State Waters	Two channel cuts separated by intact margins and eroded surfaces
ASLF Target 43	Atlantic ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces
ASLF Target 44	Atlantic ECC	N/A	Federal Waters	Series of channel cuts separated by intact margins and eroded surfaces

3.2.3.1 Target 41

Target 41 represents a discontinuous portion of the late Pleistocene paleochannels present within the Atlantic ECC as part of the TCG. This target represents a localized system of preserved and buried channels and margin deposits cutting across the edge of the ECC. Covering approximately 10.4 ha (25.8 ac), the acoustic imagery of Target 41 depicts two channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 1.6 m (5.3 ft) bsb. It is 302.3 m (991.8 ft) at its widest point. These features cover approximately 1.9 ha (4.7 ac) of the horizontal PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) and 3.0 m (9.8 ft) vertical ECC PAPE.

3.2.3.2 Target 42

Target 42 represents a discontinuous portion of the late Pleistocene paleochannels present within the Atlantic ECC as part of the TCG. This target represents a pair of buried channels and margin deposits cutting into the southern edge of the ECC. Covering approximately 31.3 ha (77.2 ac), the acoustic imagery of Target 42 depicts two channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 2.5 m (8.2 ft) bsb. It is 528.6 m (1,734.2 ft) at its widest point. These features cover approximately 8.2 ha (20.3 ac) of the horizontal PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) vertical ECC PAPE. Approximately 56% (4.6 ha [11.5 ac]) are within the 3.0 m (9.8 ft) vertical ECC PAPE.

3.2.3.3 Target 43

Target 43 represents a discontinuous portion of the late Pleistocene paleochannels present within the Atlantic ECC as part of the TCG. This target represents a complex of buried channels and margin deposits cutting into the southern edge of the ECC. Covering approximately 131.8 ha (325.7 ac), the acoustic imagery of Target 43 depicts a series of channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 4.9 m (16.0 ft) bsb. It is 1,919.5 m (6,297.6 ft) at its widest point. These features cover approximately 59.5 ha (147.1 ac) of the horizontal ECC PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) vertical ECC PAPE. Approximately 96% (57.4 ha [141.8 ac]) are within the 3.0 m (9.8 ft) vertical ECC PAPE.

3.2.3.4 Target 44

Target 44 a discontinuous portion of the late Pleistocene paleochannels present within the Atlantic ECC as part of the TCG. This target represents a complex of partially preserved and buried channels and margin deposits cutting across the ECC. Covering approximately 184.7 ha (456.4 ac), the acoustic imagery of Target 44 depicts a series of channel cuts separated by intact margin deposits and eroded surfaces. The acoustic reflector extends to a maximum depth of 3.2 m (10.7 ft) bsb. It is 2,553.9 m (8,378.9 ft) at its widest point. The extent of near channel and channel margin reflectors is representative of partially preserved ancient, submerged landforms. These features cover approximately 59.5 ha (147.0 ac) of the horizontal ECC PAPE. All of the near channel and margin deposits are within the 5.0 m (16 ft) and 3.0 m (9.8 ft) vertical ECC PAPE.

3.3 Historic Context

Based on high-resolution geophysical (HRG) data, sedimentological and organic sample data taken from vibracores for the MARA analyses (RCGA, 2021; SEARCH, 2022) and detailed reconstructions of the paleolandscapes within the PAPE, the sediments within the offshore facilities are associated with late to terminal Pleistocene and early Holocene era (c. 28,000-7,400 cal. BP) terrestrial, fluvial, and estuarine landscapes. These landscapes likely consisted of a mix of inland open grasslands, a spruce and hardwood forest without any apparent modern analogs, and coastal grassy wetlands such as tidal marshes. The potential indigenous use of the preserved landforms would likely have been restricted to a period roughly correlating with the archaeologically defined Paleoindian Period (ca. >14,500-10,000 BP).

Interpretations suggest that the ASLFs are associated with stable landforms on the margin of a large deep channel-like features that could have supported indigenous occupation or other activities. No direct evidence of human use at these locations have been recovered, but the setting of each is consistent with terrestrial locations used by indigenous peoples in the northeastern U.S. after 13,000 cal. BP. Radiocarbon dating of samples collected from the Holocene-Late Pleistocene transgressive channel sequence date from approximately 12,000-7,400 BP [redacted]. Although direct evidence of indigenous settlements on the post-glacial OCS landscapes is currently lacking, paleoenvironmental reconstructions suggest that ASLF Targets 22-58 are the type of location where evidence of occupations might be expected. Reported Paleoindian site locations occur in a wide range of environmental settings, including estuary and channel margins comparable to those inferred at the ASLFs.

It is important to note that extraordinarily little is known about potential coastal adaptations during this time period. The submerged continental shelf contains the vast majority of coastal habitats that would have been available to people living in the region more than 12,000 years ago. Practical and technological challenges have limited the range of surveys that might yield direct evidence of now-submerged coastal sites. Where terminal Pleistocene or very early Holocene coastal sites have been identified elsewhere in North America, those sites have yielded different types of stone tools than typically associated with Paleoindian sites in the Northeast. As such, it is plausible that archaeological expressions of Pleistocene coastal occupations in the Northeast may look quite different than their counterparts in the interior sections (now on the mainland).

[redacted]

3.4 NRHP Criteria and Assessment of Potential Adverse Physical Effects

Atlantic Shores identified 37 ASLFs in the Lease Area, Monmouth ECC and Atlantic ECC through interpretation of HRG and seismic data. Previous research and consultation between BOEM and New England federally recognized tribes have reviewed ASLFs that are generally similar to the ASLFs identified by Atlantic Shores. These consultations have determined that previously identified ASLFs on the Atlantic OCS are Traditional Cultural Properties (TCPs) that are eligible for the NRHP (BOEM 2021, 2022). These findings therefore suggest that ASLFs may be eligible for listing in the NRHP.

Beyond their potential to contain significant archaeological information of pre-contact activities and ancient Native American populations on the now-submerged OCS, ASLFs may represent culturally significant TCPs to federally recognized tribes. The National Park Service defines a TCP as "one that is eligible for inclusion in the national Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (Parker and King 1998:1).

The proposed undertaking, including the construction and installation of infrastructure, supporting activities such as anchoring and spudding, and installation of protective measure, such as scour protections, may have a physical effect on ASLFs if they cannot be avoided. Such effects may disturb the integrity of materials, spatial relationships, and features within any potential archaeological deposits. Additionally, while the existing submerged contexts of the identified ASLFs is notably different from the landscape setting present during periods of potential Native American occupation or use, the proposed infrastructure could diminish the integrity of feeling and association of any NRHP-eligible TCPs. Based on the above observations, impact avoidance measures and/or mitigation measures to identified ASLFs is recommended.

As part of avoidance and minimization planning for the identified ASLFs, Atlantic Shores and the Qualified Marine Archaeologists reviewed all potential construction activities in the vicinity. Atlantic Shores is evaluating measures to avoid or minimize seabed disturbance within the identified boundaries of the ASLFs. Because those evaluations are on-going and Atlantic Shores cannot currently commit to avoidance of all ASLFs, this HPTP has been developed to present mitigation measures to address the potential impacts associated with the current Project design. Physical disturbance of the ASLFs could diminish their capacity to yield important new information about ancient indigenous coastal adaptations and may also diminish the integrity of the landform's association with ancient submerged indigenous cultural landscapes significant to the traditional beliefs and practices of the consulting Tribes.

4.0 MITIGATION MEASURES

The proposed mitigation measures described herein were developed on behalf of Atlantic Shores by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Project. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

Atlantic Shores has prepared this draft HPTP for inclusion in the DEIS and subsequent review, revision and refinement by consulting parties.

4.1 Postconstruction ASLF Investigation

4.1.1 Purpose and Intended Outcome

This mitigation measure will consist of the use of postconstruction export cable burial survey data, supplemental analyses by QMAs, and identification through consultations with Native American Tribes of targeted areas warranting additional inspections and/or documentation. Areas targeted for any supplemental documentation will be confined to specific sections of ASLFs that are physically disturbed by installation of the export cable in Federal waters and are determined to have a high preservation potential for archaeological deposits. For the purposes of this mitigation measure, areas of high preservation potential are defined as those portions of the ASLFs with an elevated likelihood of containing macroscopic cultural materials, including but not limited to chipped stone tools, flakes, modified wooden implements, and bone.

The QMAs will conduct additional analyses of geophysical survey data to support consultations among BOEM, NJHPO, Atlantic Shores, Native American Tribes, and other potential consulting parties. The QMAs will prepare a technical report summarizing the methods and results of these supplemental analyses and delineating area/s of high preservation potential. The technical report will be distributed amongst the aforementioned parties in advance of consultation to determine which (if any) portions of the potentially affected ASLFs warrant any additional surveys, inspections, or documentation.

Consultations regarding the selection of targeted areas for supplemental survey and documentation will be conducted subsequent to the execution of the MOA amongst BOEM, NJHPO, Atlantic Shores, Native American Tribes, and other potential consulting parties following installation of the export cables. This information will be used to inform future marine archaeology resource assessments conducted on the OCS and associated preservation efforts.

4.1.2 Scope of Work

The scope of work will consist of:

- QMA review and analysis of geophysical data to identify areas of high preservation potential.

- Preparation of a draft technical report outlining the methods and findings of the analysis for BOEM review.
- Distribution of the technical report to Participating Parties.
- A consultation meeting among the Participating Parties to review the findings and recommendation in the technical report, and to select targeted areas (if any) appropriate for subsequent surveys, inspections, or documentation.
- Execution of appropriate surveys, inspections, and/or documentation utilizing one or more of the proposed methods outlined in Section 4.1.4.
- Analysis and reporting of the results of any supplemental surveys/inspections conducted as a result of the postconstruction analyses and consultations.
- Public and/or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Native American Tribes.

4.1.3 Standards

The project will comply with the following standards:

- Any subsequent surveys, inspections, or documentation efforts will be conducted in accordance with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (May 2020). The qualified professional archaeologists leading the research will meet the SOI professional qualification standards for archeology (62 FR 33708) and BOEM's standards for Qualified Marine Archaeologists.

4.1.4 Methodology

Atlantic Shores will perform a post-construction survey along the cables following installation as described in Section 4.5.9 of COP Volume I. If areas of high preservation potential are identified within potentially affected ASLFs, the selection of targeted areas for supplemental surveys, inspections, and/or documentation will be a collaborative effort with the Participating Parties. The selection of methods used for any additional supplemental surveys, inspections, and/or documentation is expected to be the subject of future consultation and tailored to the targeted areas identified at the time.

4.1.5 Documentation

A technical report will be prepared to present the analyses and results of the post construction survey and any subsequent investigations, as necessary. The QMA will note the seafloor conditions (visibility), environmental conditions (e.g., sandy, mud, shell hash bottom), sea state, and how much time has passed since the construction/installation activities have concluded in the area of the ASLFs. Figures will be included showing the location of the export cables in relation to the ASLFs and should include both horizontal and vertical penetration into the ASLF. The Figures will include the location of sites and artifacts (if any) identified as a result of any survey, inspection, and/or documentation effort. Any records such as dive times, dive logs, and/or other data will be provided as appendices. If sites are identified in state-owned waters, a copy of the notification to the state, a copy of the site file, and the site trinomial will be provided as part of the technical report.

An invitation will be extended to consulting Native American Tribes to incorporate Traditional Ecological Knowledge (TEK) to the interpretations of the technical report, including the participation of traditional knowledge-holders in report drafting. Sharing of TEK and the incorporation of traditional knowledge in the report interpretations will be at the discretion of each of the consulting Tribes. Atlantic Shores will consider the Tribes' comments and suggestions when preparing the technical report and will seek to resolve any disagreements among the parties through supplemental consultations prior to finalizing the reports. Public and/or professional presentations summarizing the results of the investigations may developed with the consent of the consulting Native American Tribes.

Final digital copies of the completed reports will be provided to all Participating Parties. Hard copies of the final reports will be submitted to the Participating Parties or other parties upon request.

4.2 Open-Source GIS, Story Maps, and Animations

4.2.1 *Purpose and Intended Outcome*

This mitigation measure will consist of the compilation and transfer of relevant geophysical, geotechnical, and geoarchaeological datasets pertaining to the ASLF to a non-proprietary GIS system for use by Native American Tribes. The datasets will include subbottom (seismic) data used to characterize the seabed and ASLF features, the location of all geotechnical/geoarchaeological samples collected, and the vertical and horizontal extents of the affected features or sub-features within each ASLF. The GIS will be, to the extent feasible and practicable, compatible with GIS datasets compiled for other OCS projects to assist in the Tribes' on-going research and stewardship efforts. Story Maps or equivalent digital media presentations will be prepared to integrate and present the complex technical data compiled during the MARA and mitigation investigations in a manner best-suited for inter- and intra-tribal audiences. Story Map content would be developed in close consultation and collaboration with the consulting Native American tribes.

Incorporation of Atlantic Shores datasets into a broader GIS framework will allow the Tribes to better understand and protect preserved elements of the ancient submerged landscapes of traditional cultural significance. The value of the GIS will increase as additional datasets are acquired and incorporated. Access to the GIS will support each Tribes' capacity to pursue their own research or intra-tribal educational programs related to the OCS and traditional cultural uses of the now-submerged landscapes of their ancestors. The combined MARA and Preconstruction Geotechnical Sampling investigations will provide an important perspective on the preservation of submerged TCPs within formerly glaciated sections of the OCS and within the footprint of former inland grassland biomes. Integrated GIS that can accommodate datasets collected from other OCS development projects and surveys would allow for comparisons to areas south of the maximum glacial limits on the OCS to provide a more comprehensive view of the ancient landscapes within the region. Atlantic Shores will provide reasonable compensation to Tribal representatives working with Atlantic Shores on implementation of this measure. Story Maps created within the GIS will provide a flexible approach to incorporating media from a variety of sources, including geospatial data, interviews with traditional knowledge-holders, photographs, audio recordings, and archival cartography for a compelling interpretive experience. Based on requests received from some consulting on Tribes on similar

offshore wind projects, Story Maps may also include links to animated renderings prepared by Atlantic Shores of ancient landscapes to better illustrate the evolution of the OCS through time. Story Maps can be tailored for specific tribal audiences and uses and would be developed in consultation with the consulting Tribes.

4.2.2 *Scope of Work*

The scope of work will consist of:

- Consultation with the Tribes to determine the appropriate open-source GIS platform.
- Review of candidate datasets and attributes for inclusion in the GIS.
- Review of potential animated content suitable for the Tribes' intended uses and audiences.
- Data integration.
- Development of custom reports or queries to assist in future research or tribal maintenance of the GIS.
- Work Sessions with Tribes to develop Story Map content, incorporating TEK.
- Training session with Tribes to review GIS functionality.
- Review of Draft Story Maps with Tribes.
- Delivery of GIS to Tribes.
- Delivery of Final Story Maps.

4.2.3 *Methodology*

Atlantic Shores will develop the GIS in consultation with the Participating Parties. At least one work session will be scheduled to refine specific functionality of interest to the Tribes. That session will be conducted after the preliminary data analyses for the Preconstruction Geotechnical Sampling effort has been completed. This will allow for a more focused walk-through of the data and options for organizing and integrating different datasets. Atlantic Shores will request from the Tribes details on any existing open-source GIS systems currently in use by each Tribe to minimize any issues with data integration or interoperability. Once the work session has been conducted, Atlantic Shores will proceed with development of the GIS, considering the Tribes' comments and suggestions. The draft GIS system will be shared with the Tribes in a training session that presents the functions of the GIS and familiarizes the tribal representatives with the interfaces, data organization, and any custom features developed to enhance useability. Atlantic Shores will consider any feedback from the Tribes on the draft GIS before proceeding with finalizing the system design and implementation. Atlantic Shores will provide the GIS to the Tribes by physical storage media or as a secure digital file transfer, as appropriate to each Tribes IT infrastructure and preference.

Story Map content will be developed with the consulting Tribes through one or more scheduled work sessions. Potential options for content intended for youth audiences, tribal governments, and/or general tribal membership will be discussed to refine the conceptual framework and develop draft Story Maps for review by the Tribes. Atlantic Shores will consider all comments and feedback provided by the Tribes when preparing the final Story Maps.

4.2.4 *Standards*

The project will comply with following standards:

- The GIS developed under this measure will be free to use and free to modify by the Tribes. To the extent feasible, all data will be provided in formats that allow for interoperability with other GIS platforms that the Tribes may use. All datasets incorporated in the GIS will comply with Federal Geographic Data Committee (FGDC) data and metadata standards.

4.2.5 *Documentation*

Atlantic Shores will provide draft descriptions and documentation of the GIS for review by the Participating Parties and will provide a description of the draft Story Maps to the consulting Tribes following the initial working sessions.

Documentation includes:

- Draft Description of the GIS with appropriate schema, data organization, and custom reports/queries.
- Draft Story Map descriptions with details on content, formatting, and intended audiences.
- Final Technical Description of the GIS with schema, data organization, and custom reports/queries.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified in Section 4.0, if applicable;
- Managing funding and implementing the mitigation measures as specified in Section 4.0, if applicable;
- Completion of the Scope/s of Work in Section 4.0, if applicable;
- Ensuring the Methodology is followed as specified in Section 4.0, if applicable;
- Ensuring all Standards in Section 4.0 are met, if applicable;
- Providing documentation in Section 4.0 to the participating parties for review and comment, if applicable;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Atlantic Shores does not anticipate additional consulting parties, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT 7 – MITIGATION FUNDING AMOUNTS

[Tentative]

ATTACHMENT 8 – HISTORIC PROPERTY TREATMENT PLAN FOR THE RITZ CARLTON HOTEL, THE RIVIERA APARTMENTS, CENTRAL PIER, BRIGHTON PARK, AND THE ATLANTIC CITY BOARDWALK HISTORIC DISTRICT IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

The Ritz Carlton Hotel
The Riviera Apartments
Central Pier
Brighton Park
The Atlantic City Boardwalk Historic District
Atlantic City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	The Ritz Carlton Hotel, Atlantic City, Atlantic County, New Jersey The Riviera Apartments, Atlantic City, Atlantic County, New Jersey Central Pier, Atlantic City, Atlantic County, New Jersey Brighton Park, Atlantic City, Atlantic County, New Jersey The Atlantic City Boardwalk Historic District, Atlantic City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for The Ritz Carlton Hotel, the Riviera Apartments, Central Pier, Brighton Park, and the Atlantic City Boardwalk Historic District, in Atlantic City, Atlantic County, New Jersey, which have been determined to be or are recommended to be eligible for listing on the National Register of Historic Places (NRHP); (hereinafter, the Historic Properties) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

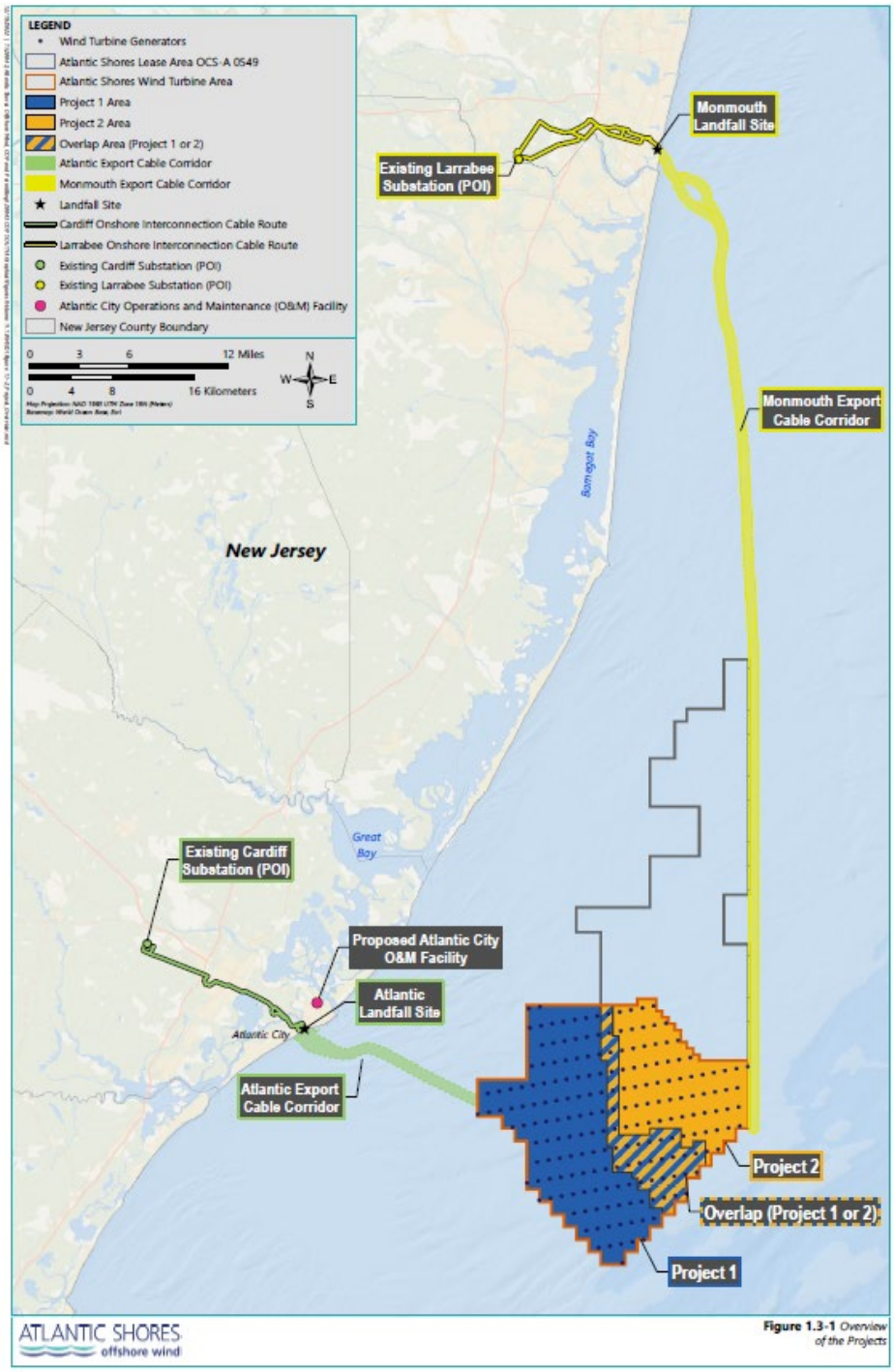

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
11	Ritz Carlton Hotel	2715 Boardwalk	NRHP-Eligible (NJHPO-Determined)	Private
115	Riviera Apartments	116 S. Raleigh Avenue	NRHP-Eligible (NJHPO-Determined)	Private
119	Central Pier	1400 Boardwalk	NRHP-Eligible (NJHPO-Determined)	Private
18	Brighton Park	1801 Boardwalk	NRHP-Eligible as a contributing element to the Atlantic City Boardwalk Historic District (EDR-Recommended)	City of Atlantic City
24	Atlantic City Boardwalk Historic District	Boardwalk roughly bounded by S. Georgia Avenue to the southwest and Garden Pier to the northeast	NRHP-Eligible (NJHPO-Determined)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessments.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects.

These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Atlantic City

Atlantic City is in the extreme eastern extent of Atlantic County on Absecon Island on the coast of the Atlantic Ocean. The city is bordered to the northeast by the city of Brigantine and to the southwest by Ventnor City. The first recorded Euro-American settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney proposed the development of a seaside resort on the island. In 1852, he and other investors secured a railroad charter, and the Camden and Atlantic Railroad was constructed with its terminus in Atlantic City in 1854. The city was formally incorporated the same year and the resort quickly became a popular tourist destination for visitors from Philadelphia and its suburbs. Atlantic City saw the height of its popularity in the late nineteenth and into the early twentieth century. A financial and commercial district was constructed along Atlantic Avenue and included high-style banks as well as commercial and institutional buildings. The 1950s brought a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. To revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism (Allaback and Milliken, 1995; ACFPL, 2022).

3.3 Ritz Carlton Hotel

3.3.1 Description and Existing Conditions

The Ritz Carlton Hotel is a 17-story former hotel located on the Atlantic City Boardwalk. The building consists of a narrow tower with a rectangular footprint, along with a six-story wing facing the boardwalk. The Beaux Arts style exterior is clad in brick with limestone ornament including window surrounds, beltcourses and entablatures, relief plaques and medallions, swags, and pilaster capitals. A two-story addition at the southeast has altered the appearance of the ocean-facing elevation, and the building's original crenellated roof parapets have been removed.

3.3.2 Historic Significance and Setting

The Ritz Carlton Hotel has been determined eligible for listing in the NRHP by the NJHPO. The Beaux Arts style building opened in 1921 and housed prominent guests including Calvin Coolidge, Warren G. Harding, and Al Capone, along with notable Atlantic City political boss Enoch Johnson. The Ritz Carlton Hotel is located on the Atlantic City Boardwalk with the building's primary orientation toward the ocean and the building is designed to provide views toward the sea. The building's location on the coast lends to its historic significance as a beachside resort hotel. Demolition and redevelopment of surrounding parcels has diminished the integrity of setting for the property, though the critical relationship of the historic hotel to the boardwalk and adjacent shoreline has been retained.

3.3.3 Project Effect on the Historic Property

The property's location on the boardwalk allows for views of the Project from 17.40 percent of this historic property, particularly from the ocean-facing elevation where the views of the Projects will be unobstructed.

The Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the Ritz Carlton.

3.4 Riviera Apartments

3.4.1 Description and Existing Conditions

The Riviera Apartments is a nine-story apartment building located on the Atlantic City Boardwalk. The building has a rectangular footprint with a flat roof and inset corner terraces at the ninth floor. The exterior is clad in brick atop a limestone base featuring carved moldings, window surrounds, and relief sculpture. Each of the four elevations has an elaborate roof parapet and a central rooftop bulkhead is also highly decorated with blind arches, pilasters, and a cornice. The northeast (primary) and southeast (ocean-facing) elevations feature projecting semi-hexagonal bays terminating at the ninth floor with their own crenellated parapets. Windows are generally one-over-one replacement units, except for a pair of arched windows flanking the inset primary entrance on the northeast.

3.4.2 Historic Significance and Setting

The Riviera Apartments building was designed by Philadelphia architect Harry Sternfeld and was constructed between 1929-30 during Sternfeld's long tenure on the architecture faculty at the University of Pennsylvania (University of Pennsylvania, 2003). The building has been determined eligible for the NRHP by the NJHPO under Criterion C for its Spanish and Art Deco-style architecture. The Riviera Apartments building is located on the Atlantic City boardwalk with clear ocean views from the main façade and partial views from the northern and southern elevations.

3.4.3 Project Effect on the Historic Property

The property's location on the boardwalk allows for views of the Project from 50.14 percent of this historic property, particularly from the southern and eastern elevations where the views of the Projects will be unobstructed. The Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the Riviera Apartments.

3.5 Central Pier

3.5.1 Description and Existing Conditions

Central Pier is a two-story, seven-bay concrete and steel building and amusement pier located on the Atlantic City beach adjacent to the boardwalk. The building has a rectangular footprint and a flat roof. It is clad in stucco and has Art Deco stylistic elements including domed corner towers and an arched main entrance flanked with octagonal turrets on the primary (boardwalk-facing) elevation. Southeast of the building, the pier's concrete pilings are visible, and the pier deck houses outdoor amusements including a go-kart track. The pier complex is visually dominated by several large billboards atop the building's roof and partially extending over the outdoor amusements.

3.5.2 Historic Significance and Setting

Central Pier was built in 1929 on the site of a previous amusement pier dating to the 1880s (Sanborn, 1949; The Atlantic City Experience, 2023). The pier has been determined eligible for the NRHP by the NJHPO under Criterion A for its association with recreation and entertainment on the Atlantic City boardwalk and Criterion C as an example of seaside commercial architecture. Central Pier has a maritime setting on the Atlantic City beach adjacent to the boardwalk with unobstructed views of the ocean.

3.5.3 Project Effect on the Historic Property

The Central Pier is located on the eastern/beach side of the Atlantic City Boardwalk and cantilevers over the beach and Atlantic Ocean. Due to its location on the beach, it is anticipated that the Projects will be visible from 50.14 percent of this historic property, particularly from the southern and eastern portions of the pier and therefore, the Projects will have an adverse effect on the setting of the Central Pier.

3.6 Brighton Park

3.6.1 Description and Existing Conditions

Brighton Park is an approximately 2.4-acre urban public park built in 1896 and located on the northwest side of the Atlantic City Boardwalk between Park Place and South Indiana Avenue. The park is framed by a simple black metal fence set atop a low stone wall. Simple square pillars topped with faux-gold globes are located at the four corners of the park's boundary and at the southeast entrance fronting Park Place. A fountain set within a shallow octagonal pool is roughly off-center within the park. Trees line the northeast and southwest edges of the park and there is a central pathway through the park. A non-historic amphitheater from circa 1986 and a Korean War memorial from circa 2000 were installed in the southeastern limit of the park on the southeast side of Park Place fronting the Atlantic City Boardwalk.

3.6.2 Historic Significance and Setting

Brighton Park was originally owned by George F. Lee and Hamilton F. Disston who owned the Brighton Hotel (not extant) which was immediately adjacent to the park. At some point before 1896, the land was deeded to Atlantic City for public use. Historic photos and aerials from the 1920s show the current layout minus the mature plantings (Sanborn Map Company, 1896). The fountain in the center of the park was erected by GE in honor of the 50th anniversary of the lightbulb. It illuminated a 30-foot jet of water with up

to 72 color effects. The Boardwalk end of the park has a non-historic amphitheater (ca.1984-1995) and a Korean War memorial (2000) (Sokolic and Ruffolo, 2006). The resource is recommended to be NRHP-eligible as a contributing resource to the Atlantic City Boardwalk Historic District. Brighton Park is located on the Atlantic City Boardwalk.

3.6.3 Project Effect on the Historic Property

The Brighton Park is located directly northwest, adjacent to the Atlantic City Boardwalk. It is anticipated that the Projects will be visible from 28.28 percent of this historic property, particularly from the southern and eastern portions of the park and therefore, the Projects will have an adverse effect on the setting of Brighton Park.

3.7 Atlantic City Boardwalk Historic District

3.7.1 Description and Existing Conditions

The Atlantic City Boardwalk Historic District encompasses approximately 1.4 miles of boardwalk in Atlantic City, stretching from the Atlantic City Convention Hall in the south to the Garden Pier in the north, and contains many of the iconic Atlantic City resorts along the boardwalk. The boardwalk itself has a wood deck, modern steel railing, numerous benches, and modern and historic replica lighting fixtures.

3.7.2 Historic Significance and Setting

Originally constructed in 1870, the Atlantic City Boardwalk is one of the most famous attractions on the New Jersey shore and boasts the typical attractions seen on boardwalks including amusement park rides, entertainment piers, food and drinks, and the iconic rolling chairs, in addition to renowned hotels and resorts. Despite its fluid construction history, the Atlantic City Boardwalk Historic District retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Atlantic City. The Atlantic City Boardwalk Historic District has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Atlantic City.

3.7.3 Project Effect on the Historic Property

The Atlantic City Boardwalk Historic District encompasses an approximately 1.4-mile wooden boardwalk and adjacent buildings, sites, and structures directly adjacent to the beach and the Atlantic Ocean. The boardwalk allows for unobstructed views of the ocean and the Projects, and it is anticipated that the Projects will be visible from 21.35 percent of this historic district. Therefore, the Projects will have an adverse effect on the setting of the Atlantic City Boardwalk Historic District.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for a façade improvement grant managed by the Casino Redevelopment Authority. This program would be based on the past program using the existing guidelines. Should the design standards need to be updated, funding to hire a consultant to produce updated standards/guidelines can be allocated. In addition, or in lieu of the above, funding may be provided for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENTS

Ritz Carlton Hotel

2715 Boardwalk
Atlantic City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 11.66
Number of Blade Tips Visible 134
Property Acreage within Study Area 1.14
Property Acreage within PAPE 0.2
Percentage of Property with Potential Visibility 17.4
Visible Light Units

Nacelle Aviation 81
Mid Tower Aviation 47
Coast Guard 5

Significance

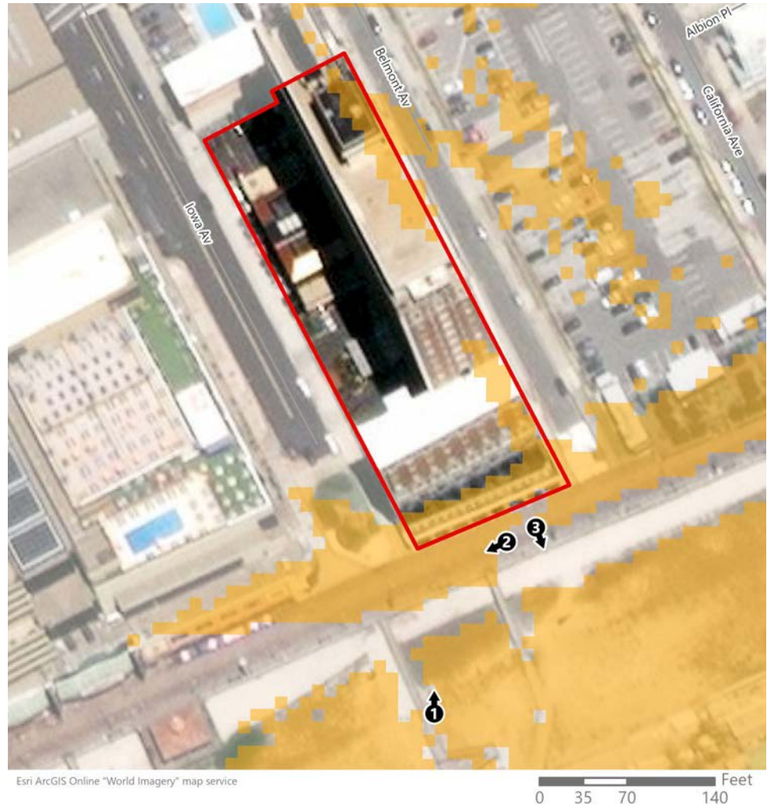
The Ritz Carlton Hotel is an 18-story building clad in brick that opened in June of 1921. Constructed with elements of the Beaux Arts style, the building was a prominent hotel in Atlantic City in the 1920s, and housed prominent guests such as Calvin Coolidge, Warren G. Harding, and Al Capone. The hotel was converted to army barracks during World War II, and in 1969 was converted into apartments. In 1982 the building was converted into condominiums. Today the building survives as a rare representation of 1920s hotel architecture on the Atlantic City Boardwalk. It has been determined eligible for NRHP listing under Criteria A and C.

Maritime Setting

The Ritz Carlton Hotel is located on the Atlantic City Boardwalk with the building's primary orientation toward the ocean and the building is designed to provide views toward the sea. The building's location on the coast lends to its historic significance as a beachside resort hotel. Demolition and redevelopment of surrounding parcels has diminished the integrity of setting for the property, though the critical relationship of the historic hotel to the boardwalk and adjacent shoreline has been retained.

Effect Recommendation
Adverse Effect

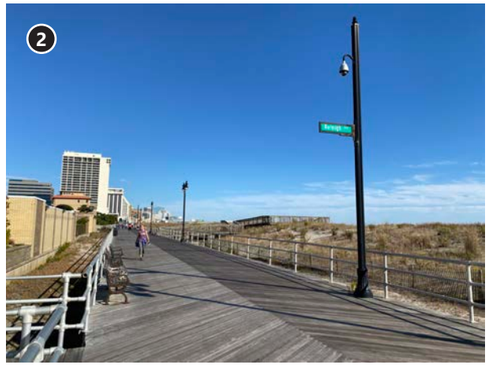
Although this historic property has a low integrity of setting, due to the surrounding modern structures and infrastructure, the historic property will have unobstructed views of the Projects due to its location on the boardwalk. The Projects will affect the most intact surviving elements of the property's historic setting.



Riviera Apartments

116 S. Raleigh Avenue
Atlantic City, Atlantic County, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 12.3
Number of Blade Tips Visible 117
Property Acreage within Study Area 0.20
Property Acreage within PAPE 0.10
Percentage of Property with Potential Visibility 50.14
Visible Light Units

Nacelle Aviation 59
Mid Tower Aviation 37
Coast Guard 3

Significance

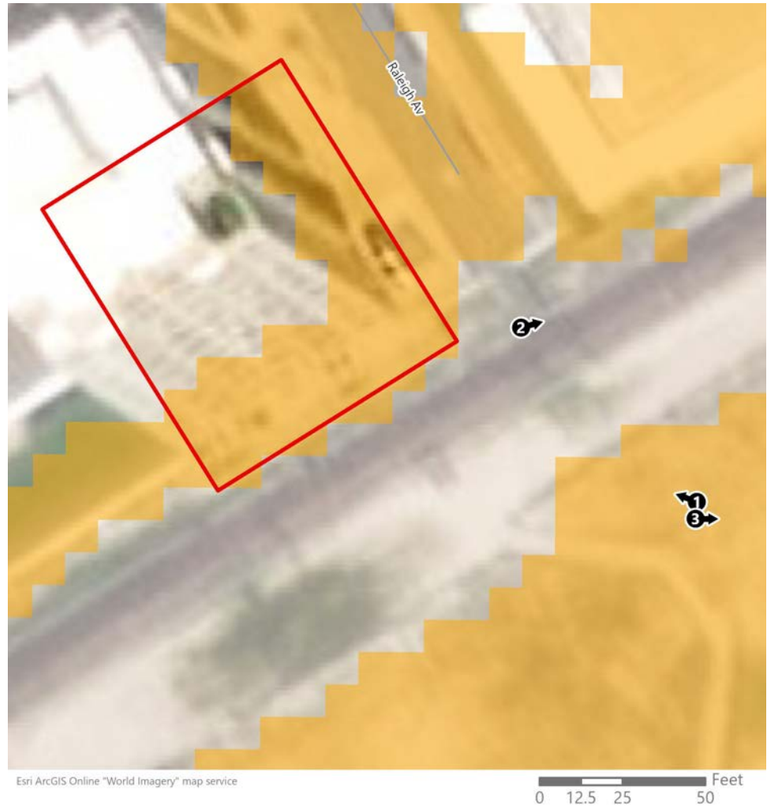
The Riviera Apartments building was designed by architect Henry Sternfeld and was constructed between 1929-30. The building has been determined eligible for the NRHP by the NJHPO under Criterion C for its Spanish and Art Deco-style architecture.

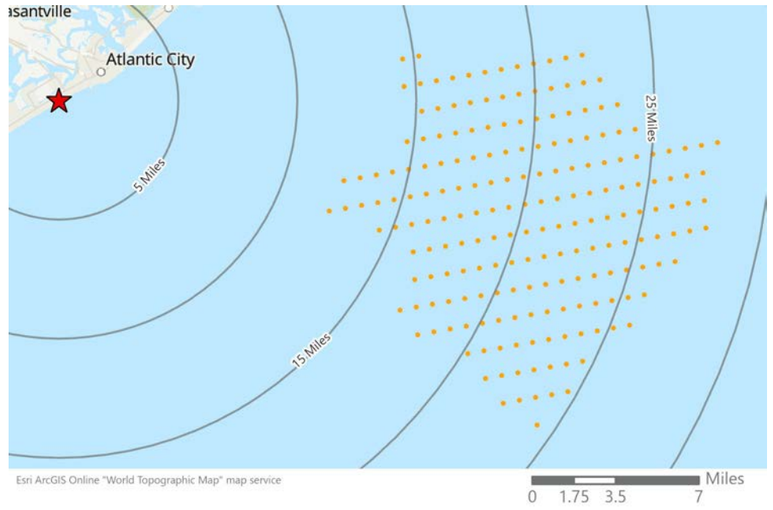
Maritime Setting

The Riviera Apartments building is located on the Atlantic City boardwalk with clear ocean views from the main façade and partial views from the northern and southern elevations.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the boardwalk's location on the Atlantic Ocean.

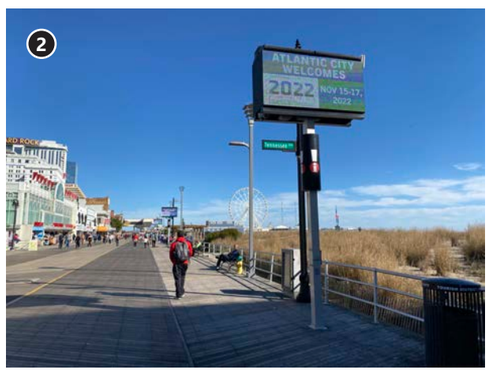




Central Pier

1400 Boardwalk
Atlantic City, Atlantic County, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 10.85
Number of Blade Tips Visible 200
Property Acreage within Study Area 1.75
Property Acreage within PAPE 0.78
Percentage of Property with Potential Visibility 44.53
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 200
Coast Guard 26

Significance

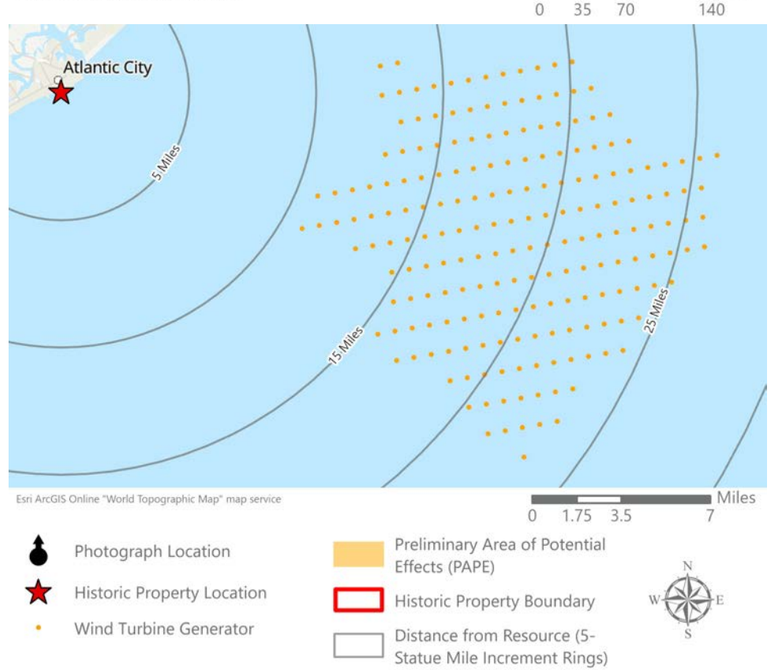
Central Pier is a two-story, seven-bay building located on the Atlantic City beach adjacent to the boardwalk. The pier is significant for its association with recreation and entertainment on the Atlantic City boardwalk under Criterion A and also for its architecture under Criterion C.

Maritime Setting

Central Pier has a maritime setting on the Atlantic City beach adjacent to the boardwalk with unobstructed views of the ocean.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location on the Atlantic Ocean



Brighton Park

1801 Boardwalk
Atlantic City, Atlantic County, NJ

1 Photograph of property

2 Photograph of property context

3 Photograph from property looking toward Projects

Historic Designation NRHP-Eligible as a contributing element to the Atlantic City Boardwalk Historic District (EDR-Recommended)
Distance to Nearest Turbine 11.16
Number of Blade Tips Visible 195
Property Acreage within Study Area 2.05
Property Acreage within PAPE 0.58
Percentage of Property with Potential Visibility 28.28
Visible Light Units

Nacelle Aviation 194
Mid Tower Aviation 193
Coast Guard 44

Significance

Brighton Park is located just to the north of the Atlantic City Boardwalk Historic District and just to the south of the contributing Claridge Hotel. The park is visible in aerial photographs dating to 1920, with the current concrete and brick walkways and decorative stone and concrete fountain in the middle of the park adhering the historic park layout and design. The southern portion of the park consists of a stepped concrete amphitheater added between 1984 and 1995, and a Korean War Memorial that was dedicated in 2000. This resource is recommended as a contributing resource to the Atlantic City Boardwalk Historic District.

Maritime Setting

Brighton Park is located on the Atlantic City Boardwalk.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location adjacent to the boardwalk.

Atlantic City Boardwalk Historic District

Boardwalk roughly bounded by S. Georgia Avenue to the southwest and Garden Pier to the northeast
Atlantic City, Atlantic County, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 10.47 miles
Number of Blade Tips Visible 200
Property Acreage within Study Area 35.91
Property Acreage within PAPE 7.66
Percentage of Property with Potential Visibility 21.35
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 200
Coast Guard 49

Significance

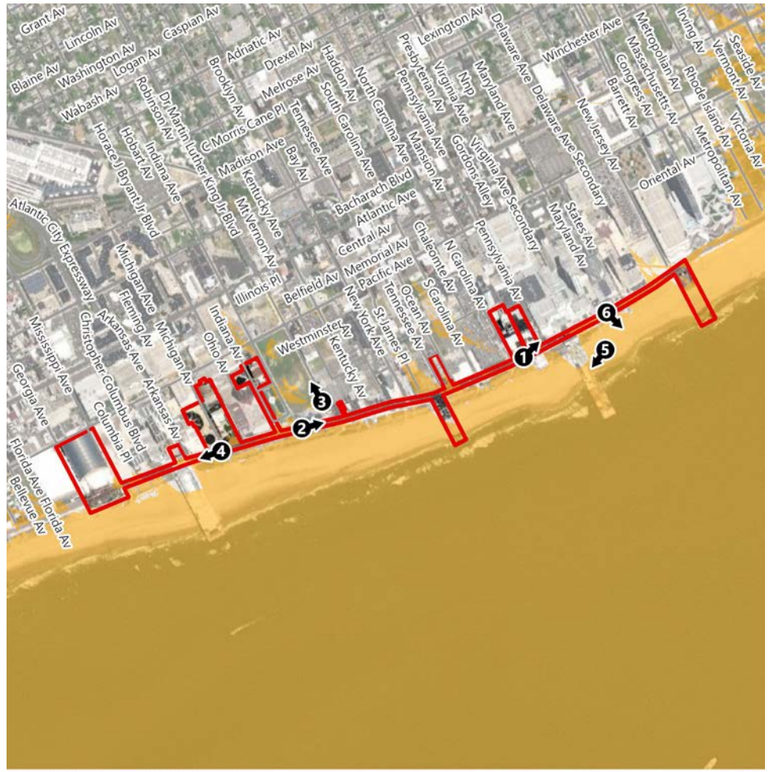
The Atlantic City Boardwalk Historic District encompasses approximately 1.4 miles of boardwalk in Atlantic City, stretching from the Atlantic City Convention Hall in the south to the Garden Pier in the north, and contains many of the iconic Atlantic City resorts along the boardwalk. Originally constructed in 1870 the Atlantic City Boardwalk is one of the most famous attractions on the New Jersey shore and boasts the typical attractions seen on boardwalks including amusement park rides, entertainment piers, food and drinks, and the iconic tram cars, in addition to renown hotels and resorts. The Atlantic City Boardwalk Historic District retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Atlantic City. Despite its fluid construction history, its significance as an enduring vacation destination provides the Atlantic City Historic District Boardwalk with sufficient integrity to convey its eligibility to the NRHP under Criterion A (Entertainment/Recreation).

Maritime Setting

The Atlantic City Boardwalk Historic District has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Atlantic City.

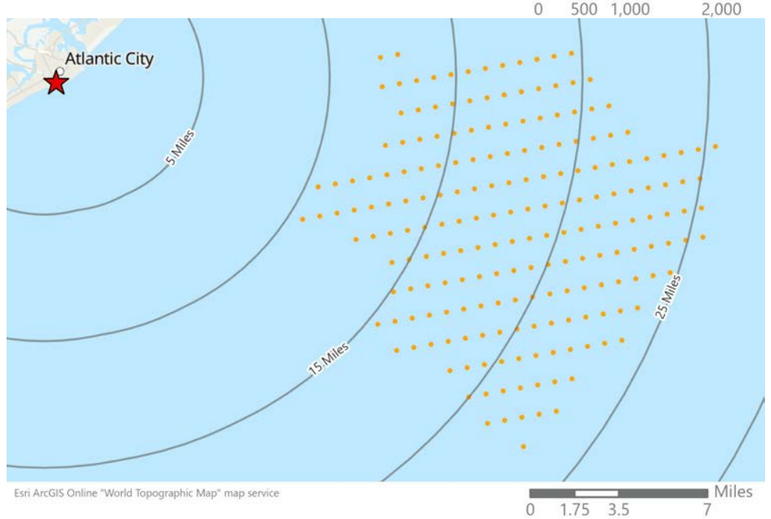
Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic district's location on the boardwalk. Although the immediate shoreline and waters in proximity to the beaches along the district are critical elements of the historic setting, distant ocean views contribute to the district's integrity of feeling and association. The Projects will be a significant focus of attention based on proximity and the expansive ocean views available from within the district.



Esri ArcGIS Online "World Imagery" map service

Feet
0 500 1,000 2,000



Esri ArcGIS Online "World Topographic Map" map service

Miles
0 1.75 3.5 7

Photograph Location
Historic Property Location
Wind Turbine Generator
Preliminary Area of Potential Effects (PAPE)
Historic Property Boundary
Distance from Resource (5-Statue Mile Increment Rings)

N
W E
S

ATTACHMENT 9 – HISTORIC PROPERTY TREATMENT PLAN FOR THE ATLANTIC CITY CONVENTION HALL IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Atlantic City Convention Hall

Atlantic City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Atlantic City Convention Hall, Atlantic City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

TABLE OF CONTENTS

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Atlantic City Convention Hall, which is a NHL; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

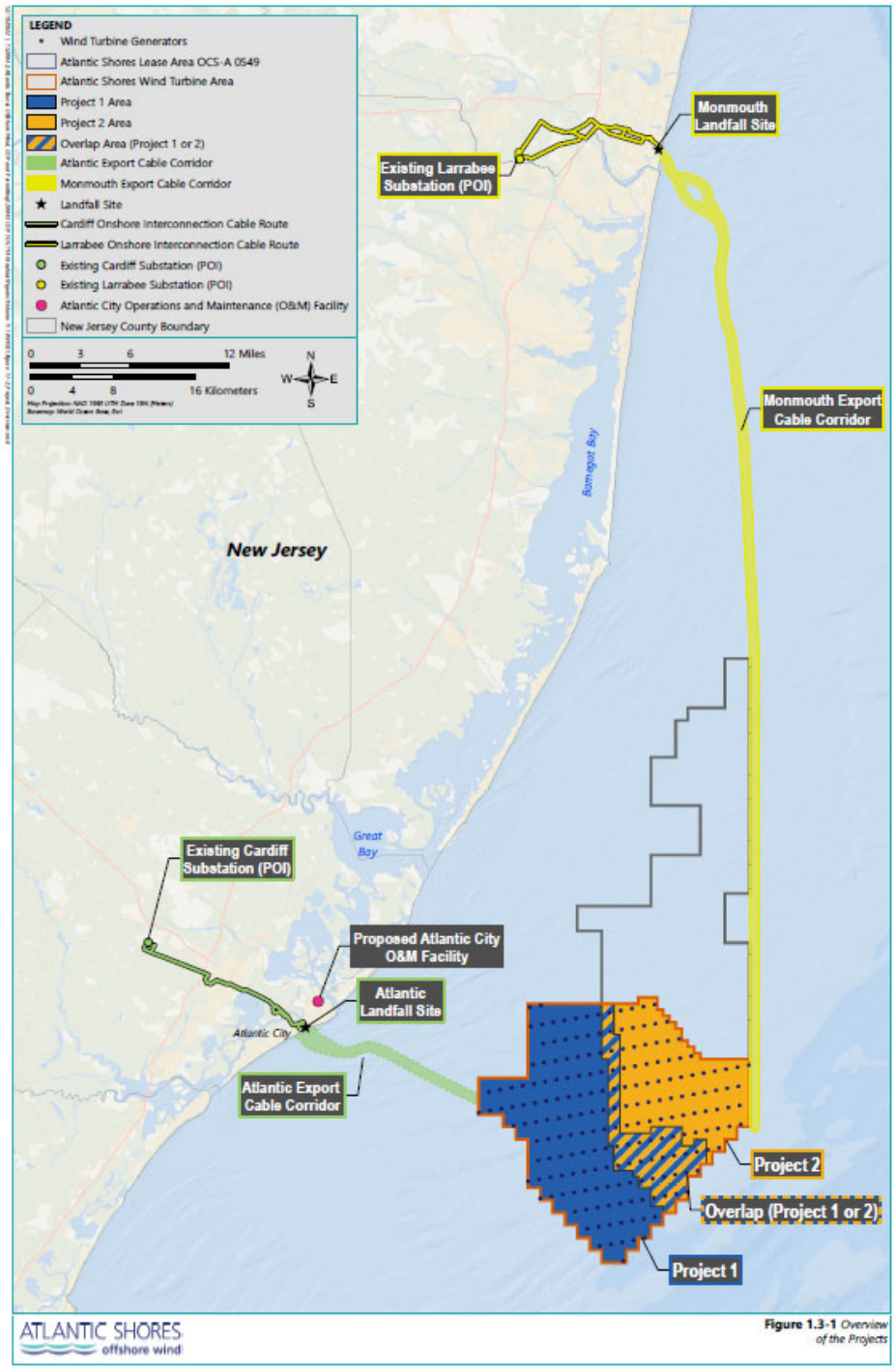

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
13	Atlantic City Convention Hall	Boardwalk between Pacific, Mississippi, and Florida Avenues	National Historic Landmark	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Atlantic City

Atlantic City is in the extreme eastern extent of Atlantic County on Absecon Island on the coast of the Atlantic Ocean. The city is bordered to the northeast by the city of Brigantine and to the southwest by Ventnor City. The first recorded Euro-American settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney proposed the development of a seaside resort on the island. In 1852, he and other investors secured a railroad charter, and the Camden and Atlantic Railroad was constructed with its terminus in Atlantic City in 1854. The city was formally incorporated the same year and the resort quickly became a popular tourist destination for visitors from Philadelphia and its suburbs. Atlantic City saw the height of its popularity in the late nineteenth and into the early twentieth century. A financial and commercial district was constructed along Atlantic Avenue and included high-style banks as

well as commercial and institutional buildings. The 1950s brought a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. To revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism (Allaback and Milliken, 1995; ACFPL, 2022).

3.3 Atlantic City Convention Hall

3.3.1 Description and Existing Conditions

The Atlantic City Convention Hall NHL, constructed in 1926-1929 by Lockwood-Greene and Co., exhibits Beaux Arts and Romanesque style elements and features a cut limestone façade and curved arcade fronting the beach. The arcade features a covered double row of columns anchored by public bath houses on each end. The façade of the building features massive columns supporting Romanesque arches, and the recessed entrances feature large arched windows. Decorative motifs include elements popular on the Atlantic City Boardwalk in the 1920s and include cut stone ocean flora and fauna. The massive auditorium behind the public entrance façade is clad in brick with an arched roof. The Atlantic City Convention Hall has been designated an NHL with significance in architecture, engineering, and recreation. It is significant for its monumental architecture, and represents significant engineering feats, containing at the time of its construction, the largest room with an unobstructed view ever built. The building is also significant for its role in the recreation of Atlantic City and the nation, becoming one of America's most popular venues for shows and events (Charleton, 1985).

3.3.2 Historic Significance and Setting

The Atlantic City Convention Hall NHL is located on the Atlantic City Boardwalk with the building's primary orientation toward the Atlantic Ocean. The building's arcade is constructed as to provide views of the beach and is anchored by public bath houses adjacent to the beach. The building's location on the Atlantic coast lends to its historic significance as a beachside attraction within Atlantic City.

3.3.3 Project Effect on the Historic Property

The Projects are anticipated to result in potential adverse visual effects on the Atlantic City Convention Hall. The NHL will have unobstructed views of the Projects due to the NHL's location on the boardwalk. The Convention Hall and boardwalk both have a historic relationship to views of the ocean and the high level of sensitivity to visual effects, as publicly accessible recreation venues specifically designed for access to the beach and enjoyment of the ocean horizon. Although the primary association with historic recreation pertains to events held inside the convention hall, and the critical association of the property to the Atlantic City Boardwalk would be unaffected by the Project, the property's design elements, siting, and orientation underscore the significance the beach and ocean views to the convention hall's historic setting. The proximity of the Projects to this property suggests the WTGs will be a significant focus of visitor attention when the property is experienced from the boardwalk or other exterior vantages.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of restoration, cyclical maintenance, disaster recovery, or other associated activities to ensure the long-term preservation of this National Historic Landmark.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Allaback, S., and C. Milliken. 1995. Resorts & Recreation: an Historic Theme Study of the New Jersey Coastal Heritage Trail Route. Sandy Hook Foundation, Inc. and National Park Service, U.S. Department of the Interior. Available at https://www.nps.gov/parkhistory/online_books/nj1/index.htm (Accessed October 2022).

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Atlantic City Convention Hall

Boardwalk between Pacific, Mississippi, and Florida Avenues
Atlantic City, Atlantic County, NJ

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph from property looking toward Projects

Historic Designation National Historic Landmark
Distance to Nearest Turbine 11.4 miles
Number of Blade Tips Visible 200
Property Acreage within Study Area 8.64
Property Acreage within PAPE 0.35
Percentage of Property with Potential Visibility 4.03
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 200
Coast Guard 41

Significance

The Atlantic City Convention Hall, constructed in 1926-1929 by Lockwood-Greene and Co., exhibits Beaux Arts and Romanesque style elements and features a cut limestone façade and curved arcade fronting the beach. The arcade features a covered double row of columns anchored by public bath houses on each end. The facade of the building features massive columns supporting Romanesque arches, and the recessed entrances feature large arched windows. Decorative motifs include elements popular on the Atlantic City Boardwalk in the 1920s and include cut stone ocean flora and fauna. The massive auditorium behind the public entrance facade is clad in brick with an arched roof. The Atlantic City Convention Hall has been designated a National Historic Landmark with significance in architecture, engineering, and recreation. It is significant for its monumental architecture, and represents significant engineering feats, containing at the time of its construction, the largest room with an unobstructed view ever built. The building is also significant for its role in the recreation of Atlantic City and the nation, becoming one of America's most popular venues for shows and events.

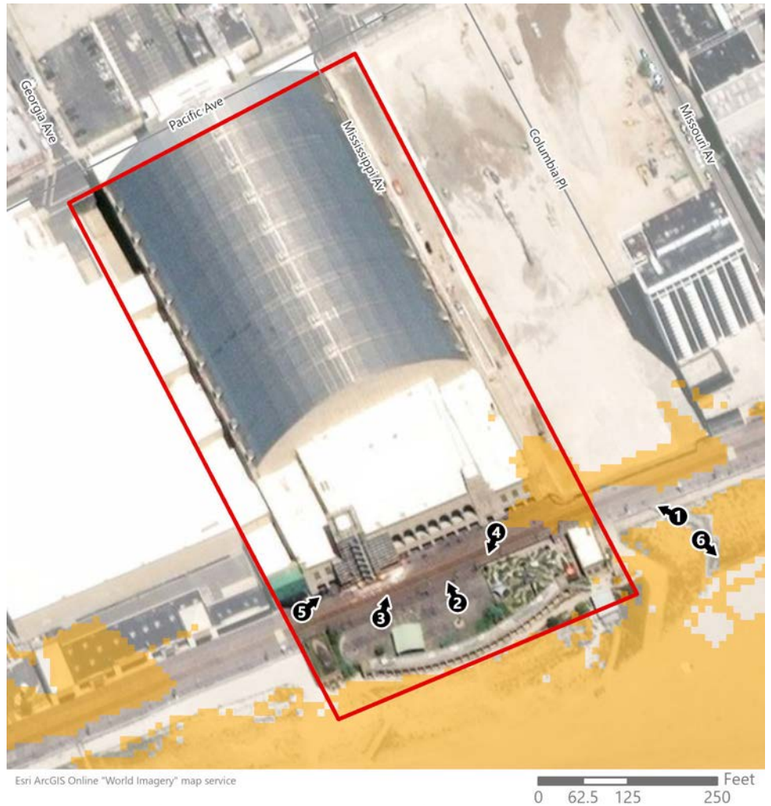
Maritime Setting

The Atlantic City Convention Hall is located on the Atlantic City Boardwalk with the building's primary orientation toward the Atlantic Ocean. The building's arcade is constructed as to provide views of the beach and is anchored by public bath houses adjacent to the beach. The building's location on the Atlantic Coast lends to its historic significance as a beachside attraction within Atlantic City.

Effect Recommendation

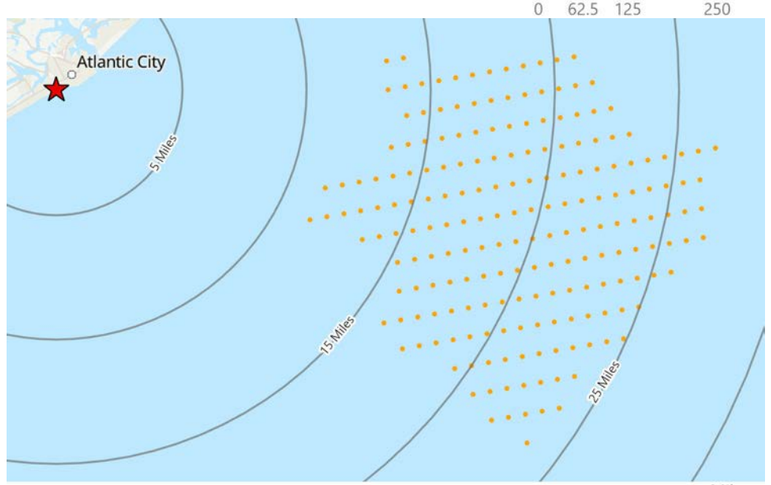
Adverse Effect

Unobstructed views of the Projects due to the NHL's location on the boardwalk. Although the primary association with historic recreation pertains to events held inside the convention hall, and the critical association of the property to the Atlantic City Boardwalk would be unaffected by the Projects, the property's design elements, siting, and orientation underscore the significance the beach and ocean views to the convention hall's historic setting. The proximity of the Projects to this property suggests the WTGs will be a significant focus of visitor attention when the property is experienced from the boardwalk or other exterior vantages.



Esri ArcGIS Online "World Imagery" map service

0 62.5 125 250 Feet



Esri ArcGIS Online "World Topographic Map" map service

0 1.75 3.5 7 Miles

Photograph Location
Historic Property Location
Wind Turbine Generator
Preliminary Area of Potential Effects (PAPE)
Historic Property Boundary
Distance from Resource (5-Statue Mile Increment Rings)

N W E S

ATTACHMENT 10 – HISTORIC PROPERTY TREATMENT PLAN FOR THE BRIGANTINE HOTEL IN BRIGANTINE CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Brigantine Hotel

Brigantine City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Brigantine Hotel, Brigantine City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
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CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
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FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
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OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
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1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Brigantine Hotel, Brigantine City, Atlantic County, New Jersey, which has been recommended to be eligible for the NRHP; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

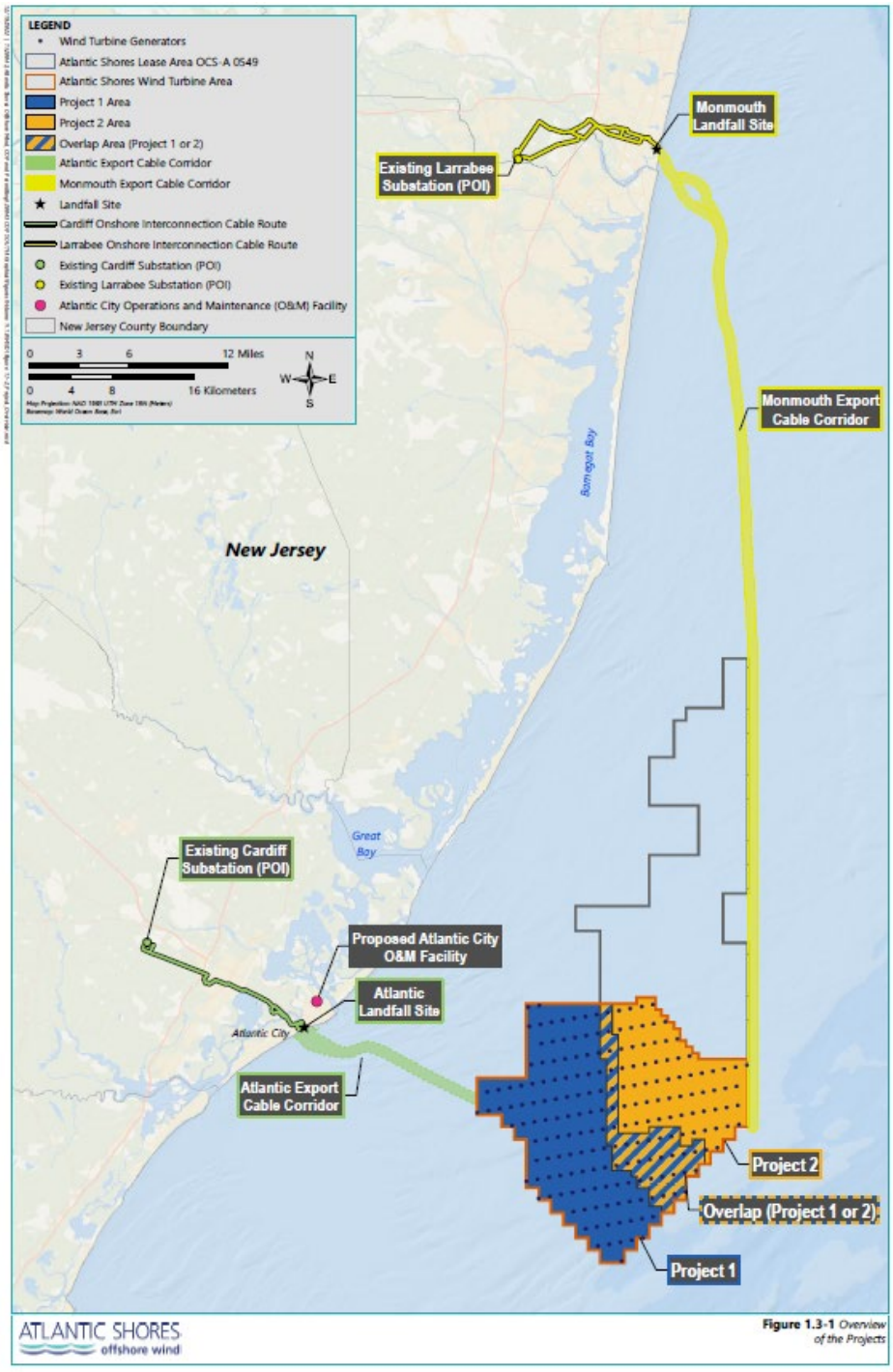

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
44	Brigantine Hotel	1400 Ocean Avenue	NRHP-Eligible (EDR-Recommended)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Brigantine City

The city of Brigantine is in the extreme southeastern extent of Atlantic County on Brigantine Island. The first Euro-American family to settle in Brigantine arrived in 1730 followed by more settlers in the 1760s. By 1805, there were seven houses and a boarding house on the island and by the mid-nineteenth century, the island had numerous hotels. In 1880, the Brigantine Land Company began platting land and selling lots. However, the most meaningful development period occurred in the early 1920s when the Island Development Company began developing residential and commercial properties on most of the island. The city was formally incorporated in 1924 and in 1926 the iconic (although nonfunctional) Brigantine Lighthouse was constructed by the company to attract residents to the island. The first bridge to Atlantic City was also built in 1924. Historic aerials show the first appearance of the street grid and the curvilinear streets to the north in 1931 with only scattered housing construction. In 1957, the grid is mostly filled out but the curvilinear section to the north and an undeveloped section on the southern tip of the island remain without housing.

The island, except for the North Brigantine Natural Area, is almost completely built out by 1984. Beginning in the late 1980s, the residential housing stock in Brigantine began to see large-scale demolition of historic-era housing in favor of more modern, often two-to-three-story houses. This is particularly evident along the coastline, as many historic-era homes have been destroyed by hurricane effects. However, in the interior of the Brigantine's residential core, many homeowners have opted to demolish and rebuild rather than restore or rehabilitate historic-era properties. Brigantine is still a very popular vacation destination, offering a more family-friendly atmosphere compared to Atlantic City to the southwest (HABS, 1991; NETR, 2023).

3.3 Brigantine Hotel

3.3.1 Description and Existing Conditions

The Brigantine Hotel is a ten-story brick-clad Art Deco-style hotel built in 1927. The building consists of a roughly rectangular tower atop a two-story base. The tower has a setback at the 10th floor and a rooftop penthouse topped with a setback bulkhead. In typical Art Deco fashion, one or more pairs of piers at each elevation extend above the roof parapets and terminate in metal copings. The first and second stories have undergone some alterations and accretions, including relocation of the primary entrance from the southwest to the northeast elevation, but their historic form is retained. Windows are replacement sash, but the openings retain their symmetrical rhythm.

3.3.2 Historic Significance and Setting

The Brigantine Hotel was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Art Deco style hotel was built in 1927. It is considered the first desegregated hotel of its type in New Jersey starting with the purchase of the hotel by the International Peace Mission Movement in 1941. The movement consisted of followers of spiritual leader Reverend M.J. Divine (also known as Father Divine) and his economic plan. The hotel was purchased by Black entrepreneur, civil rights leader, and philanthropist Sarah Spencer Washington and the beach in front of the hotel was one of the area's first integrated beach areas (Roi, 1948; Schultz and Kelly, 2002; Lurie and Mappen, 2004). The building currently functions as a beach resort with a beach-front restaurant and bar. The Brigantine Hotel is recommended to meet NRHP Criterion A in the areas of Entertainment/Recreation, Black Heritage, and Community Planning and Development. The hotel retains architectural integrity and is also recommended eligible under Criterion C as a notable example of an Art Deco hotel.

The Brigantine Hotel is located on the southeast side of Ocean Avenue between 14th Street South and 15th Street South bordering the beach. It was constructed as a seaside hotel with an associated beach area. The hotel has unobstructed views of Brigantine Beach and the Atlantic Ocean and is an imposing building that can be seen from most areas of Brigantine Beach. The historical association with racially integrated recreation on the New Jersey shore is an integral element of the property's significance.

3.3.3 Project Effect on the Historic Property

The Brigantine Hotel has unobstructed views of Brigantine Beach and the Atlantic Ocean and is an imposing building that can be seen from most areas of Brigantine Beach. Due to the historic property's location on the beach, it is anticipated that the Projects will be visible from 42.05 percent of the hotel property and the

Projects will be a significant focus of the view to the Atlantic Ocean. Therefore, the Projects will have an adverse effect on the setting of the Brigantine Hotel.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Code of Federal Regulations (CFR). 2021a. 36 CFR § 800 – Protection of Historic Properties [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-VIII/part-800. Accessed March 31, 2022.

CFR. 2021b. 36 CFR § 61.4(e)(1) – Procedures for State, Tribal, and Local Government Historic Preservation Programs [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-61#p-61.4(e)(1). Accessed March 31, 2022.

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Brigantine Hotel

1400 Ocean Avenue
Brigantine City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 9.91
Number of Blade Tips Visible 200
Property Acreage within Study Area 1.2
Property Acreage within PAPE 0.5
Percentage of Property with Potential Visibility 42.05
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 200
Coast Guard 70

Significance

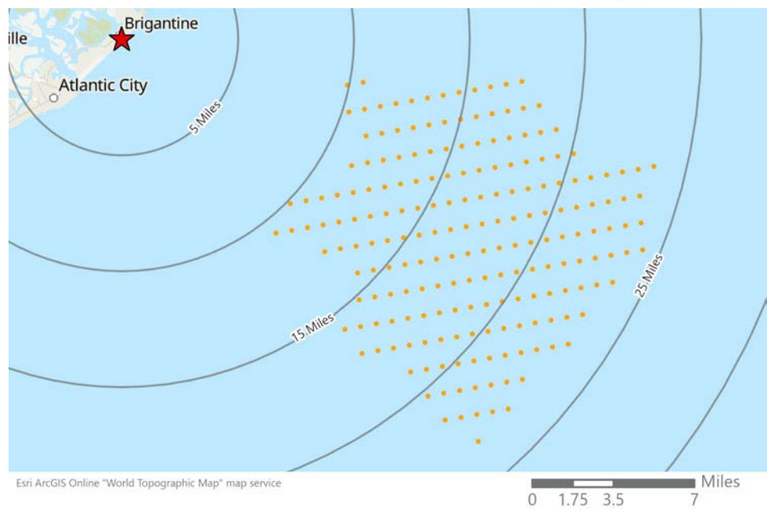
The Brigantine Hotel was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Art Deco style hotel was built in 1927. It is considered the first desegregated hotel of its type in New Jersey starting with the purchase of the hotel by the International Peace Mission Movement in 1941. The movement consisted of followers of spiritual leader Reverend M.J. Divine (also known as Father Divine) and his economic plan. The hotel was purchased by African American entrepreneur, civil rights leader, and philanthropist Sarah Spencer Washington and the beach in front of the hotel was one of the area's first integrated beach areas. The building currently functions as a beach resort with a beach-front restaurant and bar. The Brigantine Hotel is significant under NRHP Criterion A for its association with Entertainment/ Recreation, African American Heritage, and Community Planning and Development. The resource retains architectural integrity and is also eligible under Criterion C as an example of an Art Deco hotel.

Maritime Setting

The Brigantine Hotel is a 10-story high rise hotel situated on the southeast side of Ocean Avenue between 14th Street South and 15th Street South bordering the beach. The hotel was constructed as a seaside hotel with an associated beach area. The hotel has unobstructed views of Brigantine Beach and the Atlantic Ocean and is an imposing building that can be seen from most areas of Brigantine Beach. The historical association with racially integrated recreation on the New Jersey shore is an integral element of the property's significance.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location on the shoreline. The Projects will be a major focus of attention when viewed from the property due to proximity and expansive views of the affected ocean horizon from the hotel and associated shoreline.



ATTACHMENT 11 – HISTORIC PROPERTY TREATMENT PLAN FOR 125 S. MONTGOMERY AVENUE, 120 ATLANTIC AVENUE, AND 124 ATLANTIC AVENUE IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

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Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

125 S. Montgomery Avenue
120 Atlantic Avenue
124 Atlantic Avenue
Atlantic City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
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2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

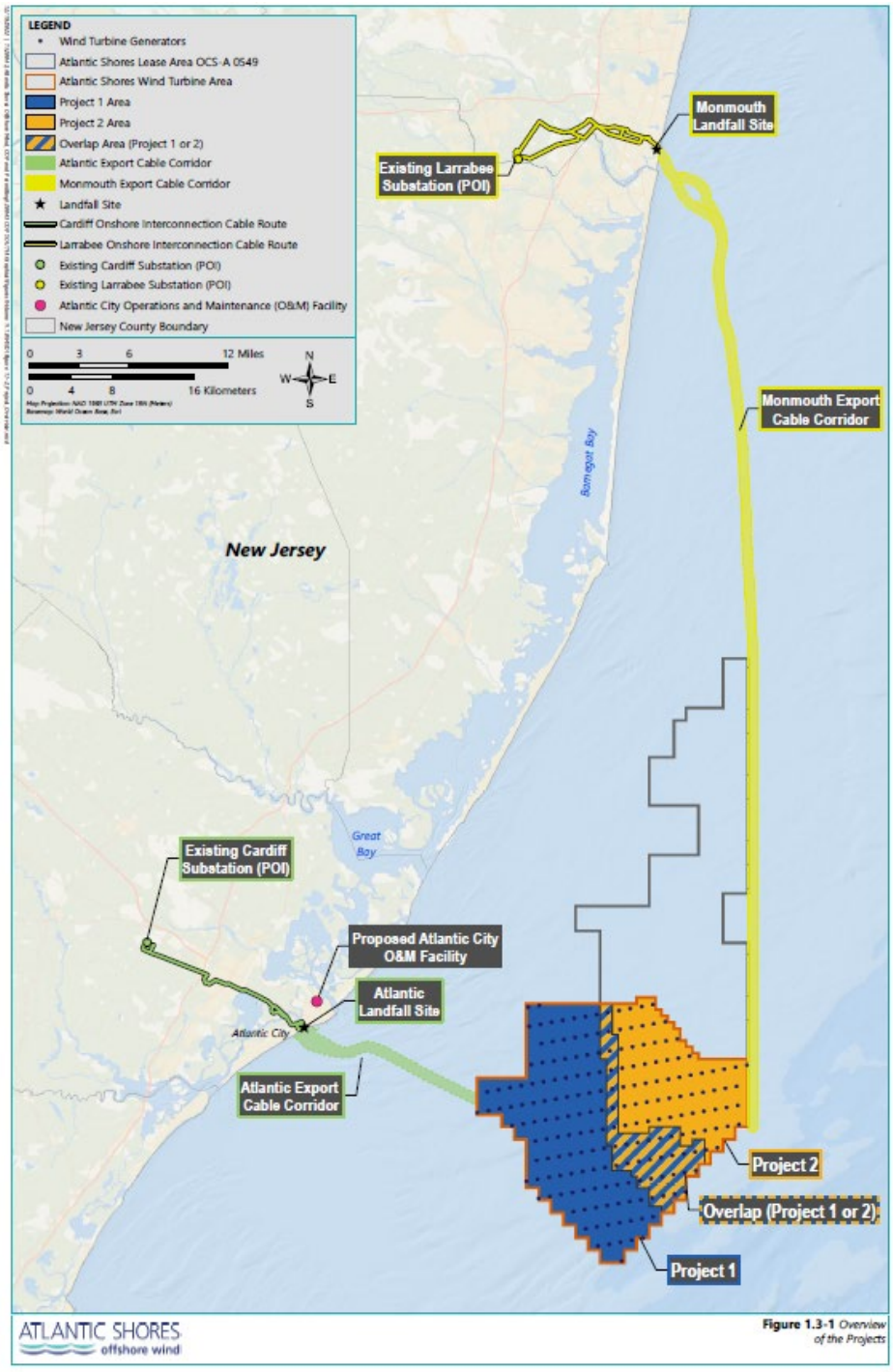

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Address	Municipality	NRHP Status	Ownership
21	124 Atlantic Avenue	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Private
22	120 Atlantic Avenue	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Private
7	125 S Montgomery Avenue	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessments.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Atlantic City

Atlantic City is in the extreme eastern extent of Atlantic County on Absecon Island on the coast of the Atlantic Ocean. The city is bordered to the northeast by the city of Brigantine and to the southwest by Ventnor City. The first recorded Euro-American settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney proposed the development of a seaside resort on the island. In 1852, he and other investors secured a railroad charter, and the Camden and Atlantic Railroad was

constructed with its terminus in Atlantic City in 1854. The city was formally incorporated the same year and the resort quickly became a popular tourist destination for visitors from Philadelphia and its suburbs. Atlantic City saw the height of its popularity in the late nineteenth and into the early twentieth century. A financial and commercial district was constructed along Atlantic Avenue and included high-style banks as well as commercial and institutional buildings. The 1950s brought a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. To revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism (Allaback and Milliken, 1995; ACFPL, 2022).

3.3 125 S. Montgomery Avenue

3.3.1 Description and Existing Conditions

The building at 125 South Montgomery Avenue is a two-story Spanish Colonial Revival dwelling with stucco siding and a clay tile roof. The building consists of a central flat-roofed volume flanked by two projecting bays with hipped roofs. At the first floor, the bays are linked by a single-story arcade porch supported by Corinthian columns. Within this inset porch is the primary entrance, an arched, paneled wood door with a leaded glass oculus. The windows have round arch surrounds on the second story and decorative bracketed entablatures on the first. A single-story volume to the southeast has a series of arched openings delineated by Moorish columns and containing French doors and fanlights. A balcony atop the sunroom is accessed via an arched doorway through a chimney at the second floor. A large opening with leaded glass doors, sidelights, and transom on the southeast elevation opens out to a patio and an in-ground outdoor swimming pool. A two-story attached garage at the northwest elevation has a colonnade at grade and a second-story porch with Moorish columns. The property is partially enclosed with a concrete wall.

3.3.2 Historic Significance and Setting

Historic aerial photographs show that the building at 125 South Montgomery Avenue, known as Casa De Felicidad, was built between 1920 and 1930 (NETR, 2023). According to Sotheby's Realty, Casa De Felicidad was designed by famed architect Addison Mitzner in 1926. If true, that would place the design of the house during Mitzner's most productive period (1920-1926). Mitzner's work in the early 20th century, particularly in Palm Beach, FL during the 1920s, helped popularize the Mediterranean Revival style among the nation's elite (Sotheby's Reality, 2022; Maddex, 1985). Based on exterior analysis only, the residence appears to meet Criterion C in the area of Architecture as an example of the Spanish Colonial Revival style in domestic architecture. The resource is located immediately to the northwest of the Atlantic City Boardwalk and beaches. Although the house is oriented toward South Montgomery Avenue and not the ocean, it has a clear maritime setting as the views from the southeast (side) elevation balcony offer unobstructed views of the ocean.

3.3.3 Project Effect on the Historic Property

The property's location on the beach allows for unobstructed views of the Project from 31.26 percent of this historic property and Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of 125 S. Montgomery Avenue.

3.4 120 Atlantic Avenue

3.4.1 Description and Existing Conditions

The building at 120 Atlantic Avenue is a two-and-one-half-story Colonial Revival-style residence resting on a raised foundation. The building is clad in brick and capped by a side gable clay tile roof. The house features a full-width first-floor porch with Doric columns supporting a heavy entablature and a second-story balcony. There are three triangular pedimented roof dormers on the primary and rear elevations. Two-story projecting bays are located on the side elevations. The rear elevation features a pair of semi-octagonal sunrooms at the first floor topped with porches and a balcony at the second and third floors. Upper floor windows have stone lintels and keystones, and the residence retains its historic divided light wood sash throughout. The main entrance is surrounded by multi-pane sidelights and a transom.

3.4.2 Historic Significance and Setting

The residence at 120 Atlantic Avenue first appears on a 1920 aerial photograph of Atlantic City; however, a review of the 1906 Sanborn Fire Insurance Map of this section of Atlantic City indicates the block was under development which suggests a construction date for the resource of ca. 1910 (Sanborn, 1906; NETR, 2023). Further review of historic aerial photographs indicates this section of Atlantic City was densely built with residential and commercial buildings throughout the first half of the twentieth century. Beginning in the middle of the 1970s, large-scale urban renewal efforts resulted in mass demolition in the neighborhood which dramatically changed the character of the neighborhood. The residence at 120 Atlantic Avenue stands as one of the few early-twentieth-century dwellings remaining in this area of Atlantic City (NETR, 2023). The building represents an excellent surviving example of the Colonial Revival style in Atlantic City and is recommended for the NRHP under Criterion C for Architecture.

The residence at 120 Atlantic Avenue is located approximately 365 feet west of the Absecon Inlet and approximately 0.3 miles north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Projects, but demolition of intervening buildings once located to the east of the house substantially increased the ocean views.

3.4.3 Project Effect on the Historic Property

It is anticipated that the Projects will be visible from 89.99 percent of this historic property. Although the immediate setting of the property has been altered by demolitions, the Projects are expected to be a significant focus of viewer attention when looking toward ocean; therefore, the Projects will have an adverse effect on the setting of 120 Atlantic Avenue.

3.5 124 Atlantic Avenue

3.5.1 Description and Existing Conditions

The building at 124 Atlantic Avenue is a three-and-one-half-story Dutch Colonial Revival residence with brick cladding on the first and second stories and wood shingle on the overhanging upper stories. The roof is a steeply pitched gambrel with a cross gable on the northeast and an engaged semi-octagonal tower on the southwest, all clad in asphalt shingle. The main entry and a curved porch are on the second story. Ionic columns support the porch and rest on a projecting first-story bay. There is a Palladian window in the gable of the façade, while the remaining fenestration includes both flat and segmented arch openings. the rear elevation includes a two-story projection with a modern deck and a lancet arch inset bay in the attic level of the gambrel.

3.5.2 Historic Significance and Setting

The residence at 124 Atlantic Avenue first appears on a 1920 aerial photograph of Atlantic City; however, a review of the 1906 Sanborn Fire Insurance Map of this section of Atlantic City indicates the block was under development which suggests a construction date for the resource of circa 1910 (Sanborn, 1906; NETR, 2023). Further review of historic aerial photographs indicates this section of Atlantic City was densely built with residential and commercial buildings throughout the first half of the twentieth century. Beginning in the middle of the 1970s, large-scale urban renewal efforts resulted in mass demolition in the neighborhood which dramatically changed the character of the neighborhood. The residence at 124 Atlantic Avenue stands as one of the few early-twentieth-century dwellings remaining in this area of Atlantic City (NETR, 2023). This resource is recommended eligible for the NRHP under Criterion C for Architecture, as an excellent and rare example of Dutch Colonial Revival style architecture in northern Atlantic City.

The residence at 124 Atlantic Avenue is located approximately 430 feet west of the Absecon Inlet and approximately 0.3 miles north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Projects, but demolition of intervening buildings once located to the east of the house substantially increased the ocean views.

3.5.3 Project Effect on the Historic Property

It is anticipated that the Projects will be visible from 17.54 percent of this historic property. Although the immediate setting of the property has been altered by demolitions, the Projects are expected to be a significant focus of viewer attention when looking toward ocean; therefore, the Projects will have an adverse effect on the setting of 124 Atlantic Avenue.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Atlantic City.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Residence at 125 S Montgomery Avenue

125 S Montgomery Avenue
Atlantic City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 12.4
Number of Blade Tips Visible 200
Property Acreage within Study Area 0.53
Property Acreage within PAPE 0.17
Percentage of Property with Potential Visibility 31.26
Visible Light Units

Nacelle Aviation 192
Mid Tower Aviation 171
Coast Guard 17

Significance

The resource at 125 S Montgomery Avenue is a ca. 1910 two-story Spanish Colonial dwelling covered in stucco and capped by a hipped roof covered in clay tile. The form of the building includes two projecting wings on the southwest (front) elevation connected by a one-story central arcaded entry porch with three round arches supported by Corinthian columns. The windows are decorated with round arch surround on the second floor and decorative entablatures on the first floor. A carriage house/ garage is attached to the northwest (side) elevation. The house retains sufficient integrity to convey its significance under National Register Criterion C.

Maritime Setting

The resource at 125 S Montgomery Avenue located immediately to the northwest of the Atlantic City Boardwalk and beaches. Although the house is oriented toward South Montgomery Avenue and not the ocean, it has a clear maritime setting as the views from the southeast (side) elevation offer unobstructed views to the ocean.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to its location adjacent to the boardwalk. The Projects is expected to be a significant focus of viewer attention from this area due to the proximity of WTGs to the property.

Two-and-a-half-story Residence at 124 Atlantic Avenue

124 Atlantic Avenue
Atlantic City, Atlantic County, NJ

1

Photograph of property

2

Photograph of property context

3

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 10.65
Number of Blade Tips Visible 131
Property Acreage within Study Area 0.09
Property Acreage within PAPE 0.02
Percentage of Property with Potential Visibility 17.54
Visible Light Units

Nacelle Aviation 130
Mid Tower Aviation 122
Coast Guard 25

Significance

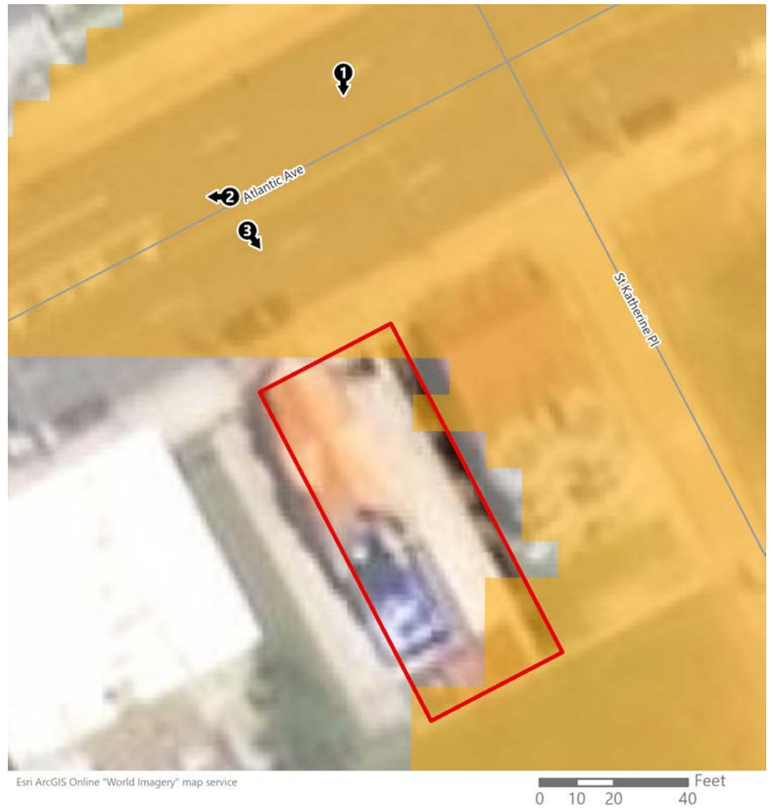
This resource is a two-and-a-half-story Dutch Colonial residence set on a raised foundation, is clad in brick on the first floor and wood shingle on the upper floors, and is capped by a cross-gable roof, with a gambrel gable on the front façade, covered in asphalt shingles. The residence features a full-width, curved front porch, with a flat roof supported by wood Ionic columns resting on brick supports. Arched windows and arcade are located in the raised basement and first floor, and a large Palladian window is located on the second floor facade. This resource is recommended eligible for the NRHP under Criterion C for Architecture, as an excellent and exceedingly rare example of the Dutch Colonial Revival style architecture in northern Atlantic City.

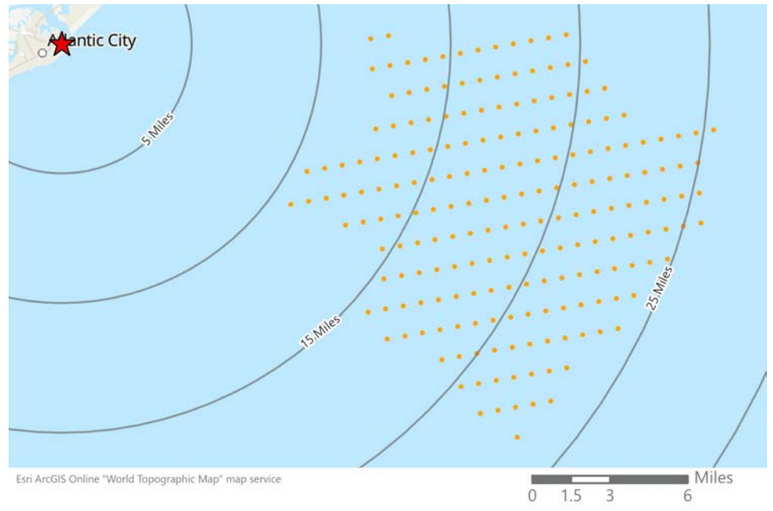
Maritime Setting

This resource is located approximately 430 feet west of the Absecon Inlet and approximately 0.3 miles north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Projects, but demolition of intervening buildings once located to the east of the house substantially increased the ocean views.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the surrounding vacant land. The proximity of the property to the wind farm suggests the Projects will be a major focus of attention and may detract from the historic shoreline setting and integrity of feeling associated with the property.





Colonial Revival Residence at 120 Atlantic Avenue

120 Atlantic Avenue
Atlantic City, Atlantic County, NJ

1

Photograph of property

2

Photograph of property context

3

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 10.65
Number of Blade Tips Visible 114
Property Acreage within Study Area 0.11
Property Acreage within PAPE 0.1
Percentage of Property with Potential Visibility 89.99
Visible Light Units

Nacelle Aviation	108
Mid Tower Aviation	108
Coast Guard	21

Significance

The property at 120 Atlantic Avenue is a two-and-a-half story Colonial Revival style residence resting on a raised foundation. The building is clad in brick and capped by a side gable roof covered in asphalt shingles, and features a full-width first floor porch with Doric columns supporting a heavy entablature featuring brackets and dentils and second story balcony. Three triangular pedimented dormers pierce the roof on the facade, two-story projecting bays are located on the side elevations. Fenestration consists of nine-over-nine, twelve-over-twelve, windows with stone lintels and keystones. The main entrance is surrounded by multi-pane sidelights and transom. The building represents an excellent surviving example of the Colonial Revival style in Atlantic City and is recommended for the NRHP under Criterion C for Architecture.

Maritime Setting

The property at 120 Atlantic Avenue is located approximately 365 feet west of the Absecon Inlet and approximately 0.3 miles north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Projects, but demolition of intervening buildings once located to the east of the house substantially increased the ocean views.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the surrounding vacant land. The proximity of the property to the wind farm suggests the Projects will be a major focus of attention and may detract from the historic shoreline setting and integrity of feeling associated with the property.

ATTACHMENT 12 – HISTORIC PROPERTY TREATMENT PLAN FOR 5231-5229 CENTRAL AVENUE IN OCEAN CITY, CAPE MAY COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind Projects

Lease Area OCS-A 0499

5231-5229 Central Avenue

Ocean City, Cape May County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	5231-5229 Central Avenue, Ocean City, Cape May County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for 5231-5229 Central Avenue, which has been determined to be eligible for listing on the National Register of Historic Places (NRHP); (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

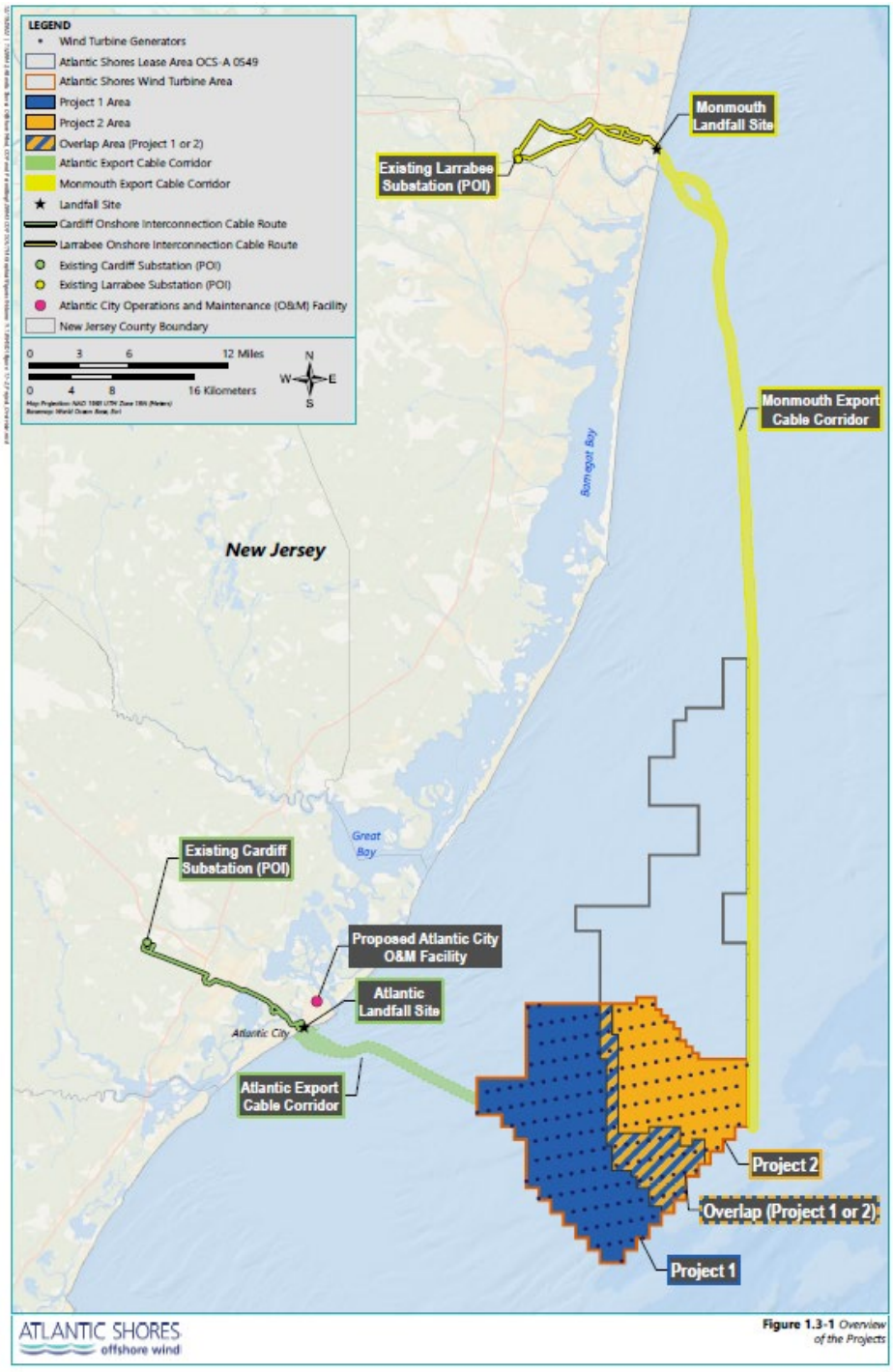

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	Municipality	NRHP Status	Ownership
74	5231-5229 Central Avenue	5231-5229 Central Avenue	Ocean City	NRHP-Eligible (EDR-Recommended)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Ocean City

Ocean City is in Cape May County and occupies the entirety of Peck's Beach Island. One of the first Europeans to utilize present-day Ocean City was John Peck, a whaler, who used the island as a storage place for his caught whales in the 1700s. In 1879, a group of Methodist ministers formed the Ocean City Association and purchased Peck's Beach. The group envisioned creating a Christian seaside resort, laying out commercial and residential lots. Over 500 building lots were sold by the end of 1881 and a large auditorium, later known as the Tabernacle, was constructed by the Association. This was followed by hotels and a boardwalk. Ocean City was officially incorporated as a city on March 25, 1897. The area continued to develop throughout the years and quickly became a prominent seaside resort. An element of the vision the founding ministers had to create a seaside resort that exemplified Christian ideals remains today, as Ocean

City has remained a dry town, with no public drinking establishments. This also resulted in smaller-scale development in the city when compared to other resort destinations such as Atlantic City, Margate City, and Ventnor City to the northeast (Ocean City, 2023; Allaback and Milliken, 1995).

The city was initially platted to the southwest of North Street in an orderly grid with three main thoroughfares (Bay Avenue, West Avenue, and Wesley Avenue) traveling in a northeast-southwest direction. The neighborhood to the northeast of North Street was developed beginning in the 1930s with curvilinear streets and houses built in the revival styles popular at the time. Like most of the seaside towns along the Jersey Shore, Ocean City has seen large-scale demolition of historic-era homes in favor of three-to-four-story dwellings. The northwest extent of Ocean City fronting the Great Egg Harbor Bay was developed beginning in the 1970s with the bulk of development occurring in the 1980s (NETR, 2023).

3.3 5321-5229 Central Avenue

3.3.1 Description and Existing Conditions

The building at 5231-5229 Central Avenue is a two-story Folk Victorian duplex residence with a side-gable roof and central gabled dormer. It is a simple frame dwelling with four bays on the first-story façade and two bays on the second-story façade. There is a single-story hipped-roof porch that wraps around to the side elevations. Restrained "gingerbread" decoration is featured on the porch and dormer. Windows are regularly spaced one-over-one sash. The exterior wall cladding is wood clapboard on the first story and wood shingles on the second story and gable ends. Entrances to the each of the two units are located on the side elevations and accessed via the wraparound porch. A single-story screened porch addition extends from the ocean-facing (southeast) elevation. The house is located on the southeast side of Ocean Avenue within a dense residential block. The simple porches, strong bilateral symmetry and massing of the house are characteristic of duplex beachfront historic homes of this era.

3.3.2 Historic Significance and Setting

The resource first appears on a 1920 aerial photograph of Ocean City and was situated along a linear row of dwellings fronting Central Avenue with views to the Atlantic Ocean from the rear of the dwelling. The corridor of Central Avenue was the only visibly improved road along this area of Ocean City and homes were confined to its southeast and northwest sides. By the early 1950s, steadily development is visible in aerial photographs along the orderly grid of avenues and numerical streets. By the late 1970s, the once rural and sparsely developed area of Ocean City was a densely built area of residences lining the blocks to the northwest of the ocean. This configuration is maintained today (NETR, 2023). The building at 5231-5229 Central Avenue appears to meet National Register Criterion C in the area of Architecture as an example of a Late Victorian vernacular seaside cottage in Ocean City. The southeast (rear) elevation of the house has clear unobstructed views of Ocean City Beach and the Atlantic Ocean, and the parcel has private beach access.

3.3.3 Project Effect on the Historic Property

Due to its location on the Atlantic Ocean beachfront, the residence at 5231-5229 Central Avenue will have unobstructed views of the Projects from 20.95 percent of the property. In addition, due to the proximity of the Projects at 20.82 miles, the Projects are expected to be a significant focus of viewer attention from the property; therefore, the Projects will have an adverse effect on the setting of this aboveground historic property.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding to hire a Secretary of the Interior qualified consultant to develop a National Register of Historic Places Nomination Form for 5231-5229 Central Avenue. In addition, or in lieu of the above, funding may be used to subsidize the cost of flood insurance to be distributed annually throughout the period of operation of the Atlantic Shores South Offshore Wind Projects.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Allaback, S., and C. Milliken. 1995. Resorts & Recreation: an Historic Theme Study of the New Jersey Coastal Heritage Trail Route. Sandy Hook Foundation, Inc. and National Park Service, U.S. Department of the Interior. Available at https://www.nps.gov/parkhistory/online_books/nj1/index.htm (Accessed October 2022).

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Folk Victorian Residence at 5231-5229 Central Avenue

5231-5229 Central Avenue
Ocean City, Cape May County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 20.82
Number of Blade Tips Visible 200
Property Acreage within Study Area 0.08
Property Acreage within PAPE 0.02
Percentage of Property with Potential Visibility 25.95
Visible Light Units

Nacelle Aviation	200
Mid Tower Aviation	75
Coast Guard	0

Significance

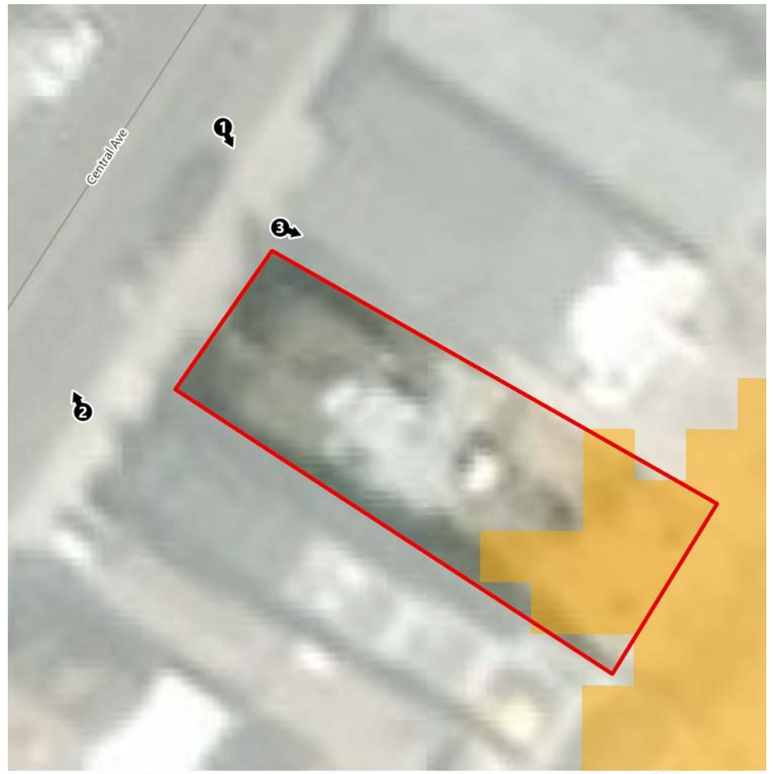
The house stands as a rare example of a Folk Victorian dwelling in Ocean City. The resource retains sufficient integrity to convey its significance under NRHP Criterion C.

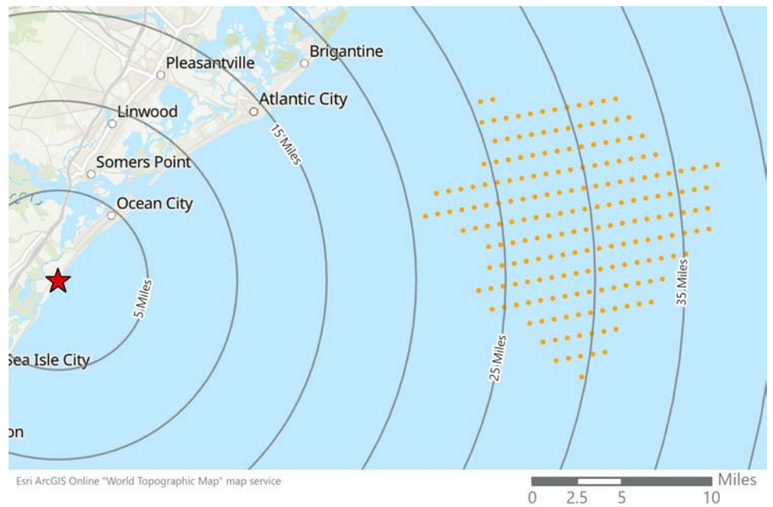
Maritime Setting

The house is located on the southeast side of Ocean Avenue within a dense residential block. The simple porches, strong bilateral symmetry and massing of the house are characteristic of duplex beachfront historic homes of this era. The southeast (rear) elevation of the house has clear unobstructed views of Ocean City Beach and the Atlantic Ocean and the parcel has private beach access.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects from the rear of the property along the shoreline.





ATTACHMENT 13 – HISTORIC PROPERTY TREATMENT PLAN FOR MUSIC PIER, GILLIAN'S WONDERLAND PIER, AND OCEAN CITY BOARDWALK IN OCEAN CITY, CAPE MAY COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Music Pier
Gillian's Wonderland Pier
Ocean City Boardwalk
Ocean City, Cape May County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Absentee-Shawnee Tribe of Indian of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Music Pier, Ocean City, Cape May County, New Jersey Gillian's Wonderland Pier, Ocean City, Cape May County, New Jersey Ocean City Boardwalk, Ocean City, Cape May County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Music Pier, Gillian's Wonderland Pier, and Ocean City Boardwalk, which have been determined to be eligible for listing on the National Register of Historic Places (NRHP); (hereinafter, the Historic Properties) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

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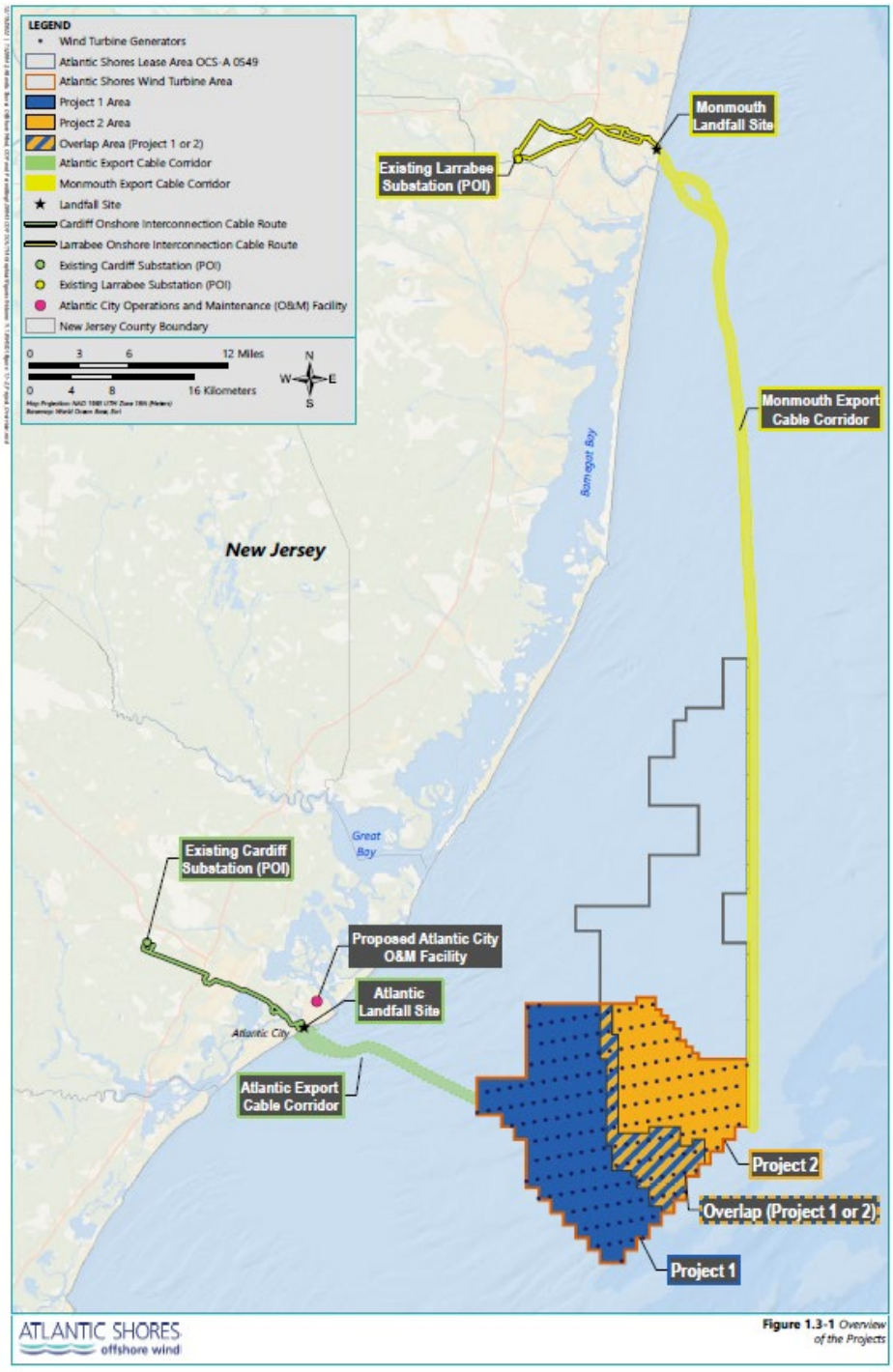

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2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	Municipality	NRHP Status	Ownership
76	Music Pier	825 Boardwalk	Ocean City	NRHP-Eligible (NJHPO-Determined)	Public
77	Gillian's Wonderland Pier	600 Boardwalk	Ocean City	NRHP-Eligible (NJHPO-Determined)	Private
113	Ocean City Boardwalk	Oceanfront between East 13th Street and 5th Street	Ocean City	NRHP-Eligible (BOEM-Determined)	Public

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessments.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Ocean City

Ocean City is in Cape May County and occupies the entirety of Peck's Beach Island. One of the first Europeans to utilize present-day Ocean City was John Peck, a whaler, who used the island as a storage place for his caught whales in the 1700s. In 1879, a group of Methodist ministers formed the Ocean City Association and purchased Peck's Beach. The group envisioned creating a Christian seaside resort, laying out commercial and residential lots. Over 500 building lots were sold by the end of 1881 and a large auditorium, later known as the Tabernacle, was constructed by the Association. This was followed by hotels

and a boardwalk. Ocean City was officially incorporated as a city on March 25, 1897. The area continued to develop throughout the years and quickly became a prominent seaside resort. An element of the vision the founding ministers had to create a seaside resort that exemplified Christian ideals remains today, as Ocean City has remained a dry town, with no public drinking establishments. This also resulted in smaller-scale development in the city when compared to other resort destinations such as Atlantic City, Margate City, and Ventnor City to the northeast (Ocean City, 2022; Allaback and Milliken, 1995).

The city was initially platted to the southwest of North Street in an orderly grid with three main thoroughfares (Bay Avenue, West Avenue, and Wesley Avenue) traveling in a northeast-southwest direction. The neighborhood to the northeast of North Street was developed beginning in the 1930s with curvilinear streets and houses built in the revival styles popular at the time. Like most of the seaside towns along the Jersey Shore, Ocean City has seen large-scale demolition of historic-era homes in favor of three-to-four-story dwellings. The northwest extent of Ocean City fronting the Great Egg Harbor Bay was developed beginning in the 1970s with the bulk of development occurring in the 1980s (NETR, 2023).

3.3 Music Pier

3.3.1 Description and Existing Conditions

The Music Pier at Ocean City is a two-story Spanish Colonial Revival style event hall atop concrete pilings on the beach side of the Ocean City Boardwalk. It consists of a two-story stucco-clad volume with a clay tile roof to the northwest and a single-story flat-roofed volume to the southeast containing a large event hall. The primary elevation facing the boardwalk consists of a central three-bay arcade flanked by two-bay hipped-roofed wings. This volume has a stucco exterior with simulated quoins, divided light windows, and faux balconies. To the rear, the five-bay-long event hall volume has large arched windows delineated by piers topped with urn-shaped finials. A smaller three-bay extension to the southeast has similar materials and features. A single-story arcaded covered pavilion is attached to the southwest.

3.3.2 Historic Significance and Setting

The Music Pier at Ocean City was opened in the summer of 1929. It was constructed after a fire destroyed a large portion of the boardwalk, including businesses and nearby homes. The Spanish Colonial Revival style pier included a large concert hall and was used for conventions, bazaars, dances, and free summer concerts. At the onset of American involvement in World War II, a lookout tower was constructed on top of the pier to watch for submarines and U-boats on the Atlantic Ocean. Volunteers, ranging in age from teenagers to retirees, kept watch in the tower during the duration the war and eventually the tower was used to spot aircrafts. Volunteers were recruited and trained by the local American Legion. The tower was dismantled in 1968 (Miller, 2022). The Music Pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with Entertainment/Recreation and Maritime History in Ocean City.

The Music Pier is located on the southeast side of the Ocean City boardwalk at Moorlyn Terrace. The pier extends approximately 218 feet over the beach and provides expansive views of the ocean from inside and

outside of the building. The location on the beach and off of the boardwalk is one of the character defining features of the pier.

3.3.3 Project Effect on the Historic Property

Due to its location over the Atlantic Ocean, there will be unobstructed views of the Projects from the eastern and southern elevations of the Margate Fishing Pier. In addition, the pier is approximately 17.2 miles from the Projects, which are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the Music Pier.

3.4 Gillian's Wonderland Pier

3.4.1 Description and Existing Conditions

Gillian's Wonderland Pier is an amusement park occupying the entire block bound by the Ocean City Boardwalk, East 6th Street, Wayne Avenue, and Plaza Place. It consists of a single-story building spanning the full with of the block with a primary elevation directly on the Boardwalk, along with outdoor amusements including an iconic Ferris wheel. The building is a flat-roofed structure with a crenellated parapet and applied turrets on the arcaded primary elevation.

3.4.2 Historic Significance and Setting

Gillian's Wonderland Pier was previously identified by NJHPO but was not evaluated for listing in the NRHP. The entertainment pier was opened in 1965 by Roy Gillian, a second-generation amusement entrepreneur and is currently operated by his son Jay Gillian (Gillian's Wonderland Pier, 2010). The resource retains sufficient integrity for eligibility in the NRHP under Criterion A for its association with Commerce and Community Planning and Development in Ocean City. Gillian's Wonderland Pier is located on the southwest side of 6th street and the resource fronts the Ocean City Boardwalk. The pier was built to serve patrons of the beach and boardwalk and its proximity to the beach and ocean is one of its character defining features.

3.4.3 Project Effect on the Historic Property

The Projects will be visible from approximately 16.28 percent of Gillian's Wonderland Pier, due to the property's location on the Ocean City Boardwalk and 17.01 miles from the Projects. In addition, the Projects, are expected to be a significant focus of viewer attention from this aboveground historic property; therefore, the Projects will have an adverse effect on the setting of the Gillian's Wonderland Pier.

3.5 Ocean City Boardwalk

3.5.1 Description and Existing Conditions

The Ocean City Boardwalk Historic District includes the iconic boardwalk and the properties fronting it between East 13th Street and 5th Street. The boardwalk itself consists of a concrete structure with a wood deck and modern metal railings. Buildings fronting the boardwalk are primarily unadorned single-story commercial buildings of the mid- to late twentieth century. Notable exceptions include the 1929 Spanish Colonial Revival style Music Pier and the similarly styled Moorlyn Theater, as well as a two-story Colonial Revival style building at 848-852 Boardwalk,

3.5.2 Historic Significance and Setting

The Ocean City Boardwalk was originally constructed in 1905, replacing a wooden walkway that was constructed in 1880. Hotels, recreational, and entertainment venues were constructed in the early twentieth century. In 1927, the boardwalk and many surrounding buildings were destroyed by fire. When the boardwalk was reconstructed in 1928, it was moved closer to the Atlantic Ocean. Although portions of the boardwalk have been replaced, the Ocean City Boardwalk retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Ocean City. The Ocean City Boardwalk has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Ocean City.

3.5.3 Project Effect on the Historic Property

The Ocean City Boardwalk is located along the Atlantic Ocean beachfront with unobstructed views of the water and the Projects. Due to its location approximately 16.9 miles from the Projects, it is anticipated that the Projects will be a major visual focus while experiencing the boardwalk; therefore, the Projects will have an adverse effect on the Ocean City Boardwalk.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding to hire a Secretary of the Interior qualified consultant to develop a National Register of Historic Places Nomination Form for the Ocean City Boardwalk. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Music Pier

825 Boardwalk
Ocean City, Cape May County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 17.2
Number of Blade Tips Visible 200
Property Acreage within Study Area 0.76
Property Acreage within PAPE 0.07
Percentage of Property with Potential Visibility 9.21
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 133
Coast Guard 0

Significance

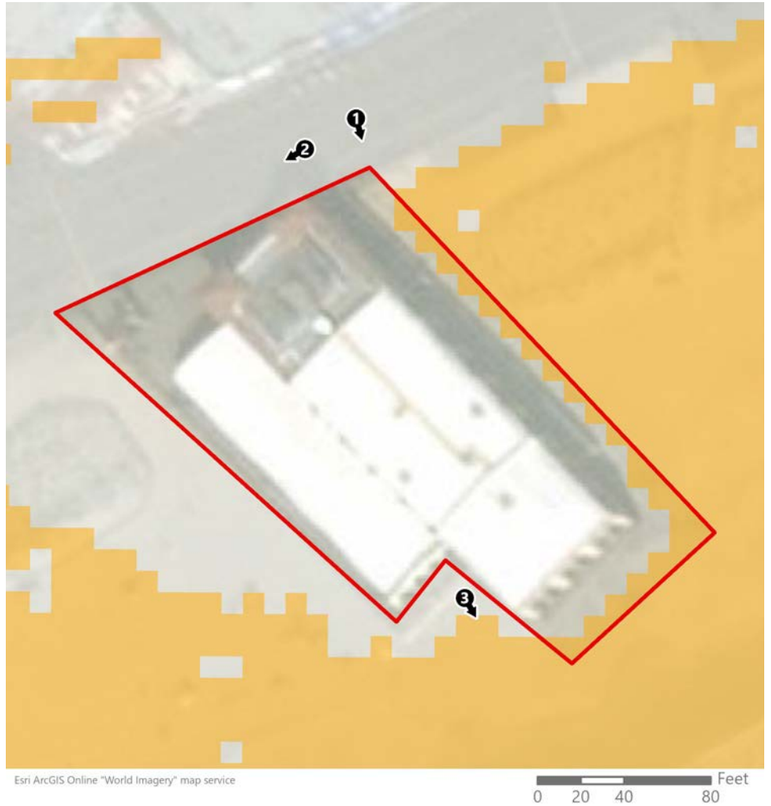
The Music Pier at Ocean City was opened in the summer of 1929. It was constructed after a fire destroyed a large portion of the boardwalk, including businesses and nearby homes. The Spanish Colonial style pier included a large concert hall and was used for conventions, bazaars, dances, and free summer concerts. At the onset of American involvement in World War II, a lookout tower was constructed on top of the pier to watch for submarines and U-boats on the Atlantic Ocean. Volunteers, ranging in age from teenagers to retirees, kept watch in the tower during the duration the war and eventually the tower was used to spot aircrafts. Volunteers were recruited and trained by the local American Legion. The tower was dismantled in 1968. The Music Pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with Entertainment/Recreation and Maritime History in Ocean City.

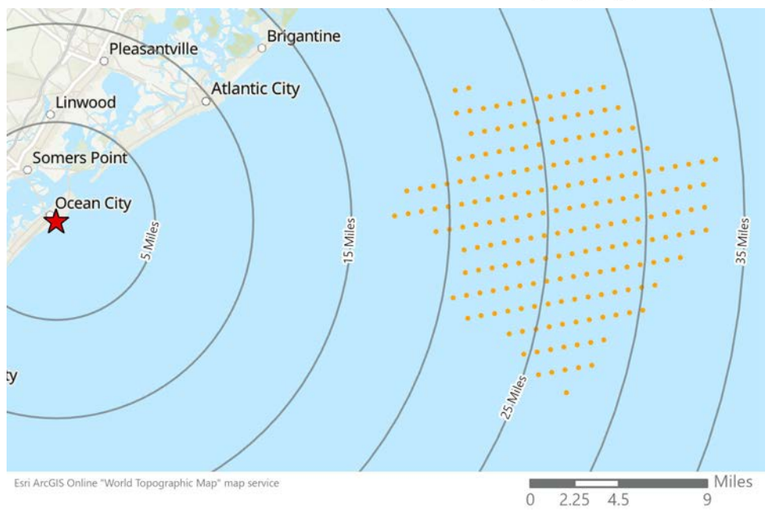
Maritime Setting

The Music Pier is located on the southeast side of the Ocean City boardwalk at Moorlyn Terrace. The pier extends approximately 218 feet over the beach and provides expansive views of the ocean from inside and outside of the building. The location on the beach and off of the boardwalk is one of the character defining features of the pier.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to its location on the beach.





Photograph Location
Historic Property Location
Wind Turbine Generator
Preliminary Area of Potential Effects (PAPE)
Historic Property Boundary
Distance from Resource (5-Statue Mile Increment Rings)

Gillian's Wonderland Pier

600 Boardwalk
Ocean City, Cape May County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 17.01
Number of Blade Tips Visible 137
Property Acreage within Study Area 2.51
Property Acreage within PAPE 0.41
Percentage of Property with Potential Visibility 16.28
Visible Light Units

Nacelle Aviation 107
Mid Tower Aviation 47
Coast Guard 0

Significance

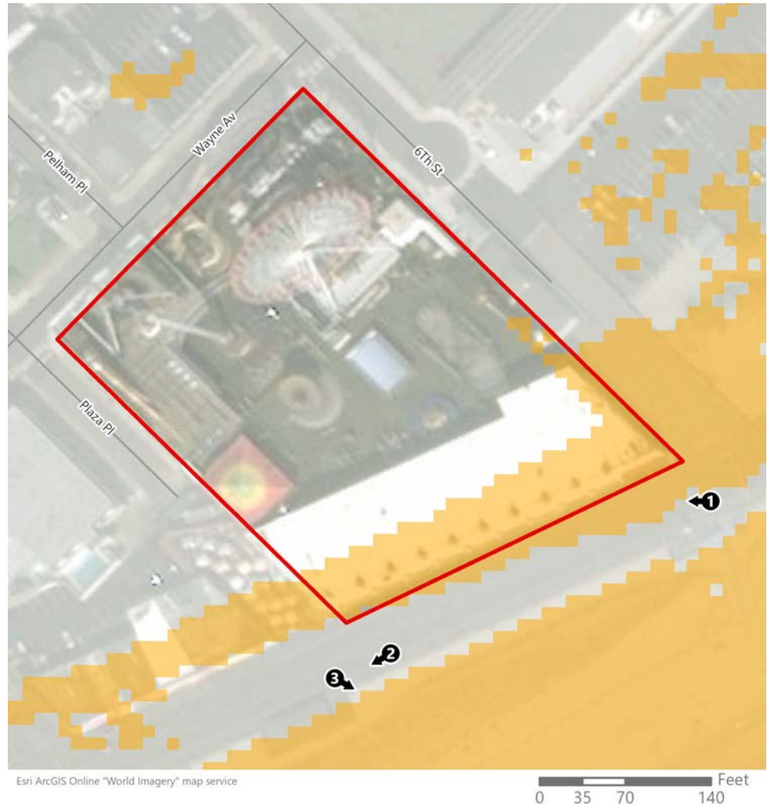
Gillian's Wonderland Pier was previously identified by NJHPO but was not evaluated for listing in the NRHP. The entertainment pier was opened in 1930 by David Gillian and is currently operated by 3rd generation owner Jay Gillian. The pier retains sufficient integrity for eligibility in the NRHP under Criterion A for its association with Commerce and Community Planning and Development in Ocean City.

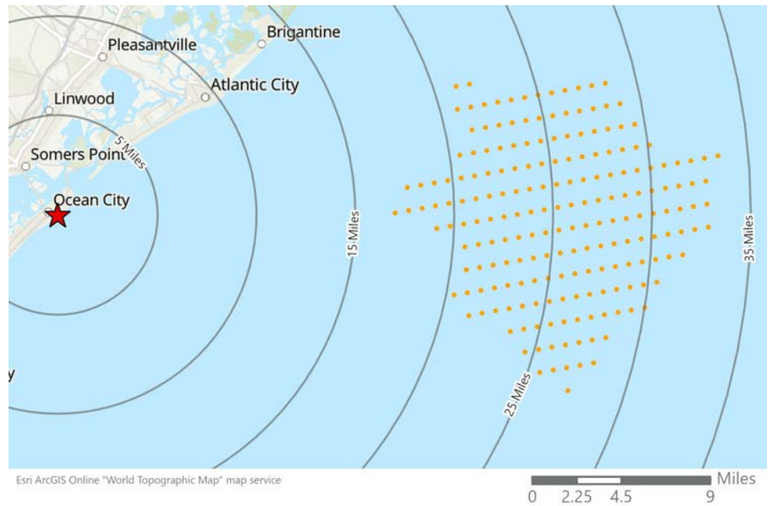
Maritime Setting

Gillian's Wonderland Pier is located on the southwest side of 6th street and the resource fronts the Ocean City Boardwalk. pier was built to serve patrons of the beach and boardwalk and its proximity to the beach and ocean is one of its character defining features.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location on the boardwalk.





Photograph Location
Historic Property Location
Wind Turbine Generator
Preliminary Area of Potential Effects (PAPE)
Historic Property Boundary
Distance from Resource (5-Statue Mile Increment Rings)

Ocean City Boardwalk

N/A
Ocean City, Cape May County, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 16.90 miles
Number of Blade Tips Visible 200
Property Acreage within Study Area 37.05
Property Acreage within PAPE 5.70
Percentage of Property with Potential Visibility 15.38
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 152
Coast Guard 0

Significance

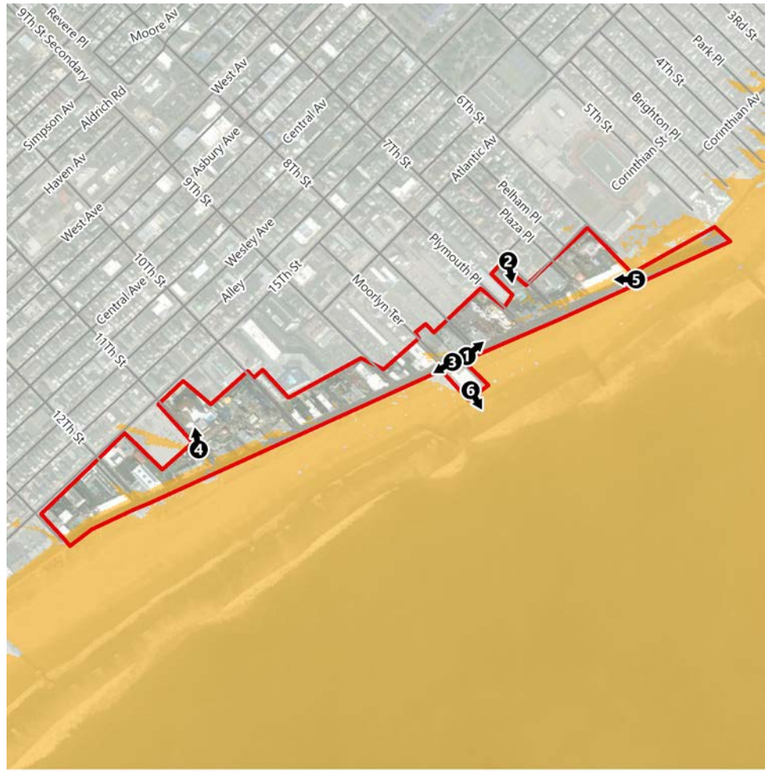
The Ocean City Boardwalk was originally constructed in 1905, replacing a wooden walkway that was constructed in 1880. Hotels, recreational, and entertainment venues were constructed in the early twentieth century. In 1927, the boardwalk and many surrounding buildings were destroyed by fire. When the boardwalk was reconstructed in 1928, it was moved closer to the Atlantic Ocean. Although portions of the boardwalk have been replaced, the Ocean City Boardwalk retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/ Recreation and Community Planning and Development in Ocean City.

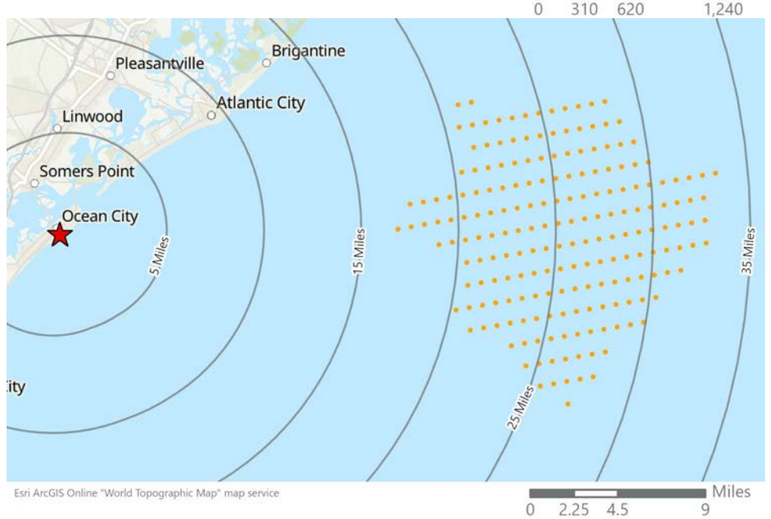
Maritime Setting

The Ocean City Boardwalk has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Ocean City.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the boardwalk's location on the Atlantic Ocean.





ATTACHMENT 14 – HISTORIC PROPERTY TREATMENT PLAN FOR 114 SOUTH HARVARD AVENUE, VENTNOR CITY FISHING PIER, SAINT LEONARD'S TRACT HISTORIC DISTRICT, JOHN STAFFORD HISTORIC DISTRICT, AND VASSAR SQUARE CONDOMINIUMS IN VENTNOR CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

114 South Harvard Avenue
Ventnor City Fishing Pier
Saint Leonard's Tract Historic District
John Stafford Historic District
Vassar Square Condominiums
Ventnor City, Atlantic County, New Jersey

Submitted to:

BOEM
Bureau of Ocean Energy Management

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

ATLANTIC SHORES
offshore wind

Atlantic Shores Offshore Wind LLC

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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	114 South Harvard Avenue, Ventnor City, Atlantic County, New Jersey Ventnor City Fishing Pier, Ventnor City, Atlantic County, New Jersey Saint Leonard's Tract Historic District, Ventnor City, Atlantic County, New Jersey John Stafford Historic District, Ventnor City, Atlantic County, New Jersey Vassar Square Condominiums, Ventnor City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ATTACHMENTS

LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for 114 South Harvard Avenue, Ventnor City Fishing Pier, Saint Leonard's Tract Historic District, and Vassar Square Condominiums, which have been determined to be eligible for listing on the National Register of Historic Places (NRHP), and the John Stafford Historic District, which is listed on the NRHP (hereinafter, the Historic Properties) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

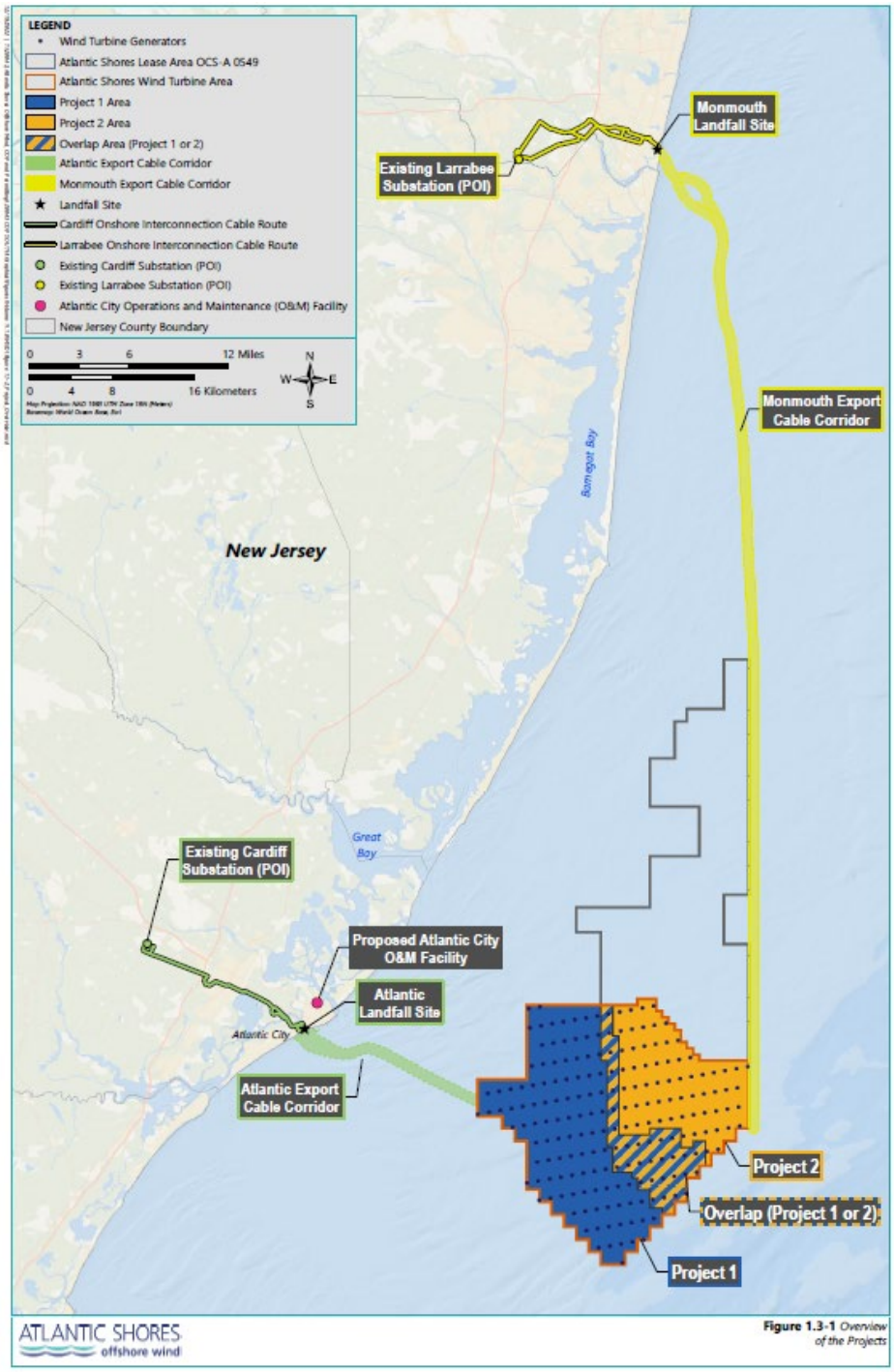

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	Municipality	NRHP Status	Ownership
101	114 South Harvard Avenue	114 South Harvard Avenue	Ventnor City	NRHP-Eligible (NJHPO-Determined)	Private
102	Ventnor City Fishing Pier	Cambridge Avenue at the Ventnor City Boardwalk	Ventnor City	NRHP-Eligible (EDR-Recommended)	Public
103	Saint Leonard's Tract Historic District	Roughly bounded by the shoreline, Surrey Avenue, Cambridge Avenue, and the Intercoastal Waterway	Ventnor City	NRHP-Eligible (NJHPO-Determined)	Private
104	John Stafford Historic District	100 blocks of Vassar Square, Baton Rouge, Marion, and Austin Avenues	Ventnor City	NRHP-Listed	Private
105	Vassar Square Condominiums	4800 Boardwalk	Ventnor City	NRHP-Eligible (BOEM-Determined)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessments.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Ventnor City

Ventnor City is in Atlantic County and is situated on Absecon Island south of Atlantic City and north of Margate City. Ventnor City remained as undeveloped hills and meadows through most of the nineteenth

century, even while Atlantic City and South Atlantic City (present-day Margate City) grew and developed in the mid- and late-nineteenth century. In 1881, the Camden and Atlantic Railroad connected Atlantic City to Margate through Ventnor, requiring the grading of many of the hills in the area. In 1888, the Camden and Atlantic Land Company built a train station in Ventnor City, providing direct passenger access to the area for the first time. The land company subsequently built three cottages. The name "Ventnor" was chosen in 1889, referencing the seaside resort in Ventnor, England (Smith, 1963).

By the turn of the twentieth century, the lowland marshes in Ventnor were filled, and Ventnor had several houses, a post office, and a few additional buildings. In 1900, the county built the Longport Speedway, a gravel road connecting Atlantic City to Longport through Ventnor. Ventnor City was officially incorporated in 1903. Following incorporation, the city continued to develop, adding additional houses, bath houses, a newspaper, a boat works, a pharmacy, and a boardwalk over the next decade. Historic aerial imagery shows the southern part of Ventnor City fully developed by 1920, with development north of the Inside Thorofare through the first half of the twentieth century, culminating in the present-day level of development by the 1960s. Today, portions of the northern part of the city remain undeveloped marshland, and the rest of the city mainly consists of private developments and enclaves. Ventnor City remains a popular summer resort (Smith, 1963; Ventnor City, 2023a; NETR, 2023).

3.3 114 South Harvard Avenue

3.3.1 Description and Existing Conditions

The building at 114 South Harvard Avenue is a two-and-one-half-story French Eclectic style residence with rough stucco cladding and a green ceramic tile hipped roof. The house is roughly rectangular in plan with a single-story side porch, one-and-one-half-story attached garage, single-story arched entry portico, and a stair turret tucked into the ell formed by the garage. The main roof and garage roof feature gabled dormers and wall dormers. Windows are generally one-over-one replacement units. At the primary (northeast) elevation, the house is raised atop a plinth and partially surrounded with a concrete balustrade.

3.3.2 Historic Significance and Setting

114 South Harvard Avenue is a circa-1925 and retains sufficient integrity to convey its eligibility for the NRHP under Criterion C (NETR, 2023). This resource is a beachfront cottage. Although its primary orientation is to the street, the second-floor side porch and windows have unobstructed views of the Atlantic Ocean.

3.3.3 Project Effect on the Historic Property

The property's location on the beach allows for unobstructed views of the Projects from 55.1 percent of this historic property and Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the residence at 114 South Harvard Avenue.

3.4 Ventnor City Fishing Pier

3.4.1 Description and Existing Conditions

The Ventnor City Fishing Pier is an approximately 1,000-foot-long wood pier supported by wood pilings. The pier features metal railings, as well as benches, cleaning tables, and modern lighting. A modern pier house is located near the entrance to the pier and is clad in vinyl siding and capped by a hipped roof covered in standing seam metal roofing. The roof features shed-roof dormers. The pier underwent extensive renovations in 2007.

3.4.2 Historic Significance and Setting

The Ventnor City Fishing Pier was constructed in 1963 as a public fishing pier and was the fourth pier built at this site. It is the longest ocean fishing pier in New Jersey (Ventnor City, 2023b). The resource retains sufficient integrity to convey its significance under Criterion A in the area of Maritime History for its association with the development of Ventnor City. The Ventnor City Fishing Pier extends approximately 990 feet from the boardwalk into the Atlantic Ocean. As the pier was constructed primarily for fishing, there are full and unobstructed views to the Atlantic Ocean from the pier. Repair and replacement of historic materials is an inherent characteristic of wood piers and the Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric.

3.4.3 Project Effect on the Historic Property

Due to its location over the Atlantic Ocean, there will be unobstructed views of the Projects from the Ventnor City Fishing Pier. In addition, the pier is approximately 13.01 miles from the Projects, which are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the Ventnor Cit Fishing Pier.

3.5 Saint Leonard's Tract Historic District

3.5.1 Description and Existing Conditions

The Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930 as a designed community of upscale seaside cottages. The district is roughly bound by Surrey Avenue to the northeast, the Atlantic Ocean to the southeast, Cambridge Avenue to the southwest, and the Intercoastal Waterway to the northwest. Contributing buildings within the district are primarily two- and two-and-one-half-story detached residences rendered in popular period styles including Queen Anne, Craftsman, French Eclectic, and various Colonial Revivals. Many residences, especially those closest to the beachfront, exhibit alterations including the use of replacement windows, the addition of modern siding, and changes to porches. However, the district as a whole retains a high degree of integrity of location, design, setting, feeling, and association.

3.5.2 Historic Significance and Setting

The land comprising the Saint Leonard's Tract Historic District was purchased by the St. Leonard's Land Company in 1896 and laid out in a grid pattern. Deed restrictions ensured that the houses built within the tract adhered to a vision of upscale, single-family vacation homes. A homeowners' association founded in 1921 is reportedly one of the oldest continuously operating homeowners' associations in the U.S. (Fertsch,

2022). The district is eligible for the NRHP under Criterion A in the area of Community Planning and Development and Criterion C in the area of Architecture for its association with the development of Ventnor City and as an intact example of an early-twentieth-century designed community with strict building requirements for its architecture.

The Saint Leonard's Tract Historic District is located between the Atlantic Ocean and the Intercoastal Waterway with many residences having views of one or both bodies of water. The setting of the district on a coastal barrier and the presence of water views along the perimeter of the neighborhood are integral to its character and feeling.

3.5.3 Project Effect on the Historic Property

Due to the close proximity of the Saint Leonard's Tract Historic District, 12.69 miles from the Projects, the properties along the Atlantic Ocean beachfront will have unobstructed views of the Projects. In addition, the Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of this historic district.

3.6 John Stafford Historic District

3.6.1 Description and Existing Conditions

The John Stafford Historic District is an upscale seaside cottage development consisting of 32 residences and bound by South Vassar Square to the northeast, the Atlantic Ocean to the southeast, South Austin Avenue to the southwest, and Atlantic Avenue to the northwest. Contributing resources within the district are two- to three-story upscale vacation residences constructed between 1910 and 1940 and rendered in various Colonial Revival styles. Several of the residences exhibit alterations including the use of modern siding materials and replacement windows.

3.6.2 Historic Significance and Setting

The John Stafford Historic District is significant under Criterion A as a planned community associated with important area figures (including prominent turn-of-the-20th-century real estate developer John Stafford and Philadelphia-based architect Frank Seeburger) and Criterion C for its early-twentieth-century Colonial Revival architecture. The development included early examples of zoning-type deed restrictions to ensure consistency and coherence of the neighborhood. Several contributing resources were commissioned works of prominent architects built for local hoteliers. The district was developed as a seaside resort that, unlike other places on the shore, was easily accessible by automobile. The periods of significance span 1900 to 1924 and 1925 to 1949 (Thomas, 1986).

The John Stafford Historic District was designed as a resort planned community located on the shoreline of the Atlantic Ocean. The setting is somewhat compromised by the introduction of two high-rise condominiums immediately adjacent to the district in the late twentieth century. The district shares some parallels with other oceanside residential neighborhoods that developed in response to the late-nineteenth-

century expansion of passenger rail service along the New Jersey shore but reflects a greater emphasis on roadways designed to accommodate automobiles. The district's relationship to the shoreline and ocean are integral to its planned design.

3.6.3 Project Effect on the Historic Property

Due to the close proximity of the John Stafford Tract Historic District, 12.47 miles from the Projects, the properties along the Atlantic Ocean beachfront will have unobstructed views of the Projects. In addition, the Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of this historic district.

3.7 Vassar Square Condominiums

3.7.1 Description and Existing Conditions

The Vassar Square Condominiums is a 20-story concrete frame brick-clad former apartment building located directly on the Boardwalk in Ventnor City. It consists of a brick-clad tower with projecting balconies and vertical bands of brick window trim on all elevations creating an undulating surface, atop a ground-floor base and parking deck defined by flaring concrete piers.

3.7.2 Historic Significance and Setting

Construction began in 1968 on what was originally known as the Vassar Square Arms, a high-rise Modernistic style apartment building on the oceanfront in Ventnor City. Following the real estate boom in the region in the 1970s, the building was converted into condominiums, the first high-rise building to make that conversion on the Ventnor Boardwalk. The building is recommended eligible for the NRHP under Criterion C for its architecture. The building exhibits elements of Modernistic architecture including the cantilevered balconies with glass railings, and flaring concrete columns. The Vassar Square Condominiums are located on the Boardwalk and the building was designed for views toward the ocean.

3.7.3 Project Effect on the Historic Property

The Vassar Square Condominiums are located on the Ventnor City Boardwalk with unobstructed views of the ocean from the eastern and southern elevations. the Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of this aboveground historic property.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding to hire a qualified consultant to prepare a Cultural Resources Hazard Mitigation Plan per the 2015 *Development of Climate Change Adaptation Elements for Municipal Land Use Plans: Building Resiliency in Ventnor City, New Jersey*. The plan will provide guidelines for historic property owners to assist in resiliency planning and implementation. Property owners of adversely affected historic properties shall be provided a digital or hard copy of the plan and guidelines. In addition, or in lieu of the above, the funding may be used for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these aboveground historic properties.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Residence at 114 South Harvard Avenue

114 South Harvard Avenue
Ventnor City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 13.01
Number of Blade Tips Visible 191
Property Acreage within Study Area 0.19
Property Acreage within PAPE 0.1
Percentage of Property with Potential Visibility 55.1
Visible Light Units

Nacelle Aviation 186
Mid Tower Aviation 173
Coast Guard 10

Significance

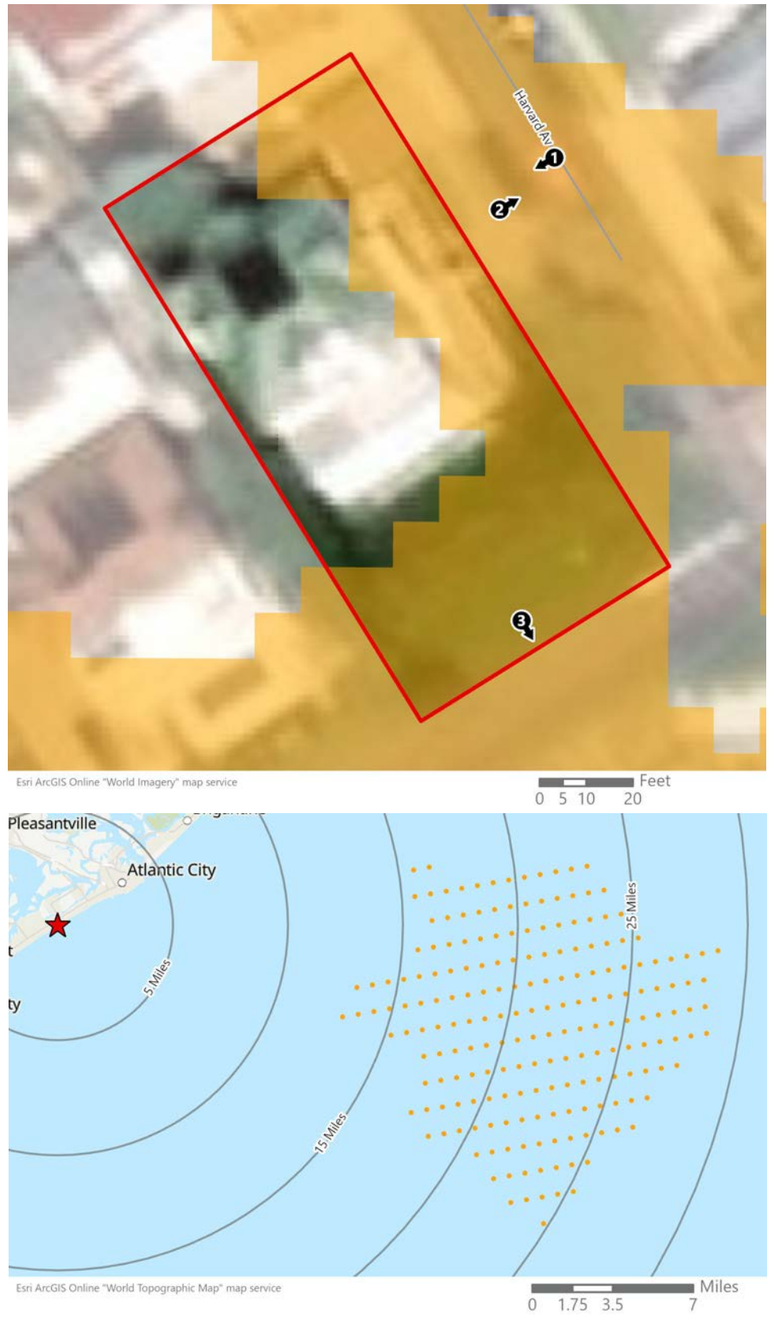
The residence at 114 South Harvard Avenue is a 2.5 story French Eclectic with a side porch, and attached garage, and a short stair turret tucked into the ell. The house is stuccoed with colored asphalt shingles on the roof. The entry porch is arched and has a small balustrade on the roof. This resource has sufficient integrity to convey its eligibility for the NRHP under Criterion C.

Maritime Setting

114 South Harvard Avenue is a beach front home. Its primary orientation is to the street, but the 2nd floor side porch and windows have unobstructed views of the Atlantic Ocean.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location adjacent to the boardwalk and elevated vantages within the property.



Saint Leonard's Tract Historic District

Ventnor and Atlantic Avenues roughly bounded by the shoreline, S. Surrey Avenue, N. Cambridge Avenue and the Intercoastal Waterway
Ventnor City, Atlantic County, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 12.69 miles
Number of Blade Tips Visible 200
Property Acreage within Study Area 72.59
Property Acreage within PAPE 7.07
Percentage of Property with Potential Visibility 9.74
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 197
Coast Guard 15

Significance

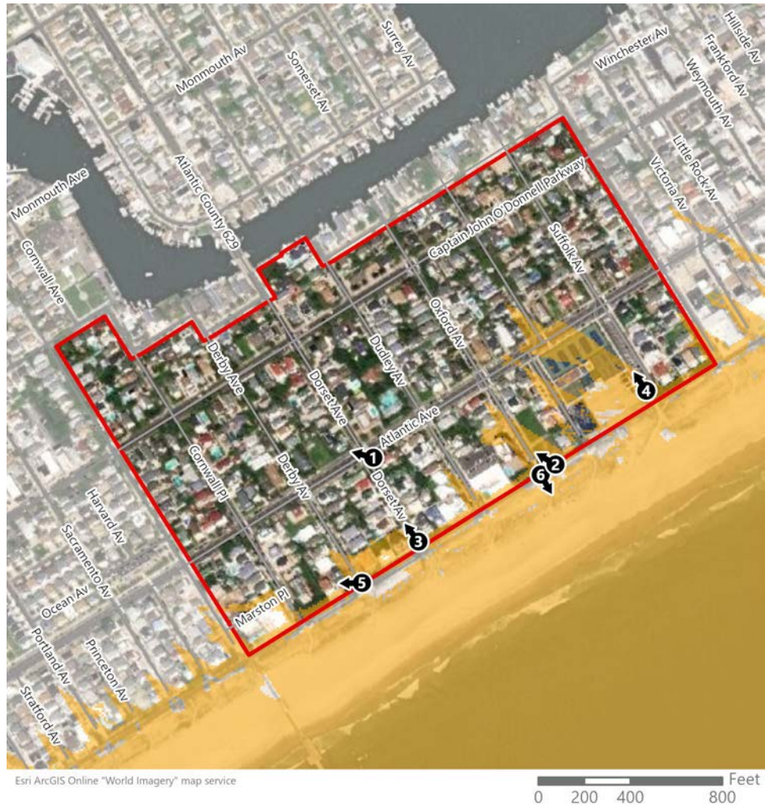
The Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930. The buildings are eligible for the NRHP under Criterion A and C for as a designed community with strict building requirements for its architecture. The St. Leonard's Land Company purchased the land in 1896 and designed the district in a grid pattern.

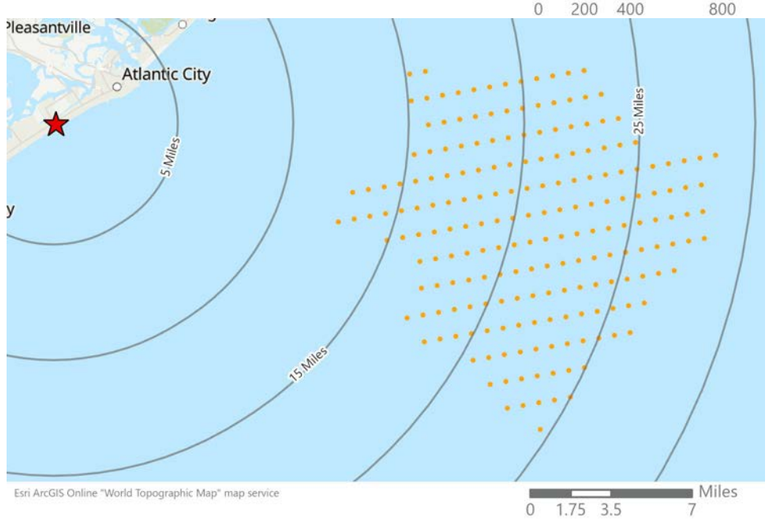
Maritime Setting

The Saint Leonard's Tract Historic District is located between the Atlantic Ocean and the Intercoastal Waterway with many residences having views of one or both bodies of water. The setting of the district on a coastal barrier and the presence of water views along the perimeter of the neighborhood are integral to its character and feeling.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects from contributing resources along shoreline.





John Stafford Historic District

100 blocks of Vassar Square, Baton Rouge, Marion and Austin Avenues
Ventnor City, Atlantic County, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph from property looking toward Projects

Historic Designation NRHP-Listed
Distance to Nearest Turbine 12.47 miles
Number of Blade Tips Visible 200
Property Acreage within Study Area 4.21
Property Acreage within PAPE 0.84
Percentage of Property with Potential Visibility 20.05
Visible Light Units

Nacelle Aviation	199
Mid Tower Aviation	167
Coast Guard	11

Significance

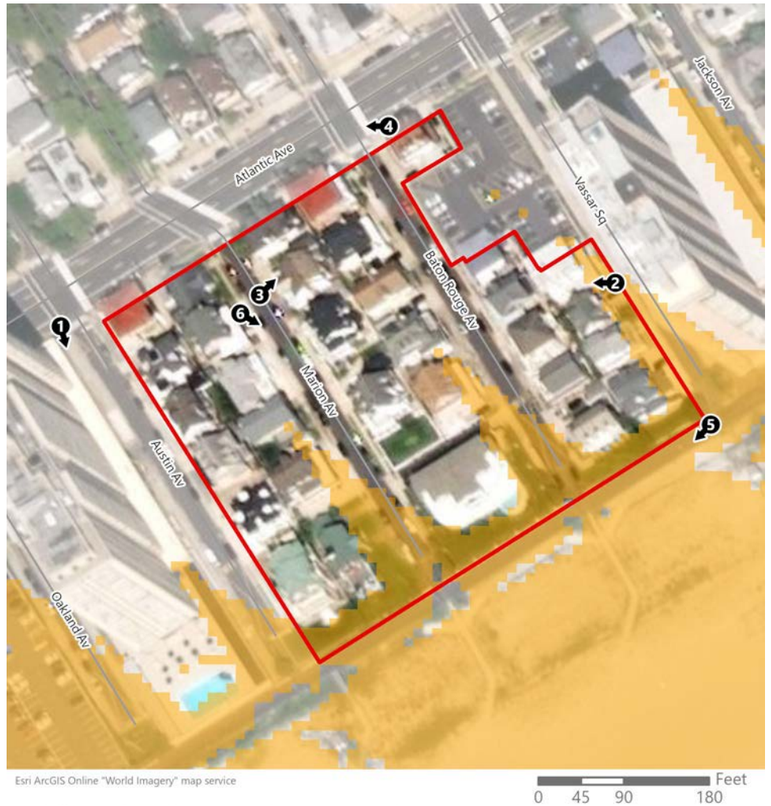
The John Stafford Historic District is significant under Criterion A as a planned community associated with important figures (including prominent turn-of-the-20th-century real estate developer John Stafford and Philadelphia-based architect Frank Seeburger) of the area and Criterion C for its early twentieth century Colonial Revival architecture. The development included early examples of zoning-type restrictions to ensure consistency and coherence of the neighborhood. Several contributing resources were commissioned works of prominent architects built for local hoteliers. The district was developed as a seaside resort that unlike other places on the shore, was easily accessible by automobile. The periods of significance span 1900 to 1924 and 1925 to 1949.

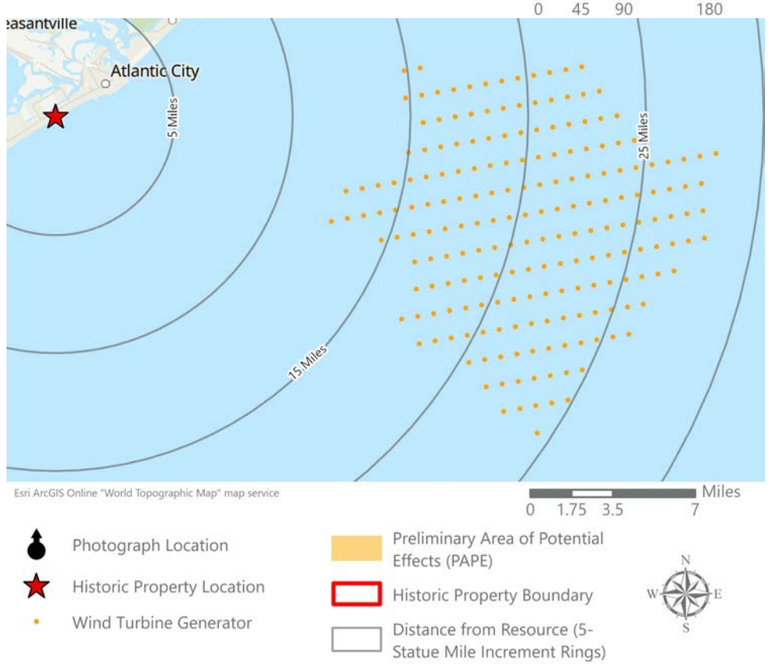
Maritime Setting

The John Stafford Historic District was designed as a resort planned community located on the shoreline of the Atlantic Ocean. The district shares some parallels with other oceanside residential neighborhoods that developed in response to the late 19th century expansion of passenger rail service along the New Jersey shore, but reflects a greater emphasis on roadways designed to accommodate automobiles. The district's relationship to the shoreline and ocean are integral to its planned design.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects from contributing resources along shoreline. The WTGs are expected to be a significant focus of viewers' attention from shoreline locations within the district's boundaries.





Vassar Square Condominiums

4800 Boardwalk
Ventnor City, Atlantic County, NJ

1

Photograph of property

Historic Designation NRHP-Eligible (BOEM-Determined)
Distance to Nearest Turbine 12.45
Number of Blade Tips Visible 200
Property Acreage within Study Area 1.04
Property Acreage within PAPE 0.24
Percentage of Property with Potential Visibility 22.8
Visible Light Units

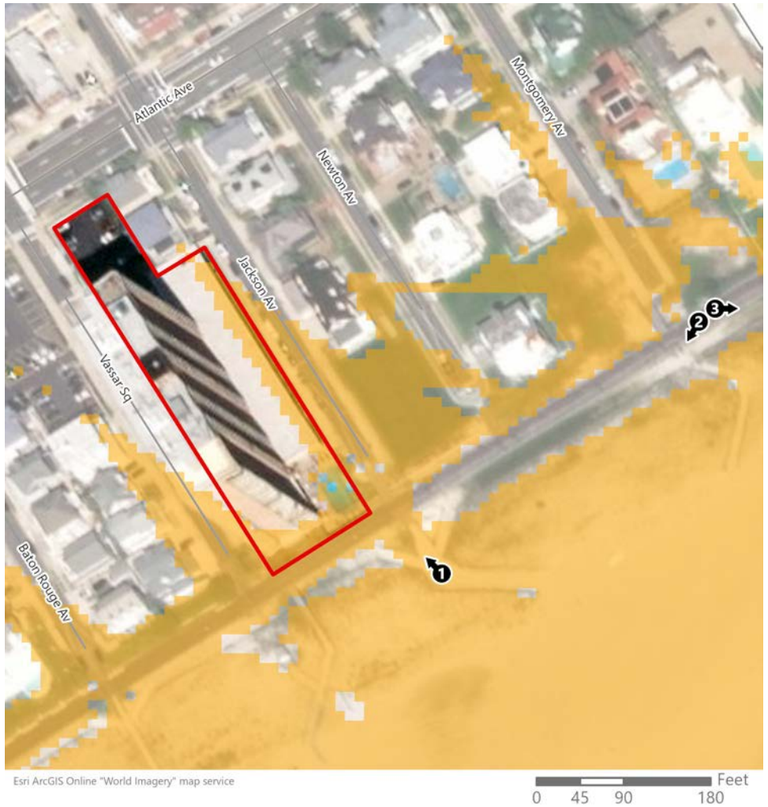
Nacelle Aviation 200
Mid Tower Aviation 200
Coast Guard 20

Significance

The Vassar Square Condominiums are sited in a high-rise brick and glass clad 20-story building located directly on the Boardwalk. Construction on the building began in 1968 and originally contained apartments. Following the real estate boom in the region in the 1970s, the building was converted into condominiums, the first high-rise building to make that conversion on the Ventnor Boardwalk. The building is recommended eligible for the NRHP under Criterion C for its architecture. The building exhibits elements of Modern architecture including the cantilevered curved balconies with glass railings, and curved columns.

Maritime Setting

The Vassar Square Condominiums are located on the Boardwalk and the building was designed for views toward the ocean.



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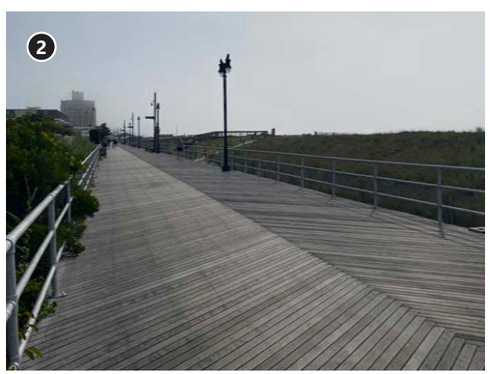


Photograph of property context

3

Photograph from property looking toward Projects

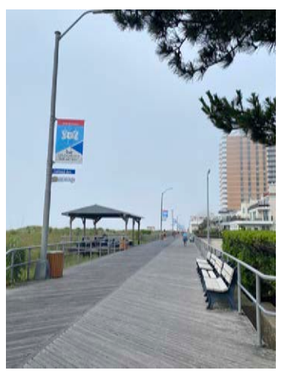
Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to its location adjacent to the boardwalk.

Ventnor City Fishing Pier

Cambridge Avenue at the Ventnor City Boardwalk
Ventnor City, Atlantic County, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 12.83
Number of Blade Tips Visible 200
Property Acreage within Study Area 0.53
Property Acreage within PAPE 0.53
Percentage of Property with Potential Visibility 100
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 189
Coast Guard 6

Significance

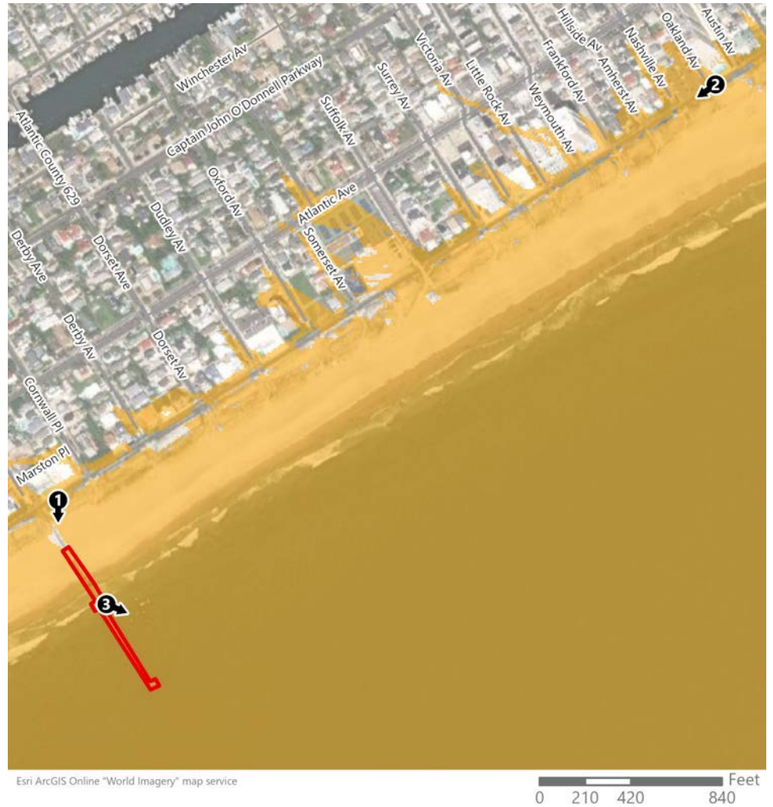
The Ventnor City Pier was constructed in 1963 and was the fourth pier built at this site. It is the longest fishing pier in New Jersey. Although the pier underwent extensive renovations in 2017, it retains sufficient integrity to convey its significance under Criterion A for its association with the Maritime History of Ventnor City.

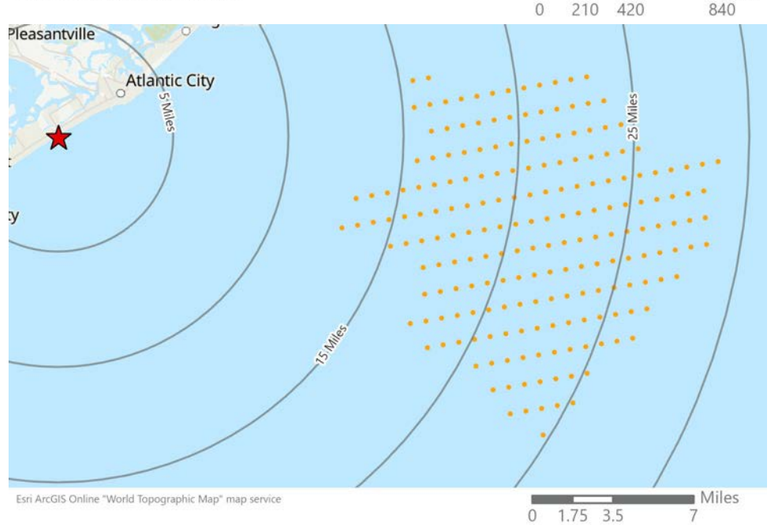
Maritime Setting

The Ventnor City Fishing Pier extends approximately 990 feet from the boardwalk into the Atlantic Ocean. As the pier was constructed primarily for fishing, there are full and unobstructed views to the Atlantic Ocean from the pier. Repair and replacement of historic materials is an inherent characteristic of wood piers and the Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the pier's location on the beach over the ocean. Views of the ocean horizon are characteristic of historic piers projecting into the Atlantic Ocean and are intimately associated with the historic setting and feeling of this property.





ATTACHMENT 15 – HISTORIC PROPERTY TREATMENT PLAN FOR LITTLE EGG HARBOR LIFESAVING STATION #23 IN LITTLE EGG HARBOR, OCEAN COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Little Egg Harbor Lifesaving Station #23
Little Egg Harbor, Ocean County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Little Egg Harbor Lifesaving Station #23, Little Egg Harbor, Ocean County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Little Egg Harbor Lifesaving Station #23, Little Egg Harbor, Ocean County, New Jersey, which has been determined to be eligible for the NRHP; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

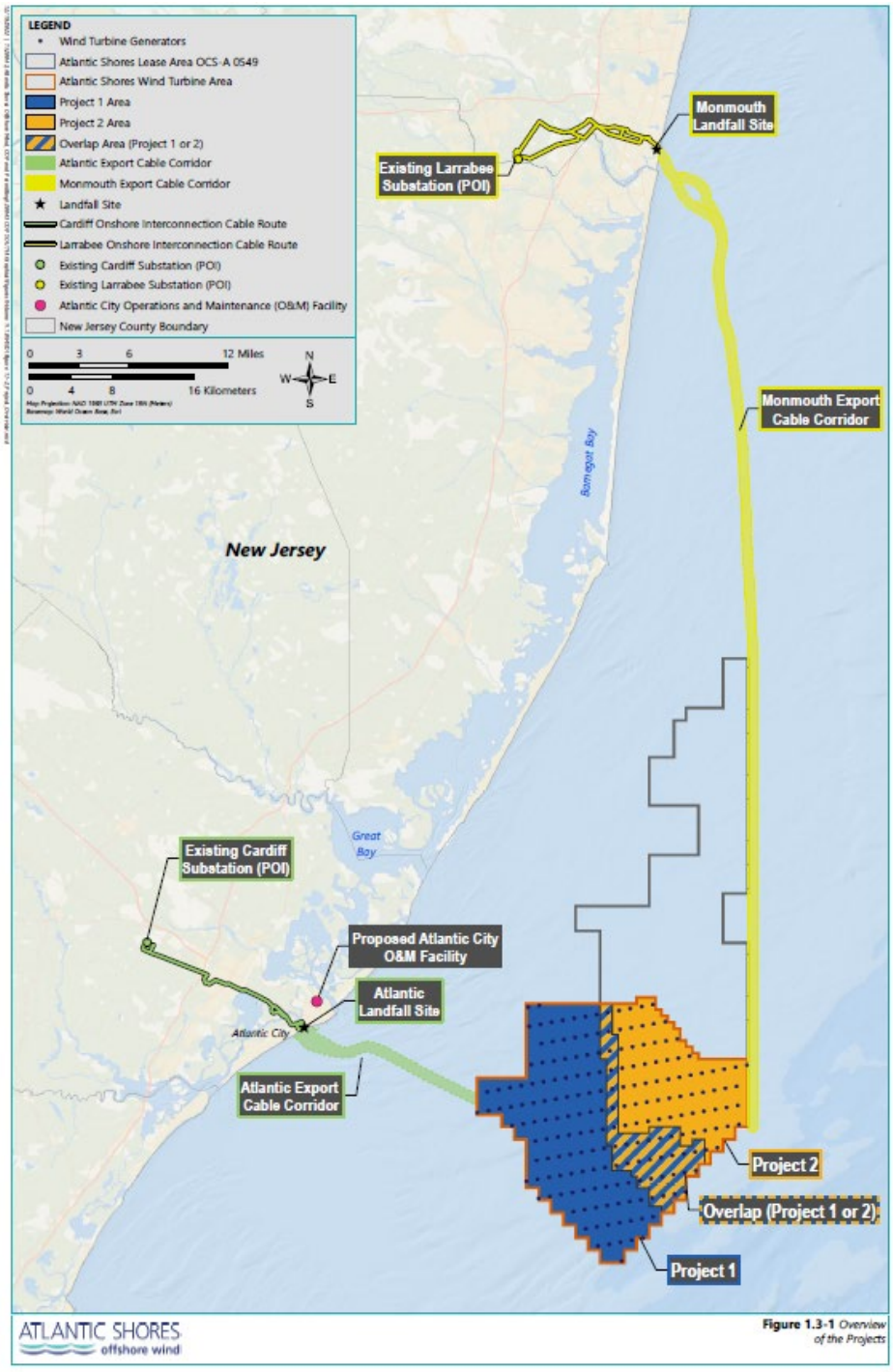

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
60	Little Egg Harbor US Life Saving Station #23	800 Great Bay Boulevard	NRHP-Eligible (NJHPO-Determined)	Public

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Little Egg Harbor

Little Egg Harbor Township is the southernmost township in Ocean County, New Jersey, consisting of a wedge-shaped section of mainland New Jersey along with several islands of tidal meadows in Great Bay and Little Egg Harbor, northwest of the Brigantine Island and Long Beach Island barrier islands. Little Egg Harbor was explored by Dutch sailors in 1614, who named it for the numerous bird nests they encountered. The settlement at Tuckerton (no longer part of the township since it was chartered as a borough in 1901) became an important shipping port in the eighteenth century, while the surrounding rural areas consisted of farms, pine forest, and swampland, with a few smaller settlements. During the Revolutionary War, the area was the site of privateering and land battles. In the nineteenth century, a short-lived seaside resort operated on Tucker's Island, which was later lost to shoreline erosion (May, 1981). Residential "lagoon"

development began in the post-World-War-II era, greatly expanding the township's population (NETR, 2023). Today, the township consists of suburban and lagoon tract development with nineteenth-century settlement patterns still visible along U.S. Route 9 and secondary roads. The Garden State Parkway bisects the town, and the majority of the land north of the parkway is managed for conservation purposes.

3.3 Little Egg Harbor Lifesaving Station #23

3.3.1 Description and Existing Conditions

Little Egg Harbor U.S. Life Saving Station #23 is located at the edge of the tidal meadows at the mouth of Great Bay and Little Egg Harbor. It consists of two wood frame buildings, a boat launch, and docks accessed via a 0.25-mile-long wood pier. The larger of the two buildings is two- and one-half stories with a dormered gable roof and a hipped cupola, extensive porches, and an attached single-story boathouse with a hipped roof. The smaller building is a four-bay, one-and-one-half-story structure with a dormered gable roof.

3.3.2 Historic Significance and Setting

The Little Egg Harbor U.S. Life Saving Station #23 was built by the U.S. Coast Guard in 1937. It closed in 1964 and since 1972 it has housed the Rutgers University Mullica River Field Station (USLSSHA, 2023). The station was previously determined to be eligible for listing in the NRHP by NJHPO and retains sufficient integrity to convey its significance under Criterion A for its association with Maritime History.

The station is located at the end of a private wood pier approximately 0.25 mile to the southwest of the terminus of Great Bay Boulevard within the Great Bay Boulevard Wildlife Management Area. The resource overlooks Great Bay and is located to the northwest of the Little Egg Inlet between Long Beach and North Brigantine. The resource was initially constructed as a lifesaving station in 1937 and its location in proximity to the ocean was imperative in order for rescuers to reach nearby shipwrecks on the Atlantic Ocean.

3.3.3 Project Effect on the Historic Property

The Little Egg Harbor US Life Saving Station #23 was initially constructed as a lifesaving station and as such, has an intentional maritime setting and expansive views of the water. As it was constructed at the end of a wood pier and overlooks Great Bay, it is anticipated that the Projects will be visible from 86.59 percent of the property; therefore, the Projects will have an adverse effect on the setting of the Little Egg Harbor US Life Saving Station #23.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Code of Federal Regulations (CFR). 2021a. 36 CFR § 800 – Protection of Historic Properties [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-VIII/part-800. Accessed March 31, 2022.

CFR. 2021b. 36 CFR § 61.4(e)(1) – Procedures for State, Tribal, and Local Government Historic Preservation Programs [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-61#p-61.4(e)(1). Accessed March 31, 2022.

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U.S. Life-Saving Service Heritage Association (USLSSHA). 2023. "Little Egg Station Site." Available at https://uslife-savingservice.org/station-sites/little-egg-2/. Accessed February 2023.

ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Little Egg Harbor US Life Saving Station #23

800 Great Bay Boulevard
Little Egg Harbor Township, Ocean County, NJ

Photograph of property

Photograph of property context

Photograph of property context

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 11.95
Number of Blade Tips Visible 200
Property Acreage within Study Area 4.59
Property Acreage within PAPE 3.97
Percentage of Property with Potential Visibility 86.59
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 197
Coast Guard 10

Significance

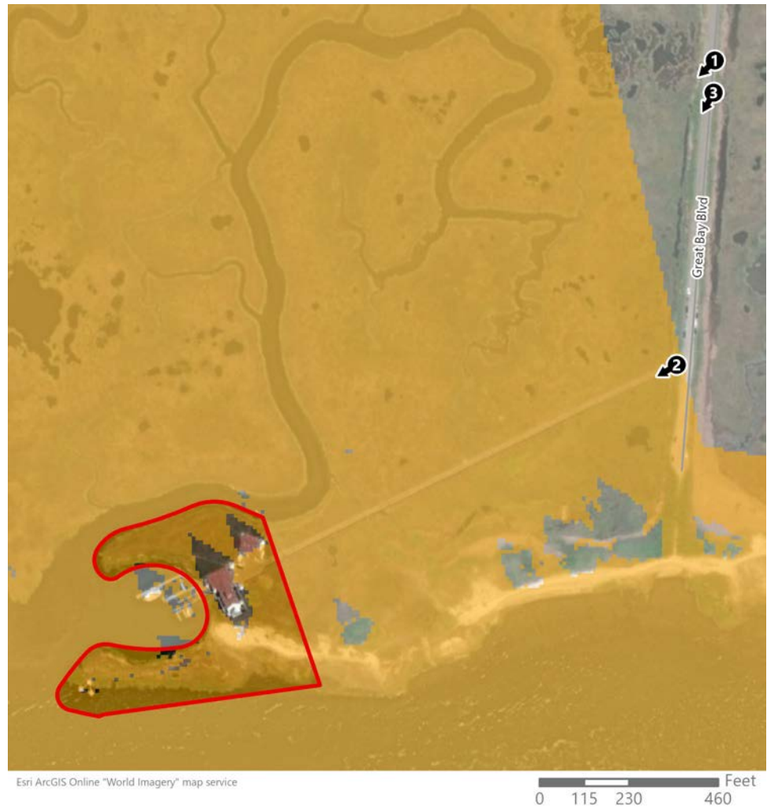
The Little Egg Harbor US Life Saving Station #23 was previously determined to be eligible for listing in the NRHP by NJHPO. The resource retains sufficient integrity to convey its significance under Criterion A for its association with Maritime History. The facility currently houses the Rutgers University Mullica River Field Station.

Maritime Setting

The Little Egg Harbor US Life Saving Station #23 is located at the end of a private wooden boardwalk approximately 0.25 mile to the southwest of the terminus of Great Bay Boulevard within the Great Bay Boulevard Wildlife Management Area. The resource overlooks Great Bay and is located to the northwest of the Little Egg Inlet between Long Beach and North Brigantine. The resource was initially constructed as a lifesaving station in 1937 and its location in proximity to the ocean was imperative in order for rescuers to reach nearby shipwrecks on the Atlantic Ocean.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to its location and maritime setting. Although some screening of the Projects will be provided by the barrier islands, expansive views of the wind farm will alter the historic viewshed of life saving station.



ATTACHMENT 16 – HISTORIC PROPERTY TREATMENT PLAN FOR LUCY, THE MARGATE ELEPHANT IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Lucy, the Margate Elephant

Margate City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
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Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Lucy, the Margate Elephant, Margate City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Lucy, the Margate Elephant, Margate City, Atlantic City, New Jersey, which is a NHL; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

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2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

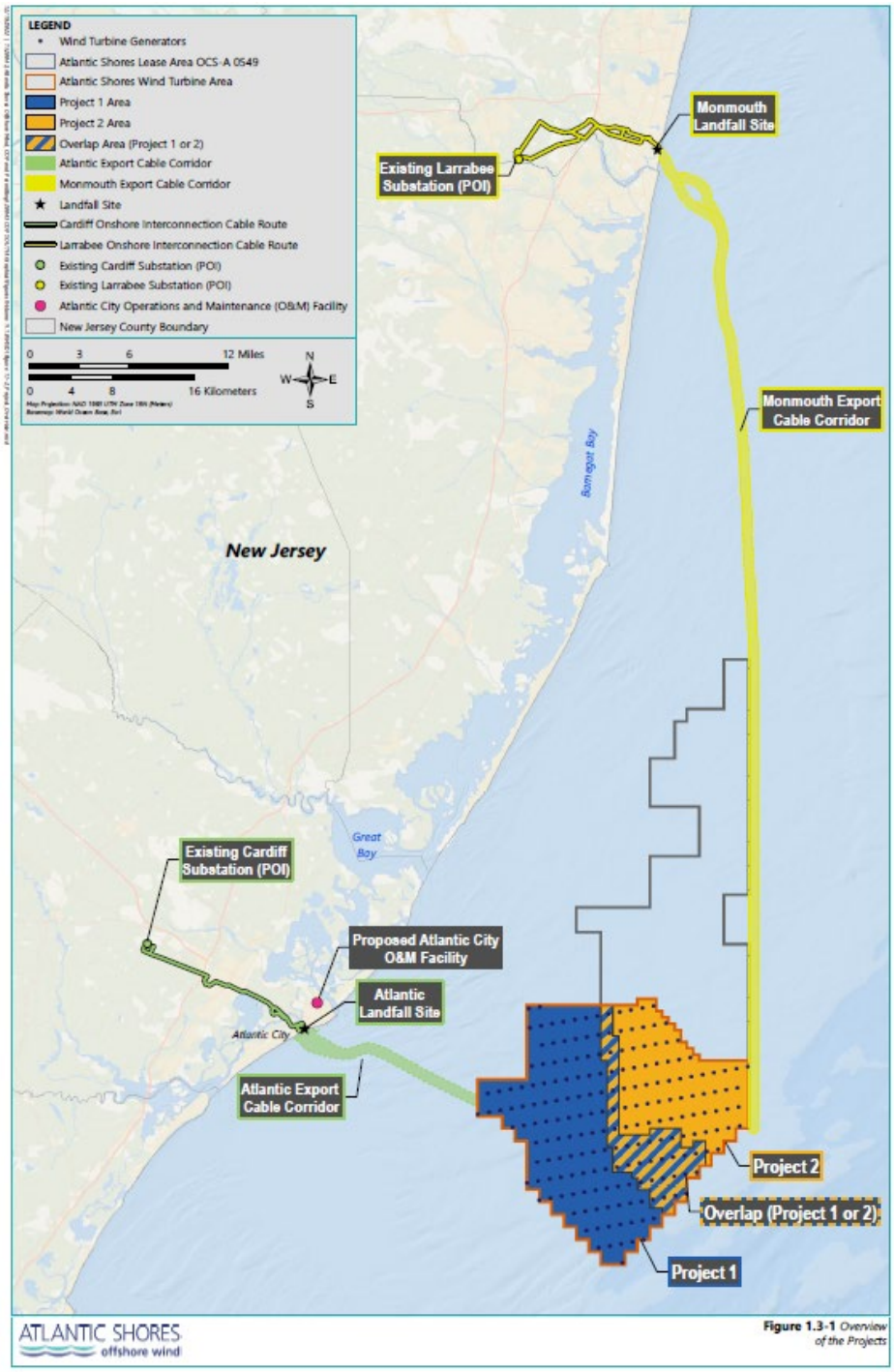

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
63	Lucy, the Margate Elephant	Decatur and Atlantic Avenues	National Historic Landmark	Public

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Margate City

Margate City is a primarily residential community located on Absecon Island and bordered to the northeast by Ventnor City and to the southwest by the borough of Longport. It is connected to mainland New Jersey via Margate Boulevard, which is carried by a series of causeways and bridges. Although a railroad line reached Absecon Island by the late nineteenth century, Margate City (known as South Atlantic City prior to 1910) was not densely developed until the 1920s when large tracts of upscale seaside cottages were constructed on the blocks closest to the oceanfront. Historic aerial imagery shows that the majority of Margate City's residential areas were built in the 1920s and 1930s (NETR, 2023). Developments such as Marven Gardens (now a historic district listed in the NRHP; the name is a portmanteau of Margate and Ventnor) generally featured homes rendered in popular styles of the era including Craftsman, French Eclectic, and various Colonial Revivals (Ralph, 1989). Most of the streets in the city follow a grid pattern, with

small lots utilized to maximize the number of housing units built. Atlantic Avenue and Ventnor Avenue form the primary travel corridors through Margate City, and it is along these avenues that the community's commercial development is centered. Although several low-rise condominium complexes and a handful of high-rise condominiums were built in the late twentieth and early twenty-first centuries, Margate City retains its early-twentieth-century residential character.

3.3 Lucy, the Margate Elephant

3.3.1 Description and Existing Conditions

Lucy, the Margate Elephant NHL was built in 1881 by as a real estate marketing gimmick by James Lafferty, who patented zoomorphic architecture. His "Elephant Bazaar" (dubbed "Lucy" by subsequent owners) had a wood frame and tin-clad wood sheathing; the frame has since been reinforced with steel and the sheathing is currently being restored. At 65 feet tall and 60 feet long, it is one of the largest statue-like structures in America and the oldest roadside tourist attraction. In 1970, after threats of demolition, Lucy was moved to a nearby city-owned lot and restored. It was designated an NHL in 1976 (Pitts, 1976b).

3.3.2 Historic Significance and Setting

Lucy, the Margate Elephant is located at the corner of South Decatur and Atlantic Avenues in Margate City, one block west of the beach overlooking the Atlantic Ocean. The NHL was moved from its original location to its current site in 1970. Lucy, the Margate Elephant is located on the edge of the Margate City beach overlooking the Atlantic Ocean. As an example of novelty architecture, this resource is suited to the beachside resort environment with partially obstructed views of the Atlantic Ocean from ground level.

3.3.3 Project Effect on the Historic Property

The Projects are anticipated to result in potential adverse visual effects on Lucy, the Margate Elephant. The NHL is located in an area with a dense built environment characterized by modern (non-historic) architecture; therefore, its integrity of setting has been diminished. As stated above, Lucy was moved in 1970 and the new location allows for views of the Atlantic Ocean and the Intercoastal Waterway from within the howdah and through the portal windows, as well as views of the NHL from these bodies of water. Due to the proximity of the Projects to this NHL, views from within Lucy will allow for direct lines of site to the Projects and will be a significant focus of visitor attention when viewing the ocean from the howdah or the portal windows.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of restoration, cyclical maintenance, disaster recovery, or other associated activities to ensure the long-term preservation of this National Historic Landmark.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Code of Federal Regulations (CFR). 2021a. 36 CFR § 800 – Protection of Historic Properties [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-VIII/part-800. Accessed March 31, 2022.

CFR. 2021b. 36 CFR § 61.4(e)(1) – Procedures for State, Tribal, and Local Government Historic Preservation Programs [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-61#p-61.4(e)(1). Accessed March 31, 2022.

CFR. 2021c. 36 CFR § 65.2(c)(2) – National Historic Landmarks Program – Effects of Designation [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-65#p-65.2(c)(2). Accessed March 31, 2022.

CFR. 2022. 40 CFR § 1500 – National Environmental Policy Act Implementing Regulations. Available at https://www.ecfr.gov/current/title-40/chapter-V/subchapter-A. Accessed March 31, 2022.

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NETRonline (NETR). 2023. Historic Aerials. Available at: https://historicaerials.com/ (Accessed February 2023).

Pitts, C. 1976b. *"Lucy" the Margate Elephant*. National Register of Historic Places Inventory-Nomination Form. Available at: https://npgallery.nps.gov/NRHP/ (Accessed August 2022).

Ralph, M. 1989. *Marven Gardens Historic District*. National Register of Historic Places Registration Form. United States Department of the Interior, National Park Service.

United States Code. 2016. Title 54 - National Historic Preservation Act [as amended through December 16, 2016]. Available at https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf. Accessed March 31, 2022.

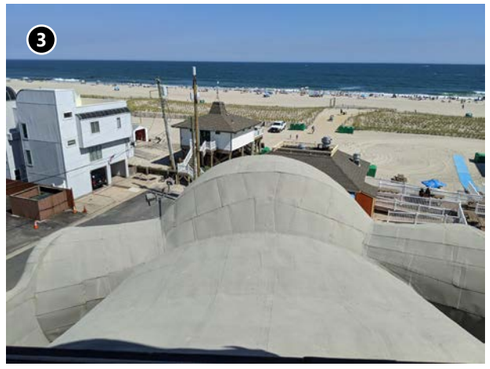
ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Lucy, the Margate Elephant

Decatur and Atlantic Avenues
Margate City, Atlantic County, NJ

Photograph representative of NHL

Photograph representative of NHL



Photograph representative of NHL

Photograph representative of NHL

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Historic Designation National Historic Landmark
Distance to Nearest Turbine 14.4 miles
Number of Blade Tips Visible 139
Property Acreage within Study Area 0.56
Property Acreage within PAPE 0.08
Percentage of Property with Potential Visibility 14.66
Visible Light Units

Nacelle Aviation 136
Mid Tower Aviation 116
Coast Guard 4

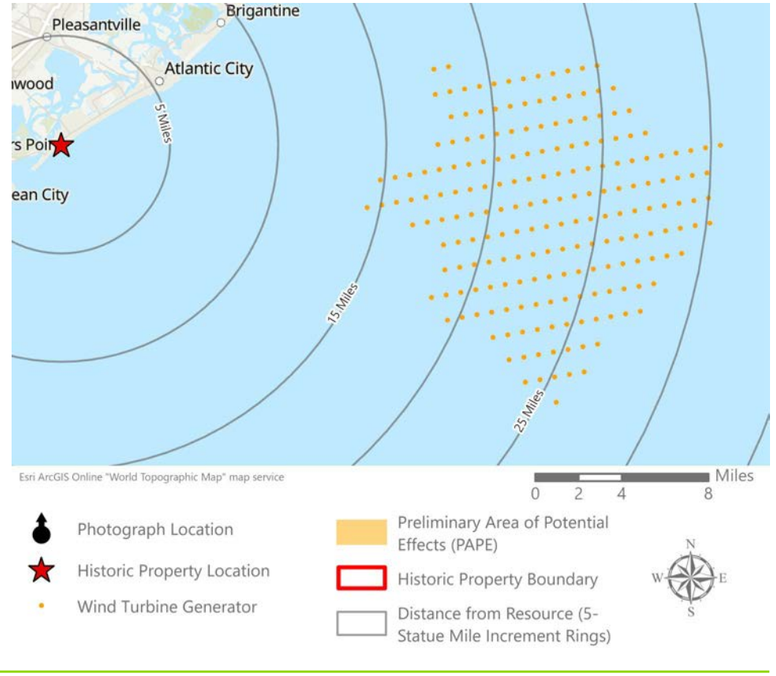
Significance

Lucy, the Margate Elephant was built in 1881 by as a real estate marketing gimmick by James Lafferty, who patented zoomorphic architecture. His "Elephant Bazaar" (dubbed "Lucy" by subsequent owners), had a wood frame and tin-clad wood sheathing; the frame has since been reinforced with steel and the sheathing is currently being restored. At 65 ft tall and 60 ft long, it is one of the largest statue-like structures in America and the oldest roadside tourist attraction. In 1970, after threats of demolition, Lucy was moved to a nearby city-owned lot, and restored. It was designated a National Historic Landmark in 1976. Despite being moved from its original location and restored, Lucy retains sufficient integrity in terms of design, workmanship, feeling, and association to eligible for the NRHP under Criterion C.

Maritime Setting

Lucy, the Margate Elephant is located on the edge of the Margate City beach overlooking the Atlantic Ocean. As an example of novelty architecture, this resource is suited to the beachside resort environment with partially obstructed views of the Atlantic Ocean from ground level.

Effect Recommendation
Adverse Effect
The National Historic Landmark (NHL) was constructed as a real estate advertising gimmick in 1881. The NHL was moved from its original location to its current site in 1970. Today, Lucy is surrounded by modern structures and infrastructure; therefore, its integrity of setting has been diminished. However, Lucy's placement at the new location adjacent to the beach appears to intentionally allow for views from and of the Atlantic Ocean. The ocean, surrounding buildings, and the Intercoastal Waterway are prominently visible from Lucy's portal windows and the howdah and will create a direct line of sight to the Projects.



ATTACHMENT 17 – HISTORIC PROPERTY TREATMENT PLAN FOR 114 SOUTH OSBORNE AVENUE, 108 SOUTH GLADSTONE AVENUE, AND MARGATE FISHING PIER IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

114 South Osborne Avenue
108 South Gladstone Avenue
Margate Fishing Pier
Margate City, Atlantic County, New Jersey

Submitted to:

BOEM
Bureau of Ocean Energy Management

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

ATLANTIC SHORES offshore wind

Atlantic Shores Offshore Wind LLC

EDR
Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	114 South Osborne Avenue, Margate City, Atlantic County, New Jersey 108 South Gladstone Avenue, Margate City, Atlantic County, New Jersey Margate Fishing Pier, Margate City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for 114 South Osborne Avenue, 108 South Gladstone Avenue, and the Margate City Fishing Pier, which have been determined to be eligible for listing on the National Register of Historic Places (NRHP); (hereinafter, the Historic Properties) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

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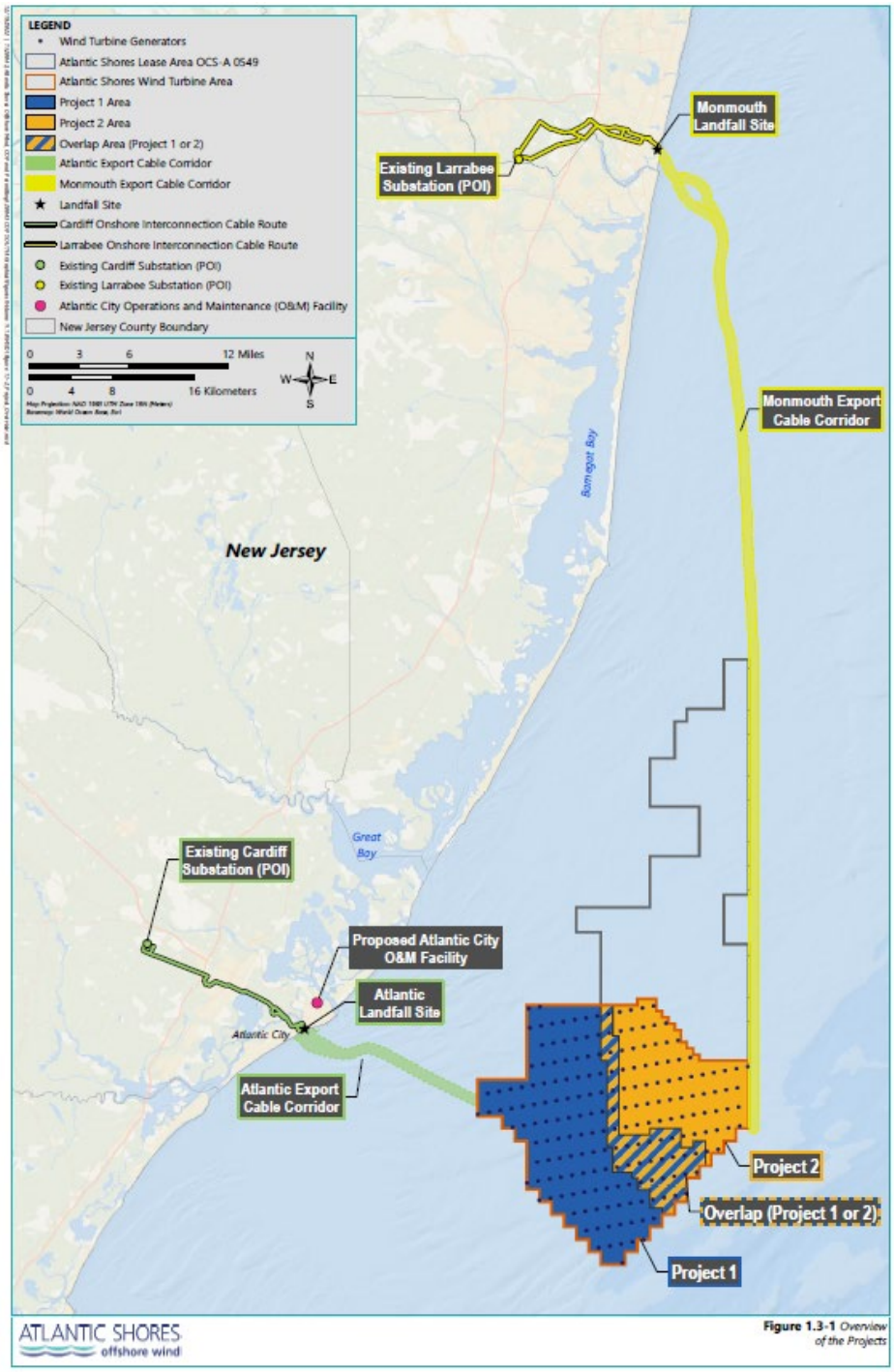

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2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	Municipality	NRHP Status	Ownership
64	114 South Osborne Avenue	114 South Osborne Avenue	Margate City	NRHP-Eligible (Ocean Wind I-Determined)	Private
65	108 South Gladstone Avenue	108 South Gladstone Avenue	Margate City	NRHP-Eligible (NJHPO-Determined)	Private
66	Margate Fishing Pier	121 South Exeter Avenue	Margate City	NRHP-Eligible (EDR-Recommended)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Properties with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessments.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Margate City

Margate City is a primarily residential community located on Absecon Island and bordered to the northeast by Ventnor City and to the southwest by the borough of Longport. It is connected to mainland New Jersey via Margate Boulevard, which is carried by a series of causeways and bridges. Although a railroad line reached Absecon Island by the late nineteenth century, Margate City (known as South Atlantic City prior to 1910) was not densely developed until the 1920s when large tracts of upscale seaside cottages were constructed on the blocks closest to the oceanfront. Historic aerial imagery shows that the majority of

Margate City's residential areas were built in the 1920s and 1930s (NETR, 2023). Developments such as Marven Gardens (now a historic district listed in the NRHP; the name is a portmanteau of Margate and Ventnor) generally featured homes rendered in popular styles of the era including Craftsman, French Eclectic, and various Colonial Revivals (Ralph, 1989). Most of the streets in the city follow a grid pattern, with small lots utilized to maximize the number of housing units built. Atlantic Avenue and Ventnor Avenue form the primary travel corridors through Margate City, and it is along these avenues that the community's commercial development is centered. Although several low-rise condominium complexes and a handful of high-rise condominiums were built in the late twentieth and early twenty-first centuries, Margate City retains its early-twentieth-century residential character.

3.3 114 South Osborne Avenue

3.3.1 Description and Existing Conditions

114 South Osborne Avenue is a two-and-one-half-story Colonial Revival style residence with brick walls laid in Flemish bond. The house has a dormered side gable roof with exterior chimneys on the gable ends. The entrance is set within a shallow shed roofed portico supported by columns and features a fanlight and sidelights. Additional details include keystones over the windows and modillions under the front eave and in the porch entablature. Windows are a mix of historic and replacement sash with paneled wood shutters on the primary elevation.

3.3.2 Historic Significance and Setting

Though some alterations in the windows have been made, 114 South Osborne Avenue retains sufficient integrity to convey its eligibility for its architecture under Criterion C.

The residence at 114 South Osborne Avenue is a beachfront property. Though the façade is oriented to face the street, the windows on the south elevation appear to have clear unobstructed views of the ocean. From the street level, the sand dune topography limits views of the water.

3.3.3 Project Effect on the Historic Property

The property's location on the beach allows for unobstructed views of the Project from 32.65 percent of this historic property and Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of 114 South Osborne Avenue.

3.4 108 South Gladstone Avenue

3.4.1 Description and Existing Conditions

The residence at 108 South Gladstone Avenue is a two-story stone clad French Eclectic style residence built in about 1930. It has a clay tile cross-hipped roof with flaring eaves, a stone chimney, a centered tower entry, an integral garage, and a single-story side porch with arched openings. A Juliet balcony in the tower and dormer balconies over the side porch have wrought iron railings.

3.4.2 Historic Significance and Setting

The residence at 108 South Gladstone Avenue has sufficient integrity to convey its eligibility to the NRHP for its architecture under Criterion C.

108 South Gladstone Avenue is a beachfront property. Though its principal facade is oriented to face the street, the side porch and upper windows face the water with unobstructed views of the Atlantic Ocean.

3.4.3 Project Effect on the Historic Property

The property's location on the beach allows for unobstructed views of the Project from 50.89 percent of this historic property and Projects are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the residence at 108 South Gladstone Avenue.

3.5 Margate Fishing Pier

3.5.1 Description and Existing Conditions

The Margate Fishing Pier is an approximately 733-foot-long wood pier set on round timber piles driven into the beach and shore. The piles support a simple wood deck with an unadorned railing. There are two "tees" approximately 60 feet in length in the center of the pier (constructed in 1989) and at its end in the Atlantic Ocean (constructed in 2013). A single-story gable-roofed clubhouse is located on the beach end of the pier. Two frame front gable sheds covered in standing seam metal roofing are located along the pier. Additionally, benches are located along the length of the pier. Pier access is restricted to members of the Anglers Club of Absecon Island.

3.5.2 Historic Significance and Setting

The Margate Fishing Pier was built in 1923 by the Anglers Club of Absecon Island, a members only non-profit club (Anglers Club of Absecon Island, 2023). Although the pier has undergone various repairs over the course of the twentieth century and after Super Storm Sandy in 2013, the pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with the Maritime History of Margate and Absecon Island.

The Margate Fishing Pier extends approximately 733 feet into the Atlantic Ocean from Margate Beach. The pier was constructed exclusively for the purpose of fishing by the Anglers Club of Absecon Island and as a result, the pier has full and unobstructed views of the ocean. Repair and replacement of historic materials

is an inherent characteristic of wood piers and the Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric.

3.5.3 Project Effect on the Historic Property

Due to its location over the Atlantic Ocean, there will be unobstructed views of the Projects from 66.53 percent of the Margate Fishing Pier. In addition, the pier is approximately 13.6 miles from the Projects, which are expected to be a significant focus of viewer attention from this area due to the proximity of the Projects to the property; therefore, the Projects will have an adverse effect on the setting of the Margate Fishing Pier.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property. In addition, funding may be used to update the existing Intensive Level Architectural Survey of Margate City.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Anglers Club of Absecon Island. 2023. "Our History." Available at: https://www.margateanglersclub.com/history (Accessed February 2023).

Code of Federal Regulations (CFR). 2021a. 36 CFR § 800 – Protection of Historic Properties [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-VIII/part-800. Accessed March 31, 2022.

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Two-Story Residence at 114 South Osborne Avenue

114 South Osborne Avenue
Margate City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (Ocean Wind I-Determined)
Distance to Nearest Turbine 14.11
Number of Blade Tips Visible 171
Property Acreage within Study Area 0.11
Property Acreage within PAPE 0.04
Percentage of Property with Potential Visibility 32.65
Visible Light Units

Nacelle Aviation 170
Mid Tower Aviation 152
Coast Guard 5

Significance

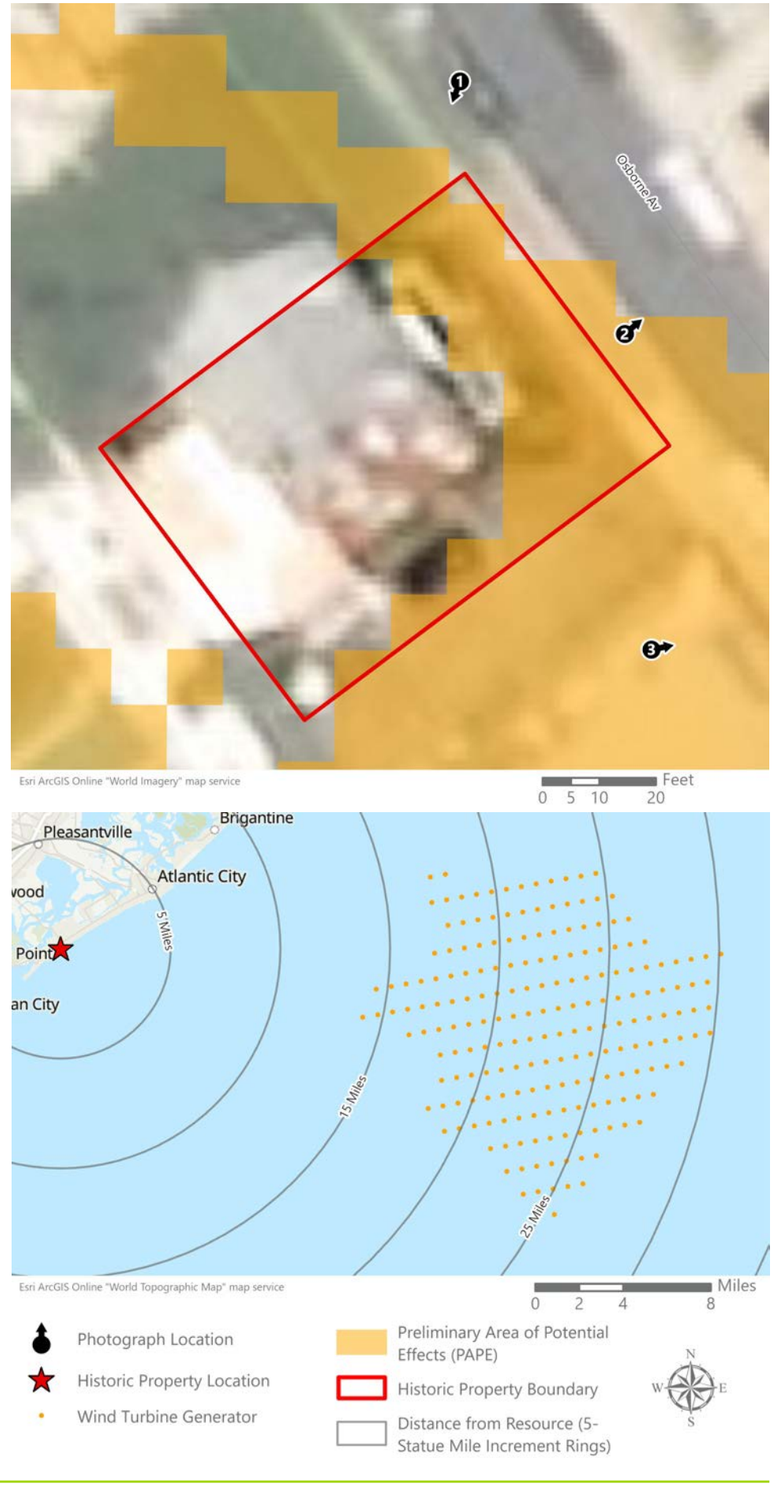
114 South Osborne Avenue is a Colonial Revival residence with brick walls laid in Flemish bond. It has chimneys on the side gables, keystones over the windows, a fan light and sidelights at the entry, and modillions under the front eave and in the porch entablature. Though some alterations in the windows have been made, the house retains sufficient integrity to convey its eligibility to the NRHP under Criterion C.

Maritime Setting

114 South Osborne Avenue is a beach front property. Though the façade is oriented to face the street, the windows on the south elevation appear to have clear unobstructed views of the ocean. From the street level, the sand dune topography limits views of the water.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location on the shoreline.



Two-Story Residence at 108 South Gladstone Avenue

108 South Gladstone Avenue
Margate City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 13.82
Number of Blade Tips Visible 198
Property Acreage within Study Area 0.14
Property Acreage within PAPE 0.07
Percentage of Property with Potential Visibility 50.89
Visible Light Units

Nacelle Aviation	198
Mid Tower Aviation	186
Coast Guard	6

Significance

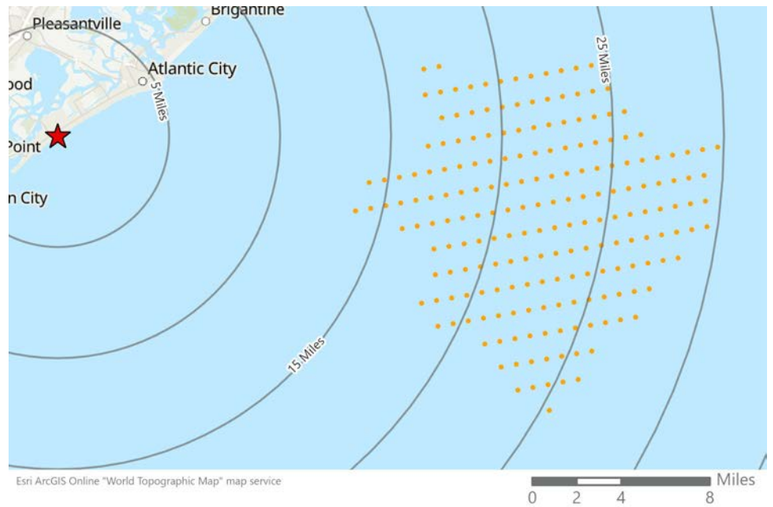
The residence at 108 South Gladstone Avenue is a two-story French Eclectic built ca. 1930 of stone. It has a hipped roof with flaring eaves, a stone chimney, a centered tower entry, and a one-story side porch with arched openings. A juliet balcony in the tower and dormer balconies over the side porch have wrought iron rails. The property has sufficient integrity to convey its eligibility to the NRHP under Criterion C.

Maritime Setting

108 South Gladstone Avenue is a beach front property. Though its principal facade is oriented to face the street, the side porch and upper windows face the water. It has unobstructed views of the Atlantic Ocean.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the historic property's location on the shoreline.



Margate Fishing Pier

121 S. Exeter Avenue
Margate City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 13.6
Number of Blade Tips Visible 200
Property Acreage within Study Area 0.45
Property Acreage within PAPE 0.3
Percentage of Property with Potential Visibility 66.53
Visible Light Units

Nacelle Aviation 200
Mid Tower Aviation 175
Coast Guard 2

Significance

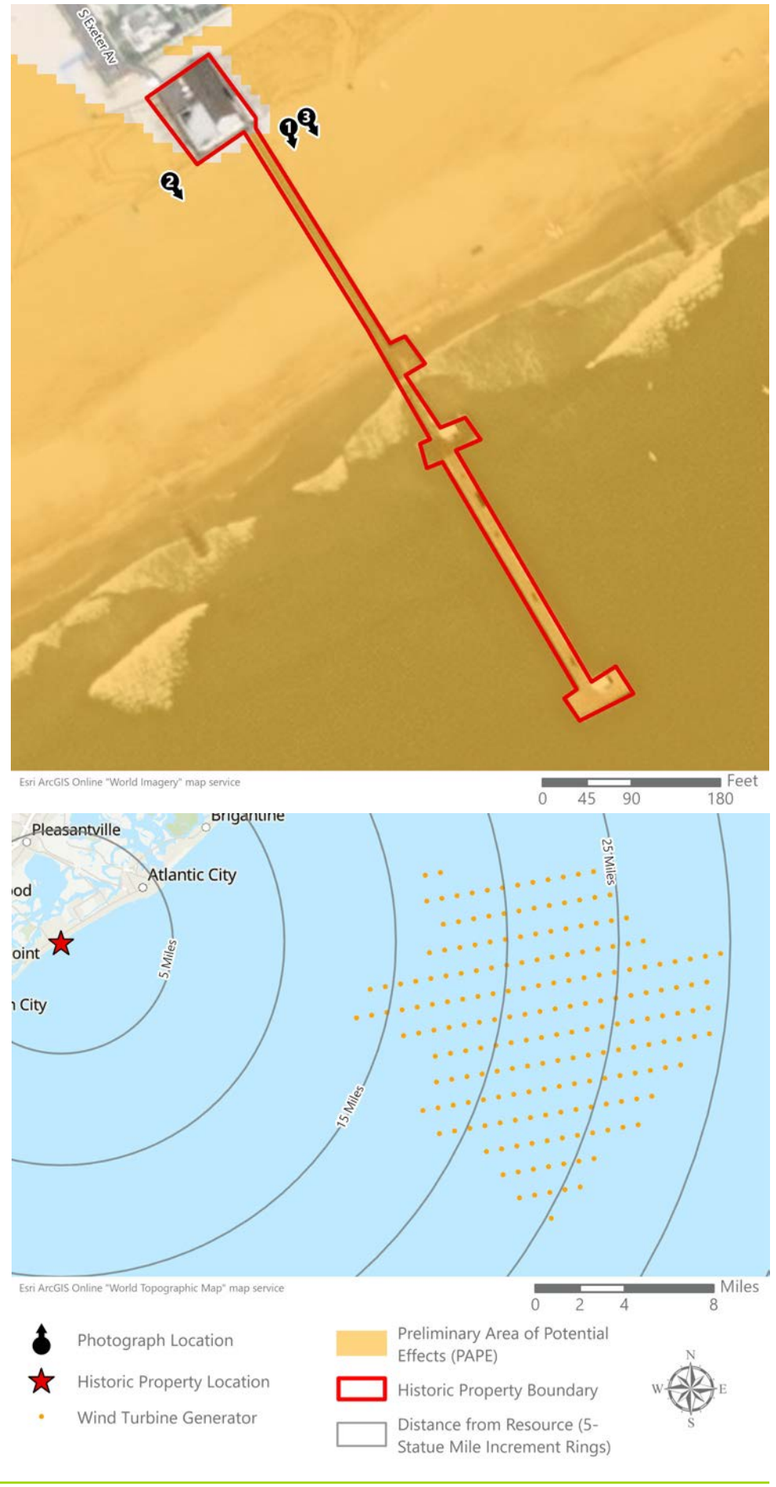
The Margate Fishing Pier was built in 1923 by the Anglers Club of Absecon Island, a members only non-profit club. Although the pier has undergone various repairs over the course of the twentieth century and after Super Storm Sandy in 2013, the pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with the Maritime History of Margate and Absecon Island.

Maritime Setting

The Margate Fishing Pier extends approximately 733 feet into the Atlantic Ocean from Margate Beach. The pier was constructed exclusively for the purpose of fishing by the Anglers Club of Absecon Island and as a result, the pier has full and unobstructed views of the ocean. Repair and replacement of historic materials is an inherent characteristic of wood piers and the Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric.

Effect Recommendation
Adverse Effect

Unobstructed views of the Projects due to the pier's location on the beach over the ocean. Views of the ocean horizon are characteristic of historic piers projecting into the Atlantic Ocean and are intimately associated with the historic setting and feeling of this property.



ATTACHMENT 18 – HISTORIC PROPERTY TREATMENT PLAN FOR MISSOURI AVENUE BEACH (CHICKEN BONE BEACH) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Missouri Avenue Beach (Chicken Bone Beach)
Atlantic City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Absentee-Shawnee Tribe of Indian of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Missouri Avenue Beach (Chicken Bone Beach), Atlantic City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Missouri Avenue Beach (Chicken Bone Beach), which has been recommended to be eligible for the NRHP; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

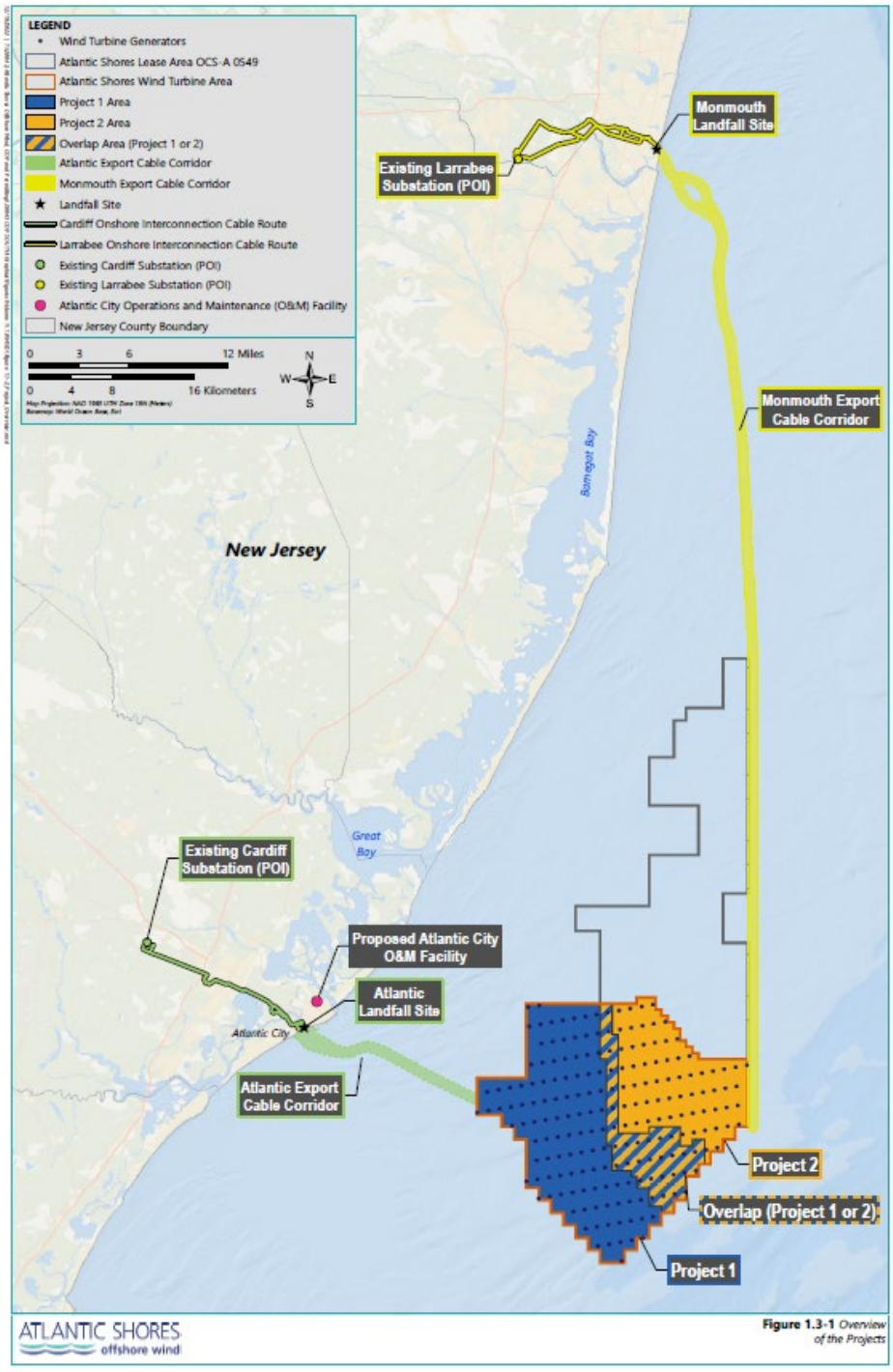

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

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2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
114	Missouri Avenue Beach (Chicken Bone Beach)	N/A	NRHP-Eligible (EDR-Recommended)	Public

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Atlantic City

Atlantic City is in the extreme eastern extent of Atlantic County on Absecon Island on the coast of the Atlantic Ocean. The city is bordered to the northeast by the city of Brigantine and to the southwest by Ventnor City. The first recorded Euro-American settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney proposed the development of a seaside resort on the island. In 1852, he and other investors secured a railroad charter, and the Camden and Atlantic Railroad was constructed with its terminus in Atlantic City in 1854. The city was formally incorporated the same year and the resort quickly became a popular tourist destination for visitors from Philadelphia and its suburbs. Atlantic City saw the height of its popularity in the late nineteenth and into the early twentieth century. A financial and commercial district was constructed along Atlantic Avenue and included high-style banks as

well as commercial and institutional buildings. The 1950s brought a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. To revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism (Allaback and Milliken, 1995; ACFPL, 2022).

3.3 Missouri Avenue Beach (Chicken Bone Beach)

3.3.1 Description and Existing Conditions

Missouri Avenue Beach is an expanse of beach bounded by the Playground Pier on the east, the Boardwalk on the north, and the Kennedy Plaza to the northwest. The beach is the widest on the east adjacent to the pier and tapers toward its west end. Restoration projects since the 1990s have converted a strip of the sand on the ocean side of the Boardwalk into a dune that is traversed by wood-plank ramps to maintain public access to the beach from the boardwalk. Aside from a non-historic wood frame arch with the name "Missouri Avenue Beach," there are no structures currently associated with the beach.

3.3.2 Historic Significance and Setting

From the end of the 1920s to the 1960s, Missouri Avenue Beach was Atlantic City's de facto Black beach. African Americans were discouraged, to the point of effective exclusion, from enjoying the city's beaches, Boardwalk, hotels, and eating establishments outside of formally designated places, times of day, or times of the year. African American members of the Atlantic City Beach Patrol were assigned exclusively to what locals came to call Chicken Bone Beach. What started as a derogatory name was in time adopted by some as a demonstration of pride for their beach. During this time, the Northside neighborhood grew as a popular Black entertainment district known for its music scene at Black-owned nightclubs like Club Harlem. Black tourists and celebrities alike who came for the city's nightlife spent their days at Missouri Avenue Beach (HABS No. NJ-1161; Bear, 2019; PBS, 2019; CBBHF 2022). The Missouri Avenue Beach (Chicken Bone Beach) is recommended to meet NRHP Criterion A in the area of Black Heritage for its association with Atlantic City's Black community. This significance is directly related to the resource's maritime setting as a beach for the African American community from the end of the 1920s to the 1960s.

3.3.3 Project Effect on the Historic Property

The Missouri Avenue Beach (Chicken Bone Beach) is a segment of the beach on the Atlantic Ocean and as such, will have unobstructed views of the Projects from 87.37 percent of the beach. The Projects will be a significant focus of visitor attention while on the beach and therefore, the Projects will have an adverse effect on the setting of the Missouri Avenue Beach (Chicken Bone Beach).

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding to hire a Secretary of the Interior qualified professional to document the history and significance of Missouri Avenue Beach (Chicken Bone Beach) in the form of a National Register of Historic Places Nomination Form. In addition, funding may be used to provide an interpretive exhibit or signage to increase public awareness of this historic property.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must follow National Park Service guidance as well as all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Draft and final documentation must be provided to the participating parties for review and comment.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

ATTACHMENT 19 – HISTORIC PROPERTY TREATMENT PLAN FOR SEAVIEW GOLF CLUB IN GALLOWAY TOWNSHIP, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

Seaview Golf Club

Galloway Township, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

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April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	Seaview Golf Club, Galloway Township, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the Seaview Golf Club, Galloway Township, Atlantic County, New Jersey, which has been recommended to be eligible for the NRHP; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

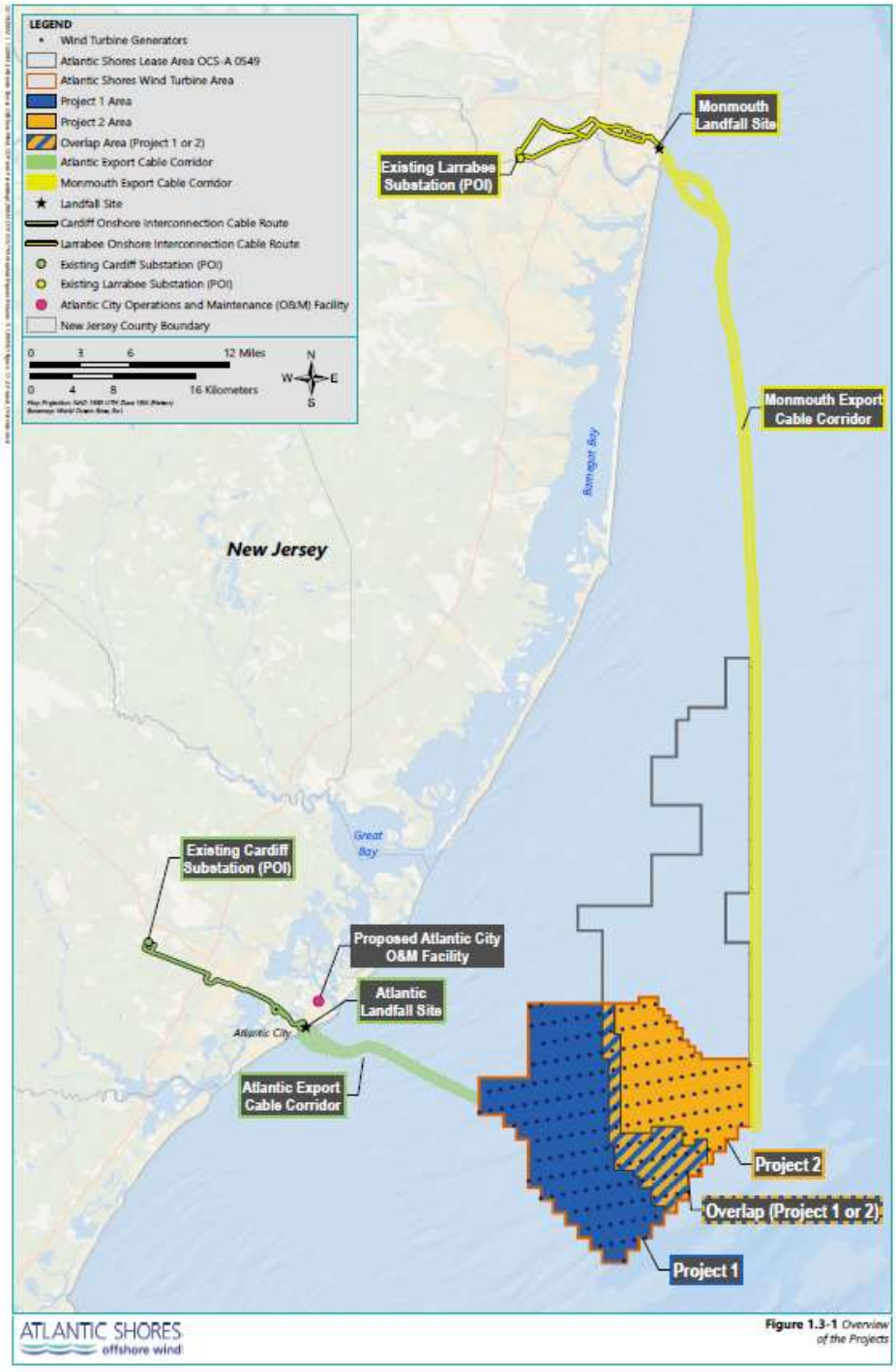

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
52	Seaview Golf Club (historic), Clarence Geist Pavilion	401 South New York Road	NRHP-Eligible (EDR-Recommended)	Private

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Galloway Township

The first permanent Euro-American settlement in the township was Leeds Point, settled in 1678. Galloway Township was formed in 1774 from Egg Harbor Township. In the second half of the eighteenth century, development centered around small communities such as Smithville, Leeds Point, Oceanville, Higbeeville, Cologne, Pomona, Germania, and Conovertown. In 1821, a road was built through the present-day township connecting Camden to Absecon along present-day Route 30. In 1854, the Camden and Atlantic Railroad was built connecting Atlantic City to Camden through Galloway Township. Communities such as Germania, Cologne, Pomona, and Oceanville grew up and expanded around the railroad stations that were established over the next decades. For much of the nineteenth century, Absecon was the commercial center of the township until it was incorporated as its own city in 1872. In addition to Absecon, several other cities were

formed from the township in the late-nineteenth and early-twentieth century. Through the twentieth century, the township remained relatively rural and agricultural. The mid- and late-twentieth saw the improvement of road infrastructure through the township and the growth of suburban developments in parts of the township. Naval Air Station (NAS) Atlantic City was built partially in the southern part of the township in 1942. The NAS was decommissioned in 1958 and now operates as a commercial airport, Air National Guard Base, and Coast Guard Air Station (Galloway Township Historical Society, 2023; Snyder, 2004; Rand McNally, 1897; US Army Corps, 2023).

Galloway Township is in eastern Atlantic County and is bordered on the northeast by the Mullica River. The township consists of several unincorporated communities, including Absecon Highlands, Cologne, Conovertown, Germania, Higbeetown, Leeds Point, Oceanville, Pinehurst, Pomona, Smithville, South Egg Harbor, and the "Township Center." Historic aerial imagery shows the slow growth of the township through the mid-twentieth century, including the construction of the NAS 1940s, the construction of the Garden State Parkway in the 1950s, the construction of Stockton University in the 1970s, and the expansion of suburbs throughout the township in the mid- and late-twentieth century. Today, Galloway Township remains primarily agricultural land, with small centers of commerce in the communities and additional undeveloped natural areas used for recreation (Galloway Township, 2009; NETR, 2023).

3.3 Seaview Golf Club

3.3.1 Description and Existing Conditions

The Seaview Golf Club consists of a 296-room hotel and Colonial Revival-style clubhouse set on 697 acres including two 18-hole golf courses. The grounds span both sides of US 9. The hotel and clubhouse are a complex of building volumes including the circa-1914 clubhouse, multiple radiating three- and four-story hotel room wings, and several mid- to late-twentieth-century additions. The sprawling Colonial Revival style clubhouse includes dining facilities and an indoor swimming pool which dates to its original construction. It has an irregular plan organized around a central two-story I-shaped volume with dormered, hipped roofs. The exterior is clad in stucco and the roof appears to be imitation slate, with numerous segmental-arch dormers and a simple dentiled cornice. The symmetrically arranged, paired windows of the first and second stories generally have applied shutters. To the south, a large circular single-story pavilion has a conical roof atop pilasters defining window bays of three 12-light windows each. A single-story extension to the east and north has similar window treatments. Further east is a large, covered entry porch and porte-cochere supported by Doric columns in singles and pairs. To the north, a series of early three-story hotel room wings generally match the clubhouse, with a hipped roof, small, hipped dormers, stucco cladding, and paired windows with applied shutters. To the west, a group of circa-1990 four-story hotel room wings have hipped roofs clad in asphalt shingle with overhanging eaves and large tripartite windows. This group of wings surrounds an outdoor in-ground swimming pool.

3.3.2 Historic Significance and Setting

The Seaview Golf Club was built at the direction of businessman Clarence Geist as an exclusive golf club on a former farm near Atlantic City, NJ. Geist commissioned Hugh Wilson to design the 18-hole Bay Course in 1914. A second course, designed by William Flynn in 1929, added an additional 18 holes to the club. The

club was a popular locale for elite golfers and socialites from the 1920s through the 1940s. The PGA Championship was held at the club in 1942 (Foster, 2014). The Seaview Golf Club appears to meet Criterion C in the areas of Architecture and Landscape Architecture as an example of an early 20th-century golf club designed during the heyday of American golf resort design and construction. The Seaview Golf Club is located approximately 6 miles northwest of the Atlantic Ocean and borders Reeds Bay with views of the bay from the Bay Course. Ocean views are an important component of the setting reflected in the course design and layout.

3.3.3 Project Effect on the Historic Property

The Seaview Golf Club is located approximately 6 miles northwest of the Atlantic Ocean and borders Reeds Bay with views of the bay from the Bay Course. Ocean views are in important component of the setting reflected in the course design and layout. Due to its location and the topography of the property, it is anticipated that the Projects will be visible from 67.33 acres or 25.11 percent of the historic golf course. Views to the bay and the ocean were an intentional design element of the golf course and its setting; therefore, the Projects will have an adverse effect on the setting of the Sea View Golf Club.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding to hire a qualified consultant to develop a cultural landscape and management plan to assist with the changing environment of competitive golf. In addition, the funding may also be used for the development an interpretive element to be displayed/distributed at the Seaview Golf Club to increase public awareness of the history and significance of this historic golf course.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and follow all National Park Service and local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

All draft and final documentation will be provided to the participating parties for review and comment.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

Seaview Golf Club (historic), Clarence Geist Pavilion

401 South New York Road
Galloway Township, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 15.6
Number of Blade Tips Visible 200
Property Acreage within Study Area 268.11
Property Acreage within PAPE 67.33
Percentage of Property with Potential Visibility 25.11
Visible Light Units

Nacelle Aviation 196
Mid Tower Aviation 51
Coast Guard 0

Significance

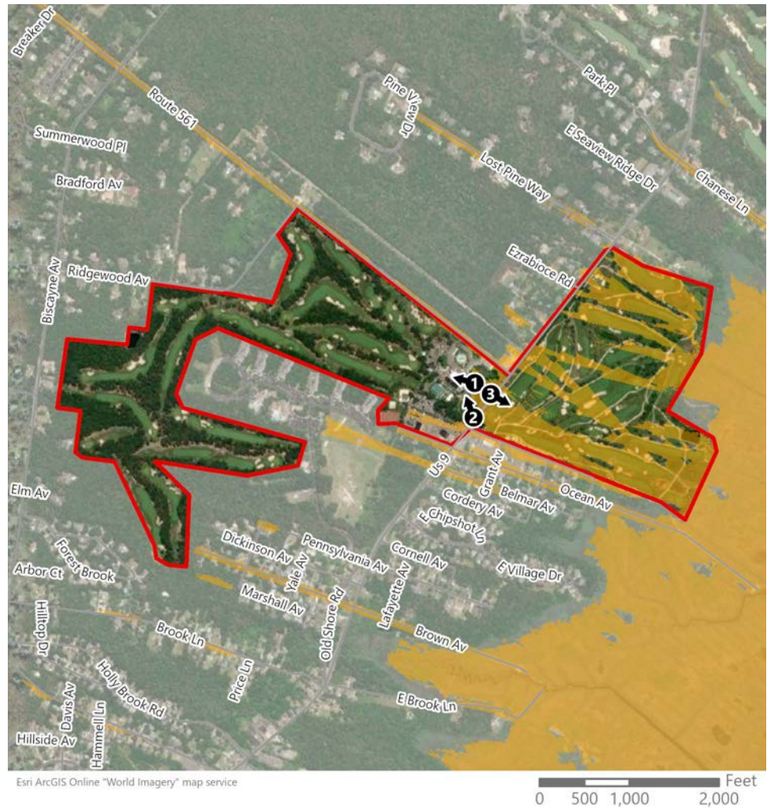
The Seaview Golf Club consists of a 296-room hotel and Colonial Revival-style clubhouse set on 697 acres in Galloway Township. The property features two 18-hole golf courses. The Bay Course was opened in 1914 and was designed by Hugh Wilson and Donald Ross. This course is situated along the bay and provides bayside views and distant views of Brigantine on the barrier island. The Pines Course was opened in 1929 and was designed by William Flynn and Howard Toomey. This course is located to the west of the clubhouse and hotels and winds through New Jersey pinelands. The golf club is currently the site of the ShopRite LPGA Classic, and hosted nine holes in the 1942 PGA Championship. This resource is recommended eligible for the NRHP under Criteria A and C, under Recreation and Architecture.

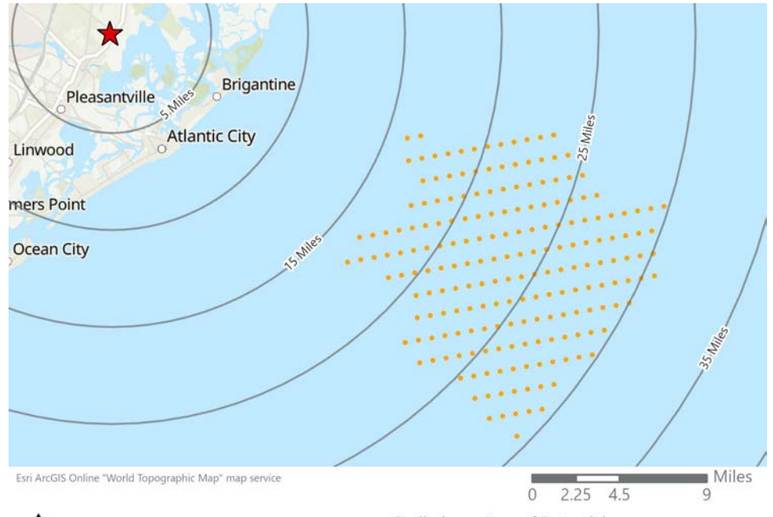
Maritime Setting

The Seaview Golf Club is located approximately 6 miles northwest of the Atlantic Ocean and borders Reeds Bay with views of the bay from the Bay Course. Ocean views are in important component of the setting reflected in the course design and layout.

Effect Recommendation
Adverse Effect

The Projects will be visible from the Bay Course on the eastern portion of the historic property, as well as in small areas of the property to the west of S. New York Road including the hotel and clubhouse.





ATTACHMENT 20 – HISTORIC PROPERTY TREATMENT PLAN FOR U.S. COAST GUARD STATION IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

***This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.**

Historic Property Treatment Plan

for the

Atlantic Shores Offshore Wind

Lease Area OCS-A 0499

USCG Station Atlantic City

Atlantic City, Atlantic County, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Atlantic Shores Offshore Wind LLC

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

April 2023

ABSTRACT

Federal Undertaking:	Atlantic Shores Offshore Wind Projects
Location:	Outer Continental Shelf, offshore New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management National Park Service U.S. Army Corps of Engineers New Jersey Historic Preservation Office Advisory Council on Historic Preservation
Federally-recognized Native American Tribes:	Shinnecock Indian Nation Delaware Nation Mohican Nation Narragansett Indian Tribe Wampanoag Tribe of Gay Head (Aquinnah) Eastern Shawnee Tribe of Oklahoma Delaware Tribe of Indians Stockbridge-Munsee Band Shawnee Tribe Mashpee Wampanoag Tribe
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act Section 110(f) of the National Historic Preservation Act
Purpose:	This Historic Property Treatment Plan provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects to the historic properties listed below. This Historic Property Treatment Plan has been developed by the applicant and is intended to be reviewed, revised and refined in consultation with BOEM and Consulting Parties.
Adverse Visual Effect Finding for:	USCG Station Atlantic City, Atlantic City, Atlantic County, New Jersey
Submitted By:	Atlantic Shores Offshore Wind, LLC
Date:	April 2023

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LIST OF FIGURES

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DEIS	Draft Environmental Impact Statement
EDR	Environmental Design and Research, D.P.C.
FEIS	Final Environmental Impact Statement
FR	Federal Register
ICF	Interconnection Facility
HPTP	Historic Property Treatment Plan
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NPS	National Park Service
NRHP	National Register of Historic Places
NJHPO	New Jersey Historic Preservation Office
NJWEA	New Jersey Wind Energy Area
OCS	Outer Continental Shelf
PAPE	Preliminary Area of Potential Effects
RFP	Request for Proposals
ROD	Record of Decision
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108) and its implementing regulations, and in compliance with Section 110(f) of the NHPA (54 USC 306107), the Bureau of Ocean Energy Management (BOEM) has determined the Atlantic Shores Offshore Wind Projects (the Projects) will have an adverse effect on historic properties. A historic property is defined per 36 CFR § 800.16 as any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). This Historic Property Treatment Plan (HPTP) for the USCG Station Atlantic City, Atlantic City, Atlantic County, New Jersey, which has been determined to be eligible for the NRHP; (hereinafter, the Historic Property) provides background data, historic property information, and detailed mitigation actions that will be implemented to resolve adverse effects from the Projects.

BOEM used the National Environmental Policy Act (NEPA) substitution process to fulfill its Section 106 obligations as provided for in the NHPA implementing regulations (36 CFR § 800.8(c)), and BOEM has notified the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and consulting parties of BOEM's decision to use this process. This HPTP identifies potential mitigation measures to resolve adverse effects on historic properties. The HPTP has been prepared to support outreach performed by Atlantic Shores Offshore Wind, LLC (Atlantic Shores) and BOEM and it is anticipated that the HPTP will undergo revision and refinement in consultation with the New Jersey Historic Preservation Office (NJHPO), the ACHP, and/or other consulting parties throughout the NEPA substitution process. This HPTP was developed for inclusion in the Draft Environmental Impact Statement (DEIS) for the Projects will be finalized for inclusion in the Record of Decision (ROD) and/or Memorandum of Agreement (MOA) issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

This draft HPTP is organized into the following sections:

- **Section 1.0, Introduction**, outlines the content of this HPTP.

- **Section 2.0, Background Information**, briefly summarizes the Undertaking and describes the cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions) applicable to the HPTP.

- **Section 3.0, Historic Properties – Significance, Effects, and Mitigation Measures**, provides a physical description of the historic properties included in this HPTP, describes their historic context, the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity, describes the potential visual effect of the Projects on each property, and proposes conceptual measures that the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing discussions with consulting parties.

- **Section 4.0, Implementation**, establishes the organizational responsibilities for implementing the mitigation actions, as identified in Section 3.0 of this HPTP.

- **Section 5.0, References**, is a list of works cited in this HPTP.

2.0 BACKGROUND INFORMATION

2.1 Overview of the Projects

Atlantic Shores' Lease Area is located on the OCS within the New Jersey Wind Energy Area (NJWEA), which was identified by BOEM as suitable for offshore renewable energy development through a multi-year, public environmental review process. The Projects will be located in an approximately 102,124-acre (413.3-square kilometer [km2]) Wind Turbine Area (WTA) located in the southern portion of the Lease Area (see Figure 2.1-1). Project 1 is located in the western 54,175 acres (219.2 km2) of the WTA, and Project 2 is located in the eastern 31,847 acres (128.9 km2) of the WTA with a 16,102-acre (65.2-km2) Overlap Area that could be used by either Project 1 or Project 2. Figure 2.1-1 also depicts the boundaries of the Project 1 and Project 2 areas within the WTA.

The Projects will collectively consist of up to 200 WTGs and associated foundations, inter-array cables connecting the WTGs, and offshore substations. The offshore substations utilized for the Projects will include up to 10 OSSs. Energy from the WTGs will be delivered to shore via 230 kV to 525 kV high voltage alternating current or high voltage direct current export cables. Up to four export cables will be installed within each of two possible Export Cable Corridors, for a total of up to eight export cables. The export cables will traverse federal and New Jersey state waters to deliver energy from the OSSs to landfall sites located in Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. The offshore-to-onshore transition at the landfall sites will occur via horizontal directional drilling to avoid nearshore and shoreline impacts. From the Monmouth and Atlantic Landfall Sites, new 230 kV to 525 kV high voltage alternating current or high voltage direct current onshore interconnection cables will travel underground along existing roadways, utility rights-of-way, and/or along bike paths to up to two new onshore substation sites (one for each onshore point of interconnection), where transmission will be stepped up or stepped down in preparation for interconnection with the electrical grid. Onshore interconnection cables will continue from each of the new onshore substations to proposed points of interconnection into the electrical grid at the existing Larrabee Substation in Howell, New Jersey (for the Monmouth Landfall Site) or the existing Cardiff Substation in Egg Harbor Township, New Jersey (for the Atlantic Landfall Site). Once operational, the Projects will be supported by a new operations and maintenance (O&M) facility that will be located in Atlantic City, New Jersey. The O&M facility will be the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Atlantic Shores intends to purchase and develop a shoreside parcel in Atlantic City, New Jersey that was formerly used for vessel docking or other port activities.

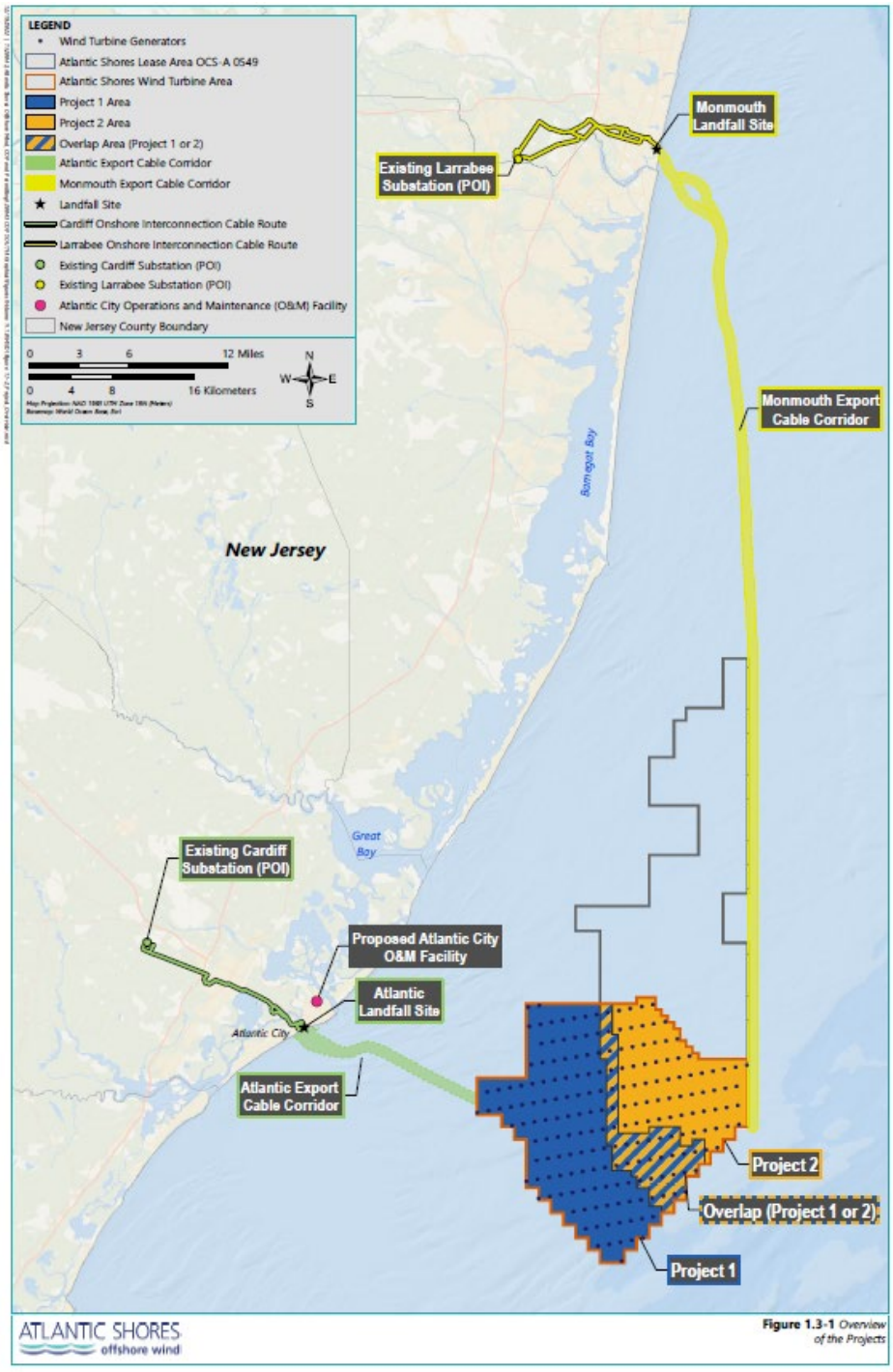

Figure 2.1-1. Overview of the Projects.

2.2 Regulatory Framework

2.2.1 Section 106 and Section 110(f) of the NHPA

Section 106 of the NHPA of 1966 requires federal agencies to consider the effects of their undertakings on historic properties, which are defined per 36 CFR § 800.16 to include any property that is listed in, or has been determined eligible for listing in, the National Register of Historic Places (NRHP), or is a National Historic Landmark (NHL). Section 110(f) of the NHPA further requires that federal agencies undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking. Historic properties can include marine archaeological resources, terrestrial archaeological sites, above-ground historic properties (e.g.., buildings, sites, monuments, and landscapes), and Traditional Cultural Properties.

The regulations at 36 CFR § 800.8 provide for use of the NEPA process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, either issuance of an ROD and implementation of relevant conditions or the execution of a MOA will resolve adverse effects to historic properties caused by the Undertaking, including to NHLs for which BOEM must provide a higher standard of care, as required by Section 110(f) of the NHPA. This draft HPTP was developed to support ongoing consultations and will be finalized for inclusion in the ROD and/or MOA issued in accordance with 40 CFR §1500-1508, and 36 CFR § 800.8 and 800.10.

2.2.2 Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local municipalities and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards.

2.2.3 Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work would comply with the conditions of all extant historic preservation easements.

2.3 Summary of HPTP Development

This HPTP was developed by the Applicant for inclusion in the DEIS for the Projects. The HPTP is intended to support BOEM's consultation pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR § 800.8. Anticipated consultation will include invitations to consulting parties for meetings to review conceptual mitigation measures for the historic properties. Based on the results of those meetings and comments received from consulting parties, it is anticipated that the HPTP will be updated and revised draft(s) of the HPTP re-circulated to consulting parties for further review and comment.

3.0 HISTORIC PROPERTIES - SIGNIFICANCE, EFFECTS, AND MITIGATION MEASURES

3.1 Historic Properties Included in the HPTP

This HPTP describes proposed mitigation measures for the below listed historic properties, as identified in Table 3.1-1.

Table 3.1-1. Historic Properties included in the HPTP

Property ID	Property Name	Address	NRHP Status	Ownership
12	USCG Station Atlantic City	900 Beach Thorofare	NRHP-Eligible (NJHPO-Determined)	Public

Discussions are provided below for each historic property included in the HPTP, which include:

- a physical description of the property,
- a narrative summarizing their historic context,
- the applicable NRHP criteria for the Historic Property with a focus on the contribution of each property's maritime visual setting to its significance and integrity,
- the potential visual effect of the Projects on each property, and
- measures the applicant is proposing to mitigate adverse effects – with the expectation that all potential mitigation measures will be reviewed and potentially refined pursuant to ongoing consultations.

Maps and photographs are included in Attachment A - Aboveground Historic Property Information and Visual Effects Assessment.

The proposed mitigation measures described herein were developed by individuals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR § 61) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Projects. These mitigation measures may also include actions to respond to some reasonably foreseeable hazards unrelated to the Project that pose risks to the long-term preservation of the affected historic properties, such as climate change.

3.2 Historic Context of Atlantic City

Atlantic City is in the extreme eastern extent of Atlantic County on Absecon Island on the coast of the Atlantic Ocean. The city is bordered to the northeast by the city of Brigantine and to the southwest by Ventnor City. The first recorded Euro-American settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney proposed the development of a seaside resort on the island. In 1852, he and other investors secured a railroad charter, and the Camden and Atlantic Railroad was constructed with its terminus in Atlantic City in 1854. The city was formally incorporated the same year and the resort quickly became a popular tourist destination for visitors from Philadelphia and its suburbs. Atlantic City saw the height of its popularity in the late nineteenth and into the early twentieth century. A financial and commercial district was constructed along Atlantic Avenue and included high-style banks as

well as commercial and institutional buildings. The 1950s brought a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. To revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism (Allaback and Milliken, 1995; ACFPL, 2022).

3.3 USCG Station Atlantic City

3.3.1 Description and Existing Conditions

The USCG Station Atlantic City is a U.S. Coast Guard Station located at the confluence of Clam Creek and Absecon Inlet. It consists of a roughly C-shaped two-and-one-half-story primary building, a one-and-one-half-story boathouse, a one-and-one-half-story building (likely a residence), and a circa-2016 two-story brick- and wood-clad building, along with a large parking lot, a basketball court, a helicopter pad, and moorings along Clam Creek. The primary building has a gable roof topped with a chamfered square watchtower and multiple gabled and shed dormers. The building is clad in wood shingle and features flat corner boards and cornice returns at the gable ends. An enclosed single-story semicircular porch with a second-story balcony faces southeast towards the mouth of Clam Creek and Absecon Inlet.

3.3.2 Historic Significance and Setting

The U. S. Coast Guard Station at Atlantic City was constructed in 1939-1941 and was at that time the largest lifeboat station in the guard (USCG, 2021). It replaced a series of earlier stations that had served the area. Though renovated in 1988, it appears to retain sufficient integrity to convey its eligibility to the NRHP under Criterion A in the area of military history. The station is located to the confluence of Clam Creek and Absecon Inlet, where the moorings are protected but are only one mile from the open ocean. The setting and function of the property are maritime in character, and the property has partial views of the ocean.

3.3.3 Project Effect on the Historic Property

The USCG Station Atlantic City is located at 900 Beach Thorofare at the entrance of Clam Creek on the Absecon Channel with views of the Project from 40.4 percent of the property. Although the setting has been altered directly surrounding the USCG Station, the maritime setting and views of the water are the primary setting of this property and the Projects will be a significant focus of the view to the Atlantic Ocean; therefore, the Projects will have an adverse effect on the setting of the USCG Station Atlantic City.

4.0 MITIGATION MEASURES

The purpose of this HPTP is to provide funding for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of this aboveground historic property.

4.1 Scope of Work

The scope of work will be determined in consultation with the participating parties.

4.2 Standards

All projects funded through this HPTP must meet the Secretary of the Interior's Standards for Treatment of Historic Properties and all local laws and regulations.

4.3 Methodology

Atlantic Shores will release a request for proposals (RFP) for services and select qualified professionals to perform the scope of work listed above.

4.4 Documentation

Existing conditions, including documentation and photography will be completed prior to any work commencing and as-built documentation and photography will be completed at the end of the project.

5.0 IMPLEMENTATION

5.1 Organizational Responsibilities

5.1.1 Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM will review this HPTP to ensure, at minimum, it includes the content required.

- BOEM, in consultation with the participating parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- The final HPTP must be attached to the executed MOA before Atlantic Shores may commence any of the actions included in the HPTP; and
- BOEM is responsible for consultation related to dispute resolution.

5.1.2 Atlantic Shores Offshore Wind, LLC

Atlantic Shores will be responsible for the following:

- Considering the comments provided by the participating parties in the development of this HPTP;
- Depositing funding for the implementation of this HPTP in a dedicated escrow account prior to the commencement of the mitigation measures;
- Releasing RFPs and selecting qualified professionals as specified above;
- Managing funding and implementing the mitigation measures as specified in Section 4.0;
- Providing documentation to the participating parties for review and comment as specified in Section 4.0;
- Annual Reporting to BOEM on progress in implementation of this HPTP;
- Ensuring that all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes; and
- Provide notification to BOEM and the participating parties when the HPTP implementation is complete.

5.1.3 Participating Parties

The participating parties will be responsible for the following:

- Providing review and comment on the proposed mitigation measures described in Section 4.0.

5.1.4 Other Parties, as Appropriate

Additional consulting parties are not anticipated, should any be determined, this will be updated.

5.2 Schedule

It is anticipated that implementation of the mitigation measure will commence within 2 years of execution of the MOA, unless otherwise agreed to by the consulting parties and BOEM. The proposed scope of work

will be completed within 5 years of execution of the MOA unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

6.0 REFERENCES

Allaback, S., and C. Milliken. 1995. Resorts & Recreation: an Historic Theme Study of the New Jersey Coastal Heritage Trail Route. Sandy Hook Foundation, Inc. and National Park Service, U.S. Department of the Interior. Available at https://www.nps.gov/parkhistory/online_books/nj1/index.htm (Accessed October 2022).

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ATTACHMENT A.
ABOVEGROUND HISTORIC PROPERTY INFORMATION AND VISUAL EFFECTS ASSESSMENT

USCG Station Atlantic City

900 Beach Thorofare
Atlantic City, Atlantic County, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward Projects

Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 11.46
Number of Blade Tips Visible 176
Property Acreage within Study Area 7.38
Property Acreage within PAPE 2.98
Percentage of Property with Potential Visibility 40.44
Visible Light Units

Nacelle Aviation 142
Mid Tower Aviation 92
Coast Guard 11

Significance

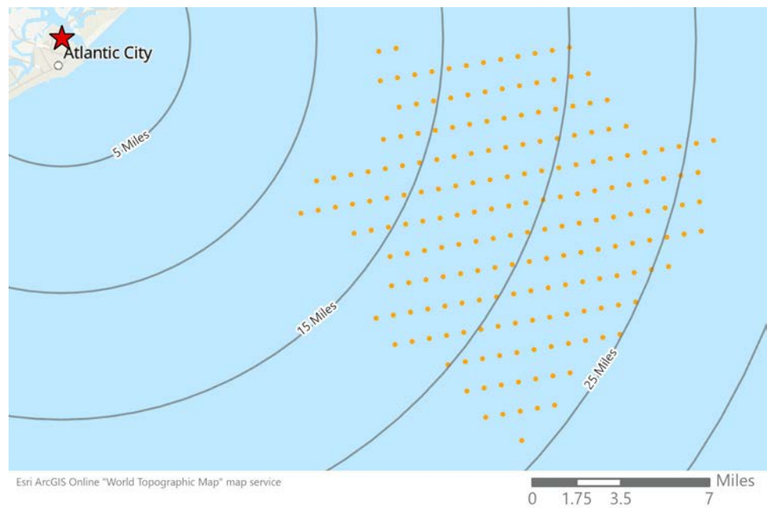
The U. S. Coast Guard Station at Atlantic City was constructed in 1939 and was at that time the largest life boat station in the guard. It replaced a series of earlier stations that had served the area. Though renovated in 1988, it appears to retain sufficient integrity to convey its eligibility to the NRHP under Criterion A (Military).

Maritime Setting

The U. S. Coast Guard Station at Atlantic City is located to the junction of Clam Creek and Absecon Inlet, where the moorings are protected but only one mile form the open ocean. The setting and function of the property are maritime in character, and the property has partial views of the ocean.

Effect Recommendation
Adverse Effect

Visibility of the Projects from this historic property due to its location on the Absecon Inlet. The majority of proposed WTGs would be visible from the historic property and could be a significant focus of viewer attention based on proximity.



ATTACHMENT 21 – TERRESTRIAL ARCHAEOLOGY PHASED IDENTIFICATION PLAN

Phased Identification Plan: Terrestrial Archaeological Resources

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County, New Jersey

Redacted Version – Confidential and/or Privileged Information Removed

Prepared for:

ATLANTIC SHORES offshore wind

Atlantic Shores Offshore Wind, LLC
Dock 72
Brooklyn, NY 11205

Prepared by:

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April 2023

LIST OF ATTACHMENTS

1.0 Introduction

Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US LLC (Shell) has proposed to construct the Atlantic Shores Onshore Interconnection Facilities (Onshore Facilities) located in the Boroughs of Manasquan and Borough of Sea Girt, Township of Howell and Township of Wall, Monmouth County, New Jersey and the City of Atlantic City and City of Pleasantville, Egg Harbor Township, Atlantic County, New Jersey. The Onshore Facilities will support Atlantic Shores' proposal to develop two offshore wind energy generation projects (the Projects) within Bureau of Ocean and Energy Management (BOEM) Lease Area OCS-A 0499 (the Lease Area). The proposed Onshore Facilities are being reviewed by the New Jersey Department of Environmental Protection (NJDEP), New Jersey State Historic Preservation Office (NJHPO), the Bureau of Ocean and Energy Management (BOEM), and other relevant New Jersey State and/or Federal agencies and consulting partners under Section 7:4 of the New Jersey Administrative Code (NJAC), the State of New Jersey Executive Order #215, the National Environmental Policy Act (NEPA), and/or Section 106 of the National Historic Preservation Act (NHPA), as applicable. The information included in this Phased Identification Plan for Terrestrial Archaeological Resources (the Plan) are intended to assist these agencies in their review of the Projects' potential effect on terrestrial archaeological resources.

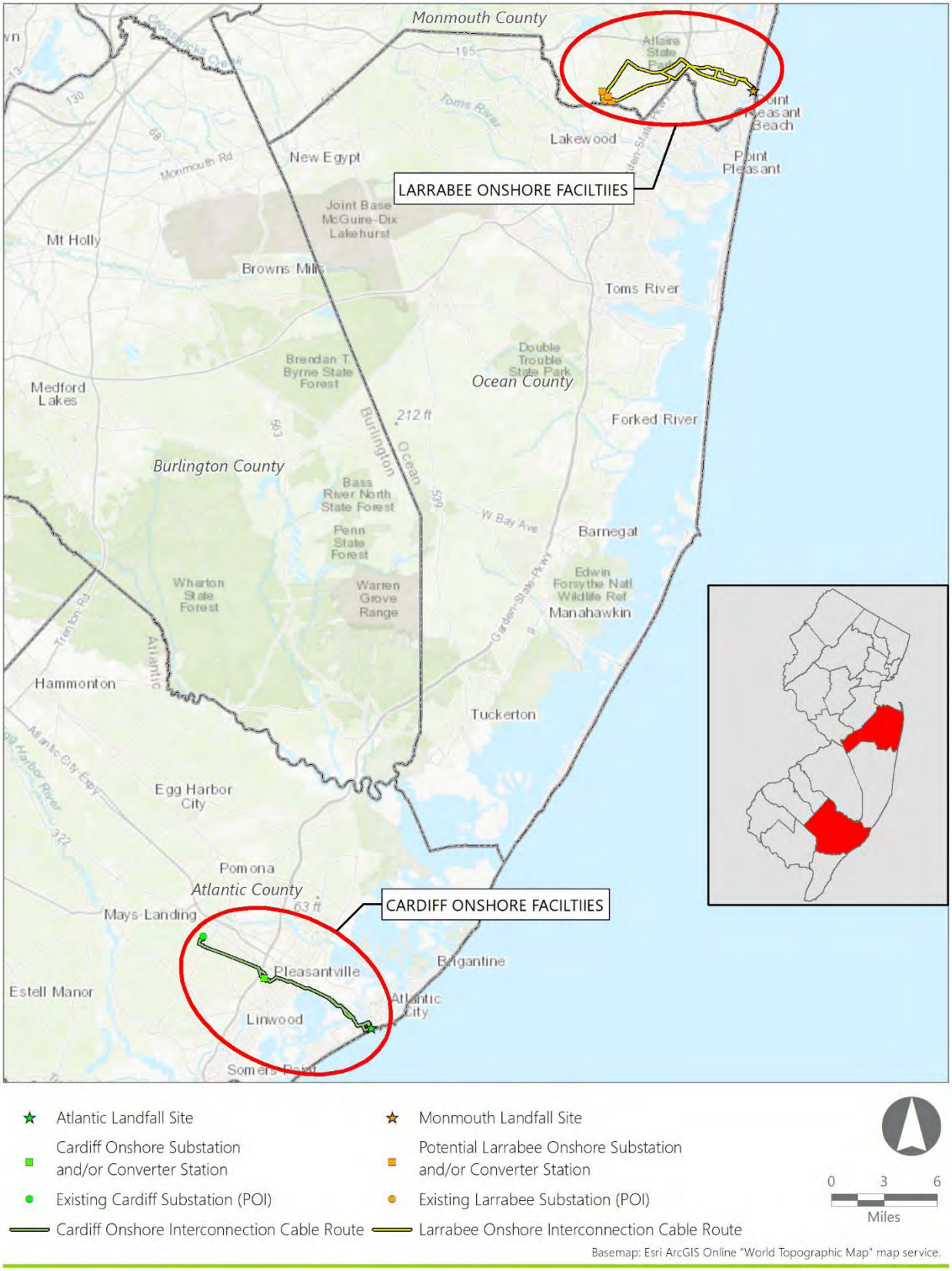
The following document is a supplement to the Projects' Terrestrial Archaeology Resource Assessment (TARA) distributed for NHPA Section 106 Consultation. Preparation of the TARA is ongoing while property access permissions are acquired to conduct Phase IB archaeological investigations for potential substation locations, landfalls, and associated onshore cable routes. BOEM has determined, in accordance with Section 106 regulations (36 CFR § 800.4 (b)(2), that a Phased Identification approach is appropriate for the survey, reporting, and consultation related to this outstanding archaeological investigation. Given the onshore routes would be buried in existing road rights-of-way or installed via HDD below the ground surface, no phased identification to identify and evaluate above ground historic properties is anticipated.

The Phased Identification Plan below serves as a process document detailing the areas where phased identification survey will be conducted, the steps Atlantic Shores will take to complete the required cultural resources survey, and a schedule of associated milestones. All milestones are anticipated to be completed before issuance of the Final Environmental Impact Statement (FEIS) and BOEM's Record of Decision (ROD).

1.1 Description of the Undertaking

Atlantic Shores proposes to construct, operate, and maintain the Onshore Facilities (including landfalls, onshore interconnection cables, onshore substations and/or converter stations, and an Operations and Maintenance [O&M] facility) to connect the offshore portions of the Projects to existing Points of Interconnection (POIs). Export cables will deliver energy from the offshore generation facilities to proposed landfall sites located in either Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. From the landfall sites, onshore cables will follow onshore interconnection cable routes (onshore routes) proposed within existing roadway, utility rights-of-way (ROWs), and/or along bike paths to existing Points of Interconnection (POIs) for connection to the electrical grid. Along the onshore routes, onshore substations and/or converter stations are also proposed (Figure 1).

Figure 1. Regional Onshore Project Area



According to BOEM, "A PDE approach is a permitting approach that allows a project proponent the option to submit a reasonable range of design parameters within its permit application, allows a permitting agency to then analyze the maximum impacts that could occur from the range of design parameters, and may result in the approval of a project that is constructed within that range" (BOEM 2018). The PDE approach allows Atlantic Shores design flexibility and an ability to respond to advancements in industry technologies and techniques.

The onshore portion of the Projects' PDE includes a reasonable range of designs and locations for proposed components (e.g., landfall sites, onshore interconnection cable routes, and onshore substation and/or converter station sites), as well as a reasonable variety of installation techniques (e.g., open trenching, jack-and-bore, horizontal directional drilling [HDD]). Identifying a range of design parameters, potential onshore facility locations, and installation methods allows BOEM to analyze the maximum impacts that could occur from the Projects' while providing Atlantic Shores with the flexibility to optimize the Projects within the approved PDE during later stages of the development process. The PDE will enable Atlantic Shores to employ the best available technology, which often outpaces the permitting process, to maximize renewable energy production, minimize adverse environmental effects, address stakeholder concerns, and minimize cost to ratepayers.

1.2 Preliminary Area of Potential Effect (PAPE)

To support the assessment of potential physical effects to historic properties and terrestrial archaeological resources within the PDE, Atlantic Shores established a PAPE for physical effects to historic properties and terrestrial archaeological resources which incorporates all areas of onshore ground disturbing activity, or other construction activities that could result in demolition or alteration of existing buildings or other built features.

The Projects overall PAPE for physical effects consists of three distinct PAPEs; two PAPEs for the Project's proposed Onshore Interconnection Cable Routes and associated onshore facilities and one PAPE for the O&M Facility. The Cardiff and Larrabee Physical Effects PAPEs include the export

cable landfall sites, the onshore transmission cable routes, the proposed onshore substation and/or converter station sites, and the POIs [1].

For the landfall sites, the proposed onshore substation and/or converter station sites[2], and the POIs, the PAPE was established as the boundaries of those facilities and/or the parcels on which those facilities are planned to be sited. For the onshore transmission cable routes, the PAPE was generally established using the width of the existing roadway and bike path ROWs that the cable routes followed combined with the boundaries of parcels containing planned HDD entry or exit pits. As such, the width of the PAPE along the Larrabee and Cardiff Onshore Routes is overly conservative when considering the actual 20-ft- (6-m)-wide footprint of potential ground disturbance associated with open trenching during installation of the onshore cables. The breadth and depth of physical effects for the Onshore Interconnection Facilities are tabulated in Table 1.

Table 1. Summary of PAPEs for Physical Effects

Project Component	Maximum Horizontal Effect	Maximum Vertical Effect
Larrabee Facilities		
Monmouth Landfall Site	3.06 acres (1.24 ha)	16.8 ft (5.12m)
Larrabee Onshore Interconnection Cable Route (Total Length 12-mi [19-km])	Trenching: 20 ft (6 m) 200.66 acres (81.20 ha)	Open Trenching 11.5 ft (3.5 m) Specialty Installation 30 ft (9 m)
Lanes Pond Road Site	16.27 acres	60 ft (18.3 m)
Brook Road Site	99.37 acres	60 ft (18.3 m)
Randolph Road Site	24.64 acres	60 ft (18.3 m)
Cardiff Facilities		
Atlantic Landfall Site	2.03 acres (0.82 ha)	16.8 ft (5.12m)
Cardiff Onshore Interconnection Cable Route	Trenching: 20 ft (6 m) 297.83 acres (120.53 ha)	Open Trenching 11.5 ft (3.5 m) Specialty Installation 30 ft (9 m)

[1] The existing substation POIs are by definition included in the PAPEs; however, they are owned by Jersey Central Power and Light (JCP&L) and Atlantic City Electric (ACE), who will be responsible for the design and construction of the required upgrades at these locations. This Plan does not consider any phased identification of terrestrial archaeological resources at either POI as no specific actions or effects are proposed by Atlantic Shores at these existing facilities at this time.

[2] Atlantic Shores previous submitted a memorandum to BOEM in August 2022 with information on eight potential locations (Parcel Areas) for the proposed Larrabee Onshore Substation and/or Converter Station. Design decisions since the transmittal of that memorandum have resulted in the removal of six of the previously identified locations (Parcel Areas 1-6), and the addition of one location (Randolph Road Site). The designations of the two retained locations (Parcel Areas 7 and 8) have been updated to the Lanes Pond Road and Brook Road Site.

Project Component	Maximum Horizontal Effect	Maximum Vertical Effect
(Total Length 14-mi [23-km])		
Fire Road Site	19.71 acres (7.98 ha)	60 ft (18.3 m)
O&M Facility	3.22 acres (1.30 ha)[3]	Up to 60 ft (18.3m) of vertical disturbance if pilings or similar construction methods are required.

The final Area of Potential Effects (APE) will be formally determined by BOEM in consultation with NJHPO as part of the Section 106 consultation process. The process for identifying and evaluating effects on historic properties resulting from the construction and operation of the Projects will involve consultation with BOEM and the NJHPO, Native American Tribes/Nations, and other consulting parties with a demonstrated interest in the historic properties (e.g., historic preservation organizations).

[3] The Preliminary Area of Potential Effects (PAPE) Memorandum quotes 1.22 acres as the maximum horizontal effect for the O&M facility. Design decisions since the preparation of the Memorandum have identified the need for a proposed parking lot structure and outdoor area, resulting in an approximately 2.00-acre increase to the Maximum Horizontal Effects for the O&M facility.

2.0 Phased Identification

Atlantic Shores is proposing phased identification to allow sufficient time to complete constructability assessments of the proposed onshore routes, finalize the onshore routes, and progress real estate and right-of-way negotiations on the associated parcels required for the selected route. Atlantic Shores will obtain all required permits and access permissions before starting any work. These steps are required in order to gain site access and perform the planned Phase IB surveys. See Section 5.0 below for the proposed schedule of phased identification activities.

Informed by a synthesis of the research presented in the TARA for onshore facilities (EDR, 2022b) the PAPE was categorized into "Disturbed"," Potentially Undisturbed", and "Paved" areas. Following discussion with NJHPO and BOEM staff, the "Disturbed", "Potentially Undisturbed", and "Paved" areas within the PAPE were further subdivided to correspond to the categories described in NJHPO's *Guidelines (*NJHPO, 2019). These categories are outlined below:

- Excluded from field survey consideration – Disturbed areas. Slopes greater than 15 percent. Areas of previous subsurface archaeological testing/survey.
- Low sensitivity – Mapped wetlands and poorly drained soils. Potentially undisturbed areas adjacent to paved roadways (within which the onshore cables are actually sited) where depth to culturally sterile subsoil is less than approximately 2.0 feet. These areas will be pedestrian surveyed and may be subject to limited judgmental shovel test survey.
- Medium sensitivity, included in "Potential Phase IB Survey Areas" for shovel testing - Potentially undisturbed areas outside of road and railroad/bike path ROWs, mapped wetlands, and poorly drained soils. Potentially undisturbed areas adjacent to paved roadways and bike paths (within which the onshore cables are actually sited) where depth to culturally sterile subsoil is greater than approximately 2.0 feet. These areas will be subject to systematic shovel test survey.
- Medium-High sensitivity, included in "Potential Phase IB Survey Areas" for shovel testing – Potentially undisturbed areas within approximately 500 feet of surface freshwater and/or

1,000 feet of previously identified archaeological sites. These areas will be subject to systematic shovel test survey.

The archaeological reconnaissance and desktop assessment results from the TARA for onshore facilities (EDR, 2022b: Attachments C and D) depict the archaeological sensitivity of the PAPE. The "Potential Phase IB Survey Areas" depicted on Attachment A and Attachment B illustrate those portions of the proposed Onshore Facilities that have been assigned Medium or Medium-High archaeological sensitivity. In these areas of the PAPE targeted, systematic Phase IB archaeological testing (i.e., shovel testing) is recommended. These areas are described below (and presented in Table 2):

- Larrabee PAPE
    - "Potentially Undisturbed" areas of the New Jersey Army National Guard Training Center (Attachment A, Sheet 1);
    - Unpaved public ROW on the south side of Sea Girt Avenue between Old Mill Road and Begonia Avenue within 500 ft of surface fresh water (Attachment A, Sheet 2);
    - "Potentially Undisturbed" areas of the Wall Township Bike Path adjacent to the paved path (Attachment A, Sheets 3-5);
    - Portions of the Edgar Felix Memorial Bikeway near its intersection with the Wall Township Bike Path within mapped eolian soil deposits [redacted] (Attachment A, Sheets 5-6);
    - Unpaved public ROW north and south of Tiltons Corner Road between Hidden Brook Drive and White Boulevard within mapped eolian soil deposits (Attachment A, Sheet 7);
    - Portions of the Edgar Felix Memorial Bikeway between Ramshorn Drive and Hospital Road within mapped eolian soil deposits [redacted] depicted in Attachment A (Sheets 8-10);

- Unpaved public ROW adjacent to portions of Lakewood Allenwood Road between Atlantic Avenue and Shoreline Drive within 500 ft of surface fresh water depicted in Attachment A (Sheet 8);
- "Potentially Undisturbed" portions of Robert L. Brice Memorial Park planned to contain an HDD entry pit within 500 ft of surface fresh water (Attachment C, Sheet 13);
- Unpaved public ROW adjacent to portions of Lakewood Allenwood Road east of the intersection with Metedeconk Road within mapped eolian soil deposits depicted in Attachment A (Sheet 14);
- "Potentially Undisturbed" portions of the parcel north of the intersection of Lakewood Allenwood Road and Metedeconk Road planned to contain an HDD exit pit depicted in Attachment A (Sheet 14);
- Unpaved public ROW adjacent to Hospital Road south of the intersection with the Edgar Felix Memorial Bikeway within 500 ft of surface fresh water depicted in Attachment A (Sheets 10-11);
- "Potentially Undisturbed" and non-inundated portions of an area northwest of Hospital Road on the north side of the Manasquan River planned to contain an HDD entry pit within 500 ft of surface fresh water depicted in Attachment A (Sheet 11);
- "Potentially Undisturbed" area surrounding a parking lot on Hospital Road south of the Manasquan River planned to contain an HDD exit pit and partially within 500 ft of surface fresh water depicted in Attachment A (Sheet 12);
- Unpaved public ROW adjacent to portions of Easy Street and Lakewood Farmingdale Road within mapped eolian soil deposits and/or within 500 ft of surface fresh water depicted in Attachment A (Sheets 19-20);
- Unpaved public ROW adjacent to portions Lakewood Farmingdale Road near the intersection of Oak Glen Road and between Randolph Road and Miller Road within mapped eolian soil deposits depicted in Attachment A (Sheet 21);

- Unpaved public ROW adjacent to portions of Lakewood Allenwood Road between Herbertsville Road and Virginia Drive within mapped eolian soil deposits depicted in Attachment A (Sheet 15);
- Unpaved public ROW adjacent to portions of Lakewood Allenwood Road between Cascades Avenue and Arnold Boulevard within mapped eolian soil deposits depicted in Attachment A (Sheets 16-18);
- Unpaved public ROW adjacent to portions of Lanes Pond Road north of the intersection of Alexander Avenue within mapped eolian soil deposits depicted in Attachment A (Sheet 23);
- Within "Potentially Undisturbed" areas of the Lanes Pond Road Site as indicated by the "Potential Phase IB Survey Areas" depicted in Attachment A (Sheets 22-23);
- Within "Potentially Undisturbed" areas of the Brook Road Site as indicated by the "Potential Phase IB Survey Areas" depicted in Attachment A (Sheets 25-27); and
- Within "Potentially Undisturbed" areas of the Randolph Road Site as indicated by the "Potential Phase IB Survey Areas" depicted in Attachment A (Sheet 24).

- Cardiff PAPE
  - Unpaved public ROW on the north side of West Jersey Avenue between U.S. Route 40 and Winter Green Avenue [redacted] (Attachment B, Sheet 2);
  - Unpaved ROW on the south side of West Jersey Avenue between Atlantic County 684 and Ridge Avenue within 500 ft of surface fresh water (Attachment B, Sheets 3-4);
  - Unpaved public ROW on the south side of West Jersey Avenue between Atlantic County 684 and Fernwood Avenue [redacted] (Attachment B, Sheet 4);
  - Unpaved public ROW on the south side of West Jersey Avenue between Ivins Avenue and English Creek Avenue within 500 ft of surface fresh water (Attachment B, Sheet 5);

- Unpaved portions of the Atlantic County Bikeway and public ROW north of West Jersey Avenue near the intersection of English Creek Avenue within mapped eolian soil deposits and in the mapped vicinity of the McKee City Station (Attachment B, Sheet 6);
- Unpaved public ROW on the east side of English Creek Avenue within mapped eolian soil deposits (Attachment B, Sheet 6); and
- Within "Potentially Undisturbed" areas of the Fire Road Site as indicated by the "Potential Phase IB Survey Areas" depicted in Attachment B (Sheet 1).

Table 2. Summary of identified "Potential Phase IB Survey Areas" for Proposed Onshore Facility Sites

Onshore Facility Site	Recommended Additional Measures to Identify Archaeological Resources	Attachment Mapping
Larrabee Physical Effects PAPE 328.87 ac	Combined Phase IB STP Survey 127.5 ac (38.6%)	Attachment A
Monmouth Landfall Site 8.32 ac	Partial Phase IB STP Survey 0.78 ac (9.1%)	Sheet: 1
Larrabee Onshore Route 180.27 ac	Targeted Phase IB STP Survey 25.45 ac (14.1%)	Sheets: 2-26
Lanes Pond Road Site 16.27 ac	Targeted Phase IB STP Survey 10.87 ac (66.81%)	Sheet: 22-23
Brook Road Site 99.37 ac	Targeted Phase IB STP Survey 75.82 ac (76.30%)	Sheet: 24-27
Randolph Road Site 24.64 ac	Targeted Phase IB STP Survey 11.90 ac (48.30%)	Sheet: 24
Cardiff Physical Effects PAPE 325.56 ac	Combined Phase IB STP Survey 19 93 ac (0.61%)	Attachment B
Atlantic Landfall Site 2.02 ac	No further investigation	N/A
Cardiff Onshore Route 303.82 ac	Targeted Phase IB STP Survey 1.93 ac (0.63%)	Sheets: 2-6
Fire Road Site 19.71 ac	Partial Phase IB STP Survey 18.0 ac (91.3%)	Sheet: 1
O&M Facility PAPE 3.22 acres	No further investigation	N/A

Those areas of the PAPE classified as Low Sensitivity (primarily road ROW adjacent to the Onshore Routes where depth to culturally sterile subsoil is mapped as less than approximately 2.0 feet) will be pedestrian surveyed and may be subject to limited judgmental shovel test survey (EDR, 2022b: Attachments C and D).

3.0 Maps

Figures depicting the archaeological sensitivity of the entire PAPE can be found within the TARA (EDR, 2022b: Attachments C and D). Those portions of the proposed Onshore Facilities that have been assigned Medium or Medium-High archaeological sensitivity and are recommended for targeted, systematic Phase IB archaeological testing (i.e., shovel testing) are depicted as "Potential Phase IB Survey Areas" on Attachment A and Attachment B of this Plan.

4.0 Methods

Atlantic Shores anticipates following the general survey methodology described below for any necessary Phase IB archaeological survey (as described herein).

Prior to initiating the archaeological fieldwork, New Jersey 811 would be contacted to request a utility mark-out. The utility mark-out will enable the archaeologists to avoid excavation in the area of existing utilities and help identify additional previously disturbed areas where no archaeological work is necessary.

The archaeological survey would consist of the hand excavation of STPs in a 50-by-50-ft (15-by-15-m) grid within "Potentially Undisturbed" portions of the proposed landfall sites, substation and/or converter station locations, or areas of the onshore routes where the PAPE extends significantly beyond the margins of road or bike path ROWs (such as planned HDD or jack and bore workspaces). STPs will be excavated every 50 ft (15 m) in a single transect along one or both sides of the onshore routes with areas identified as "Potentially Undisturbed". STPs will measure approximately 18 to 20 in (45 to 50 cm) in diameter and be excavated to a depth of at least 4 inches (10 cm) into a sterile subsoil stratum or to the practical limits of hand excavation (typically 3 to 4 ft [0.9 to 1.2 m] below the ground surface). No machinery or heavy equipment will be used during excavation. The locations of all STPs will be recorded with sub-meter accurate global navigation satellite system (GNSS) equipment and noted on field maps. Stratigraphic profiles,

including depth, soil color, and texture, for all shovel tests will be recorded digitally on standardized field record forms.

Since paved roadways and bike paths are not suitable for subsurface archaeological testing (i.e., shovel testing), STPs will be excavated within the road or bike path ROW on the unpaved margins, as a proxy for what may be beneath the adjacent paved areas. This strategy is based on survey methodology used for the onshore facilities of similar offshore wind projects reviewed by BOEM (EDR, 2020 and 2022).

All soils excavated from STPs would be 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 will be noted on field forms, but these materials will not be collected for subsequent analysis. All STPs will be backfilled immediately upon completion. All shovel tested areas will be restored to match pre-existing conditions.

If artifacts or other archaeological materials (e.g., lithic artifacts/stone tools, projectile points, pottery sherds, indications of a former building) are recovered from STPs, then additional STPs at closer intervals may be excavated to determine if an archaeological site is present. If artifacts are recovered from an isolated shovel test, then up to eight additional radial STPs will be excavated at 16- and 33-ft (5- and 10-m) intervals around the original STP to determine whether the artifacts represent an isolated find or may indicate the presence of a more substantial archaeological site. If any archaeological finds are observed, these will be collected and returned to the archaeologists' laboratory facility where they will be washed, rebagged in labeled, clean, 4-mil. Archival quality plastic bags and inventoried in accordance with the *Requirements for Phase I Archaeological Survey and Requirements for Archaeological Survey Reports* (NJHPO, 2008).

Atlantic Shores will treat any potentially significant archaeological sites identified during the Phase IB survey as S/NRHP eligible resources or will conduct Phase II investigations to support BOEM's

determination of National Register eligibility, as appropriate. As a result, limited supplemental testing (such as the excavation of a short-interval [5-m] STP grid) may be conducted at the Phase IB level to further evaluate a site's potential S/NRHP eligibility or lack thereof. If, following the results of the limited supplemental testing, a site is still considered potentially S/NRHP eligible, then the development of an evaluation-level Phase II workplan in consultation with NJHPO may be necessary. A general Phase II workplan outline designed to determine whether a site contains sufficient data to address regional research questions is included below:

- A context for sites of similar type in the same general geographic region will be developed to evaluate the site's potential S/NRHP eligibility.
- If not previously conducted during the Phase IB effort, STPs will be excavated at 5-m intervals to provide data on artifact density and distribution across the site.
- A number of 1 × 1 m test units (Tus) will be excavated to gain a larger sample of artifacts and to possibly identify any potential subsurface features; representing an approximately 1% sample of the site area.
- If applicable (in a previous cleared area), mechanically assisted plowzone removal followed by shovel-scraping will be conducted to provide an exposure of up to 20% of the site; this effort will focus on the permanent easement/final siting of the onshore interconnection cables or other onshore facilities, where construction-related disturbances are expected to be the deepest.
- If cultural features are identified, fill from half of each feature will be processed by flotation to determine if food/faunal/floral remains are preserved. The remaining half of each feature will be screened for artifacts through 1/8-inch wire mesh.
- If sufficient charcoal is present in cultural features, two radiocarbon dates will be processed.

Results of any subsequent Phase IB or potential Phase II archaeological survey, as well as a complete inventory of all potential archaeological finds, will be incorporated in a revision to the TARA. This revision will be provided to appropriate federal, state, and/or local agencies and

interested parties and marked "Confidential – Not for Public Disclosure – Contains Archaeological Site Information" if it contains locational information for archaeological resources that may be placed at risk by disclosure. The report will be prepared in accordance with applicable portions of the NJHPO's *Requirements for Archaeological Survey Reports* (NJHPO, 2000).

Any alternate routing options or substation and/or converter locations removed from Project consideration prior to conducting any potential Phase IB archaeological field survey for the Project (anticipated Fall 2022) will result in the omission of any corresponding Potential Phase IB Survey Areas from the field effort. Additional Potential Phase IB Survey Areas may be added within portions of the PAPE categorized as "Potentially Undisturbed" if Project updates or alterations call for the use of roadside ROW or additional areas outside of the current siting within paved lanes and bikes paths.

To further mitigate the potential (however unlikely) for encountering archaeological resources during installation of the Onshore Facilities, Atlantic Shores has prepared a Monitoring Plan and Post Review Discoveries Plan (MPRDP) for terrestrial archaeological resources, which includes stop-work and notification procedures to be followed if a cultural resource is encountered during installation (Attachment C). Atlantic Shores anticipates that the MPRDP will be incorporated in a Memorandum of Agreement (MOA) executed among BOEM, SHPOs, consulting Native American Tribes, and potentially other consulting parties to resolve anticipated adverse effects to identified historic properties and to memorialize specific measures that Atlantic Shores will take to avoid and minimize potential effects to other historic properties in the event of a post-review discovery. The MPRDP outlines the steps for dealing with potential unanticipated discoveries of cultural resources, including human remains, during the construction of the proposed Onshore Facilities. In summary the MPRDP:

- Presents to regulatory and review agencies the plan Atlantic Shores and its contractors and consultants will follow to prepare for and potentially respond to unanticipated cultural resources (i.e., terrestrial archaeological) discoveries;

- Includes provisions and procedures allowing for a Cultural Monitor (Archaeologist) and Tribal Monitors to be present during construction and installation activities conducted in targeted areas of concern as identified in the TARA and through consultation with Native American Tribes; and
- Provides guidance and instruction to Atlantic Shores personnel and its contractors and consultants as to the proper procedures to be followed in the event of an unanticipated cultural resource (i.e., terrestrial archaeological) discovery.

5.0 Schedule

Section 106 Phased Identification Plan – Schedule			
Pre-Rod Phased Identification Task	**Approx Start Date**	**Approx Time to Complete****	**Approx Task Complete Date**
TARA Field Effort			
Fire Road Site Access	9-Jan-2023	5 days	Obtained
Fire Road Site Survey			Completed
Highway Work Permits	In Progress, submit by 03-Feb-2023	up to 45 days	15-March-2023
Cardiff Onshore Route Survey	20-March-2023	2 days	22-March-2023
Larrabee Onshore Route Survey	22-March-2023	Approximately 2 weeks	5-Apr-2023
National Guard Base Access/ARPA Permit	Contingent on access permission and receipt of permit*	Up to 60 days	No later than Jul-2023
Monmouth Landfall Survey	Contingent on receipt of permit*	1 day	No later than Jul-2023
Larrabee Parcel Survey (Lanes Pond Road, Brook Road, and/or Randolph Road Sites)	Contingent on parcel selection/purchase*	Variable: Assumed maximum 100 acres of survey, 3 weeks	No later than Jul-2023
Temp Workspaces/Inaccessible Parcels	Contingent on identification/access*	Approximately 8 acres/day	No later than Jul-2023
Phase II Archaeological Assessment	If necessary*	TBD	No later than Jul-2023
Draft Environmental Impact Statement (DEIS) Publication Current Target May 19, 2023			
Revised TARA			
1st TARA Phase IB Survey Update	29-May-2023	4 weeks	No later than Jun-23-2023
1st Agency Review	26-Jun-2023	4 weeks	21-Jul-2023
TARA Edits based on Agency Review and additional Phase IB Survey Updates	24-Jul-2023	10 weeks	No later than 6-October-2023
TARA Submitted to Section 106 Consulting Parties	6-Oct-2023	1 day	6-Oct-2023

TARA Section 106 Consultation Meetings and Consulting Party Review	9-Oct-2023 to 10 Nov-2023	30-day review period	10-Nov-2023
Potential TARA Edits based on Section 106 Consultation Meetings	13-Nov-2023	2 weeks	No later than Nov-2023, at least 30 days prior to FEIS based on the current EIS schedule
Final Environmental Impact Statement (FEIS)			
Record of Decision (ROD)			

*Assumed two weeks to mobilize from confirmation of access/permit execution.
** Assumed 8-person survey crew for all activities.

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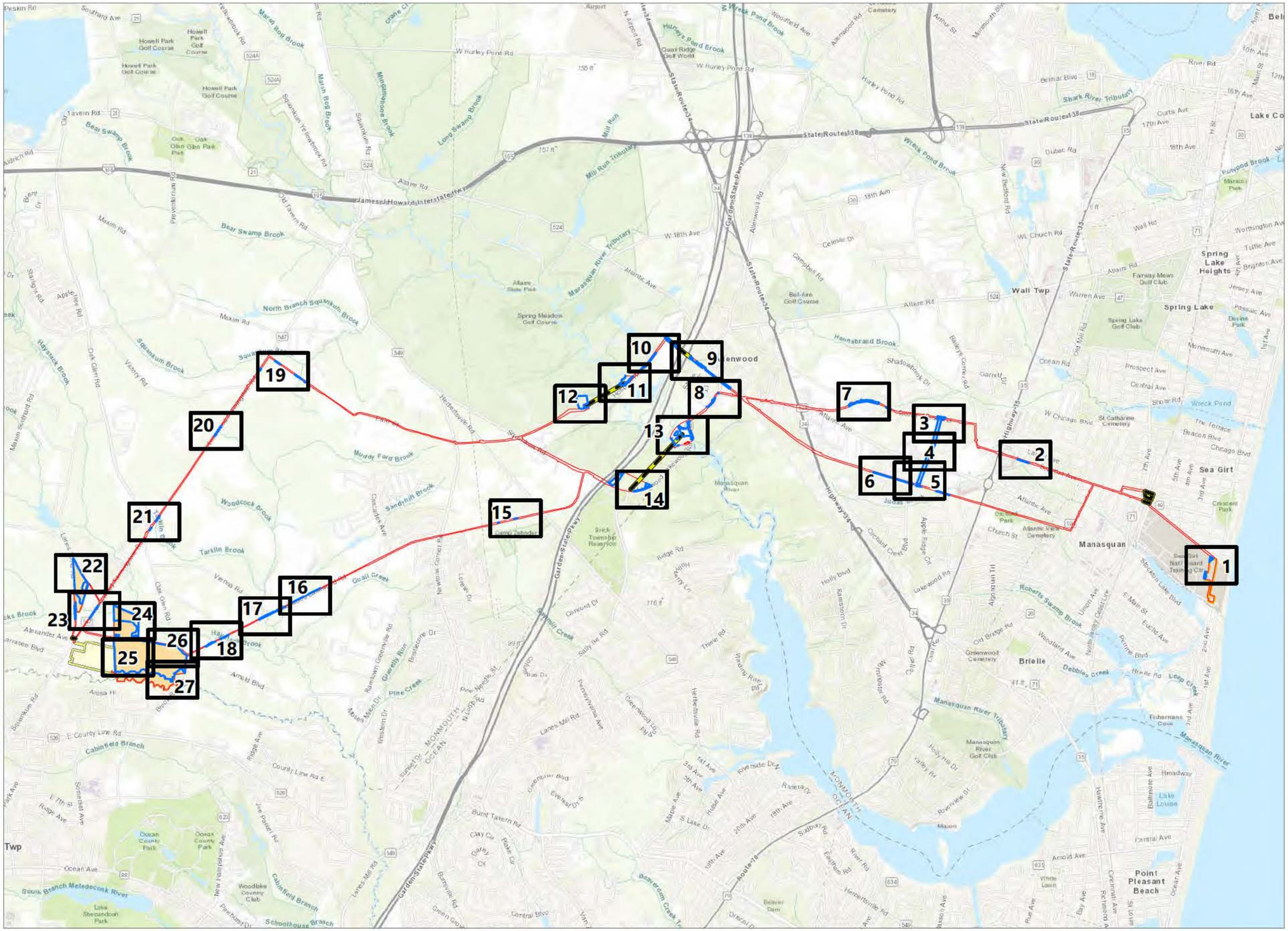
Attachment A.
Larrabee Potential Phased IB Survey Areas

Attachment A. Larrabee Potential Phase 1B Survey Areas

Index Sheet



Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

- Sheet Index

Larrabee Physical Effects PAPE

- Trenchless PAPE (HDD or J&B)
- Monmouth Landfall Site
- Substation and/or Converter Station Option
- Larrabee PAPE Boundary

- Phase 1B Survey Area
- Larrabee Point of Interconnection (POI)

0 0.25 0.5 1
Miles

Prepared April 5, 2023
Basemap Esri "World Topographic Map" map service

ATLANTIC SHORES offshore wind

EDR

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Monmouth Landfall Site
- Larrabee PAPE Boundary

Archaeological Sensitivity

- Excluded from Field Survey Consideration
- Low Sensitivity
- Medium Sensitivity
- Medium-High Sensitivity
- Roadway/Paved

- Potential Phase IB Survey Area

0 75 150 300

Feet

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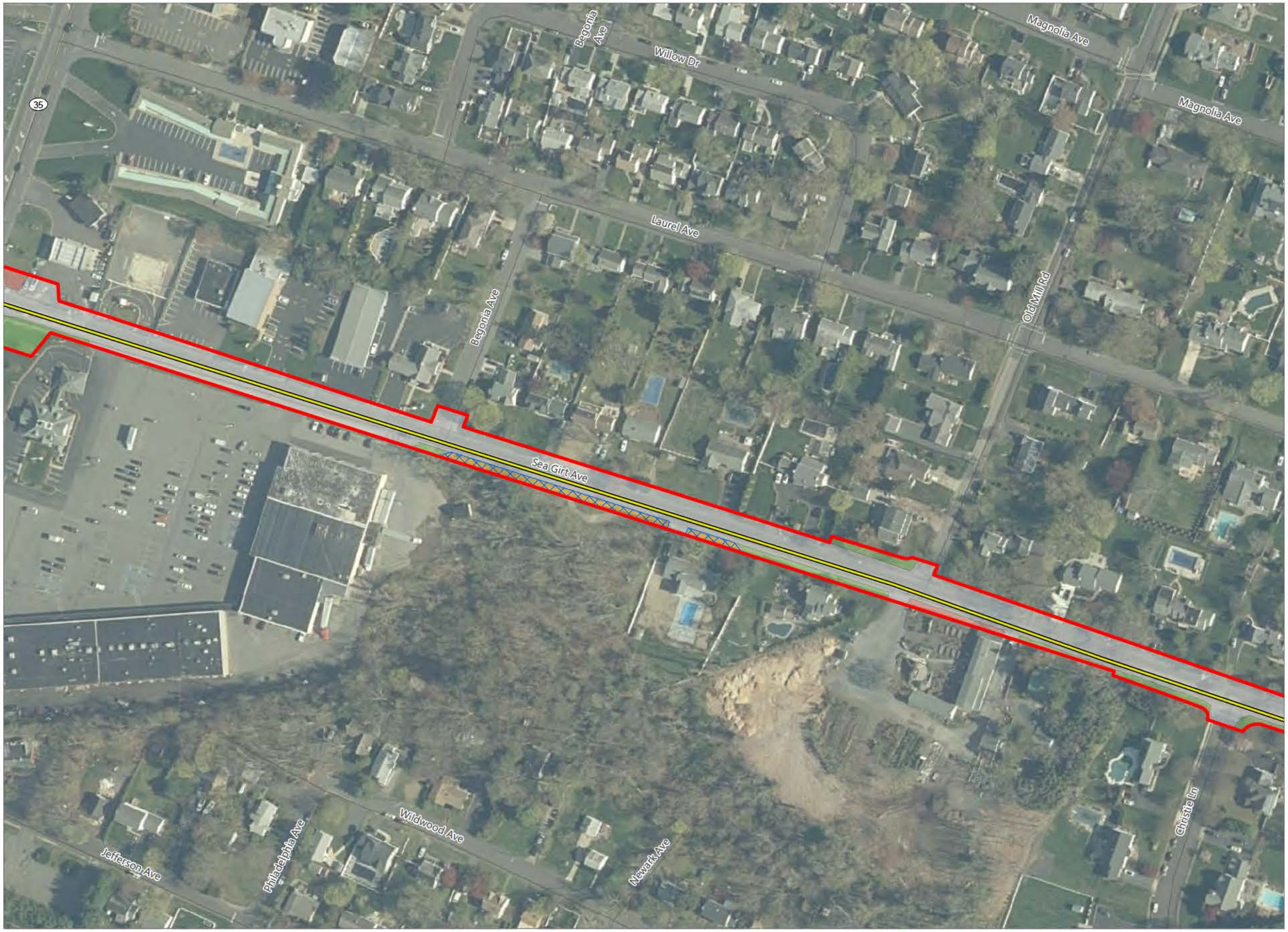
ATLANTIC SHORES offshore wind

EDR



Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

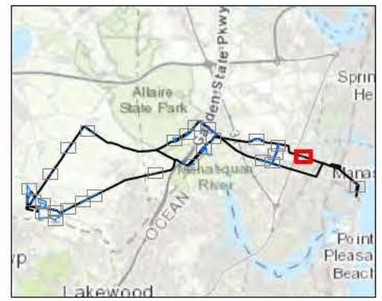
Larrabee Physical Effects PAPE

- Routing Option
- Larrabee PAPE Boundary

Archaeological Sensitivity

- Excluded from Field Survey Consideration
- Low Sensitivity
- Medium-High Sensitivity
- Roadway/Paved

- Potential Phase IB Survey Area



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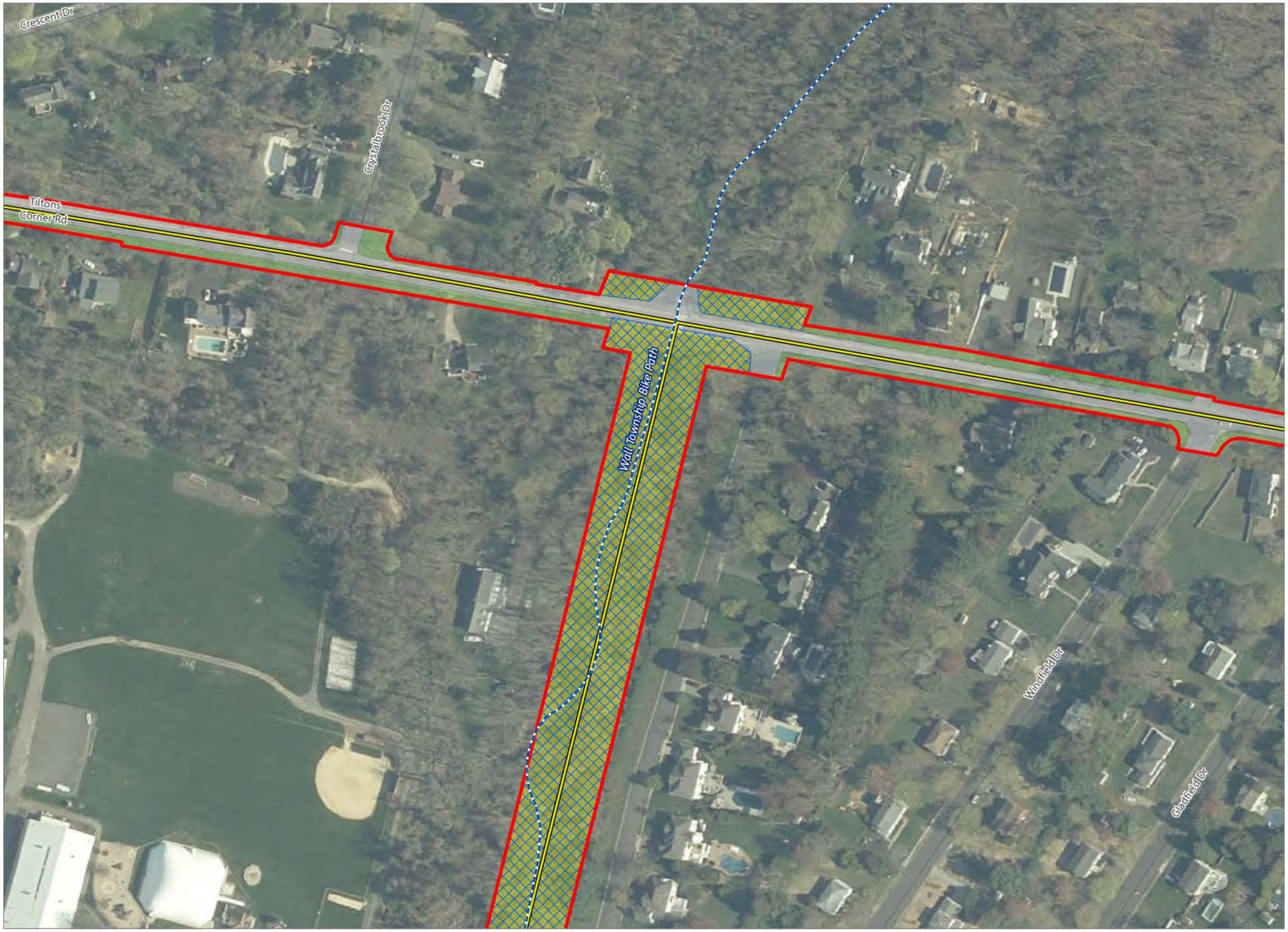


Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

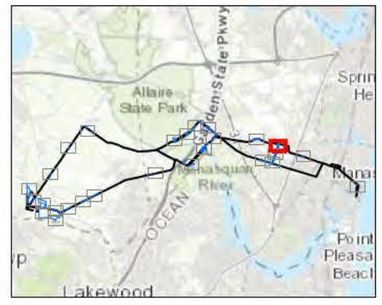
Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Larrabee PAPE Boundary
- Wall Township Bike Path

Archaeological Sensitivity

- Low Sensitivity
- Medium Sensitivity
- Roadway/Paved
- Potential Phase IB Survey Area



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Monmouth and Atlantic County
New Jersey

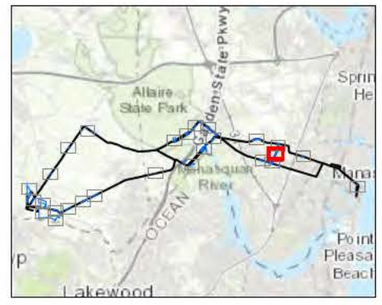
Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Larrabee PAPE Boundary
- Wall Township Bike Path

Archaeological Sensitivity

- Medium Sensitivity
- Roadway/Paved
- Potential Phase IB Survey Area



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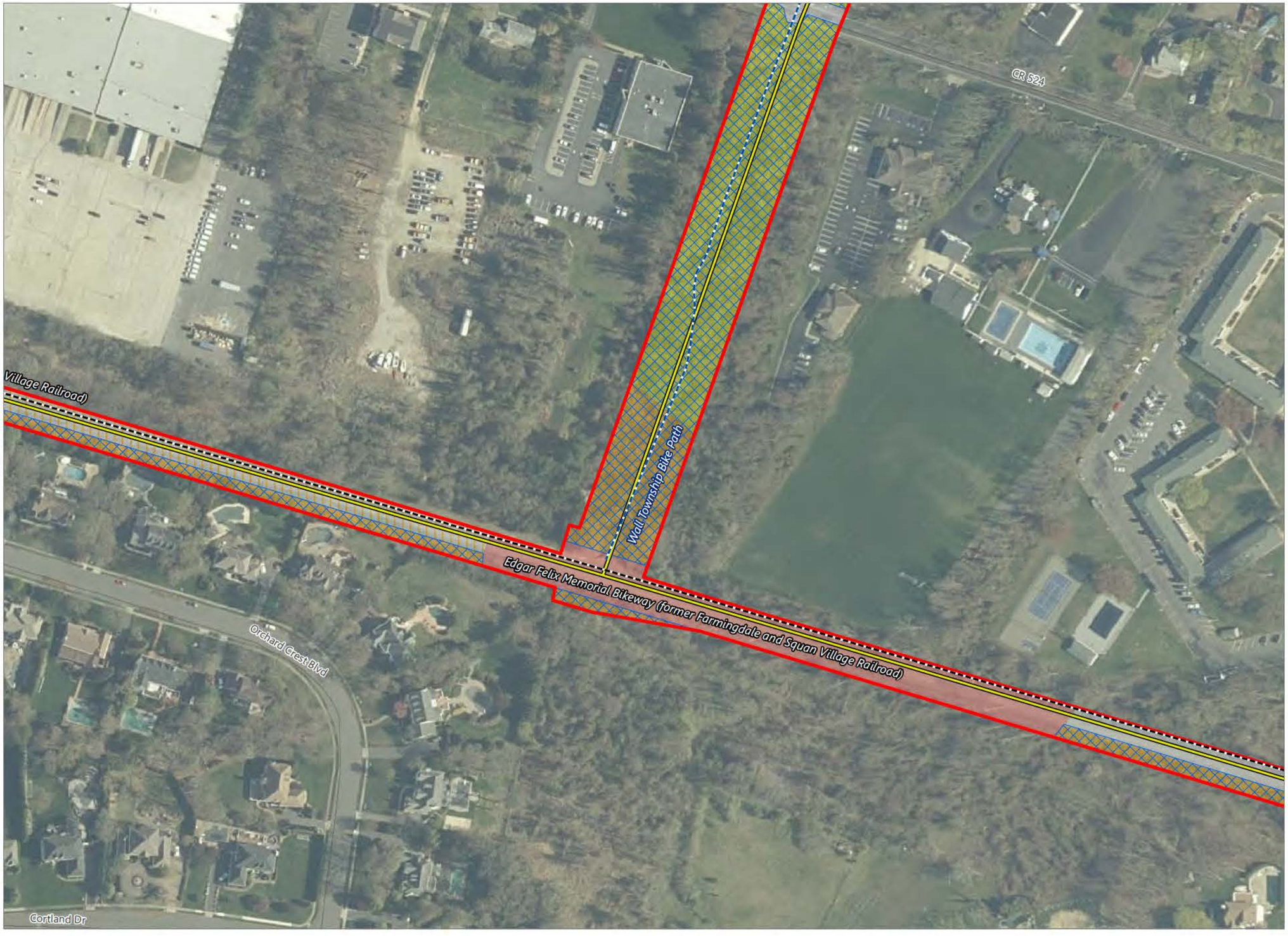

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Larrabee PAPE Boundary
- Edgar Felix Memorial Bikeway (former Farmingdale and Squan Village Railroad)
- Wall Township Bike Path

Archaeological Sensitivity

- Excluded from Field Survey Consideration
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- Medium Sensitivity
- Medium-High Sensitivity
- Roadway/Paved Medium-High Sensitivity
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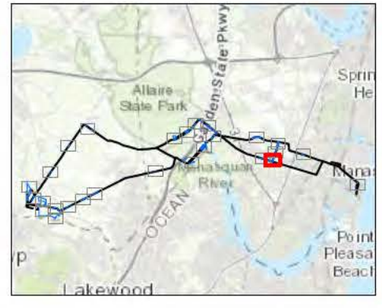
- Potential Phase IB Survey Area



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Monmouth and Atlantic County
New Jersey

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Larrabee Physical Effects PAPE

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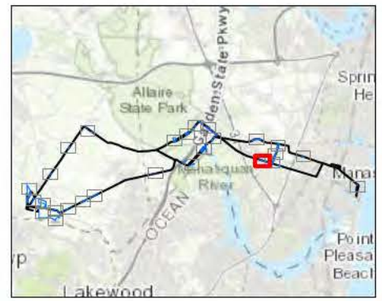

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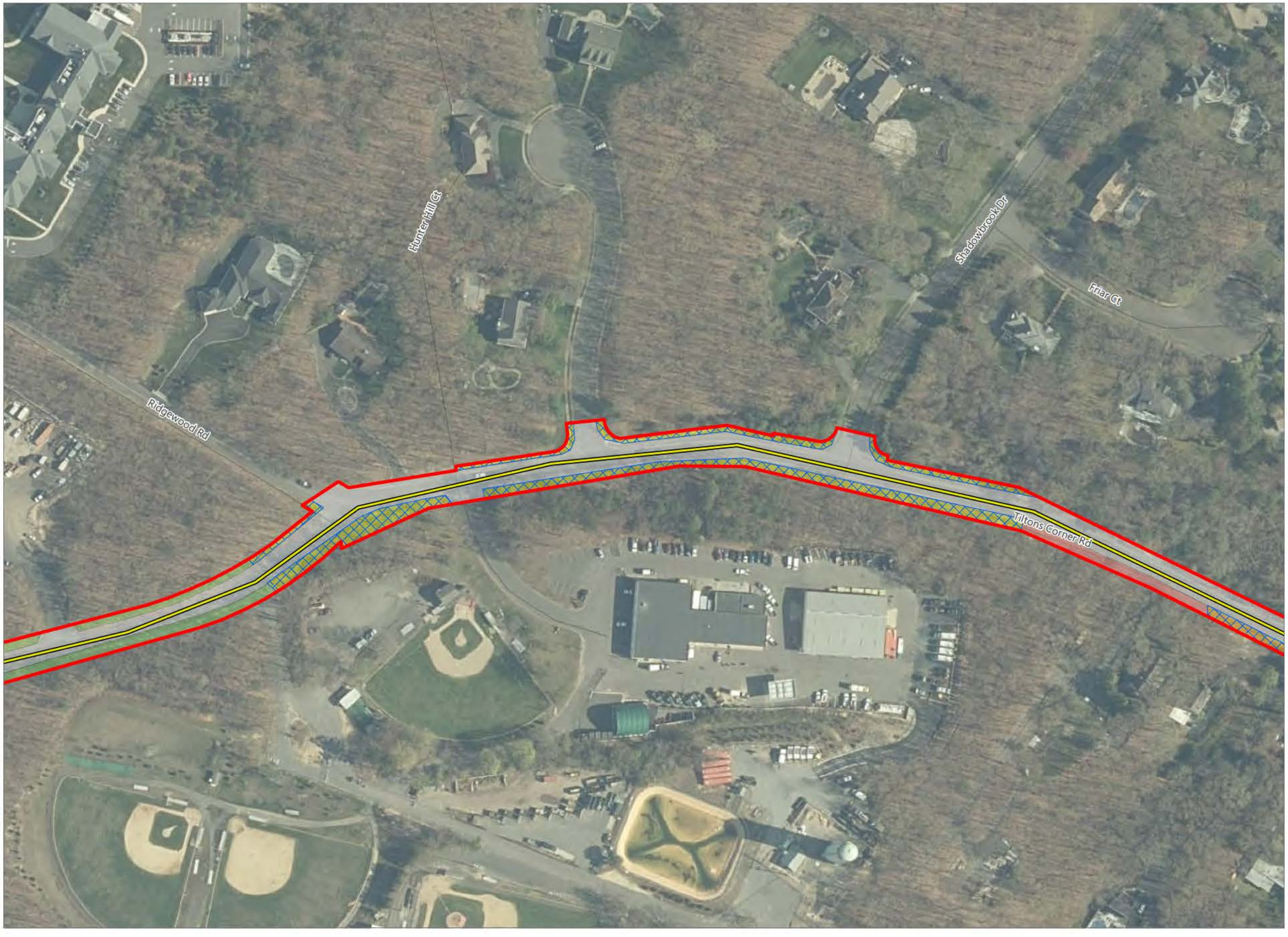

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Larrabee PAPE Boundary

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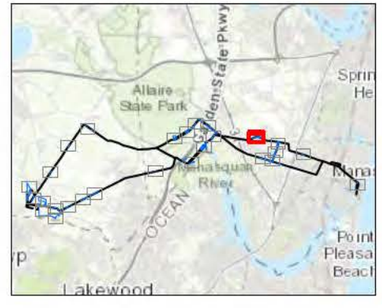

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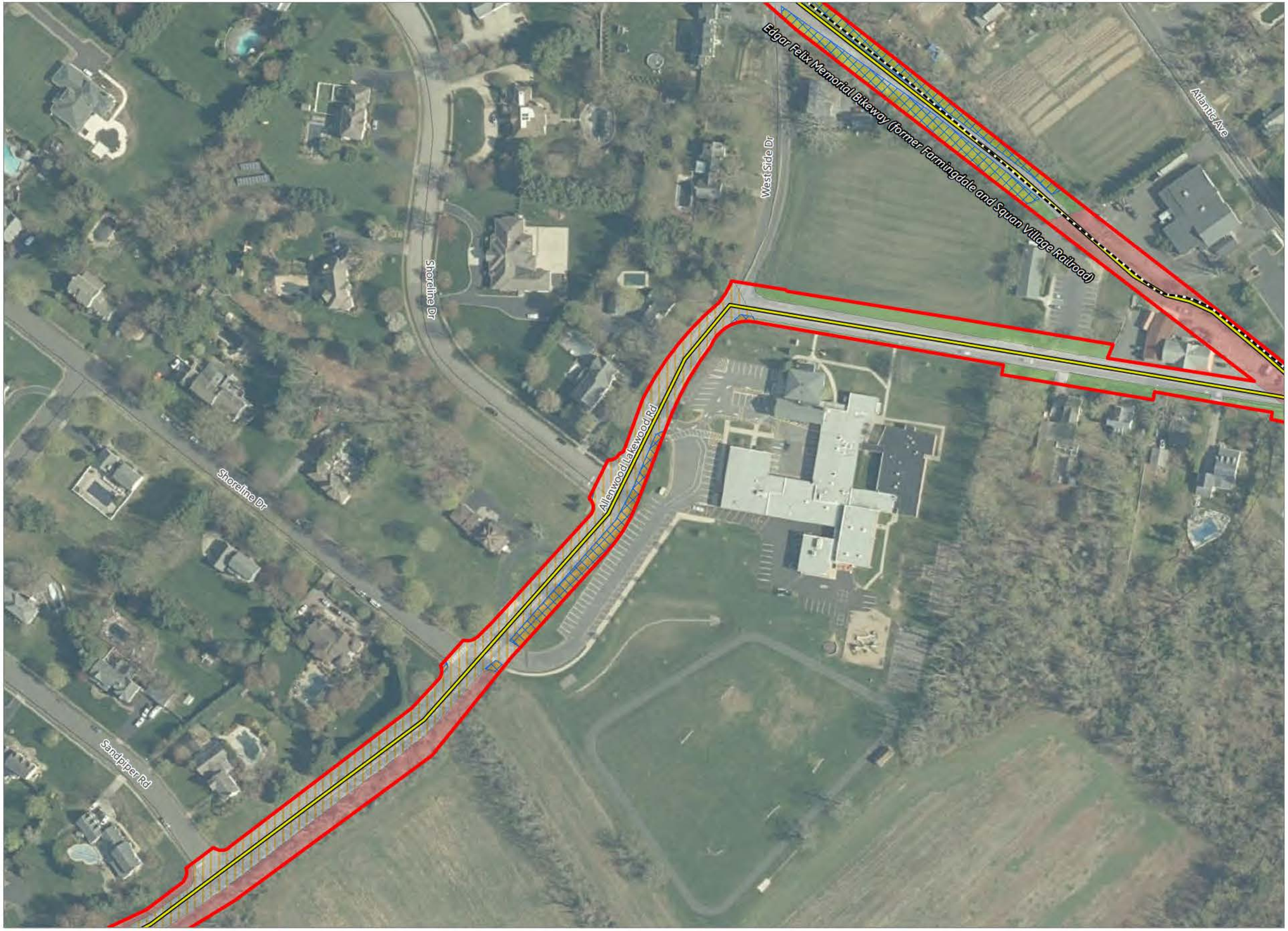

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

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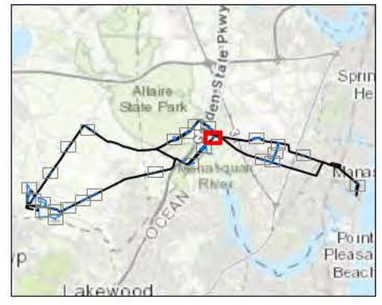

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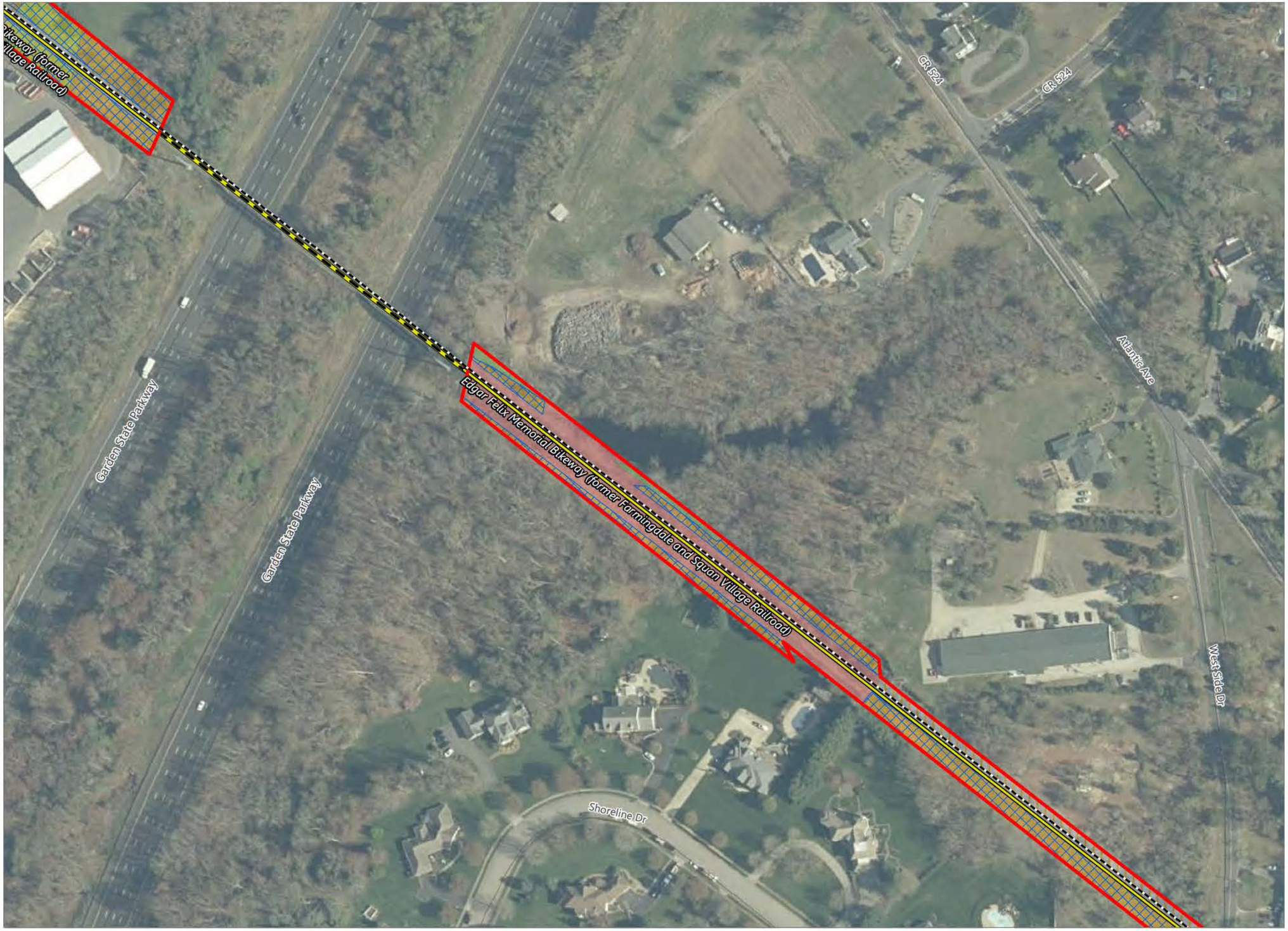

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

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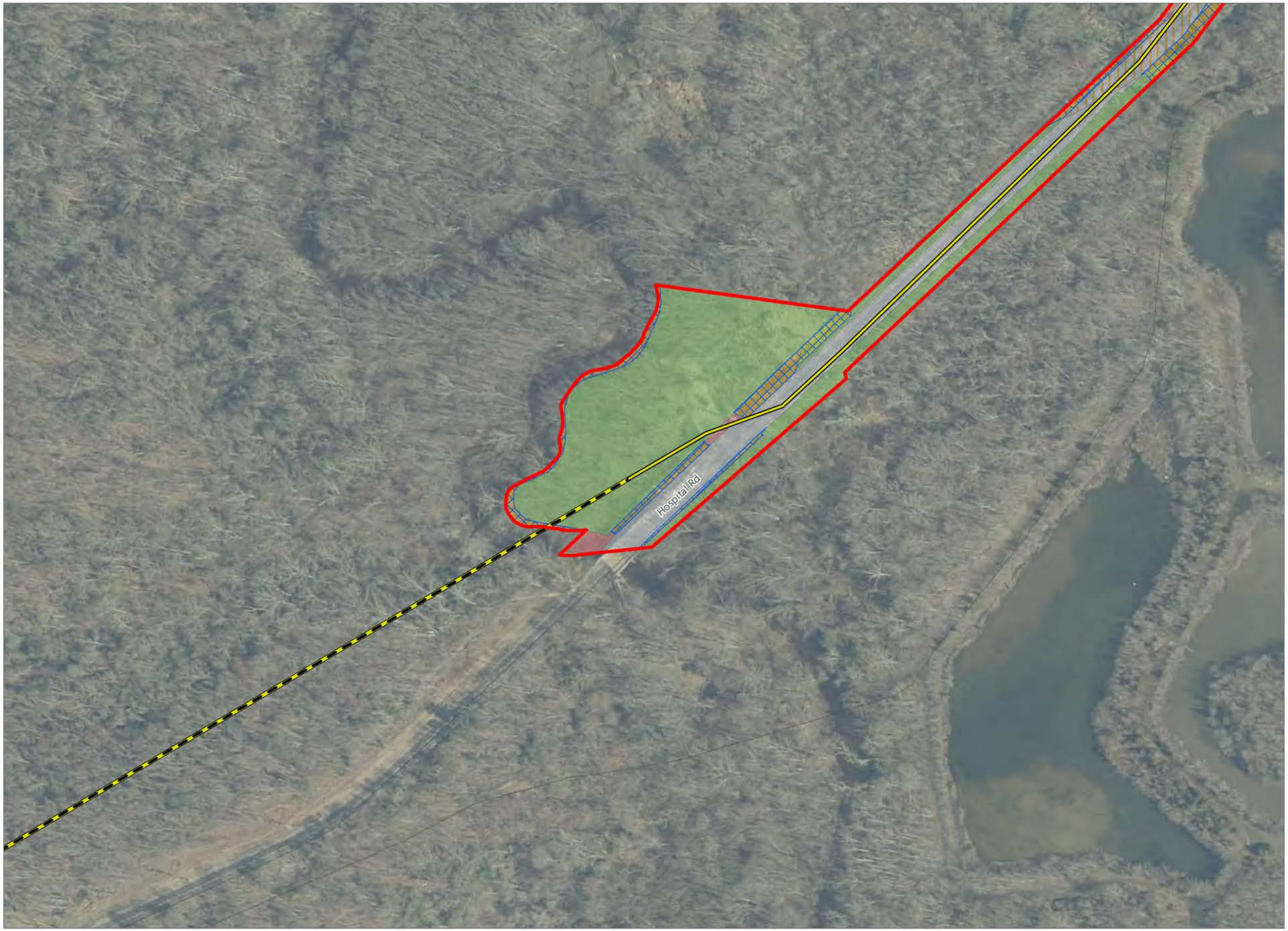

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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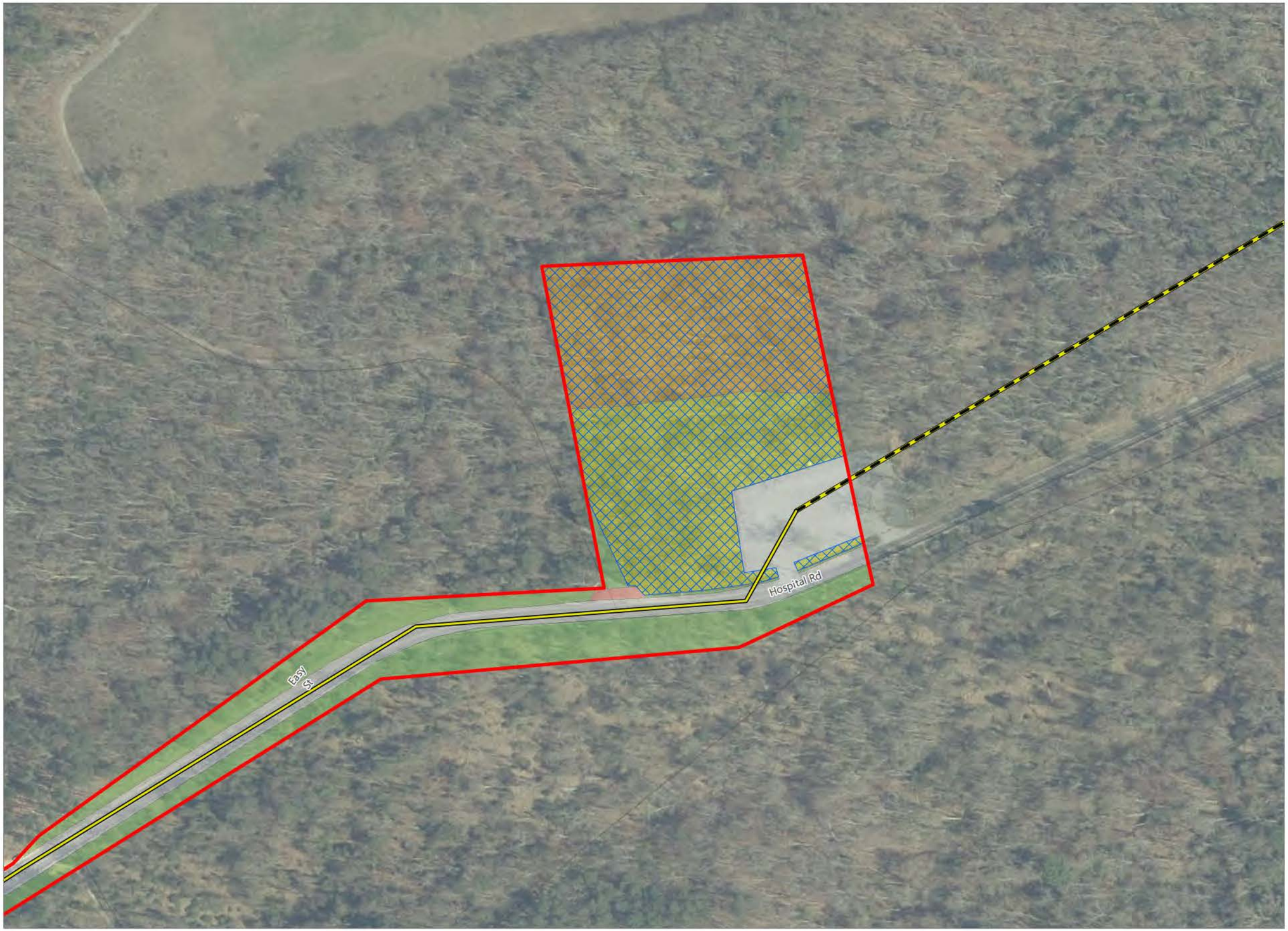

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Monmouth and Atlantic County
New Jersey

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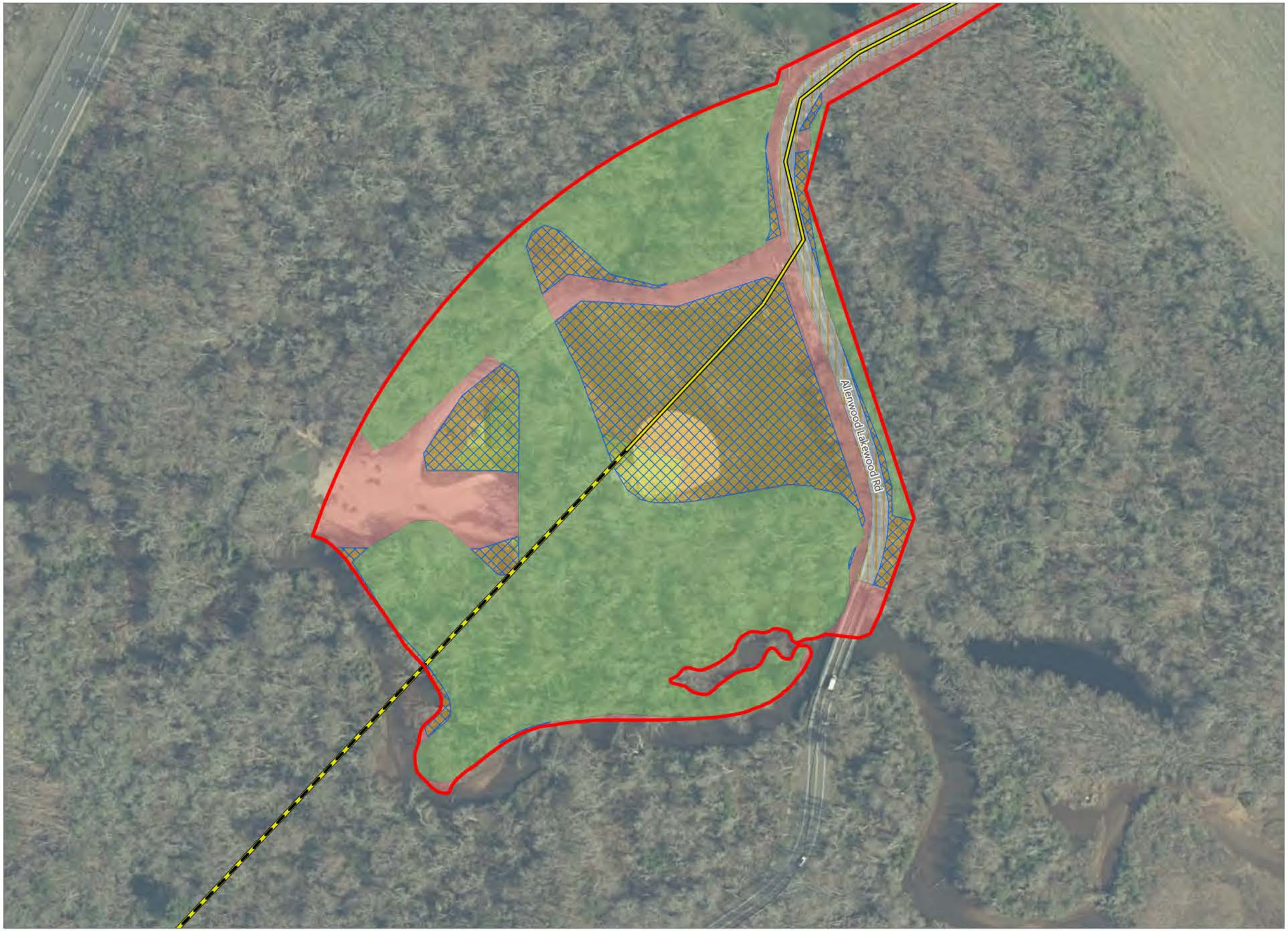

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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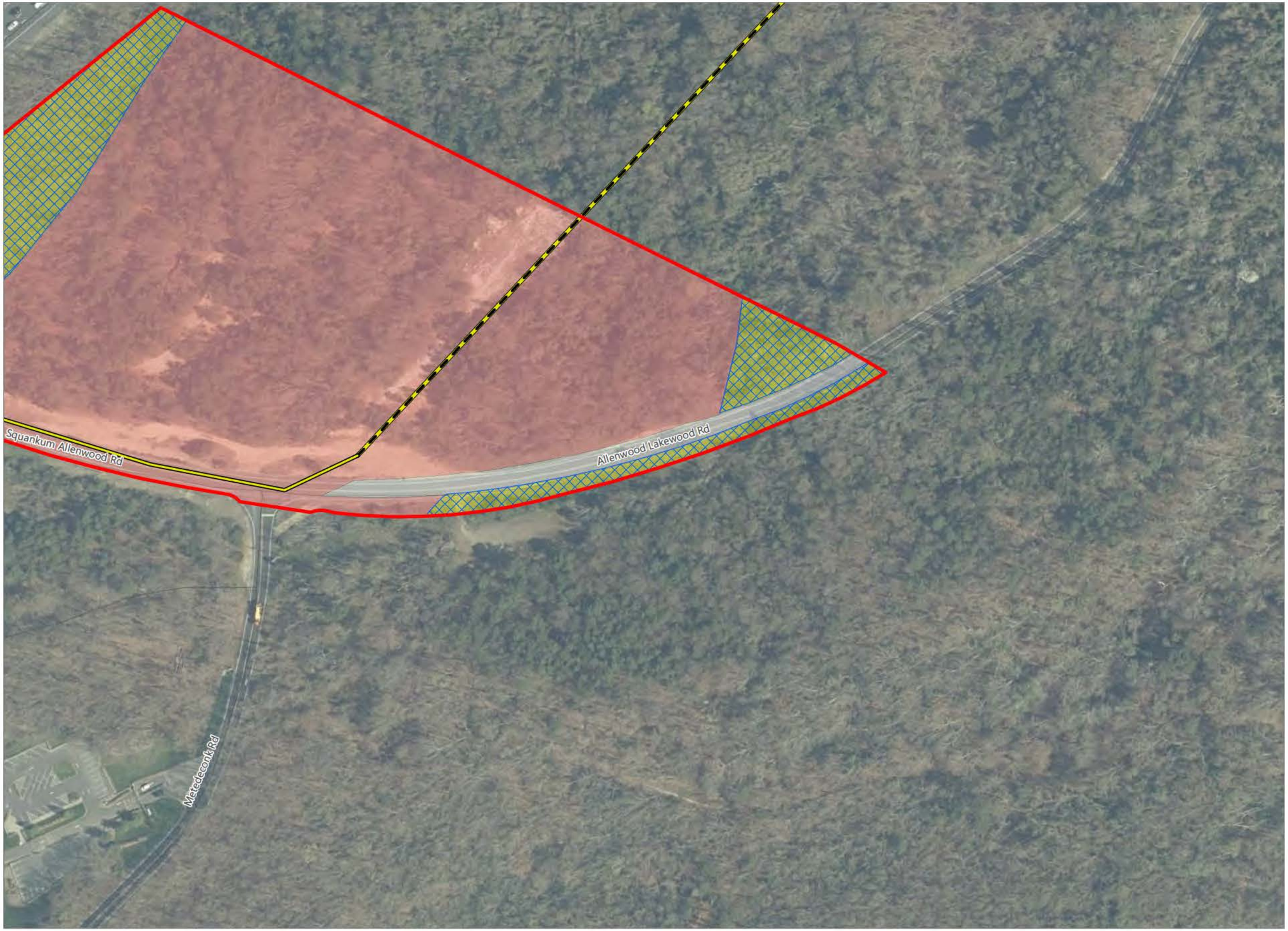

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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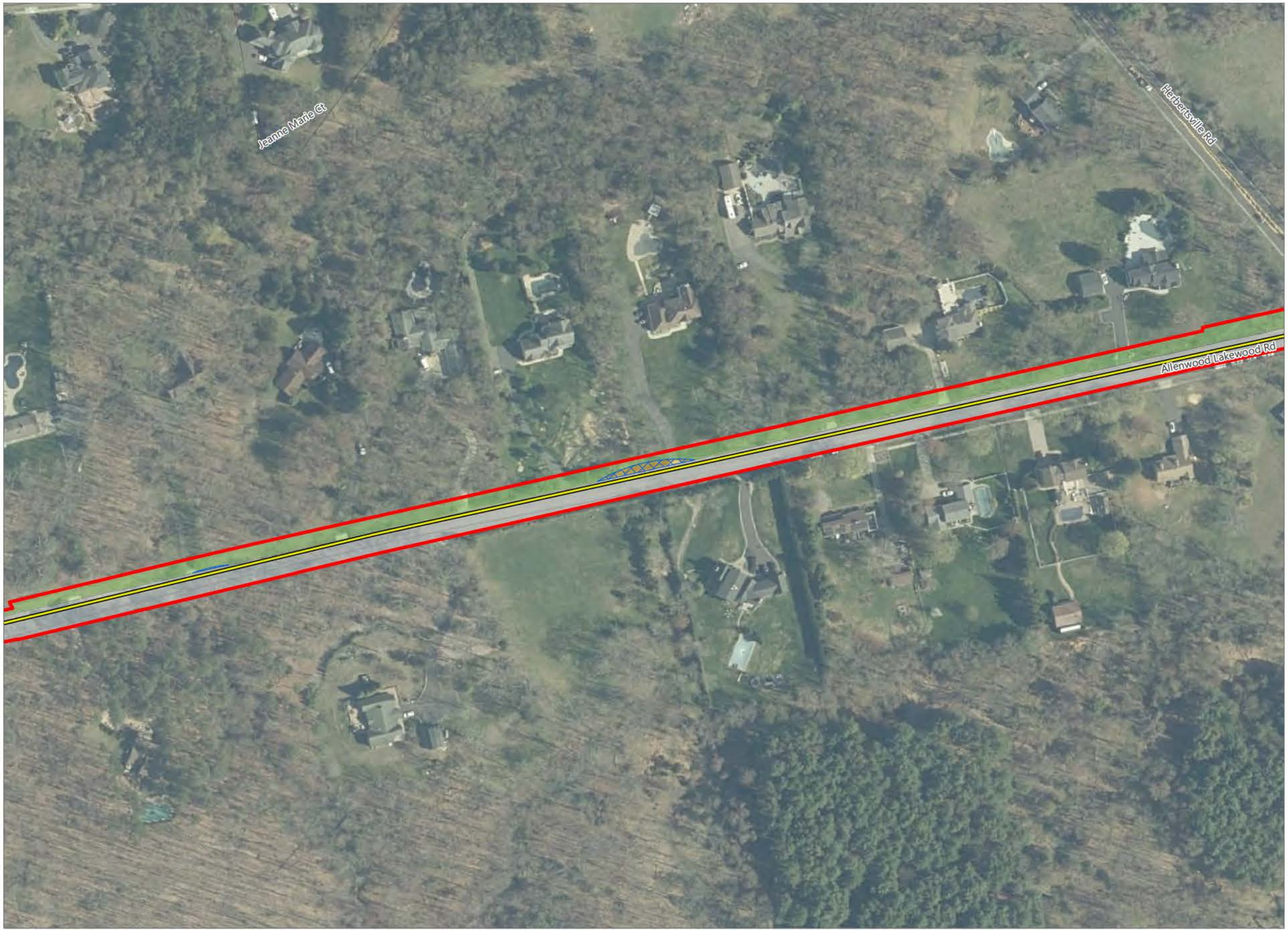

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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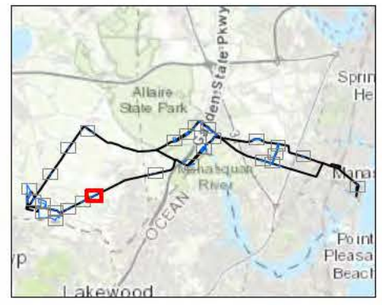

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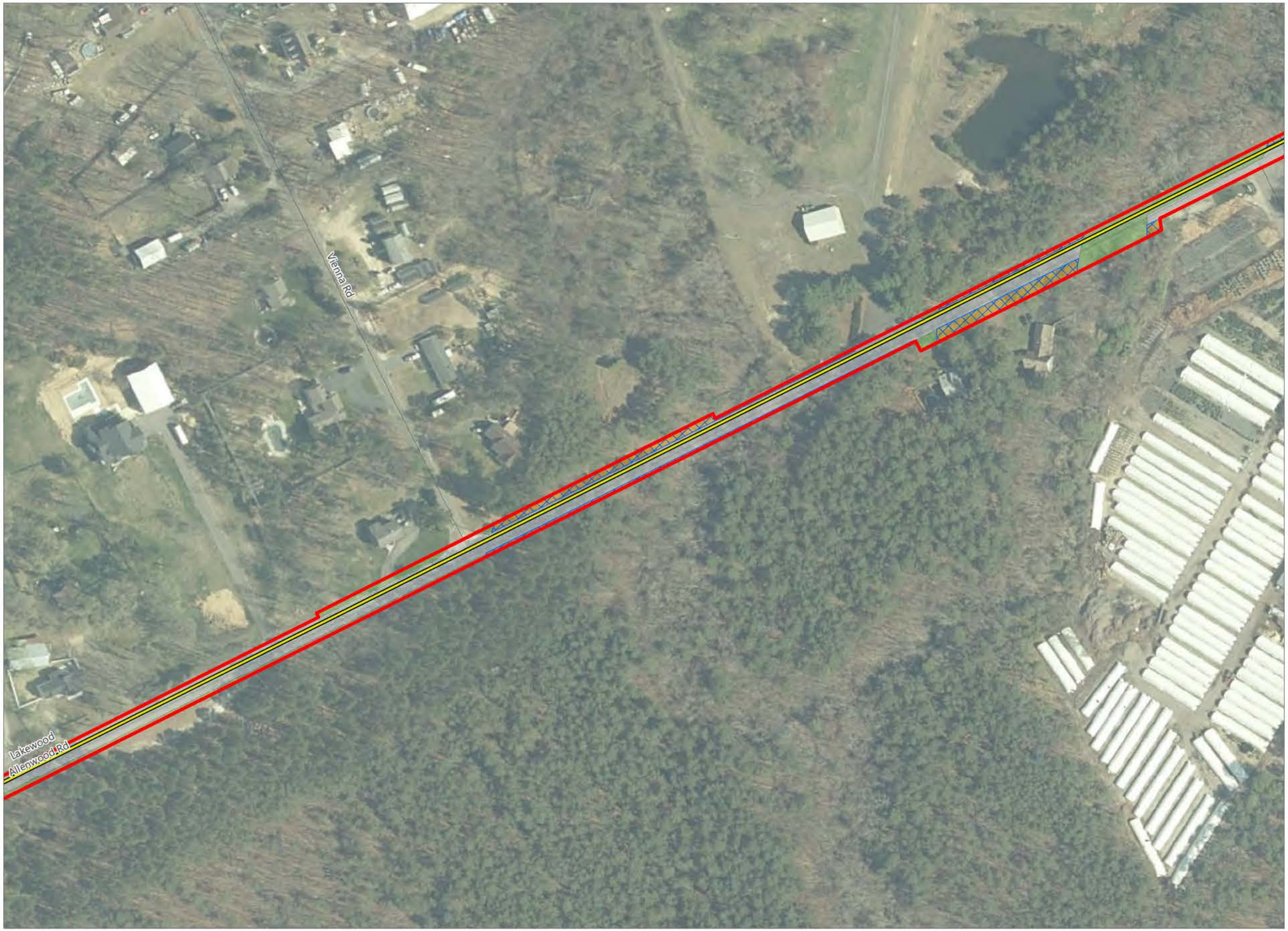

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

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Monmouth and Atlantic County
New Jersey

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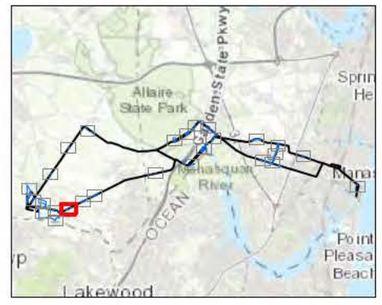

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Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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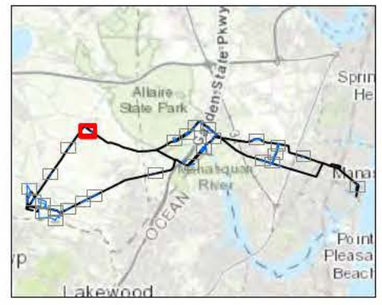

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Monmouth and Atlantic County
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Monmouth and Atlantic County
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Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
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Phased Identification Plan: Terrestrial Archaeological Resources

Larrabee Physical Effects PAPE

- Routing Option
- Substation and/or Converter Station Option
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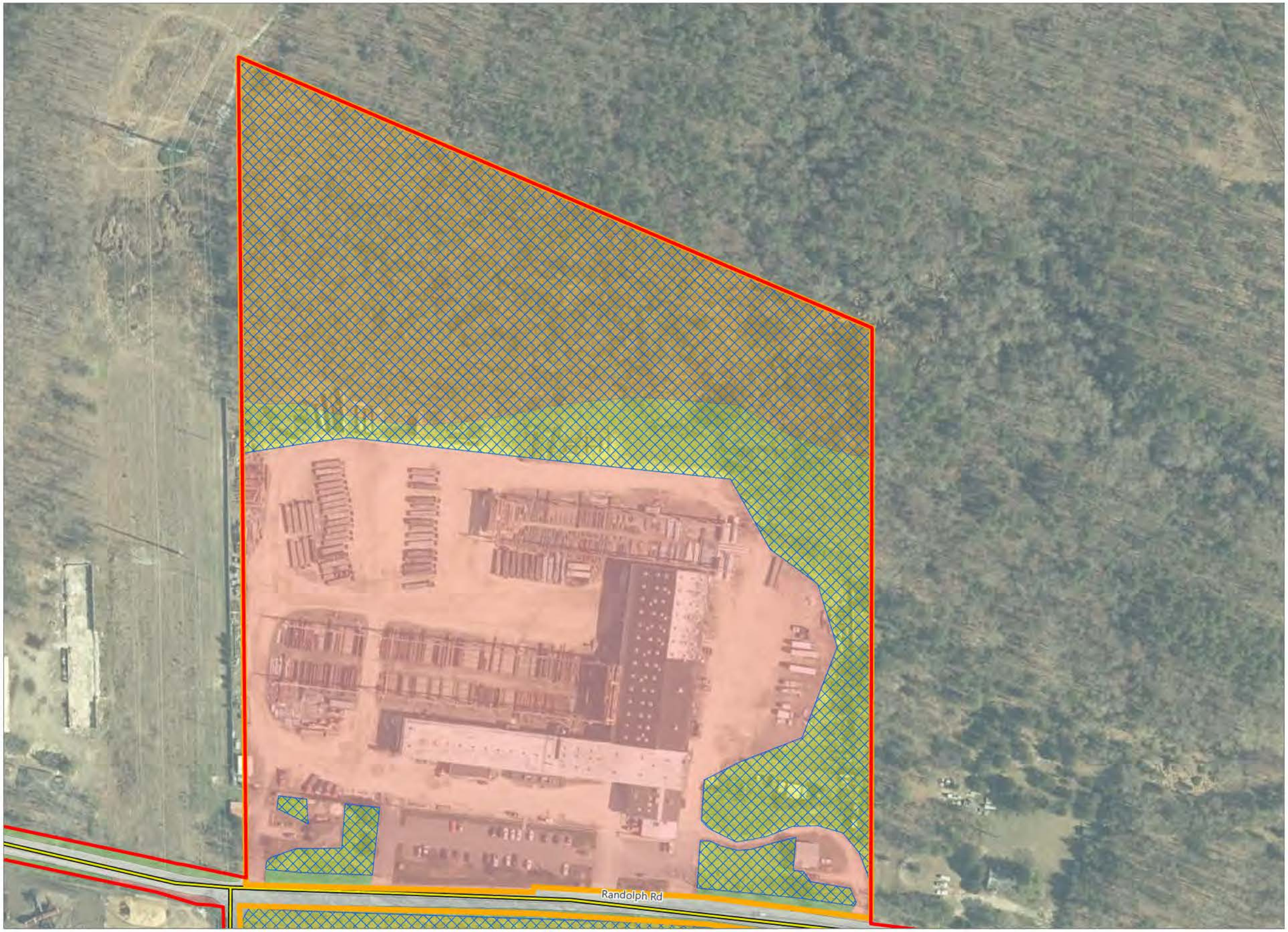

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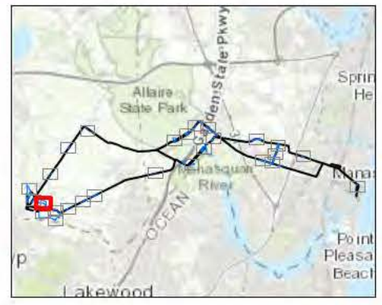

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Monmouth and Atlantic County
New Jersey

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Terrestrial Archaeological Resources

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- Potential Phase IB Survey Area
- Larrabee Point of Interconnection (POI)

0 75 150 300
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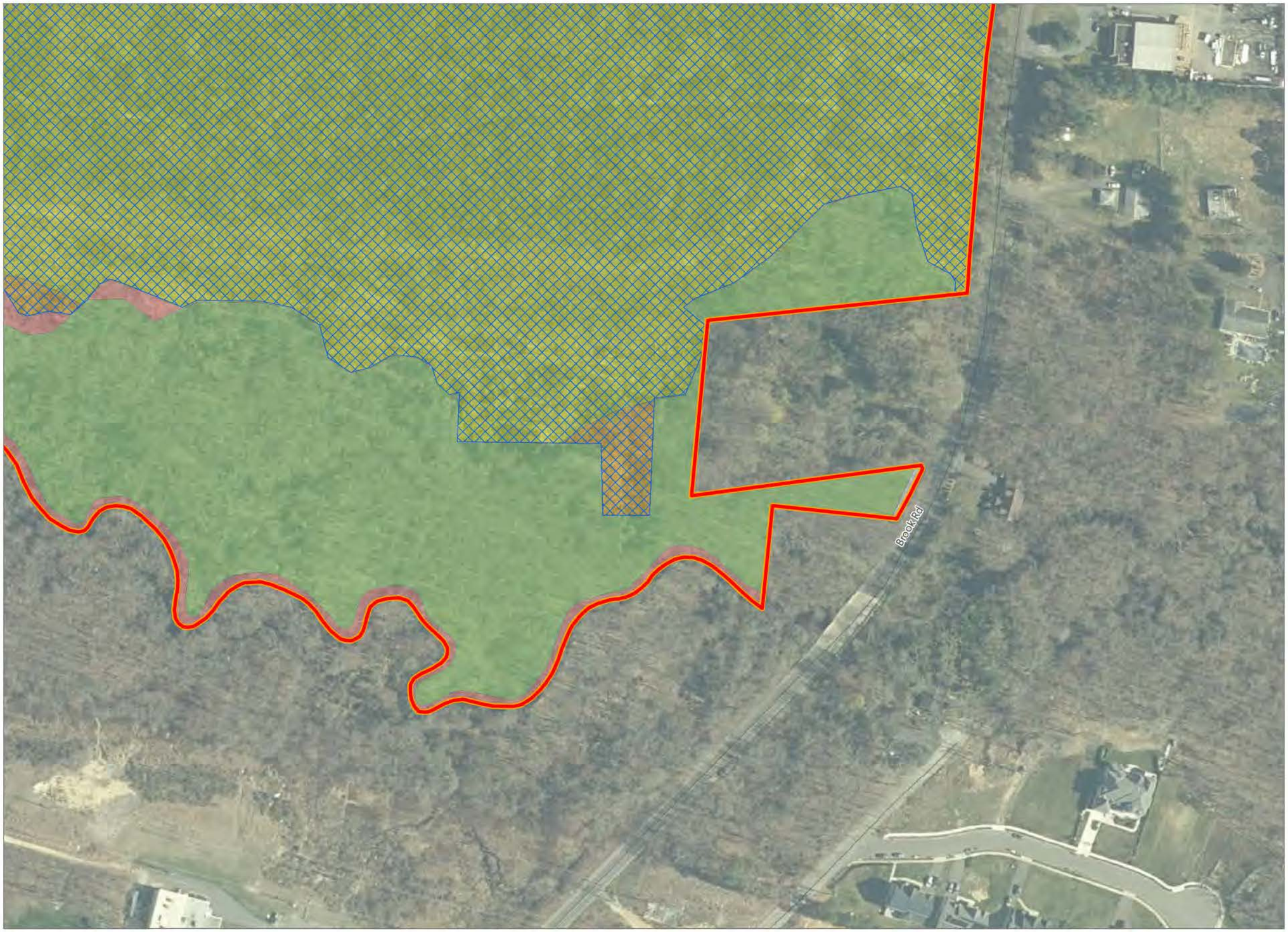

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- Medium-High Sensitivity
- Roadway/Paved

Potential Phase IB Survey Area

0 75 150 300
Feet

Prepared April 5, 2023
Basemap NJ Office of Information Technology and Office of GIS "NJ 2020 Natural Color Imagery" map service.

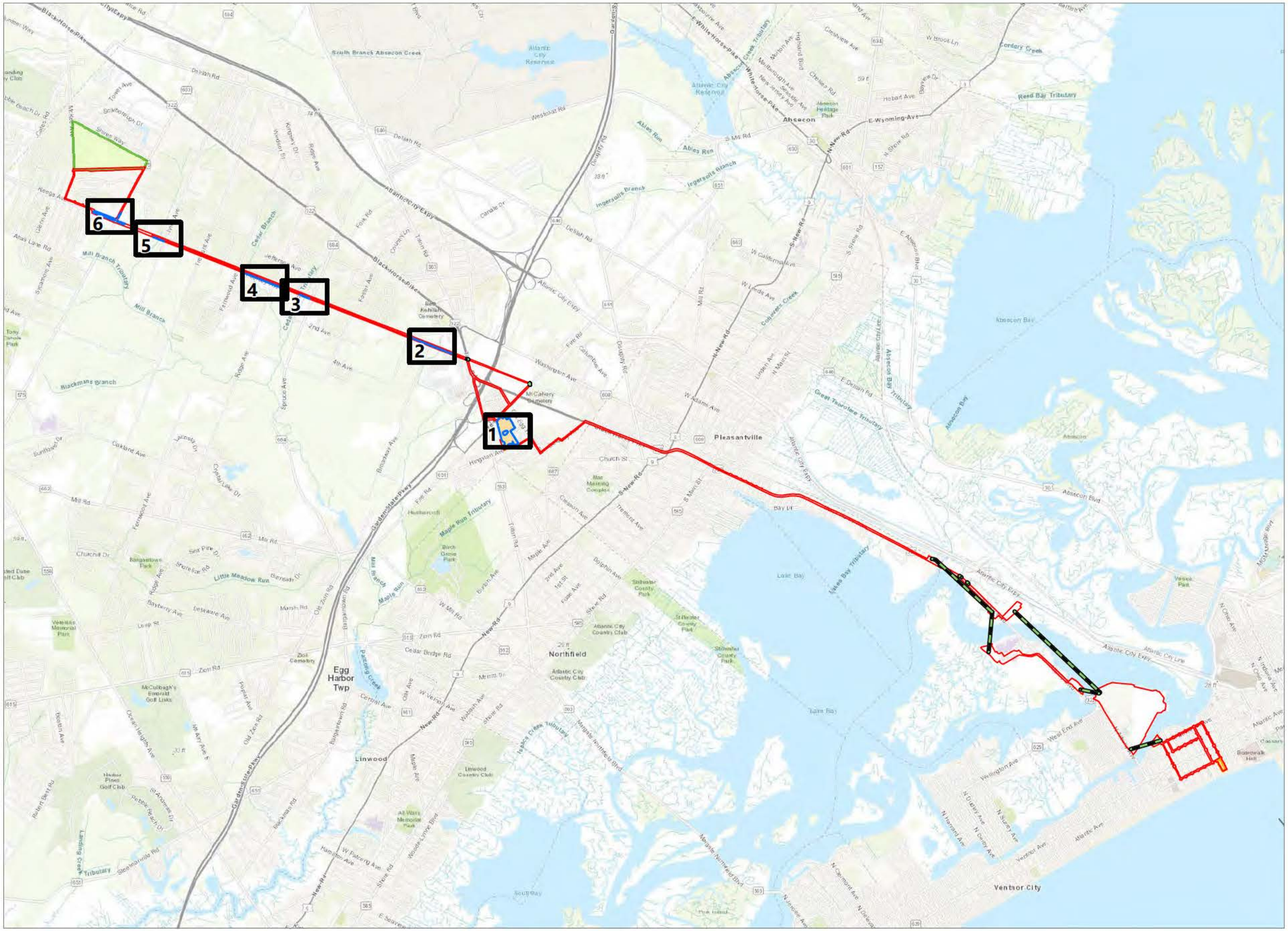
ATLANTIC SHORES offshore wind

EDR

Attachment B.
Cardiff Potential Phased IB Survey Areas

Attachment B. Cardiff Potential Phase 1B Survey Areas

Index Sheet



Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

Sheet Index

Cardiff Physical Effects PAPE

- Trenchless PAPE (HDD or J&B)
- Fire Road Substation and/or Converter Station
- Atlantic Landfall Site
- Cardiff PAPE Boundary

- Potential Phase IB Survey Area
- Cardiff Point of Interconnection (POI)

0 0.25 0.5 1
Miles

Prepared April 5, 2023
Basemap Esri "World Topographic Map" map service

ATLANTIC SHORES offshore wind

EDR

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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- Routing Option
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- Cardiff PAPE Boundary

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- Low Sensitivity
- Medium Sensitivity
- Roadway/Paved

- Potential Phase IB Survey Area

0 75 150 300
Feet

Prepared April 5, 2023
Basemap NJ Office of Information Technology and Office of GIS "NJ 2020 Natural Color Imagery" map service.

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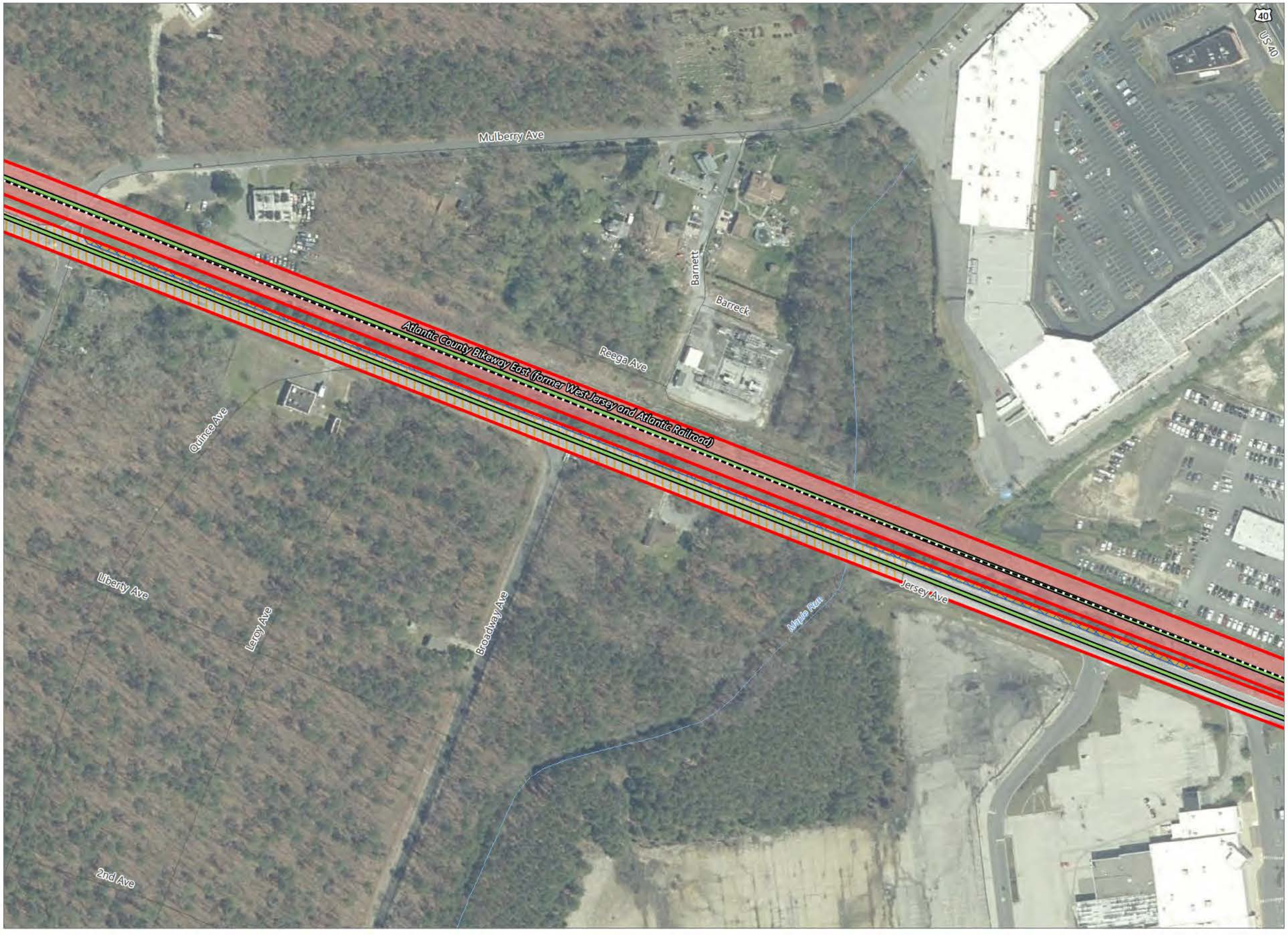

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

Phased Identification Plan: Terrestrial Archaeological Resources

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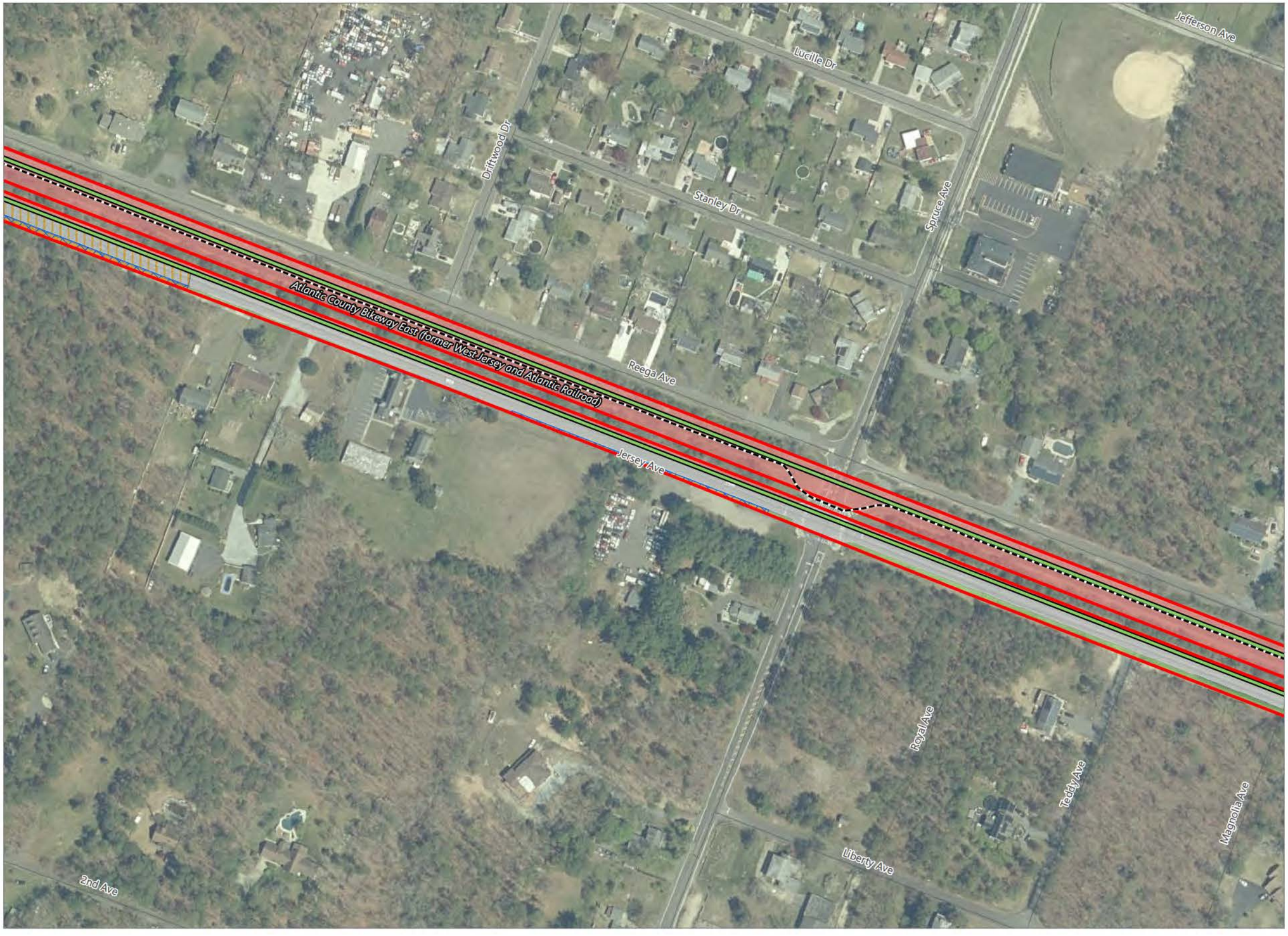

Atlantic Shores South Offshore Wind Project – Onshore Facilities

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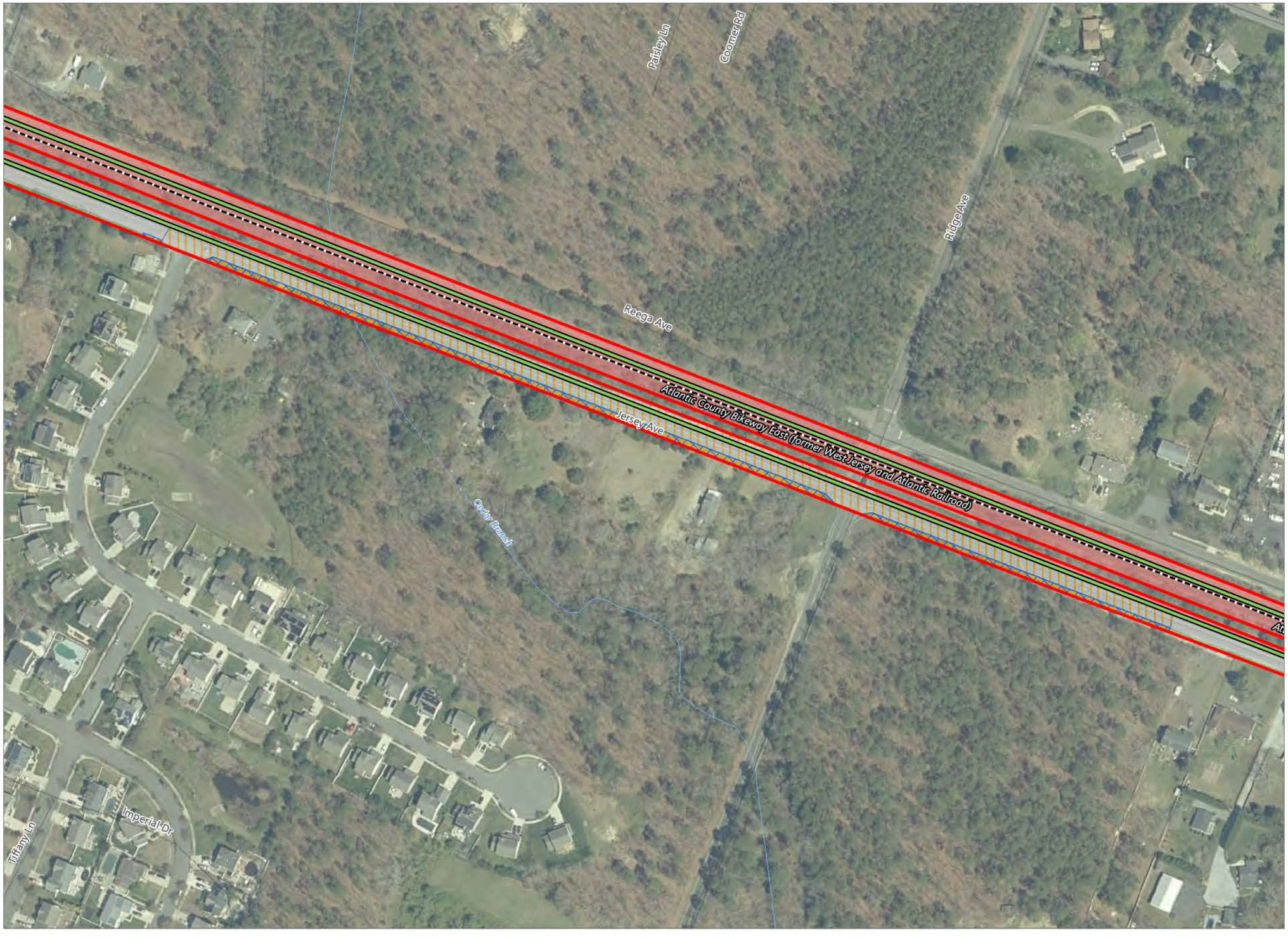

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

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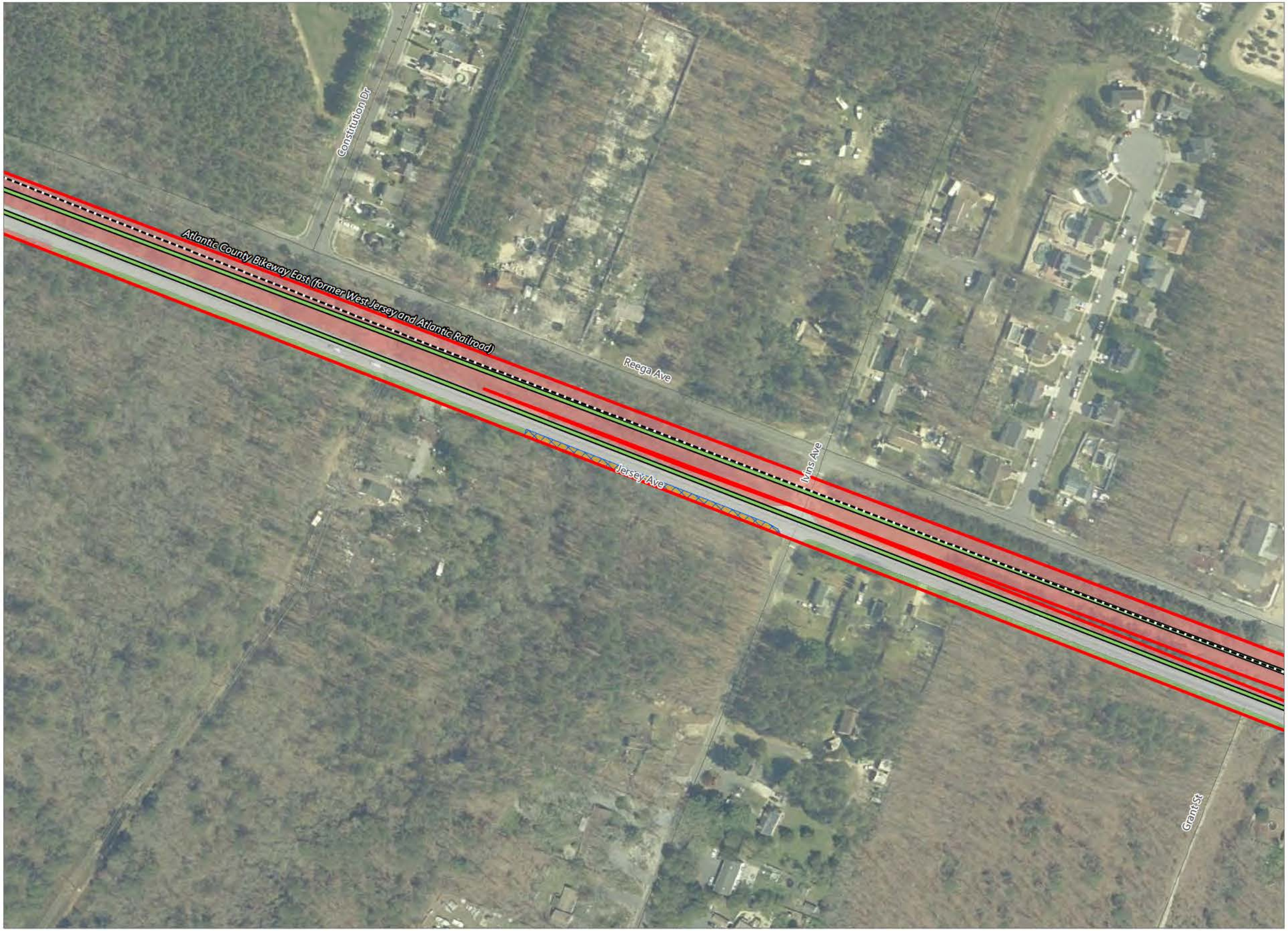

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

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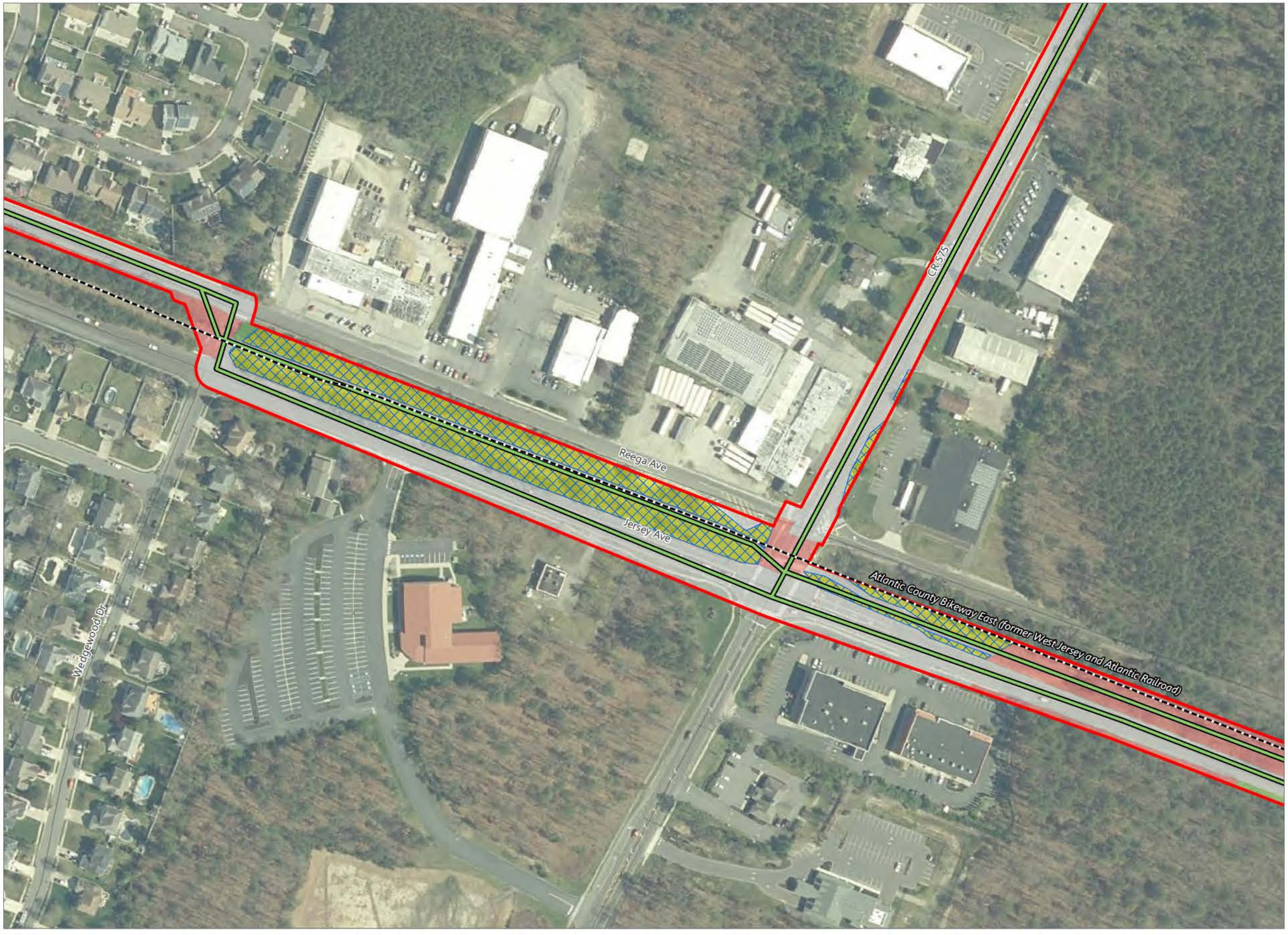

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County
New Jersey

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ATLANTIC SHORES offshore wind

EDR

Attachment C.
Monitoring Plan and Post Review Discoveries Plan: Terrestrial Archaeological Resources

Monitoring Plan and Post Review Discoveries Plan: Terrestrial Archaeological Resources

Atlantic Shores South Offshore Wind Project – Onshore Facilities

Monmouth and Atlantic County, New Jersey

Prepared for:

ATLANTIC SHORES offshore wind

Atlantic Shores Offshore Wind, LLC
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April 2023

Contents

LIST OF ATTACHMENTS

1.0 INTRODUCTION

Atlantic Shores Offshore Wind, LLC (Atlantic Shores), a 50/50 joint venture between EDF-RE Offshore Development, LLC, a wholly owned subsidiary of EDF Renewables, Inc. (EDF Renewables) and Shell New Energies US LLC (Shell) has proposed to construct the Atlantic Shores Onshore Interconnection Facilities (Onshore Facilities) located in the Boroughs of Manasquan and Borough of Sea Girt, Township of Howell and Township of Wall, Monmouth County, New Jersey and the City of Atlantic City and City of Pleasantville, Egg Harbor Township, Atlantic County, New Jersey. The Onshore Facilities will support Atlantic Shores' proposal to develop two offshore wind energy generation projects (the Project) within Bureau of Ocean and Energy Management (BOEM) Lease Area OCS-A 0499 (the Lease Area). The proposed Onshore Facilities are being reviewed by the New Jersey Department of Environmental Protection (NJDEP), New Jersey State Historic Preservation Office (NJHPO), the Bureau of Ocean and Energy Management (BOEM), and other relevant New Jersey State and/or Federal agencies and consulting partners under Section 7:4 of the New Jersey Administrative Code (NJAC), the State of New Jersey Executive Order #215, the National Environmental Policy Act (NEPA), and/or Section 106 of the National Historic Preservation Act (NHPA), as applicable. The information and recommendations included in this Monitoring Plan and Post Review Discoveries Plan (MPRDP; the Plan) for terrestrial archaeological resources are intended to assist these agencies in their review of the Project's potential effect on terrestrial archaeological resources.

Atlantic Shores proposes to construct, operate, and maintain the Onshore Facilities (including landfalls, onshore interconnection cables, onshore substations and/or converter stations, and an Operations and Maintenance [O&M] facility) to connect the offshore portions of the Projects to existing Points of Interconnection (POIs). Export cables will deliver energy from the offshore generation facilities to proposed landfall sites located in either Monmouth County (the Monmouth Landfall Site) and/or Atlantic County (the Atlantic Landfall Site), New Jersey. From the landfall sites, onshore cables will follow onshore interconnection cable routes (onshore routes) proposed within existing roadway, utility rights-of-way (ROWs), and/or along bike paths to existing Points of

Interconnection (POIs) for connection to the electrical grid. Along the onshore routes, onshore substations and/or converter stations are also proposed.

During previous and ongoing consultation between offshore wind developers and Native American Tribes, Tribal representatives have indicated their strong preference for intensive archaeological investigations to be conducted prior to construction of onshore infrastructure, as opposed to relying on archaeological monitoring to identify, evaluate, and respond to the potential presence of archaeological sites within the Preliminary Area of Potential Effect (PAPE). In addition, BOEM has indicated to Atlantic Shores that it will require a Phase IA/IB survey as part of the Section 106 process. Therefore, Atlantic Shores retained EDR to complete Terrestrial Archaeological Resource Assessments (TARAs) of the onshore portions of the PAPE for physical effects (i.e., construction activities and/or ground disturbance) for the proposed Onshore Facilities (EDR, 2021 and 2022b). The purpose of the desktop assessment included in the TARAs is to inventory and characterize previously identified archaeological resources within the PAPE that may be affected by construction of the proposed Onshore Facilities, which will subsequently inform EDR's recommendations of which portions of the proposed PAPE should be subject to systematic Phase IB archaeological survey and/or archaeological monitoring. Additionally, Atlantic Shores will retain EDR to conduct systematic Phase IB archaeological survey and/or archaeological monitoring of the areas recommended in the TARA. Results of any subsequent Phase IB archaeological survey would be included in a subsequent revision or amendment to the TARA report which will be submitted to BOEM and the Consulting Parties prior to the Projects' Record of Decision (ROD).

The TARAs for the Onshore Facilities (EDR, 2021 and 2022b) included background research, archaeological reconnaissance, and desktop assessment. Background research was conducted to review the geology and environmental setting, previously reported archaeological sites and archaeological surveys, regional histories, and historical maps of the PAPE and adjacent areas. These sources were reviewed to prepare historic contexts and to assess the archaeological sensitivity of the PAPE. In addition, reconnaissance-level surveys of the proposed Onshore

Facilities 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 PAPE. Informed by a synthesis of the background research and archaeological reconnaissance, the PAPE was categorized into "Disturbed" and "Potentially Undisturbed" areas. This categorization informed EDR's assessment of the archaeological sensitivity of the proposed Onshore Interconnection Facilities Sites as well as EDR's identification of areas where additional archaeological field investigations are recommended (i.e., Phase IB shovel testing) in a manner consistent with NJHPO's *Guidelines for Phase I Archaeological Investigations: Identification of Archaeological Resources* (hereafter, NJHPO's *Guidelines*; NJHPO, 2019). The TARA will be updated following the results of recommended Phase IB survey (described below).

Atlantic Shores has elected to site the proposed buried onshore cables within existing, previously disturbed road, bike path, and railroad ROWs, where disturbance during construction and installation of the existing infrastructure likely exceeded the depth of potential archaeological deposits. This siting strategy avoids or significantly reduces potential impacts to adjacent undisturbed soils and avoids or minimizes the risk of potentially encountering undisturbed archaeological deposits throughout most of the onshore routes.

The "Potential Phase IB Survey Areas" identified in the TARA (see EDR, 2022: Attachment C and D) illustrate those portions of the proposed Onshore Facilities for which Phase IB archaeological testing (i.e., shovel testing) may be appropriate depending on the proposed ground disturbance when final siting/design of the Onshore Facilities within the PAPE is determined. The purpose of any potential Phase IB testing would be to further evaluate the potential for archaeological sites to be located within the PAPE, and to minimize the risk of unanticipated discoveries or disturbance to archaeological resources during construction. In those portions of the proposed onshore routes with potentially intact, deeply buried soil deposits (such as eolian or alluvial deposits) that overlap with paved roadways or bike paths not suitable for shovel testing, then shovel test pits (STPs) would be excavated within the public ROW on the road shoulder or bike path margins adjacent to the paved areas, as a proxy for what may be beneath the paved areas. This testing strategy is

based on methodologies utilized when evaluating the onshore facilities for similar offshore wind projects reviewed by BOEM (EDR, 2020 and 2022a).

Based on the results of the background research and archaeological reconnaissance, the proposed Project is not anticipated to result in any adverse physical effects to any potentially State/National Register of Historic Places (S/NRHP)-eligible terrestrial archaeological resources. This assessment may be updated pending the results of upcoming Phase IB survey.

To further mitigate the potential (however unlikely) for encountering archaeological resources during installation of the Onshore Facilities, Atlantic Shores has prepared this MPRDP, which includes stop-work and notification procedures to be followed if a cultural resource is encountered during installation. Atlantic Shores anticipates that this MPRDP will be incorporated in a Memorandum of Agreement executed among BOEM, SHPOs, and potentially other consulting parties to resolve anticipated adverse visual effects to identified above ground historic properties (see the Projects' Historic Resources Visual Effects Assessment [HRVEA], EDR, 2022c) and to memorialize specific measures that Atlantic Shores will take to avoid and minimize potential effects to other historic properties in the event of a post-review discovery. The Plan outlines the steps for dealing with potential unanticipated discoveries of cultural resources, including human remains, during the construction of the proposed Onshore Facilities.

1.1 Purpose

The purpose of the Plan is to:

1. Present to regulatory and review agencies the plan Atlantic Shores and its contractors and consultants will follow to prepare for and potentially respond to unanticipated cultural resources (i.e., terrestrial archaeological) discoveries;
2. Include provisions and procedures allowing for a Cultural Monitor (Archaeologist) and Tribal Monitors to be present during construction and installation activities conducted in targeted areas of concern as identified in the TARA and through consultation with Native American Tribes; and

3. Provide guidance and instruction to Atlantic Shores personnel and its contractors and consultants as to the proper procedures to be followed in the event of an unanticipated cultural resource (i.e., terrestrial archaeological) discovery.

The following terms are used throughout the Plan:

- **The Onshore Facilities**: The Onshore Facilities collectively refers to all components of the onshore portions of the Project, including landfalls, onshore interconnection cable routes, onshore substations and/or converter stations, and an O&M facility.
- **Unanticipated Discovery/Unanticipated Cultural Resource Discovery**: Any indications of the presence of archaeological materials including artifacts, stone features, animal bone, and/or human remains. Common artifacts encountered may include bottles/glass, pottery/ceramics, stone foundations, hand-dug wells, brick, nails, miscellaneous metal fragments, charcoal or ash-stained soils, arrowheads/spearheads, stone (chert or "flint") chips or flakes, rough gray, black, or brown pottery, and other stone tools/artifacts of obvious human origin.
- **Potential Human Remains**: Any indications of potential human remains, such as bones or bone fragments, that cannot definitely be determined to be non-human.
- **Preliminary Area of Potential Effect (PAPE)**[1]: All areas of potential soil disturbance associated with the construction and operation of the proposed Onshore Facilities.
- **Compliance Manager**: Atlantic Shores' designated on-site staff person responsible for monitoring compliance with permitting conditions and commitments during construction (see Section 10.0).
- **Archaeologist**: Atlantic Shores' cultural resources consultant/s (see Section 10.0). Review of any potential unanticipated discoveries will be conducted under the supervision of a cultural resource professional who meets the U.S. Secretary of the Interior's Professional Qualifications for Archeology (36 CFR 61). Review of any potential unanticipated human skeletal remains will be conducted under the supervision of EDR's experienced

[1] The final Area of Potential Effects (APE) will be formally determined by BOEM in consultation with NJHPO as part of the Section 106 consultation process.

subcontractor osteologist/forensic anthropologist who is available to respond in an on-call capacity.

2.0 TRAINING AND ORIENTATION

Atlantic Shores will, in coordination with the archaeologist, provide a summary presentation to the General Construction Manager and construction contractor personnel (hereafter, Construction Personnel) of the relevant results/findings of any potential Phase IB archaeological survey. Atlantic Shores' training for Construction Personnel will also include the following:

- Review and education of federal and state laws protecting cultural resources and BOEMs responsibilities to identify and protect cultural resources and resource integrity;
- An overview of the general cultural history of the Onshore Facilities area so that personnel have a greater understanding of what cultural resources may be encountered and so that they can be more readily identified in the field;
- An orientation presentation regarding the types of finds that could be discovered (e.g., artifacts, buried shell deposits), including representative photographs of potential cultural features or finds (see Representative Archaeological Artifacts and Features, Attachment B); and
- An overview of common debris and refuse of modern origins that may be encountered during construction.

Note that as different construction crews and/or subcontractors join the Project, this training may need to be conducted multiple times to insure everyone is familiar with materials presented in this Plan. Atlantic Shores will extend an invitation to consulting Native American Tribes to participate in these training sessions.

Atlantic Shores will assure that Construction Personnel are made aware of the procedures they must follow in the event of an unanticipated discovery. All construction personnel, including operators of equipment involved in grading, stripping, or trenching activities, will be advised of

the need to immediately stop work if they observe any indications of the presence of an unanticipated cultural resource discovery as defined above. Construction personnel will be instructed to immediately contact the Compliance Manager upon the observation of a potential unanticipated discovery as defined in the introduction.

Atlantic Shores will stress the necessity of compliance with this Plan and special emphasis and attention will be given to potential circumstances involving human remains. Atlantic Shores will stress the importance of treating any human remains, or potential human remains, encountered during construction of the Onshore Facilities with the utmost dignity and respect (see Section 9.2 below concerning human remains).

3.0 DOCUMENTATION

Copies of this MPRDP, as well as the representative photographs provided in Attachment B, will be provided to Construction Personnel at an easily accessible and centralized location (such as a field office or mobilization point) so that they have readily available access to the MPRDP protocols at all times.

4.0 CULTURAL AND TRIBAL MONITORING

Atlantic Shores will retain one onsite Cultural Monitor to conduct the cultural monitoring. Atlantic Shores will also invite consulting Native American Tribes to designate a Tribal Monitor/s to participate in the monitoring effort and be onsite (at the Tribes' discretion). It will be the responsibility of the Cultural Monitor to coordinate logistics with ensuring proper access, safety, and time-lines for participation of any Tribal Monitors. The Cultural Monitor will be in regular communication with the Construction Personnel, to insure Cultural and Tribal Monitors are onsite to observe construction and installation activities when those activities are conducted in the recommended portions of the proposed Onshore Interconnection Facilities.

5.0 LOCATIONS WHERE MONITORING IS REQUIRED

The locations in which monitoring will occur are currently unknown since the results of Phase IB survey of Onshore Facilities have not been assessed. Atlantic Shores will update this Plan with the exact locations and scope of this monitoring following Section 106 consultation with BOEM, NJHPO, and consulting Native American Tribes regarding the Projects. The TARA includes a preliminary recommendation for monitoring to occur in the Pleasantville area of the Cardiff Onshore Route (EDR, 2022b: Section 3.3).

6.0 TEMPORARY AVOIDANCE MEASURES

This section is reserved for the discussion of any site specific avoidance measures that will be enacted for any potential archaeological sites which may be identified within the PAPE following the conclusion of upcoming Phase IB archaeological survey. It is expected that any potential sites that require avoidance and the measures enacted to avoid those sites will be agreed upon as part of the Section 106 consultation process.

Avoidance measures may include the installation of orange safety fencing, t-posting and flagging, signage, and/or monitoring. Any fencing and/or signage will be installed by the Cultural Monitor and/or other archaeological staff. The Cultural Monitor will be given at least a two week notice prior to any construction or installation activities in the area to coordinate installation of the avoidance measures. Avoidance measures will be maintained for the duration of any construction or installation activities in the area and this maintenance will be the responsibility of the Compliance Manager. Signage will indicate avoidance of the area but will not include reference to any archaeological sites or materials.

7.0 PROCESS FOR DETERMINING IF MONITORING A CONSTRUCTION ACTIVITY IS NECESSARY

It is expected that cultural monitoring of construction and installation activities will be recommended for targeted portions of the proposed Onshore Interconnection Facilities pending review of the results of the Phase IB survey by BOEM, NJHPO, and relevant Consulting Parties. Native American Tribes may also request cultural monitoring in areas they determine to be culturally sensitive during Section 106 consultations. If Construction Personnel have questions about whether monitoring is necessary for a specific activity, they will contact the Projects' designated Cultural Monitor (Archaeologist), who will consult with BOEM cultural staff to receive a decision.

8.0 REPORTING

The Cultural Monitor will submit written weekly updates via email (with photographs, if applicable), end of day on every Friday, providing a summary of the week's activities, and a look-ahead of upcoming activities. Monitoring may not take place every week, however, the Cultural Monitor will be onsite whenever Construction Personnel are conducting construction and installation activities in the recommended portions of the proposed Onshore Interconnection Facilities. A compiled Monitoring Report will be provided within 6 months of the completion of construction and installation activities for the proposed Onshore Interconnection Facilities. It will include:

- A summary of the monitoring effort;
- Any site form updates (if needed) and/or newly recorded sites that were inadvertently discovered during construction;
- Any Site Specific Treatment Plans devised (if applicable, see Section 9.0 below); and
- Reference to any in-progress Phase II/III survey reports, if applicable.

9.0 POST REVIEW DISCOVERIES

9.1 Post Review Discovery Procedures and Notifications

In the event that an unanticipated archaeological discovery occurs, procedures and notifications will include the following:

- **Post Review Discovery**: If previously unidentified cultural materials/features are identified during monitoring, Construction Personnel will notify the Cultural Monitor (Archaeologist) and request an expedited field evaluation. The Cultural Monitor will provide immediate notification to BOEM, NJHPO, consulting Native American Tribes, and other relevant Consulting Parties. If the cultural materials/features can be entirely avoided by the construction and installation activities, a stop-work order is not required, and the previously unidentified cultural materials/features can be summarized as part of the

weekly monitoring update and reported on in the Monitoring Report (and any associated Site Form), when construction and installation activities for the Projects are completed (see Section 8.0).

- **Inadvertent/Unanticipated discovery:** If unanticipated archeological discovery of a potentially significant resource occurs during onshore construction, and continuing construction in the immediate vicinity (100 feet) would be incompatible with the objective of preserving the quality and integrity of the resource, Atlantic Shores (or its Contractor) shall stabilize the area, if necessary to protect the resource, and immediately cease all ground-disturbing activities in the immediate vicinity (100 feet) of the find and protect the find from further damage. Atlantic Shores (or its Contractor) will notify the Cultural Monitor (Archaeologist) of the discovery and request an expedited field evaluation. The restricted areas would extend 100 feet from the maximum discernable limit of the archaeological resource, or further at the discretion of the Cultural Monitor (Archaeologist). The only earth-moving activities that may occur within the restricted areas prior to notifications are those necessary for immediate stabilization of the exposed archaeological feature or deposit. Atlantic Shores (or its Contractor) shall flag, fence off, or securely cover with steel plates the archaeological discovery location and take reasonable measures to ensure site security If any member of the construction workforce believes that potential archaeological materials/artifacts or stone features have been encountered and the Archaeologist is not on-site, he/ or she/they will be required to stop work in the immediate vicinity of the find and notify the Compliance Manager. If the Archaeologist is onsite and a potential discovery is made, construction staff will stop work in the immediate vicinity of the find and notify the Archaeologist of the potential findings. If human remains are involved, the procedure described in Section 9.2 concerning human remains will be followed.
- **Do Not Disturb Potential Archaeological Materials:** The potential archaeological features and/or artifacts will be left in place and not disturbed. No materials will be collected or removed until appropriate consultation has taken place and a plan of action has been developed. If artifacts are discovered after they have been removed from the ground, the

Archaeologist will carefully secure such artifacts to prevent further damage. If the Archaeologist is not on-site at the time of discovery, the Compliance Manager will secure any artifacts that have been inadvertently removed from the ground. No artifacts or potential cultural materials shall be removed from the site of the discovery prior to the arrival of the designated Archaeologist/cultural resources consultant.

- **Stop Work Order – Protect and Secure Potential Archaeological Materials**: If Atlantic Shores (or its contractors/consultants) believe that an unanticipated discovery has been made, all ground-disturbing activities within 100 feet of the discovery will be stopped until such time as it is determined that construction in this area may continue. Atlantic Shores will be responsible for taking appropriate steps to protect and secure the evidence of the discovery. Construction personnel will delineate the immediate area of the discovery with flagging tape and/or construction fencing. Open trenches or other excavations will be covered with available materials (such as steel plates, plywood, and/or plastic sheeting) as necessary, to secure the discovery and ensure public safety. The area will be regarded as off-limits but will not be identified as an archaeological site in order to protect the resource via discretion and confidentiality. Vehicles and equipment may be permitted by the Cultural Monitor's approval to traverse the area surrounding the delineated area if necessary; however, such movement will be minimized to the extent practical, and no vehicles or equipment will be permitted within the delineated area.
- **Notification Process for Potential Archaeological Materials:** Within 24 hours of the identification of a potentially-significant discovery, as determined by the Archaeologist, Atlantic Shores will notify BOEM, NJHPO, and other applicable Consulting Parties. BOEM and NJHPO contacts are listed in Section 10.0, the Notifications Contact List. No construction activities will be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated by BOEM and NJHPO and the need for and scope of impact mitigation has been determined by BOEM, NJHPO, and other applicable Consulting Parties. Any discovery made on a weekend will be protected until the parties identified above are notified of the discovery. No construction activities shall be permitted in the vicinity of the find until such time as the significance of the resource

has been evaluated by NJHPO (per the process outlined below) and the need for and scope of impact mitigation has been determined in consultation with BOEM, NJHPO, and Atlantic Shores.

- **Determination of Native American Resource:** If the archaeological resource is Native American in nature, Atlantic Shores will request that BOEM notify representatives of the appropriate Native American Nation(s) listed in the Notifications Contact List (see Section 10.0).
- **Notification to BOEM and NJHPO following Site Visit:** Atlantic Shores' Archaeologist will examine/review the finds and provide additional information to BOEM and NJHPO. The additional information will either:
    - Explain why the Archaeologist believes the resource is not significant with respect to the S/NRHP; or
    - Explain why the Archaeologist believes the resource to be potentially significant with respect to the S/NRHP and propose a Site-Specific Treatment Plan for evaluating the significance of the resource and evaluating Onshore Facilities-related impacts to it. Atlantic Shores anticipates that the proposed Site-Specific Treatment Plan would provide a basis for initiating consultation with BOEM, NJHPO, and applicable Consulting Parties (see Section 10.0). Atlantic Shores and BOEM, in consultation with the NJHPO and Consulting Parties, as necessary, will discuss options and develop a plan for the treatment of unanticipated significant discoveries.
- **Site Specific Treatment Plan:** Atlantic Shores will submit the Site-Specific Treatment Plan to BOEM,NJHPO, and other Consulting Parties identified through BOEM's Section 106 consultations within one week of notification to BOEM following the identification of a potentially S/NRHP significant resource. If the proposed mitigation measures within the Site Specific Treatment Plan can reasonably be conducted concurrently with ongoing Onshore Facilities construction, the submission to BOEM and NJHPO will be accompanied by a request to resume construction in the area of the discovery.

- **Written Authorization to Proceed:** Proposed mitigation measures will not proceed until Atlantic Shores receives written authorization, following consultation with BOEM, NJHPO, and applicable Consulting Parties. Atlantic Shores will notify BOEM and NJHPO at the completion of all mitigation measures. If construction has been halted during mitigation, Atlantic Shores will also request authorization from BOEM and NJHPO to resume construction at the conclusion of mitigation.
- **Summary Report:** Atlantic Shores will submit a summary report describing the results of the Site Specific Treatment Plan's mitigation measures to BOEM within a reasonable timeframe from the completion of mitigation fieldwork. The time required to complete the Summary Report may vary depending on the specific circumstances and the nature of any significant archaeological properties subject to mitigation. Atlantic Shores anticipates that reporting of most mitigation activities would be completed within six months of the conclusion of field investigations. All such reporting would be completed within one year of the conclusion of field investigations unless otherwise agreed in writing among Atlantic Shores, BOEM, and NJHPO. Atlantic Shores shall ensure that all archaeological or human remains-related encounters and their handling are reported in the status reports summarizing construction activities.
- **Phase III Report:** If archaeological data recovery is conducted, a full Phase III report will be submitted to BOEM, NJHPO, consulting Native American Tribes, and other Consulting Parties identified through BOEM's Section 106 consultations based on a schedule to be established as part of review of the Site-Specific Treatment Plan.

9.2 Human Remains Protocol

Should potential human remains, evidence of human burials, and/or funerary objects be encountered during the conduct of archeological fieldwork or during construction, all work in the vicinity of the find shall be halted until further notice for the remains to be protected from further disturbance. Atlantic Shores will immediately contact BOEM, NJHPO, the county coroner/medical examiner, local law enforcement, and all Consulting Parties identified herein. The potential remains/funerary objects will be treated with respect, left in situ by all on site personnel, and

protected from further disturbance. All such remains will be secured and protected pending completion of the notification and consultation procedures described below. If human remains or funerary objects are determined to be Native American, a treatment plan will be developed in consultation with the BOEM and the appropriate Tribal Nations, consistent with established protocols and guidance. This will include the Advisory Council on Historic Preservation's (ACHP) "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (ACHP, 2007; Attachment A) and may be modified based on information gathered through engagement with consulting Tribal Nations.

The ACHP human remains policy requires temporary suspension of activity in the vicinity of the discovery, protection of discovered remains, notification of NJHPO and Native American representatives, and consultation regarding treatment of remains. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological. A decision concerning avoidance or hand excavation of the burial and final disposition of the remains shall be made by BOEM in consultation with the Consulting Parties and consistent with all applicable state statutes and regulations.

If obviously non-human (i.e., animal) skeletal remains are discovered, the procedures outlined in Section 9.1 of this Protocol will be followed. The following protocol for dealing with skeletal remains will be followed during any circumstances in which any possible human skeletal remains are identified during construction activities ("skeletal remains" is defined as any articulated or disarticulated bones or teeth).

- **Respect Human Remains:** It is crucial that all human remains (or possible human remains) be treated with the utmost respect and dignity.
- **Unanticipated Discovery Involving Possible Human Skeletal Remains:** Any member of the construction team who believes an unanticipated discovery involving possible human skeletal remains has occurred is required to stop work in the immediate vicinity of the discovery and notify the Compliance Manager.

- **Plan of Action:** Human remains and associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- **Area of Discovery:** If Atlantic Shores believes that possible human skeletal remains have been discovered, they will immediately stop all work within 100 feet of the discovery location until it is confirmed that construction may resume. The area of the discovery will immediately be protected and secured by (at a minimum) the installation of flagging tape and/or construction fencing delineating the discovery location. The area will be regarded as off-limits but will not be identified publicly as an archaeological site or the location of skeletal remains in order to protect the resource via discretion and confidentiality. Vehicles and equipment may be allowed to pass through the area surrounding the discovery, if necessary; however, such movement will be minimized, and no vehicles or equipment will be permitted within the delineated area around the discovery. No additional work or examination will occur until the county coroner and local law enforcement have arrived on the scene and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature).
- **Notification Upon Discovery:** Upon the discovery of potential human remains, Atlantic Shores will immediately notify BOEM, NJHPO, the appropriate Native American Nations, Atlantic Shores' Archaeologist, the coroner, and local law enforcement listed in the Notifications Contact List (see Section 10.0), via telephone and email. The Archaeologist will examine the remains as soon as possible, make a preliminary assessment of their nature (i.e., if they are human or non-human), and immediately notify the parties listed above of the results of the preliminary assessment.
- **Examination of Skeletal Remains:** As soon as possible following the discovery, law enforcement personnel and the Archaeologist will examine the skeletal remains at the site and determine if they are human.
- **Determination of Animal Remains:** If the remains are determined to be animal (i.e., non-human), the Archaeologist will assess whether they occur in an archaeological context.

Additionally, if the remains are determined to be animal, Atlantic Shores will immediately notify the parties listed the Notifications Contact List (see Section 10.0) that no human remains were identified.

- **Determination of Animal Remains in an Archaeological Context:** If the remains are non-human and are determined to occur in an archaeological context, the procedures outlined in Section 9.1 of this Protocol will be followed.
- **Determination of Animal Remains without Archaeological Context:** If the remains are non-human and the Archaeologist determines no archaeological resource is present, they will immediately advise the Compliance Manager. Atlantic Shores will consult with BOEM and NJHPO to request that construction may resume at the discovery site. The Archaeologist will prepare and submit a letter including photographs of the (non-) discovery site to Atlantic Shores within a reasonable timeframe.
- **Determination of Human Remains:** If local law enforcement and/or the Archaeologist determines the remains are human, the county coroner, BOEM, NJHPO, and appropriate Native American Nations will be notified immediately (see Section 10.0). No additional work or examination will occur until the county coroner and local law enforcement have arrived on the scene and made an official ruling on the nature of the remains (i.e., if they are forensic or archaeological in nature). If the coroner or law enforcement rules the remains to be archaeological in nature, Atlantic Shores will prepare a Site-Specific Treatment Plan (see Section 9.1).
- **Determination of Native American Human Remains:** If the human remains are determined to be archaeological and if the Archaeologist identifies them as Native American in origin, the remains will be left in place and protected from further removal or disturbance until the feasibility of their avoidance by further disturbance can be assessed in consultation with BOEM, appropriate Native American Nations, and NJHPO. Note that Atlantic Shores understands that avoidance is preferred by the NJHPO and the Native American Nations (see ACHP, 2007).
- **Determination of non-Native American Human Remains:** If human remains are determined to be archaeological but non-Native American, they will be left in place and

protected until a Site-Specific Treatment Plan for avoidance or removal is developed through consultation with BOEM, NJHPO, and the corresponding County Medical Examiner's Office (see Section 9.1, below).

- **Site-Specific Treatment Plan – Special Consideration:** The Site-Specific Treatment Plan will give special consideration to the presence of human remains. Proposals will also include provisions for evaluating the area for the presence of additional graves.

10.0 NOTIFICATIONS CONTACT LIST

Atlantic Shores Kyle Hilberg Project Developer 281-544-9084 Kyle.Hilberg@atlanticshoreswind.com	**Compliance Manager** TO BE DETERMINED
Cultural Resources Consultant/ Archaeologist Daniel Forrest Environmental Design and Research 860-367-5754 dforrest@edrdpc.com	**New Jersey Historic Preservation Office (NJHPO)** Jesse West-Rosenthal Historic Preservation Specialist 2 609-984-6019 Jesse.West-Rosenthal@dep.nj.gov
Bureau of Ocean and Energy Management (BOEM) Sarah Stokely Section 106 Lead 703-787-1085 sarah.stokely@boem.gov	**Lenape Indian Tribe of Delaware** Chief Dennis J. Coker lenapedelaware@comcast.net 4164 North DuPont Highway Suite 6 Dover, DE 19901
Shinnecock Indian Nation Jeremy Dennis and Josephine Smith The Shinnecock Indian Nation P.O. Box 5006, 100 Church Street Southampton, NY 11969 631-566-0486 jeremynative@gmail.com JosephineSmith@Shinnecock.org	**Mashpee Wampanoag Tribe** David Weeden Tribal Historic Preservation Officer 483 Great Neck Road, South Mashpee, MA 02649 774-327-0068 david.weeden@mwtribe-nsn.gov
Unkechaug Indian Nation Chief Harry Wallace 207 Poospatuck Ln Mastic, NY11950-5201 hwal1@aol.com (631) 395-1618	**Nanticoke Lenni-Lenape Tribal Nation** Principal Chief Mark "Quiet Hawk" Gould 75 Westcott Station Road Bridgeton, NJ 08302 TribalCouncil@NLLTribe.com (609) 693-1900
Ramapough Lenape Nation Joseph Hamilton Chairman	**Powhatan Renape Nation** Rankokus Indian Reservation PO Box 225

189 Stag Hill Road Mahwah, NJ 07430 (201) 529-1171 https://ramapomunsee.net/contact-us/	Rancocas, NJ 08073
Wampanoag Tribe of Gay Head (Aquinnah) Bettina Washington Tribal Historic Preservation Officer 20 Black Brook Road Aquinnah, MA 02535-1546 508-560-9014 thpo@wampanoagtribe-nsn.gov	**Delaware Tribe of Indians** Susan Bachor Deputy THPO Delaware Tribe Historic Preservation Pennsylvania Office P.O. Box 64 Pocono Lake, PA 18347 570-422-2023 sbachor@delawaretribe.org
Narragansett Indian Tribe John Brown III Tribal Historic Preservation Officer P.O. Box 268 Charlestown, RI 02813 401-491-9459 tashtesook@aol.com	**Absentee-Shawnee Tribe of Indians of Oklahoma** Devon Frazier Tribal Historic Preservation Officer (THPO) Absentee-Shawnee Tribe of Indians of Oklahoma 2025 S. Gordon Cooper Drive Shawnee, OK 74801 dfrazier@astribe.com 106NAGPRA@astribe.com
Eastern Shawnee Tribe of Oklahoma Paul Barton THPO/Cultural Preservation Director Eastern Shawnee Tribe of Oklahoma 70500 East 128 Road Wyandotte, OK 74370 PBarton@estoo.net	**Shawnee Tribe** Shaw Artichoker Tribal Administrator Shawnee Tribe 29 S Hwy 69A Miami, OK 74354 shaw@shawnee-tribe.com
The Delaware Nation Carissa Speck Historic Preservation Director The Delaware Nation 310064 US Highway 281, Building 100 PO Box 825, Anadarko, OK 73005 405-247-2488 Ext. 1403 cspeck@delawarenation-nsn.gov	**Pamunkey Indian Tribe** Shaleigh Howells Cultural Resource Director Pamunkey Indian Tribe 1054 Pocahontas Trail King William, VA 23086 Shaleigh.howells@pamunkey.org
Chickahominy Indian Tribe	**Chickahominy Indians Eastern Division**

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The Upper Mattaponi Indian Tribe Leigh Mitchell Environmental and Cultural Protection Director Upper Mattaponi Indian Tribe 13476 King William Road King William, VA 23086 environment@umitribe.org	**Rappahannock Indian Tribe** Chief Anne Richardson Rappahannock Tribal Center 5036 Indian Neck Road Indian Neck, VA 23148 arichardson@rappahannocktribe.org marion@culturalheritagepartners.com
Nansemond Indian Nation Earl L. Bass Chief Nansemond Indian Nation 1001 Pembroke Lane Suffolk, VA 23434 contact@nansemond.org	**Monacan Indian Nation** Kenneth Branham Tribal Chief Monacan Indian Nation 111 Highview Drive Madison Heights, VA 24572 chiefbranham@aol.com
Stockbridge-Munsee Community Band of Mohican Indians Jeff Bendremer, PhD, MA, RPA THPO Stockbridge-Munsee Community Band of Mohican Indians 86 Spring Street Williamstown, MA 01267 thpo@mohican-nsn.gov	
Southern Region Medical Examiner Office (Atlantic County) Woodbine Developmental Center 1175 DeHirsch Avenue Woodbine, NJ 08270-2401 609-861-3355 (Phone) (609) 909-7200 (24-hour line)	**Law Enforcement Agency (Atlantic County)** Atlantic County Sherriff Eric Scheffler 4997 Unami Boulevard Mays Landing, NJ 08330 609-909-7200 (Main Office 609-909-7292 (Fax)
Office of the Medical Examiner (Monmouth County)	**Law Enforcement Agency (Monmouth County)** Monmouth County Sherriff

Office of the Medical Examiner 1490 Livingston Avenue North Brunswick, NJ 08902 732-745-3190 (Phone) 732-745-3491 (Fax)	Shaun Golden 2500 Kozloski Road Freehold, NJ 07728 732-431-6400 (Main Office)

REFERENCES

Advisory Council on Historic Preservation (ACHP). 2007. Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects. ACHP, Washington, DC.

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR). 2020. *Phase IB Archaeological Survey, South Fork Export Cable: Beach Lane – Route A, Town of East Hampton, Suffolk County, New York*. Prepared for South Fork Wind, LLC. December 2020. Available at https://www.boem.gov/sites/default/files/documents/renewable-energy/App%20S2_SFW_Phase%20IB%20Onshore%20Archaeological%20Report.pdf

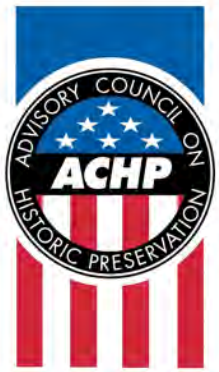
EDR. 2021. *Phase IA Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project – Operations and Maintenance Facility, Atlantic City, Atlantic County, New Jersey*. Prepared for Atlantic Shores Offshore Wind, LLC. December 2021. Syracuse, NY.

EDR. 2022a. Sunrise Wind Farm Project, Phase IB Terrestrial Archaeological Resources Assessment – Sunrise Wind Onshore Facilities. Prepared for Sunrise Wind LLC. May 2022. Rochester, NY.

EDR. 2022b. *Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project – Onshore Interconnection Facilities, Monmouth and Atlantic County, New Jersey*. Prepared for Atlantic Shores Offshore Wind, LLC. August 2022, revised February 2023. Syracuse, NY.

EDR. 2022c. *Historic Resources Visual Effects Assessment, Atlantic Shores Offshore Wind – Wind Turbine Area.* Prepared for Atlantic Shores Offshore Wind, LLC. August 2022. Syracuse, NY.

Attachment A
Human Remains Protocols and Guidance



Preserving America s Heritage

ADVISORY COUNCIL ON HISTORIC PRESERVATION

POLICY STATEMENT REGARDING TREATMENT OF BURIAL SITES, HUMAN REMAINS AND FUNERARY OBJECTS

Preamble: This policy offers leadership in resolving how to treat burial sites, human remains, and funerary objects in a respectful and sensitive manner while acknowledging public interest in the past. As such, this policy is designed to guide federal agencies in making decisions about the identification and treatment of burial sites, human remains, and funerary objects encountered in the Section 106 process, in those instances where federal or state law **does not prescribe a course of action**.

This policy applies to all federal agencies with undertakings that are subject to review under Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. § 470f), and its implementing regulations (36 CFR Part 800). To be considered under Section 106, the burial site must be or be a part of a historic property, meaning that it is listed, or eligible for listing, in the National Register of Historic Places.

The Advisory Council on Historic Preservation (ACHP) encourages federal agencies to apply this policy throughout the Section 106 process, including during the identification of those historic properties. In order to identify historic properties, federal agencies must assess the historic significance of burial sites and apply the National Register criteria to determine whether a property is eligible. Burial sites may have several possible areas of significance, such as those that relate to religious and cultural significance, as well as those that relate to scientific significance that can provide important information about the past. This policy does not proscribe any area of significance for burial sites and recognizes that the assessment must be completed on a case-by-case basis through consultation.

The policy is not bound by geography, ethnicity, nationality, or religious belief, but applies to the treatment of all burial sites, human remains, and funerary objects encountered in the Section 106 process, as the treatment and disposition of these sites, remains, and objects are a human rights concern shared by all.

This policy also recognizes the unique legal relationship between the federal government and tribal governments as set forth in the Constitution of the United States, treaties, statutes and court decisions, and acknowledges that, frequently, the remains encountered in Section 106 review are of significance to Indian tribes.

Section 106 requires agencies to seek agreement with consulting parties on measures to avoid, minimize, or mitigate adverse effects to historic properties. Accordingly, and consistent with Section 106, this policy does not recommend a specific outcome from the consultation process. Rather, it focuses on issues and perspectives that federal agencies ought to consider when making their Section 106 decisions. In many cases, federal agencies will be bound by other applicable federal, tribal, state, or local laws that do

prescribe a specific outcome, such as the Native American Graves Protection and Repatriation Act (NAGPRA). The federal agency must identify and follow applicable laws and implement any prescribed outcomes.

For undertakings on federal and tribal land that encounter Native American or Native Hawaiian human remains and funerary objects, NAGPRA applies. NHPA and NAGPRA are separate and distinct laws, with separate and distinct implementing regulations and categories of parties that must be consulted.[1] Compliance with one of these laws does not mean or equal compliance with the other. Implementation of this policy and its principles does not, in any way, change, modify, detract or add to NAGPRA or other applicable laws.

Principles: When burial sites, human remains, or funerary objects will be or are likely to be encountered in the course of Section 106 review, a federal agency should adhere to the following principles:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws**.**

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

[1] The ACHP's publication *Consulting with Indian Tribes in the Section 106 Process* and the National Association of Tribal Historic Preservation Officers' publication *Tribal Consultation: Best Practices in Historic Preservation* provide additional guidance on this matter.

DISCUSSION:

Principle 1: Participants in the Section 106 process should treat all burial sites, human remains and funerary objects with dignity and respect.

Because the presence of human remains and funerary objects gives a historic property special importance as a burial site or cemetery, federal agencies need to consider fully the values associated with such sites. When working with human remains, the federal agency should maintain an appropriate deference for the dead and the funerary objects associated with them, and demonstrate respect for the customs and beliefs of those who may be descended from them.

Through consultation with descendants, culturally affiliated groups, descendant communities, and other parties, federal agencies should discuss and reach agreement on what constitutes respectful treatment.

Principle 2: Only through consultation, which is the early and meaningful exchange of information, can a federal agency make an informed and defensible decision about the treatment of burial sites, human remains, and funerary objects.

Consultation is the hallmark of the Section 106 process. Federal agencies must make a "reasonable and good faith" effort to identify consulting parties and begin consultation early in project planning, after the federal agency determines it has an undertaking and prior to making decisions about project design, location, or scope.

The NHPA, the ACHP's regulations, and Presidential Executive Orders set out basic steps, standards, and criteria in the consultation process, including:

- Federal agencies have an obligation to seek out all consulting parties [36 CFR § 800.2(a)(4)], including the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO) [36 CFR § 800.3(c)].

- Federal agencies must acknowledge the sovereign status of Indian tribes [36 CFR § 800.2(c)(2)(ii)]. Federal agencies are required to consult with Indian tribes on a government-to-government basis in recognition of the unique legal relationship between federal and tribal governments, as set forth in the Constitution of the United States, treaties, statutes, court decisions, and executive orders and memoranda.

- Consultation on a government-to-government level with Indian tribes cannot be delegated to non-federal entities, such as applicants and contractors.

- Federal agencies should solicit tribal views in a manner that is sensitive to the governmental structures of the tribes, recognizing their desire to keep certain kinds of information confidential, and that tribal lines of communication may argue for federal agencies to provide extra time for the exchange of information.

- Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion on the National Register [16 U.S.C. § 470a(d)(6)(A)], and federal agencies must consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to such historic properties [16 U.S.C. § 470a(d)(6)(B) and 36 CFR § 800.2(c)(2)(ii)(D)].

Principle 3: Native Americans are descendants of original occupants of this country. Accordingly, in making decisions, federal agencies should be informed by and utilize the special expertise of Indian tribes and Native Hawaiian organizations in the documentation and treatment of their ancestors.

This principle reiterates existing legal requirements found in federal law, regulation and executive orders, and is consistent with positions that the ACHP has taken over the years to facilitate enfranchisement and promote broad participation in the Section 106 process. Federal agencies must consult with Indian tribes on a government-to-government basis because they are sovereign nations.

Indian tribes and Native Hawaiian organizations bring a special perspective on how a property possesses religious and cultural significance to them. Accordingly, federal agencies should utilize their expertise about, and religious and cultural connection to, burial sites, human remains, and associated funerary objects to inform decision-making in the Section 106 process.

Principle 4: Burial sites, human remains and funerary objects should not be knowingly disturbed unless absolutely necessary, and only after the federal agency has consulted and fully considered avoidance of impact and whether it is feasible to preserve them in place.

As a matter of practice, federal agencies should avoid impacting burial sites, human remains, and funerary objects as they carry out their undertakings. If impact to the burial site can be avoided, this policy does not compel federal agencies to remove human remains or funerary objects just so they can be documented.

As this policy advocates, federal agencies should always plan to avoid burial sites, human remains, and funerary objects altogether. When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should minimize disturbance to such sites, remains, and objects. Accordingly, removal of human remains or funerary objects should occur only when other alternatives have been considered and rejected.

When a federal agency determines, based on consultation with Section 106 participants, that avoidance of impact is not appropriate, the agency should then consider any active steps it may take to preserve the burial site in place, perhaps through the intentional covering of the affected area, placement of markers, or granting of restrictive or other legal protections. In many cases, preservation in place may mean that, to the extent allowed by law, the locations of burial sites, human remains, and funerary objects should not be disclosed publicly. Alternatively and consistent with the Section 106 regulations [36 CFR § 800.5(a)(2)(vi)], natural deterioration of the remains may be the acceptable or preferred outcome of the consultation process.

Principle 5: When human remains or funerary objects must be disinterred, they should be removed carefully, respectfully, and in a manner developed in consultation.

When the federal agency decides that human remains or funerary objects must be disturbed, they should be removed respectfully and dealt with according to the plan developed by the federal agency in consultation. "Careful" disinterment means that those doing the work should have, or be supervised by people having, appropriate expertise in techniques for recognizing and disinterring human remains.

This policy does not endorse any specific treatment. However, federal agencies must make a reasonable and good faith effort to seek agreement through consultation before making its decision about how human remains and/or funerary objects shall be treated.

The plan for the disinterment and treatment of human remains and/or funerary objects should be negotiated by the federal agency during consultation on a case-by-case basis. However, the plan should provide for an accurate accounting of federal implementation. Depending on agreements reached through the Section 106 consultation process, disinterment may or may not include field recordation. In some instances, such recordation may be so abhorrent to consulting parties that the federal agency may decide it is inappropriate to carry it out. When dealing with Indian tribes, the federal agency must comply with its legal responsibilities regarding tribal consultation, including government-to-government and trust responsibilities, before concluding that human remains or funerary objects must be disinterred.

Principle 6: The federal agency is ultimately responsible for making decisions regarding avoidance of impact to or treatment of burial sites, human remains, and funerary objects. In reaching its decisions, the federal agency must comply with applicable federal, tribal, state, or local laws.

Federal agencies are responsible for making final decisions in the Section 106 process [36 CFR § 800.2(a)]. The consultation and documentation that are appropriate and necessary to inform and support federal agency decisions in the Section 106 process are set forth in the ACHP's regulations [36 CFR Part 800].

Other laws, however, may affect federal decision-making regarding the treatment of burial sites human remains, and funerary objects. Undertakings located on federal or tribal lands, for example, are subject to the provisions of NAGPRA and the Archaeological Resources Protection Act (ARPA). When burial sites, human remains, or funerary objects are encountered on state and private lands, federal agencies must identify and follow state law when it applies. Section 106 agreement documents should take into account the requirements of any of these applicable laws.

Principle 7: Through consultation, federal agencies should develop and implement plans for the treatment of burial sites, human remains, and funerary objects that may be inadvertently discovered.

Encountering burial sites, human remains, or funerary objects during the initial efforts to identify historic properties is not unheard of. Accordingly, the federal agency must determine the scope of the identification effort in consultation with the SHPO/THPO, Indian tribes and Native Hawaiian

organizations, and others before any archaeological testing has begun [36 CFR § 800.4(a)] to ensure the full consideration of avoidance of impact to burial sites, human remains, and funerary objects.

The ACHP's regulations provide federal agencies with the preferred option of reaching an agreement ahead of time to govern the actions to be taken when historic properties are discovered during the implementation of an undertaking. In the absence of prior planning, when the undertaking has been approved and construction has begun, the ACHP's post-review discovery provision [36 CFR § 800.13] requires the federal agency to carry out several actions:

(1) make reasonable efforts to avoid, minimize, or mitigate adverse effects to such discovered historic properties;
(2) notify consulting parties (including Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to the affected property) and the ACHP within 48 hours of the agency's proposed course of action;
(3) take into account the recommendations received; and then
(4) carry out appropriate actions.

NAGPRA prescribes a specific course of action when Native American and Native Hawaiian human remains and funerary objects are discovered on federal or tribal lands in the absence of a plan—cessation of the activity, protection of the material, notification of various parties, consultation on a course of action and its implementation, and then continuation of the activity. However, adherence to the plan under Principle 5 would cause new discoveries to be considered "intentional excavations" under NAGPRA because a plan has already been developed, and can be immediately implemented. Agencies then could avoid the otherwise mandated 30 day cessation of work for "inadvertent discoveries."

Principle 8: In cases where the disposition of human remains and funerary objects is not legally prescribed, federal agencies should proceed following a hierarchy that begins with the rights of lineal descendants, and if none, then the descendant community, which may include Indian tribes and Native Hawaiian organizations.

Under the ACHP's regulations, "descendants" are not identified as consulting parties by right. However, federal agencies shall consult with Indian tribes and Native Hawaiian organizations that attach religious and cultural significance to burial sites, human remains and associated funerary objects, and be cognizant of their expertise in, and religious and cultural connection to, them. In addition, federal agencies should recognize a biological or cultural relationship and invite that individual or community to be a consulting party [36 CFR § 800.3(f)(3)].

When federal or state law does not direct disposition of human remains or funerary objects, or when there is disagreement among claimants, the process set out in NAGPRA may be instructive. In NAGPRA, the "ownership or control" of human remains and associated funerary objects lies with the following in descending order: specific lineal descendants; then tribe on whose tribal lands the items were discovered; then tribe with the closest cultural affiliation; and then tribe aboriginally occupying the land, or with the closest "cultural relationship" to the material.

Definitions Used for the Principles

- **Burial Site**: Any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which as a part of the death rite or ceremony of a culture, individual human remains are deposited [25 U.S.C. 3001.2(1)].
- **Consultation:** The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 review process [36 CFR § 800.16(f)].
- **Consulting parties:** Persons or groups the federal agency consults with during the Section 106 process. They may include the State Historic Preservation Officer; the Tribal Historic Preservation Officer; Indian tribes and Native Hawaiian organizations; representatives of local governments; applicants for federal assistance, permits, licenses, and other approvals; and/or any additional consulting parties [based on 36 CFR § 800.2(c)]. Additional consulting parties may include individuals and organizations with a demonstrated interest in the undertaking due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties [36 CFR § 800.2(c)(6)].
- **Disturbance:** Disturbance of burial sites that are listed in or eligible for listing in the National Register of Historic Places will constitute an adverse effect under Section 106. An adverse effect occurs when "an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, setting, materials, workmanship, feeling, or association" [36 CFR § 800.5(a)(1)].
- **Federal land:** Lands under a federal agency's control. Mere federal funding or permitting of a project does not turn an otherwise non-federal land into federal land (see *Abenaki Nation of Mississquoi* v. *Hughes*, 805 F. Supp. 234 (D. Vt. 1992), aff'd, 990 F. 2d 729 (2d Cir. 1993) (where the court found that a Clean Water Act permit issued by the US Army Corps of Engineers did not place the relevant land under federal "control" for NAGPRA purposes).
- **Funerary objects:** "items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains" [25 U.S.C. 3001(3)(B)].
- **Historic property:** "Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. It includes artifacts, records, and remains that are related to and located within such properties, and it includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register of Historic Places criteria" [36 CFR § 800.16(1)].
- **Human remains:** The physical remains of a human body. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets [see 43 CFR § 10.2(d)(1)].
- **Indian Tribe**: "An Indian tribe, band, nation, or other organized group or community, including a Native village, Regional Corporation or Village Corporation, as those terms are defined in Section 3 of the Alaska Native Claims Settlement Act [43 U.S.C. 1602], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians" [36 CFR § 800.16(m)].
- **Native American:** Of, or relating to, a tribe, people, or culture that is indigenous to the United States [25 U.S.C. 3001 (9)]. Of, or relating to, a tribe, people, or culture indigenous to the Unites States, including Alaska and Hawaii [43 CFR 10.2(d)].

- **Native Hawaiian:** Any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the state of Hawaii [36 CFR § 800.16(s)(2)].
- **Native Hawaiian Organization:** Any organization which serves and represents the interests of Native Hawaiians; has as a primary and stated purpose the provision of services to Native Hawaiians; and has demonstrated expertise in aspects of historic preservation that are significant to Native Hawaiians [36 CFR § 800.16(s)].
- **Policy statement:** A formal statement, endorsed by the full ACHP membership, representing the membership's collective thinking about what to consider in reaching decisions about select issues, in this case, human remains and funerary objects encountered in undertakings on federal, tribal, state, or private lands. Such statements do not have the binding force of law.
- **Preservation in place:** Taking active steps to ensure the preservation of a property.
- **Protection of Historic Properties**: Regulations [36 CFR Part 800] implementing Section 106 of the National Historic Preservation Act.
- **Section 106**: That part of the National Historic Preservation Act which establishes a federal responsibility to take into account the effects of undertakings on historic properties and to provide the Advisory Council on Historic Preservation a reasonable opportunity to comment with regard to such action.
- **State Historic Preservation Officer:** The official appointed or designated pursuant to Section 101(b)(1) of NHPA to administer the state historic preservation program.
- **Tribal Historic Preservation Officer**: The official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d)(2) of NHPA.
- **Treatment:** Under Section 106, "treatments" are measures developed and implemented through Section 106 agreement documents to avoid, minimize, or mitigate adverse effects to historic properties.

Acronyms Used for the Policy Statement
- **ACHP**: Advisory Council on Historic Preservation.
- **ARPA**: Archaeological Resources Protection Act [16 U.S.C. 470aa-mm].
- **NHPA**: National Historic Preservation Act [16 U.S.C. § 470f].
- **NAGPRA**: The Native American Graves Protection and Repatriation Act [25 U.S.C. 3001 et seq].
- **SHPO**: State Historic Preservation Officer
- **THPO**: Tribal Historic Preservation Officer

[The members of the Advisory Council on Historic Preservation unanimously adopted this policy on February 23, 2007]

Attachment B
Representative Archaeological Artifacts and Features

Photo 1

Native American projectile point example

Photo 2

Native American projectile point example

Photo 3

Native American worked stone tool example

Photo 4

Native American worked stone tool example

Photo 5

Native American worked stone tool example

Photo 6

Native American worked stone tool example

Photo 7

Native American pottery fragments

Photo 8

Native American pottery fragments

Photo 9

A midden is a widespread layer of archaeological material. This is a Native American shell midden

Photo 10

A midden of mostly bottle glass

Photo 11

A cellar feature, defined by the distinct soil color change

Photo 12

Remains of a house foundation

Photo 13

Ceramics

Photo 14

Ceramics, in context

Photo 15

Historical nails and metal

Photo 16

Glass bottles

Photo 17

Large mammal bone, in context

Photo 18

Bone and shell artifacts

ATTACHMENT B. FIGURES

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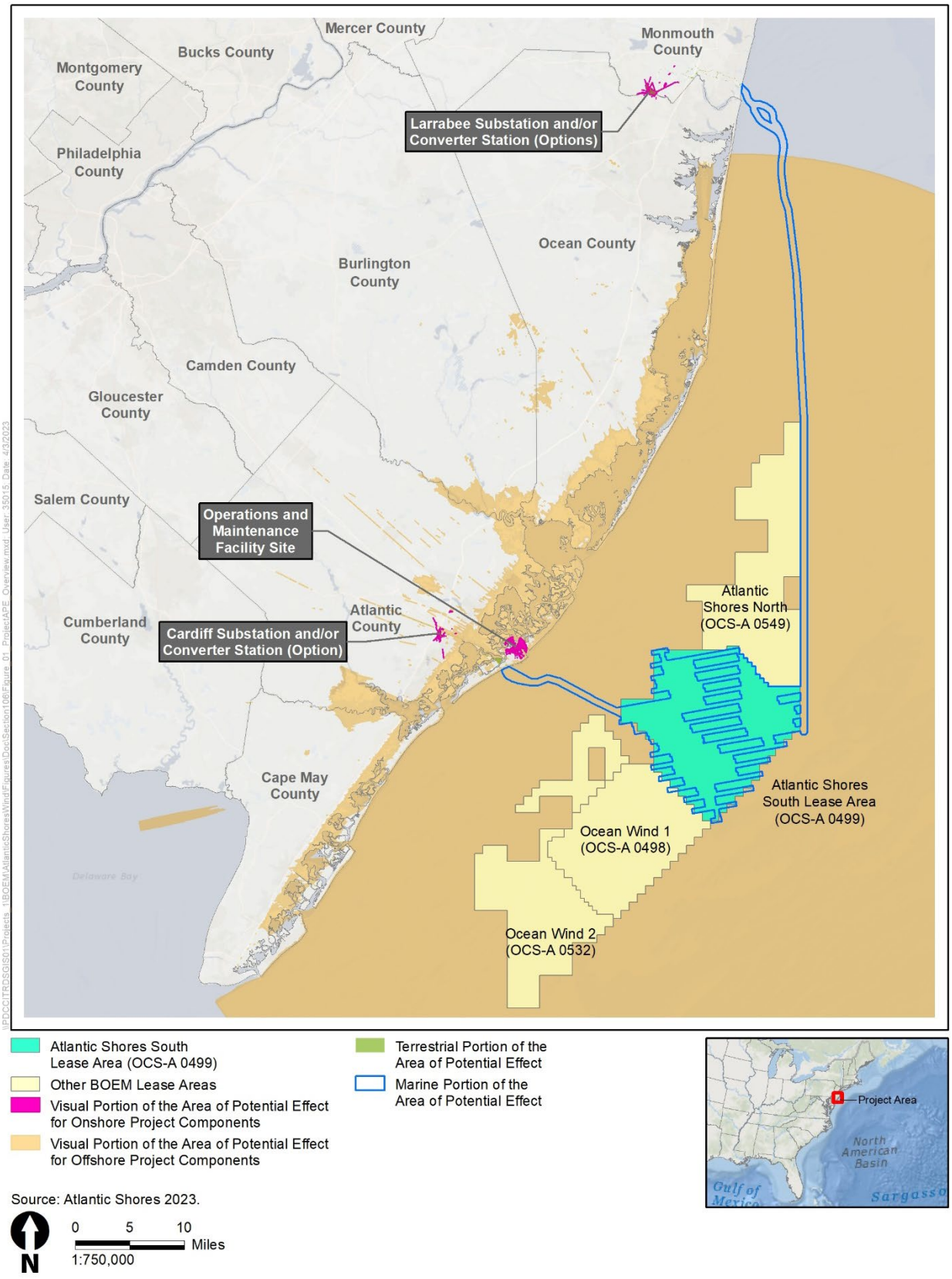

Figure I.B-1. Overview of Project APE

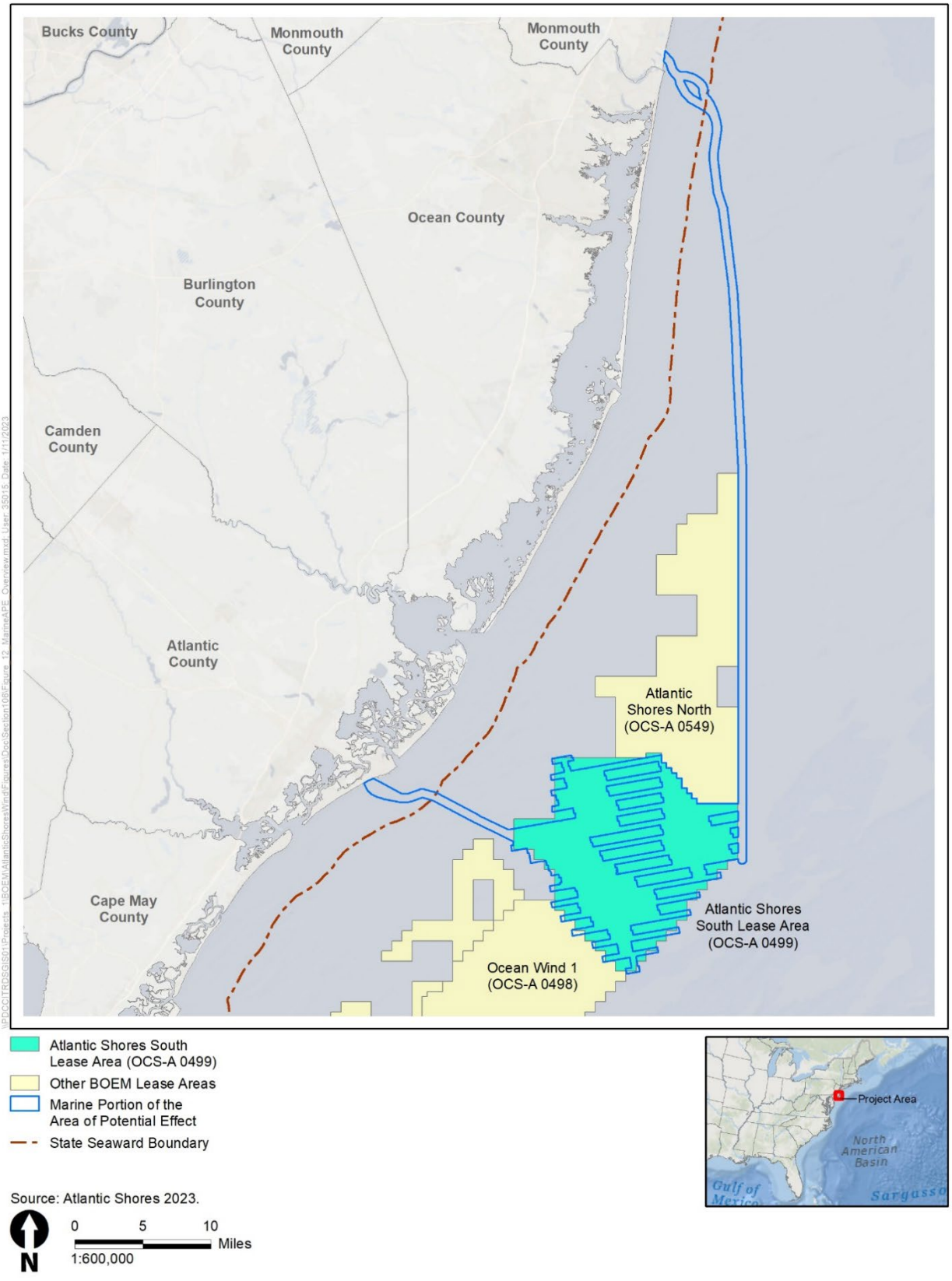

Figure I.B-2. Overview of marine APE

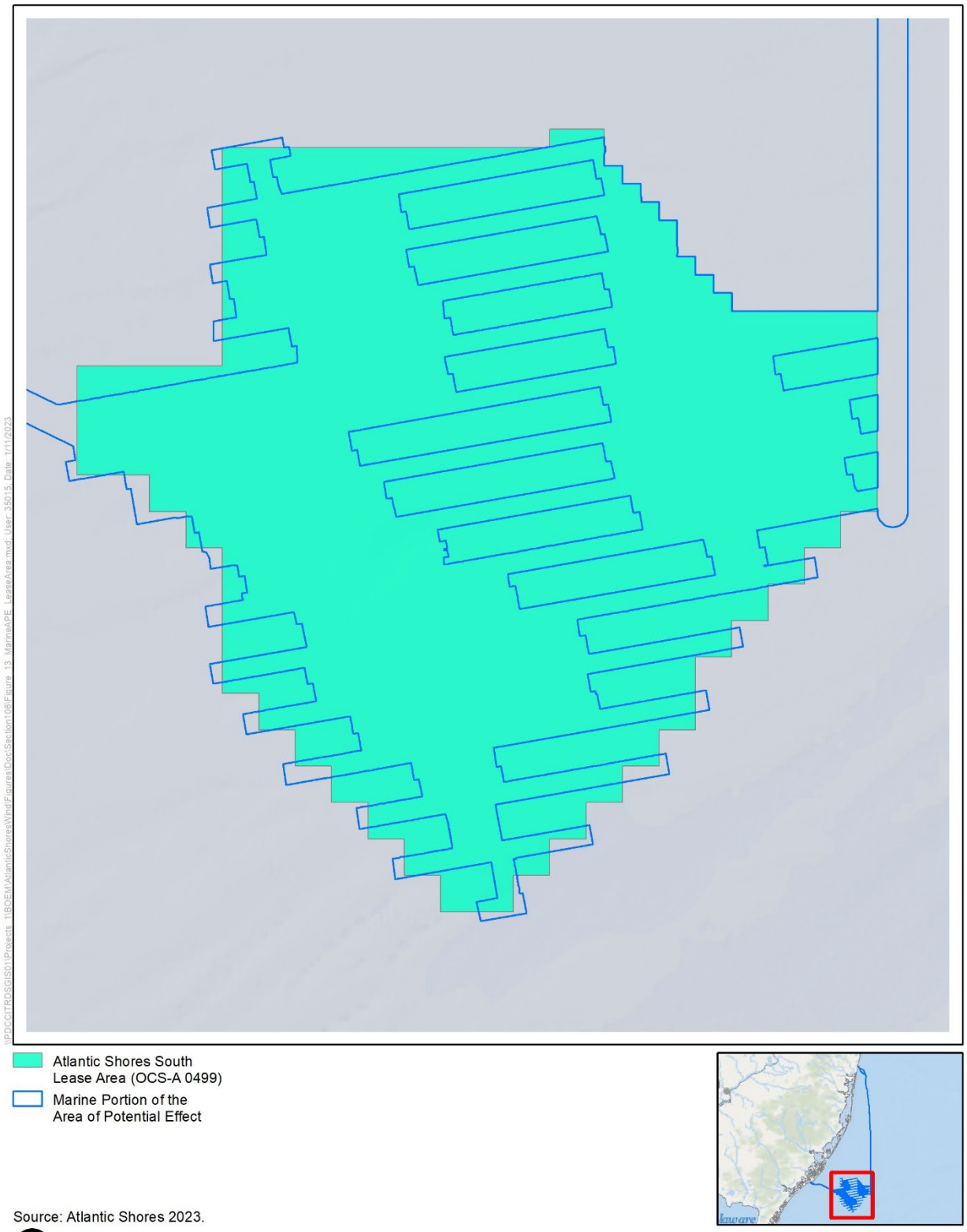

Figure I.B-3. Detail of marine APE within the Lease Area

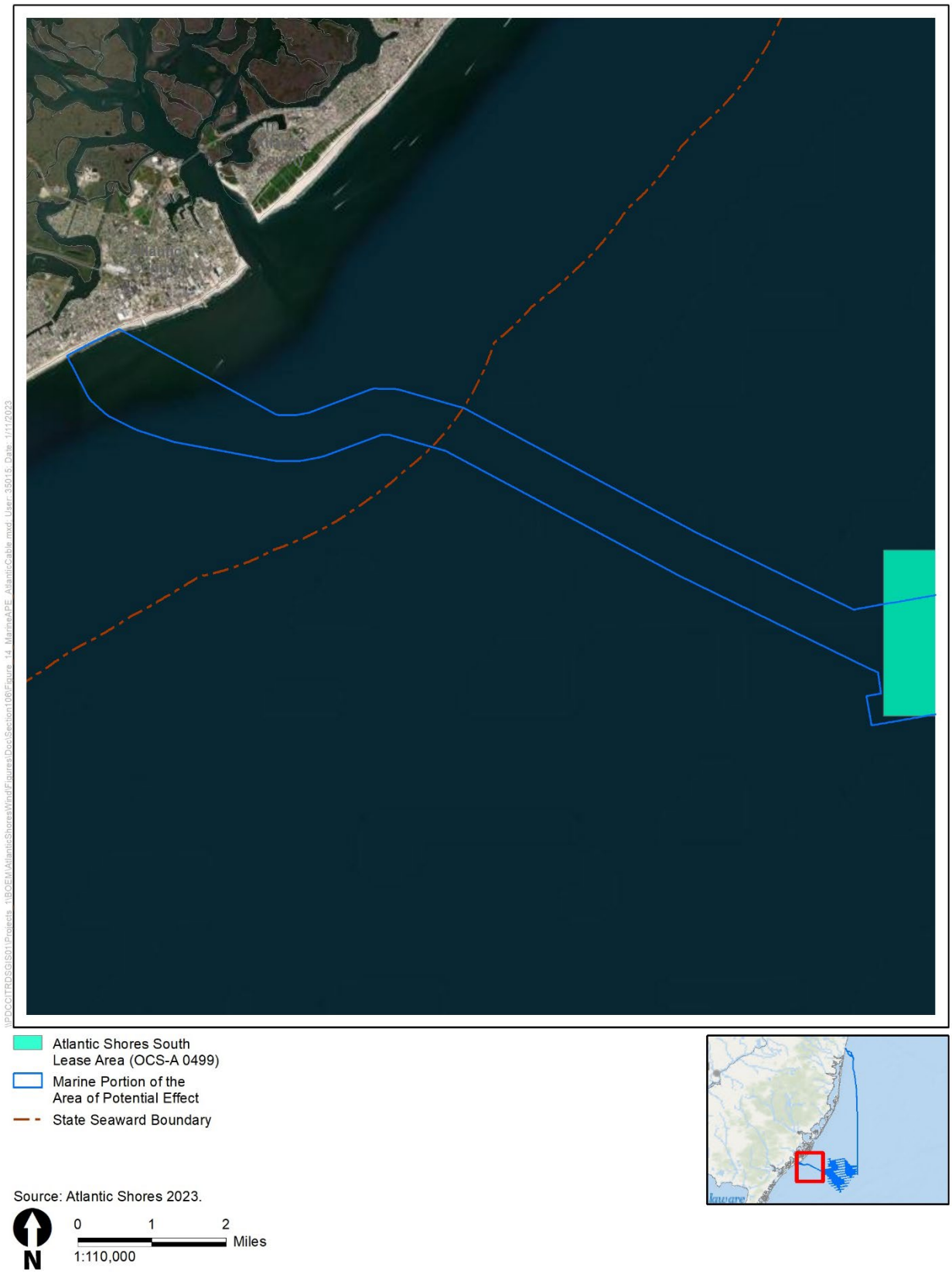

Figure I.B-4. Detail of marine APE within the Atlantic Offshore ECC

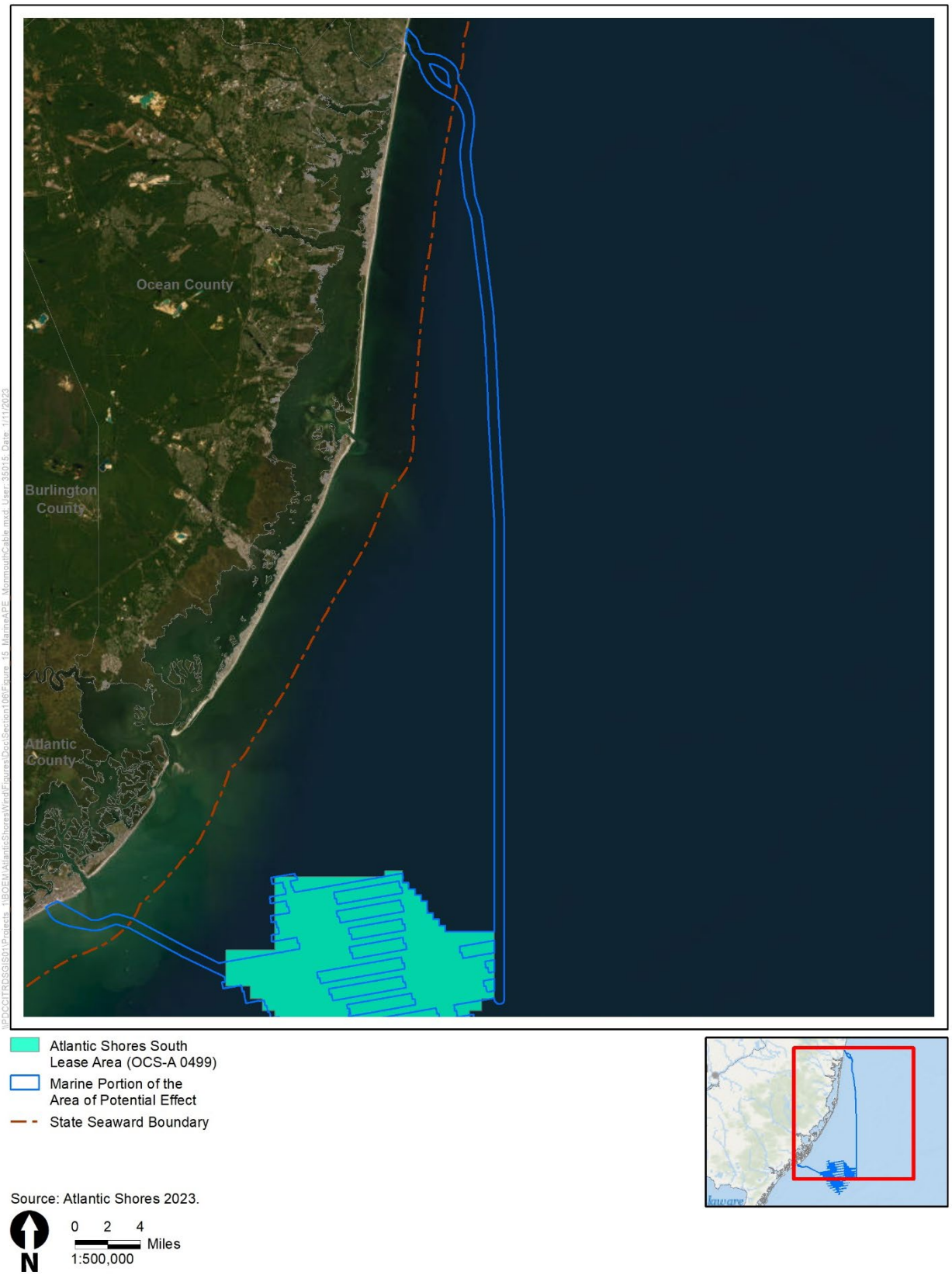

Figure I.B-5. Detail of the marine APE within the Monmouth Offshore ECC

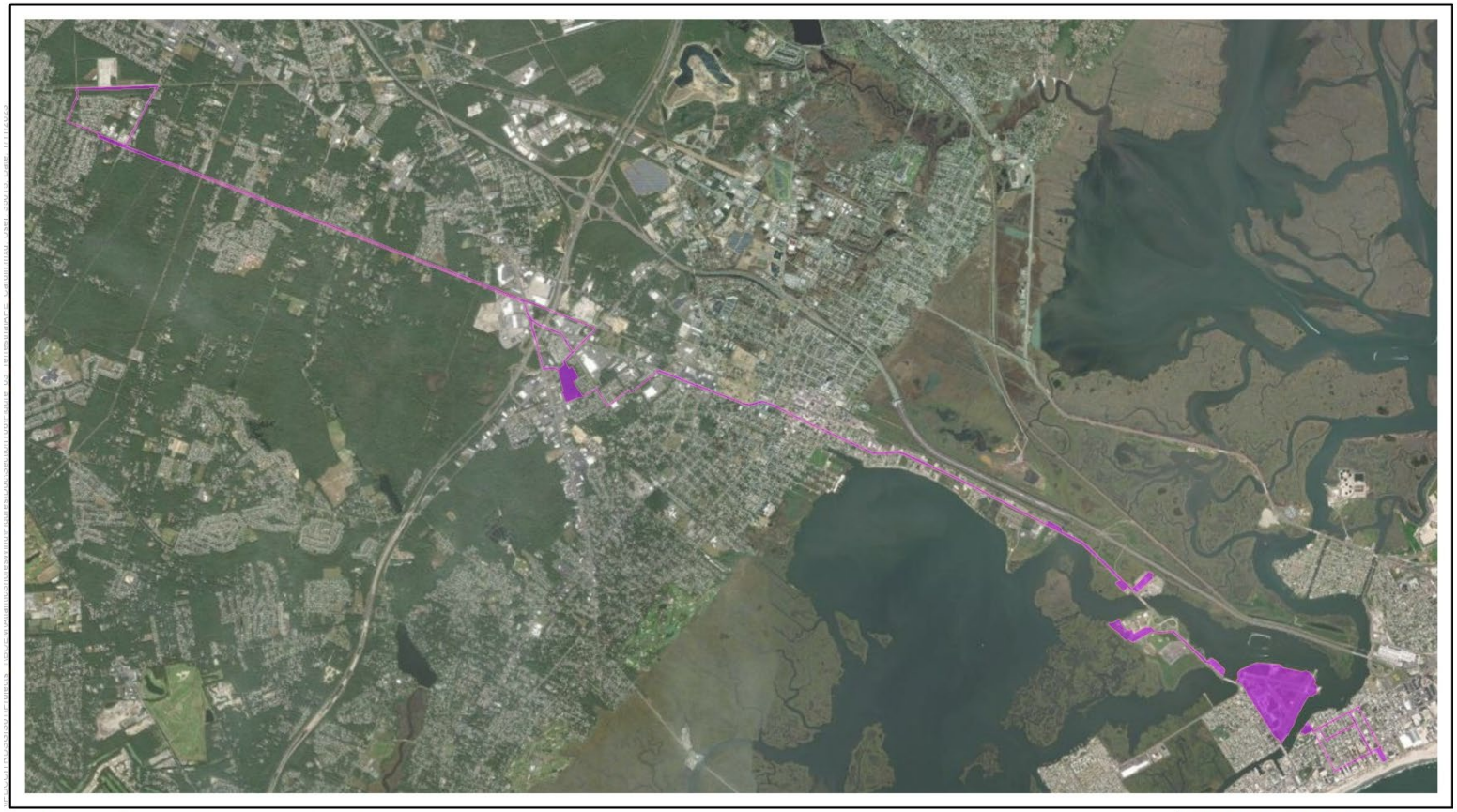

Figure I.B-6. Detail of terrestrial APE for Cardiff facilities

Terrestrial Portion of the Area of Potential Effect

Source: Atlantic Shores 2023.

N

0 0.5 1 Mile

1:60,000

Figure I.B-7. Detail of terrestrial APE for Larrabee Facilities

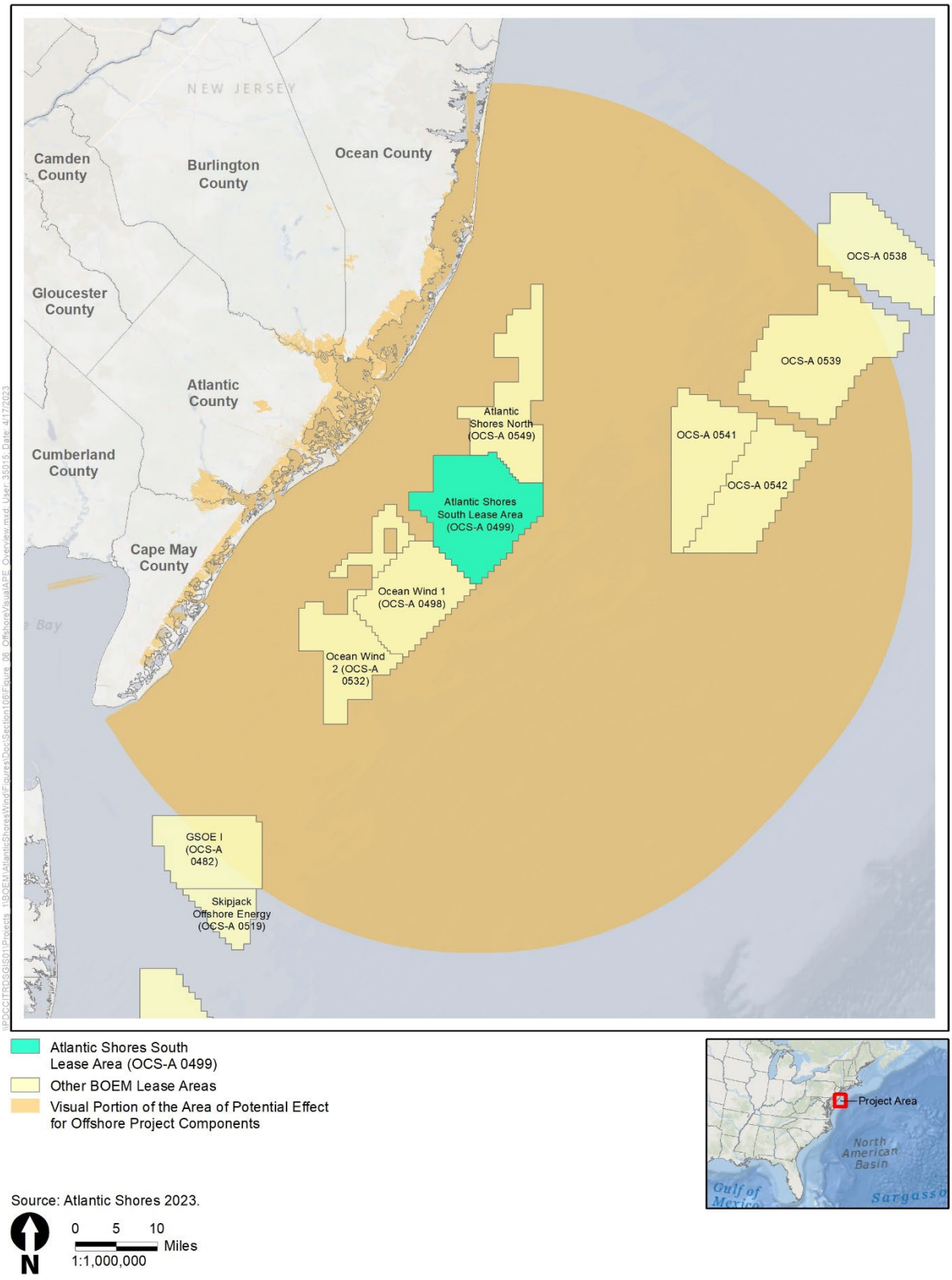

Figure I.B-8. Overview of the visual APE for Offshore Project components

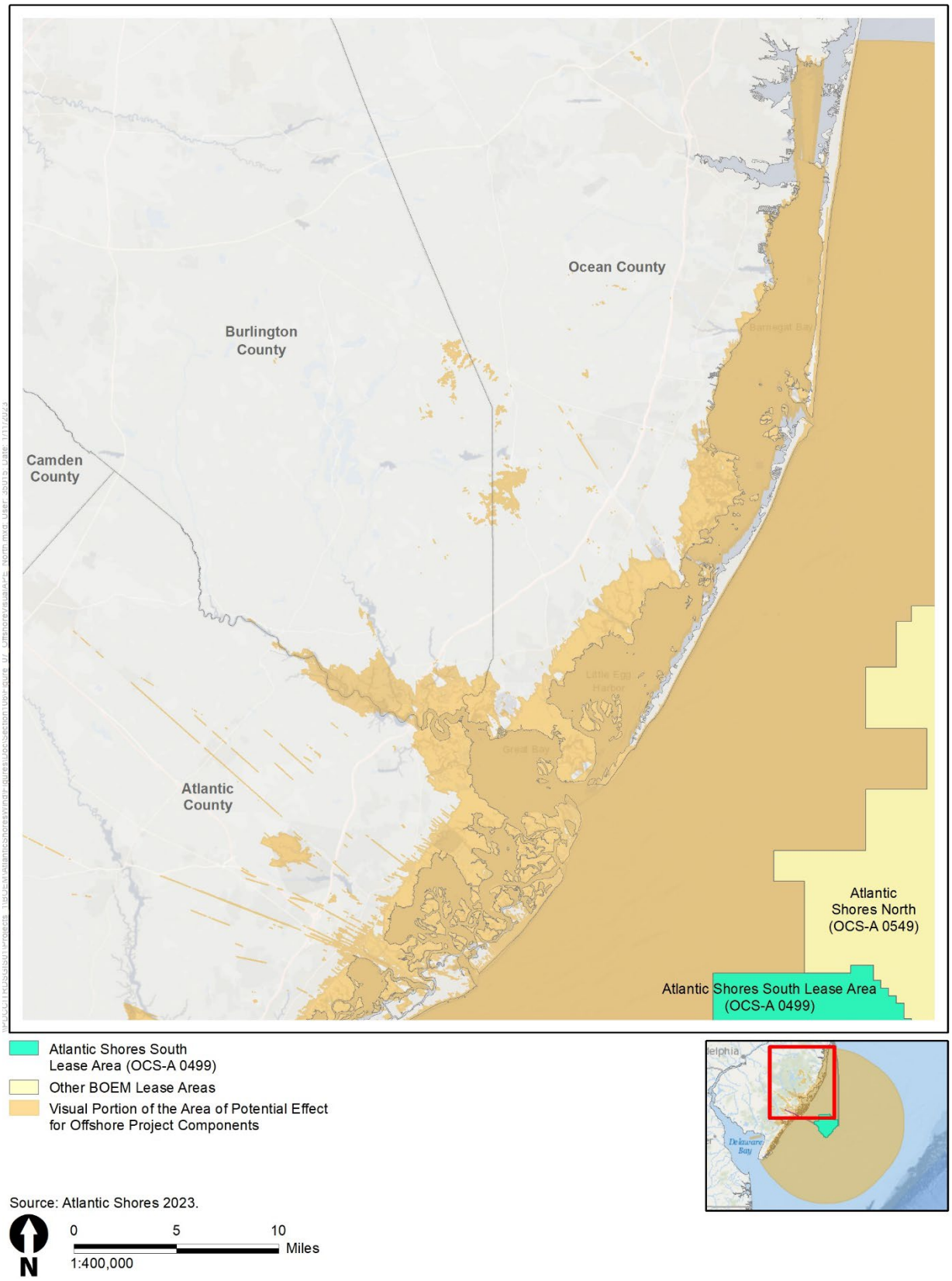

Figure I.B-9. Detail of the visual APE for Offshore Project components, sheet 1 of 2

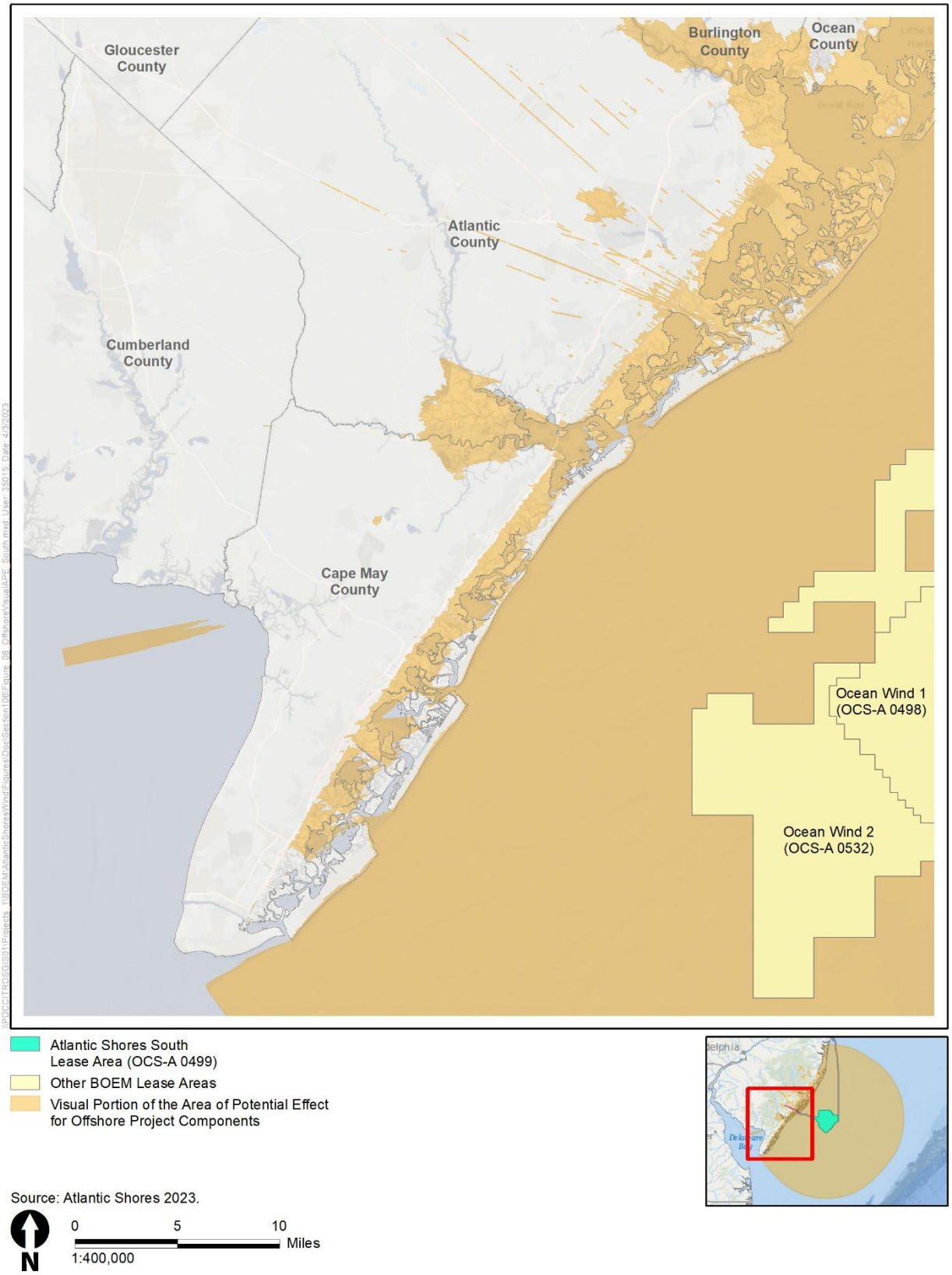

Figure I.B-10. Detail of the visual APE for Offshore Project components, sheet 2 of 2

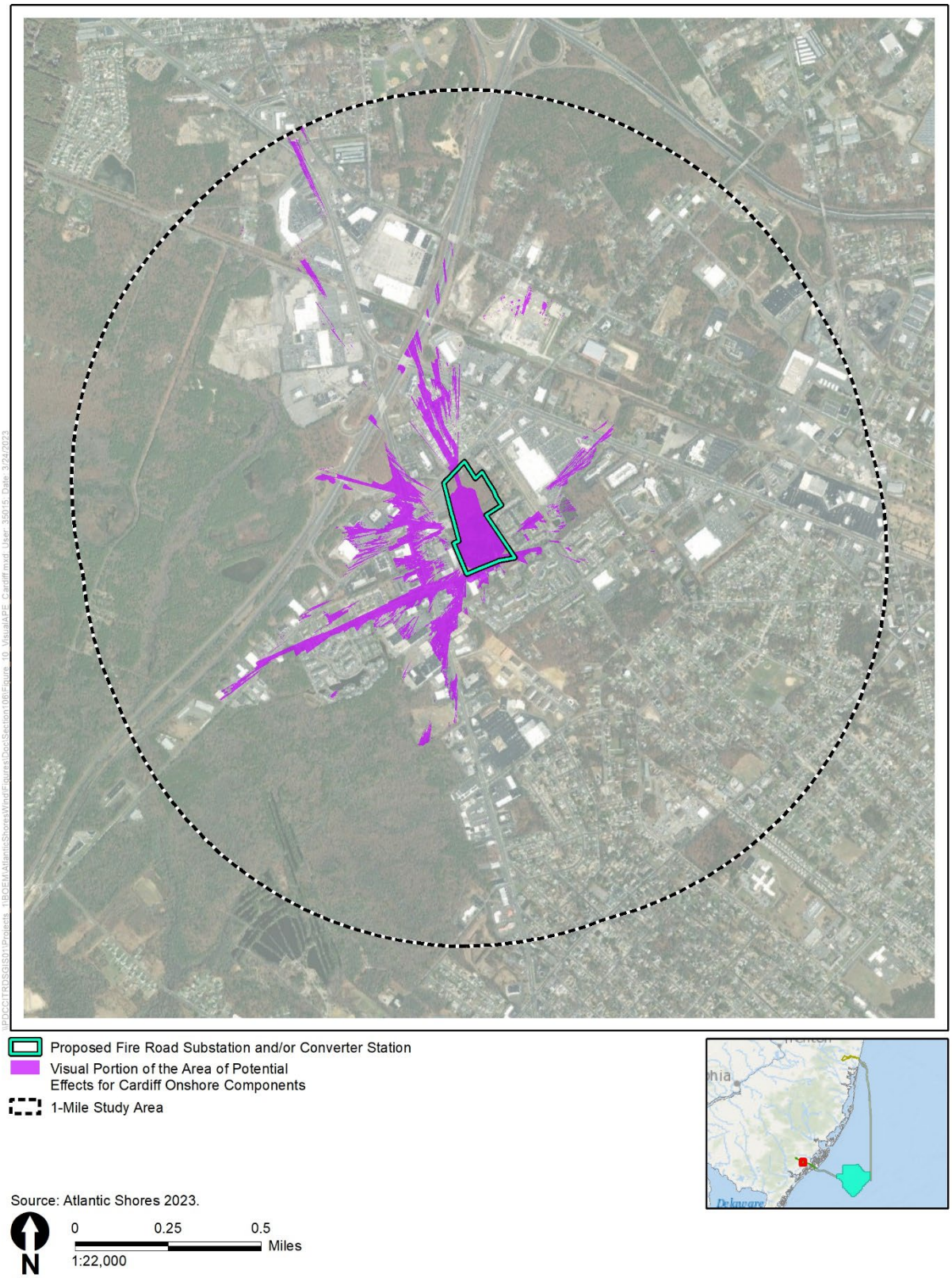

Figure I.B-11. Detail of visual APE for Onshore Project components proposed for the Cardiff Facilities: Fire Road Site

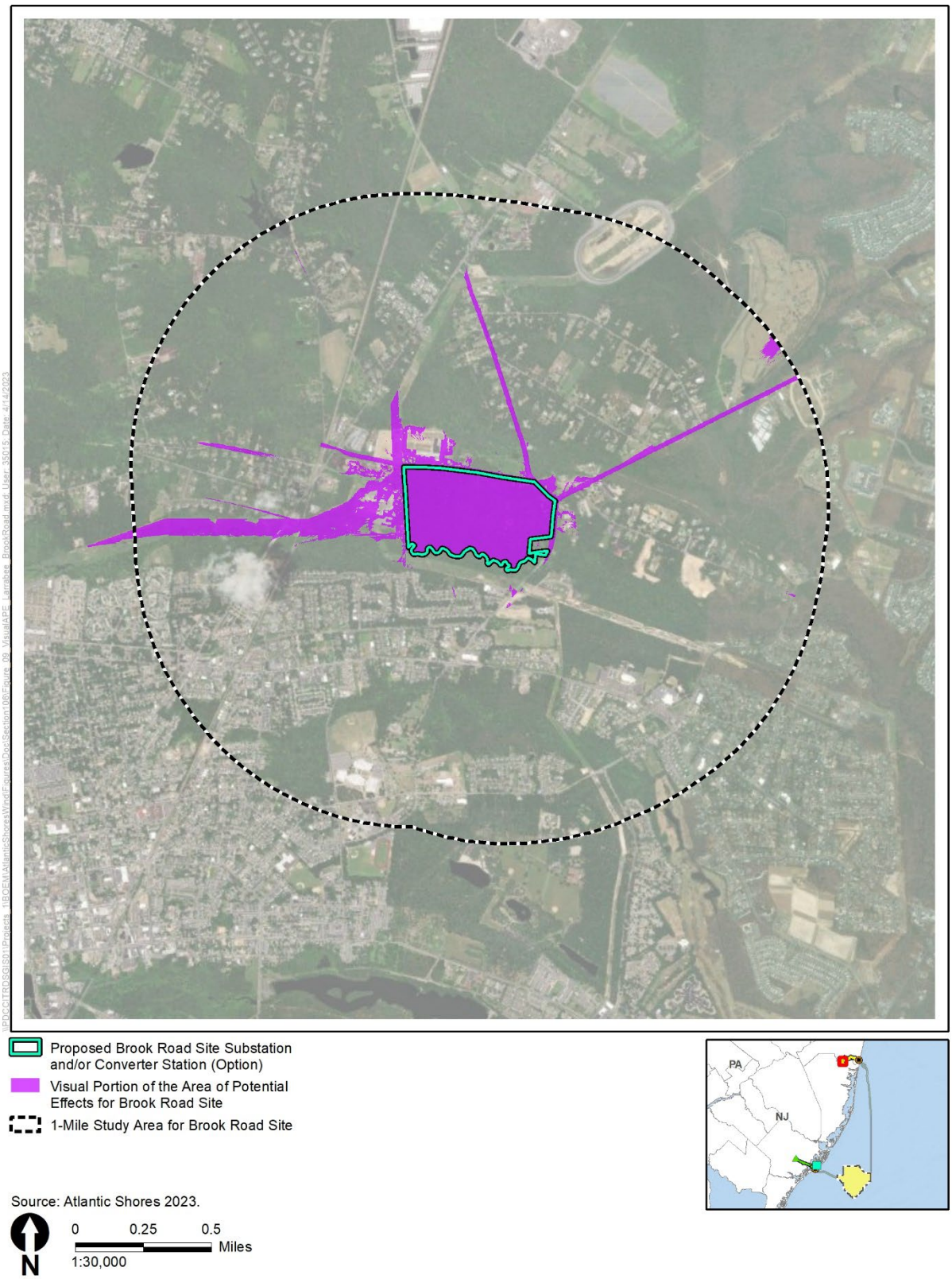

Figure I.B-12. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Brook Road Site

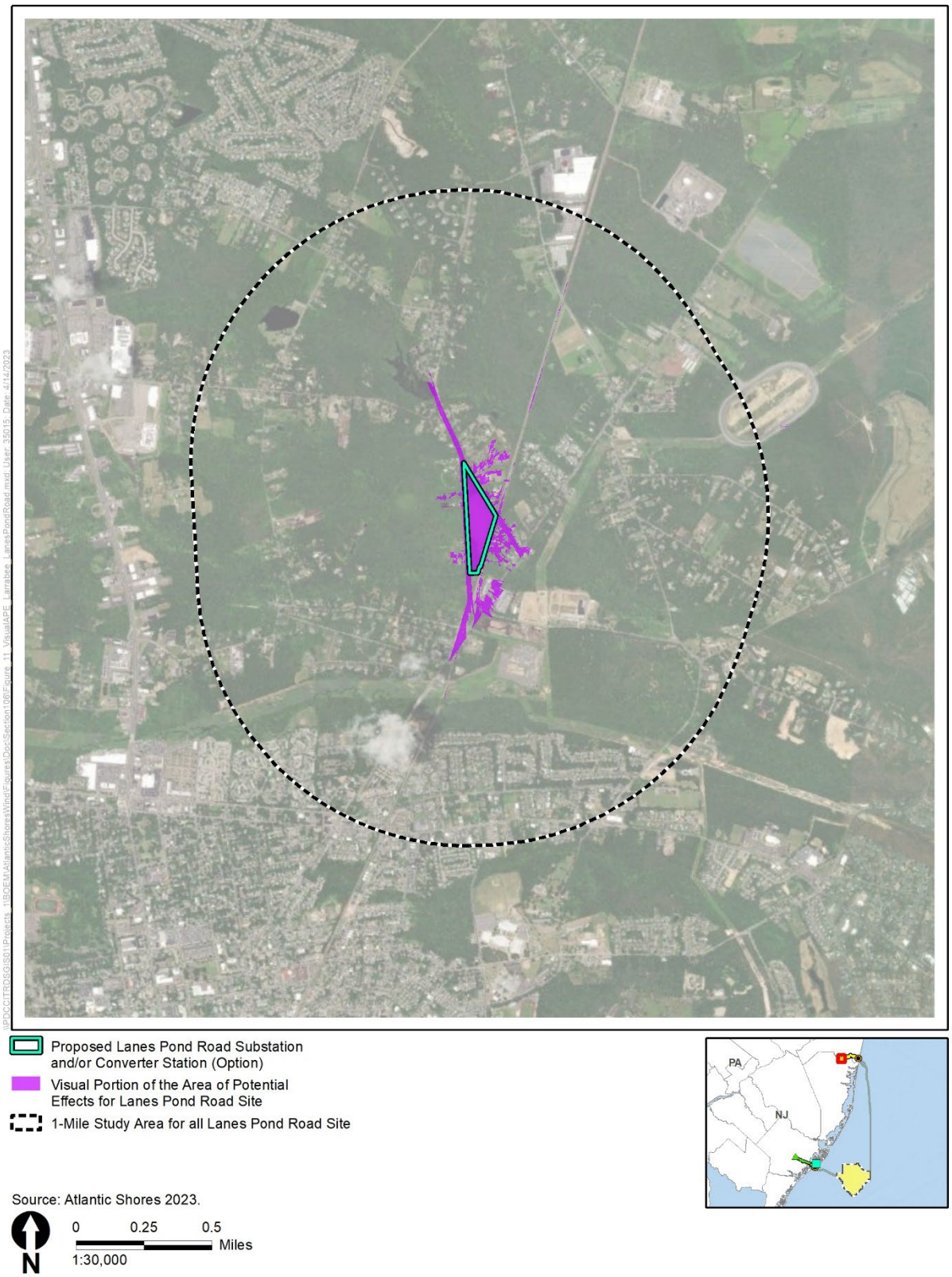

Figure I.B-13. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Lanes Pond Road Site

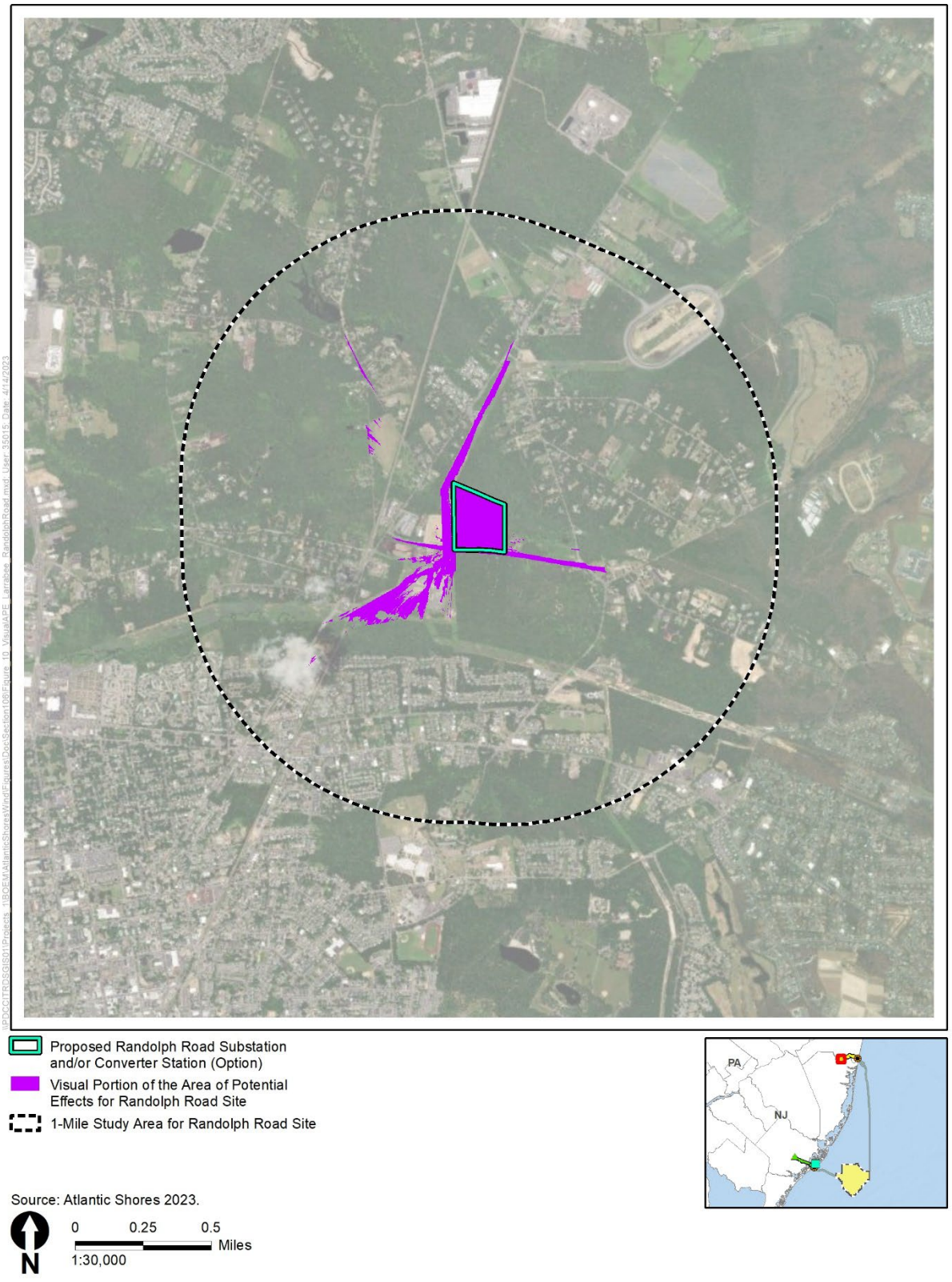

Figure I.B-14. Detail of visual APE for Onshore Project components proposed for the Larrabee Facilities: Randolph Road Site

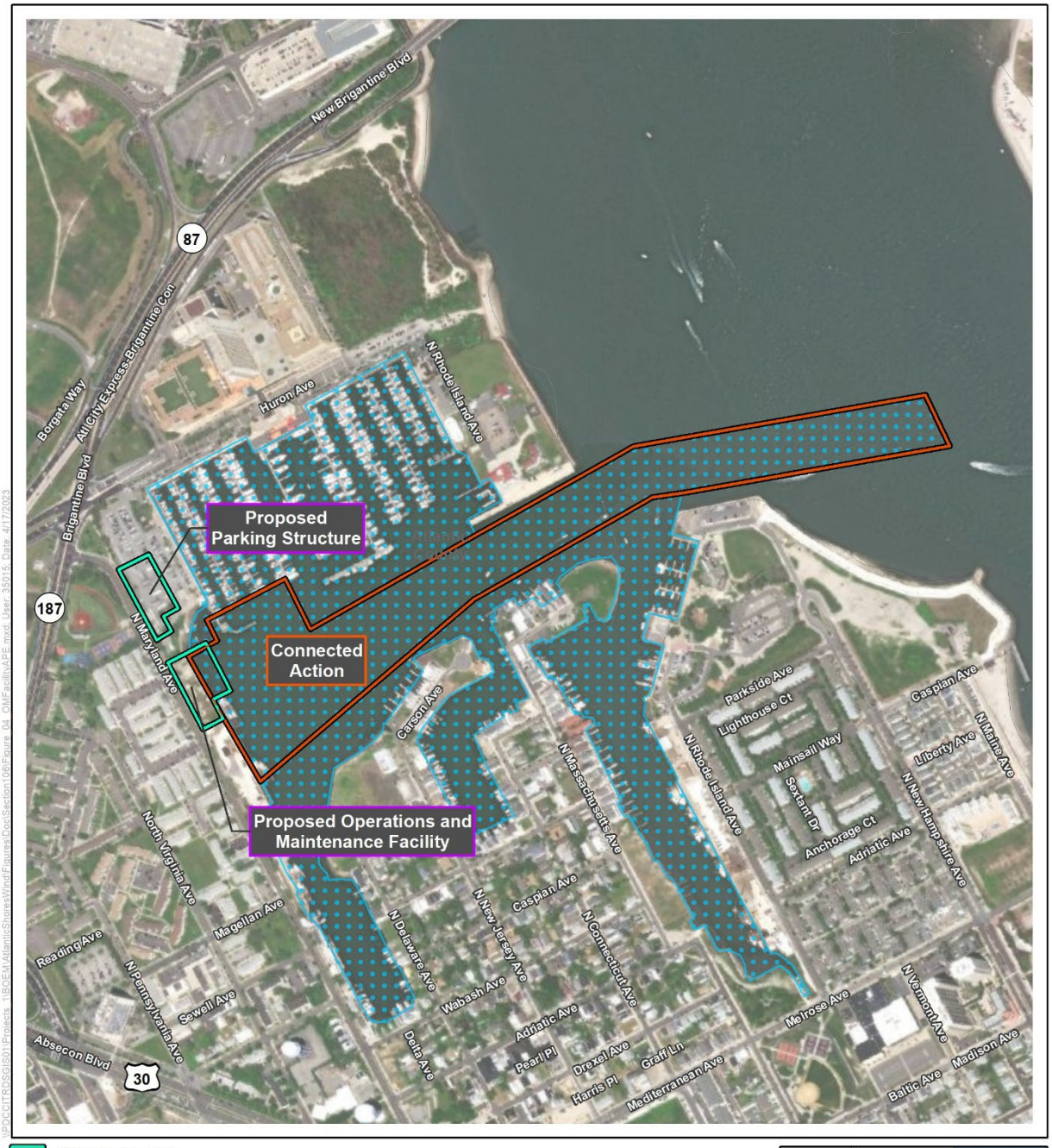

Figure I.B-15. Detail of APE for the O&M facility

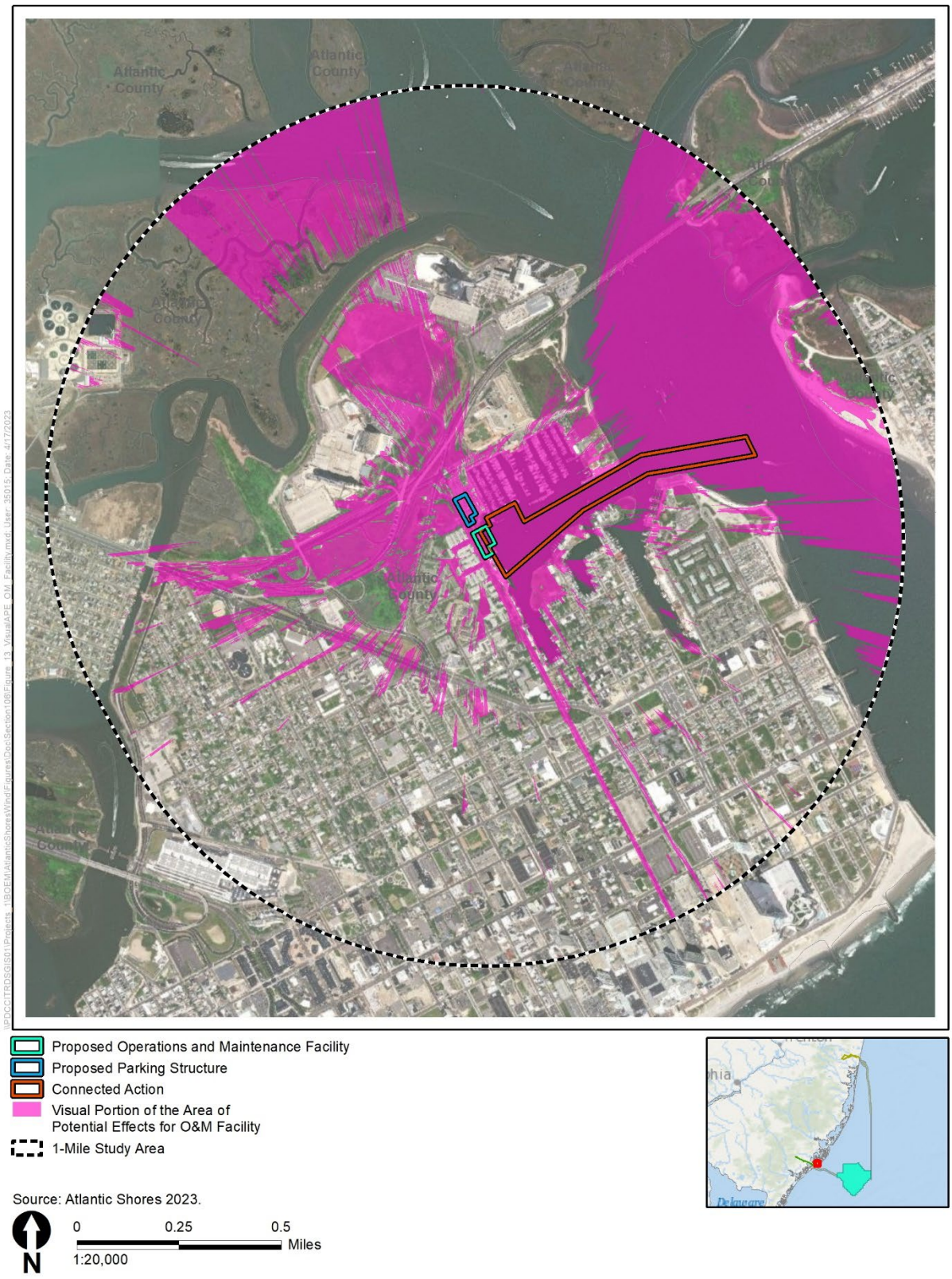

Figure I.B-16. Detail of visual portion of the APE for Onshore Project components for the proposed O&M facility

ATTACHMENT C. ENTITIES INVITED TO BE CONSULTING PARTIES

The following is a list of governments and organizations that BOEM contacted and invited to be a consulting party to the NHPA Section 106 review of the Atlantic Shores South Project in November 2021, December 2021, and May 2023.

Organization Type	Organization Name
Federal agencies	U.S. Advisory Council on Historic Preservation U.S. Army Corps of Engineers U.S. Bureau of Safety and Environmental Enforcement U.S. Coast Guard U.S. Environmental Protection Agency U.S. Fish and Wildlife Service U.S. National Oceanic and Atmospheric Administration U.S. National Park Service U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
Federally recognized tribes	Absentee-Shawnee Tribe of Indians of Oklahoma Delaware Tribe of Indians Eastern Shawnee Tribe of Oklahoma Mashantucket (Western) Pequot Tribe Mashpee Wampanoag Tribe Shawnee Tribe Stockbridge-Munsee Community Band of Mohican Indians The Delaware Nation The Narragansett Indian Tribe The Shinnecock Indian Nation Wampanoag Tribe of Gay Head (Aquinnah)
SHPOs and state agencies	New Jersey Department of Environmental Protection New Jersey Historic Preservation Office (NJHPO)
State recognized tribes	Lenape Indian Tribe of Delaware Nanticoke Indian Association Nanticoke Lenni-Lenape Tribe Powhatan Renape Nation Ramapough Lenape Indian Nation Ramapough Mountain Indians
Local governments	Atlantic County Atlantic County, Department of Regional Planning and Development Barnegat Township Bass River Township Berkeley Township Borough of Avalon Borough of Barnegat Light Borough of Bay Head Borough of Beach Haven Borough of Cape May Point Borough of Harvey Cedars Borough of Longport Borough of Manasquan

Organization Type	Organization Name
	Borough of Mantoloking Borough of Point Pleasant Beach Borough of Sea Girt Borough of Seaside Park Borough of Ship Bottom Borough of Stone Harbor Borough of Surf City Borough of Tuckerton Borough of West Cape May Borough of West Wildwood Borough of Wildwood Crest Borough of Woodbine Cape May County City of Absecon City of Atlantic City City of Brigantine City of Cape May City of Egg Harbor City City of Linwood City of Margate City of North Wildwood City of Ocean City City of Pleasantville City of Port Republic City of Sea Isle City City of Somers Point City of Ventnor City City of Wildwood Dennis Township Eagleswood Township Galloway Township Lacey Township Long Beach Township Manchester Township Middle Township Ocean County Stafford Township Toms River Township Town of Hammonton Township of Brick Township of Egg Harbor Township of Hamilton Township of Lakewood Township of Little Egg Harbor Township of Lower Township of Ocean Township of Upper Wall Township
Nongovernmental organizations or groups	600 Boardwalk LLC Absecon Historical Society Absecon Lighthouse

Organization Type	Organization Name
	Anglers Club of Absecon Island Atlantic City Convention Center Atlantic County Historical Society Avalon History Center Barnegat Historical Society Barnegat Light Museum Barnegat Lighthouse State Park Belmar Historical Society Brigantine Beach Historical Museum Cape May Lighthouse Caribbean Motel Central Pier Associates LLC Chicken Bone Beach Historical Foundation, Inc. Converse Cottage Dr. Edward H. Williams House Eagleswood Historical Society Emlen Physick Estate Friends of Barnegat Lighthouse Friends of the Cape May Lighthouse Friends of the World War II Tower Greater Cape May Historic Society Greater Egg Harbor Township Historical Society Hereford Inlet Lighthouse Historic Cold Spring Village Historical Society of Lacey Lakewood Historical Society Legacy Vacation Resorts Linwood Historical Society Long Beach Island Historical Association Madison Hotel Margate Historical Society Max Gurwicz Enterprises Museum of Cape May County New Jersey Casino Reinvestment Development Authority New Jersey Lighthouse Society New Jersey Maritime Museum Ocean City Historical Museum Ocean City Music Pier Ocean County Historical Society Old Wall Historical Society Patriots for the Somers Mansion Preservation New Jersey Property Owner of 108 South Gladstone Avenue, Margate, New Jersey Property Owner of 114 South Harvard Avenue, Ventnor City, New Jersey Property Owner of 114 South Osborne Avenue, Margate, New Jersey Property Owner of 120 Atlantic Avenue, Atlantic City, New Jersey Property Owner of 124 Atlantic Avenue, Atlantic City, New Jersey Property Owner of 125 South Montgomery Avenue, Atlantic City, New Jersey Property Owner of 5231 Central Avenue, Ocean City, New Jersey Raphael-Gordon House Ritz-Carlton Hotel/Condominium Association

Organization Type	Organization Name
	Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences Save Long Beach Island, Inc. Save Lucy Committee, Inc. Seaside Heights Historical Society Seaview Resort Acquisition Group LLC Squan Village Historical Society St. Leonard's Association The Flanders Hotel The Museum of Cape May County The Noyes Museum of Art Tuckerton Historical Society Vassar Square Condominium Association Waretown Historical Society Wildwood Crest Historical Society Wildwood Historical Society

ATTACHMENT D. CONSULTING PARTIES TO THE ATLANTIC SHORES SOUTH PROJECT

The following is a current list of consulting parties to the NHPA Section 106 review of the Atlantic Shores South Project, as of April 2023:

Government or Organization Name	Representative(s)
Atlantic County	Frances Brown Gerald DelRosso John Peterson Doug DiMeo
Atlantic County, Department of Regional Planning and Development	John Peterson Ranae Fehr
Borough of Bay Head	William Curtis Frank Pannucci Jr.
Borough of Beach Haven	Colleen Lambert Jaime Baumiller Robert (Bob) Stern
Borough of Harvey Cedars	Jonathan Oldham Robert Stern
Borough of Point Pleasant Beach	Paul Kanitra Kristen O'Rourke
Borough of Sea Girt	Donald Fetzer James Gant
Borough of Seaside Park	John Peterson Jr. Thomas Seaman
Borough of Stone Harbor	Judith Davies-Dunhour Kim Stevenson Robert Smith Steve Morris Manny Parada
Borough of West Cape May	Carol Sabo
Cape May County (represented by Cultural Heritage Partners)	Rita (Fulginiti) Rothberg Will Morey Patricia Salvatore Gerald Thornton Michael Donohue Kevin Lare Ronald Simone William Cook (Cultural Heritage Partners)
City of Brigantine	Vincent Sera Lynn Sweeney Sinclair Cooper Mike Riordan Jennifer Sigmund

Government or Organization Name	Representative(s)
City of Cape May	Louis Belasco Erin Burke Judith E. Decker Zachary Mullock Michael Voll
City of Linwood	Darren Matik Mary Cole Leigh Ann Napoli
City of Margate (represented by Rutala Associates, LLC)	Michael Becker Johanna Casey Roger McLarnon Jim Rutala (Rutala Associates, LLC)
City of North Wildwood	Patrick Rosenello W. Scott Jett
City of Ocean City	Doug Bergen George Savastano
City of Sea Isle City	Shannon Romano George Savastano
City of Somers Point	Jason Frost Jim Rutala
Delaware Tribe of Indians	Brad KillsCrow Susan Bachor Jimmie Johnson
Eastern Shawnee Tribe of Oklahoma	Brett Barnes Glenna Wallace Paul Barton
Galloway Township	Kelli Danieli Anthony Coppola Christian Johansen Cyndi Spinelli
Greater Cape May Historic Society	Harry Bellangy Kathleen Wyatt
Hereford Inlet Lighthouse	Robert Simone
Lenape Indian Tribe of Delaware	Dennis Coker
Long Beach Township	Danielle La Valle Joseph Mancini Kyle Ominski
Mashantucket (Western) Pequot Tribe	Rodney Butler Michael Kickingbear Johnson Crystal Whipple
Mashpee Wampanoag Tribe	Brian Weeden David Weeden Carlton Hendricks Jason Steiding
New Jersey Department of Environmental Protection	Cynthia Coritz
New Jersey Department of Environmental Protection, Historic Preservation Office	Katherine Marcopul Meghan Baratta Jesse West-Rosenthal Jennifer Leynes
Save Long Beach Island, Inc.	Bob Stern

Government or Organization Name	Representative(s)
Save Lucy Committee, Inc. (represented by Rutala Associates, LLC)	Richard Helfant Jim Rutala (Rutala Associates, LLC)
Shawnee Tribe	Benjamin Barnes Rosanna Dobbs Tonya Tipton Erin Paden
Stafford Township	Gregory Myhre Linda Martin Mathew von der Hayden
The Delaware Nation	Carissa Speck Katelyn Lucas Deborah Dotson
The Narragansett Indian Tribe	John Brown Dinalyn Spears Anthony Dean Stanton
The Noyes Museum of Art	Michael Cagno
The Shinnecock Indian Nation	Bryan Polite Shavonne Smith Tela Troge Bianca Collins Jeremy Dennis
Township of Brick	Joanne Bergin John Ducey Elissa Commins
Township of Upper	Curtis Corson Joanne Herron Barbara Young Kim Hayes
U.S. Advisory Council on Historic Preservation	Christopher Daniel Chris Koeppel
U.S. Army Corps of Engineers	Chris Veinotte Nicole Minnichbach Brian Anthony Todd Scaible Naomi Handell Juan Carlos Corona Ann DiLorenzo
U.S. Bureau of Safety and Environmental Enforcement	W. Shawn Arnold Daniel "Herb" Leedy
U.S. Coast Guard	Matt Creelman George Detweiler Rob Webb
U.S. National Park Service	Mary Krueger Kathryn Schlegel
U.S. Naval History and Heritage Command (Underwater Archaeology Branch)	Alexis Catsambis
Wampanoag Tribe of Gay Head (Aquinnah)	Cheryl Andrews-Maltais Bettina Washington Lael Echo-Hawk Barbara Spain

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ATTACHMENT E. USACE PUBLIC NOTICE FOR DA PERMIT APPLICATION CENAP OPR 2021-00573-95

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Public Notice

US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice No.	Date
CENAP-OPR-2021-0573-95	**December 20, 2021**
Application No.	File No.
CENAP-OPR-2021-00573-95	
In Reply Refer to:	
REGULATORY BRANCH	

This District has received an application for a Department of the Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: City of Atlantic City
Attn: Mr. Anthony Swan
1301 Bacharach Boulevard
Atlantic City, New Jersey 08041

WATERWAYS: Clam Creek portion of the Absecon Inlet Federal Navigation Channel, Farley's Marina, Gardiners Basin, Snug Harbor, Delta Basin, Kammerman's Marina, U.S. Coast Guard/New Jersey State Police Marina, Penrose Canal, Venice Lagoon, Bader Field Lagoon, Chelsea Harbor, Fenton Place Lagoon, and Ventnor Lagoon.

LOCATION: Atlantic City, Atlantic County, New Jersey

ACTIVITY: The applicant, City of Atlantic City, has requested Department of the Army (DA) authorization to perform ten (10)-year maintenance dredging of thirteen (13) city waterways, with the proposed "city-wide" maintenance dredging program targeting substantial shoaling that has built up over the last century, including recent sediment deposited by Superstorm Sandy and Winter Storm Jonas.

All of the work would be accomplished via hydraulic cutterhead or mechanical dredge. All resultant dredged material, estimated to be approximately 597,761.0-cubic yards of sand and silt, would be removed from approximately 104.67-acres of sea bottom and disposed at three (3) locations: the Dredged Hole #86 (DH#86) subaqueous borrow pit restoration site in Beach Thorofare located in Atlantic City, Atlantic County, New Jersey; the upland Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey; and the upland Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey.

For navigational safety, the hydraulic dredge pipeline will be marked in accordance with U.S. Coast Guard regulations and would be sunken, except where submerged aquatic vegetation (SAV) is encountered where it would be floated.

Each maintenance dredging event is anticipated to be approximately twelve (12) weeks in duration, including mobilization/demobilization, dredging, and material placement activities. Two (2) or three (3) maintenance dredging events are anticipated to be conducted over the next ten (10)-years, with the initial dredging event proposed to be undertaken during Fall 2022.

Clam Creek portion of the Absecon Inlet Federal Navigation Channel
Approximate Coordinates: Latitude: 39.377375, Longitude: -74.423009.
Maintenance dredging of 122,710.0-cubic yards of shoaled sediments from a 17.75-acre section of the Clam Creek portion of the Absecon Inlet Federal Navigation Channel to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of the Absecon Inlet Federal Navigation Channel, Clam Creek has been historically dredged by USACE-Philadelphia District since the early 1900s.

All resultant dredged material from the Clam Creek Portion of the Absecon Inlet Federal Navigation Channel would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Farley's Marina
Approximate Coordinates: Latitude: 39.378455, Longitude: -74.426250.
Maintenance dredging of a total of 154,829.0-cubic yards of shoaled sediments from five (5) areas within Farley's Marina is proposed.

- Farley's Marina Fuel: Maintenance dredging of 20,113.0-cubic yards of shoaled sediments from an approximately 2.86-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.
- Farley's Marina Area #1: Maintenance dredging of 10,534.0-cubic yards of shoaled sediments from an approximately 8.58-acre footprint to -7.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.
- Farley's Marina Area #2: Maintenance dredging of 91,005.0-cubic yards of shoaled sediments from an approximately 7.67-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes is proposed.
- Farley's Marina Area #3: Maintenance dredging of 31,739.0-cubic yards of shoaled sediments from an approximately 4.31-acre footprint to -10.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.

- Farley's Marina Area #4: Maintenance dredging of 1,438.0-cubic yards of shoaled sediments from an approximately 2.37-acre footprint to -7.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.

Part of Atlantic City's Inlet Marina Area, available records indicate that Farley's Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Farley's Marina would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Gardeners Basin
Approximate Coordinates: Latitude: 39.373566, Longitude: -74.420809.
Maintenance dredging of 174,731.0-cubic yards of shoaled sediments from an approximately 12.71-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Gardeners Basin was historically dredge-maintained during the 1950s and 1980s.

Approximately 52,600.0-cubic yards of dredged material removed from the northern portion of Gardeners Basin would be placed upland at the Tuckahoe Turf Farm; and approximately 122,131.0-cubic yards of dredged material removed from the southern portion of Gardeners Basin would be placed upland at Kinsley's Landfill.

Snug Harbor
Approximate Coordinates: Latitude: 39.375373, Longitude: -74.423638.
Maintenance dredging of 23,114.0-cubic yards of shoaled sediments from an approximately 4.92-acre footprint to -9.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Snug Harbor was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Snug Harbor would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Delta Basin
Approximate Coordinates: Latitude: 39.372080, Longitude: -74.426022.
Maintenance dredging of 52,554.0-cubic yards of shoaled sediments from an approximately 9.75-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 sides slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that the Delta Basin was historically dredge-maintained during the 1950s and 1980s.

Approximately 30,814.0-cubic yards of dredged material removed from the northern portion of Delta Basin would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare; and approximately 21,740.0-cubic yards of dredged material removed from the southern portion of Delta Basin would be placed upland at Kinsley's Landfill.

Kammerman's Marina
Approximate Coordinates: Latitude: 39.376582, Longitude: -74.423134.
Maintenance dredging of 2,602.0-cubic yards of shoaled sediments from an approximately 0.47-acre footprint to -6.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Kammerman's Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Kammerman's Marina would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

U.S. Coast Guard/New Jersey State Police Marina
Approximate Coordinates: Latitude: 39.378022, Longitude: -74.424093.
Maintenance dredging of 8,604.0-cubic yards of shoaled sediments from an approximately 1.73-acre footprint to -10.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that the U.S. Coast Guard and New Jersey State Police Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from the U.S. Coast Guard and New Jersey State Police Marina would be placed upland at Kinsley's Landfill.

Penrose Canal
Approximate Coordinates: Latitude: 39.372480, Longitude: -74.444921.
Maintenance dredging of 5,725.0-cubic yards of shoaled sediments from an approximately 2.97-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Penrose Canal was excavated/constructed in the 1880s. No historical records were found to indicate that the Penrose Canal was ever historically dredge-maintained.

All resultant dredged material from Penrose Canal would be placed upland at the Tuckahoe Turf Farm.

Venice Lagoon
Approximate Coordinates: Latitude: 39.372592, Longitude: -74.452376.
Maintenance dredging of 3,318.0-cubic yards of shoaled sediments from an approximately 6.37-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Venice Lagoon was

excavated/constructed in the 1880s. No historical records were found to indicate that the Venice Lagoon was ever historically dredge-maintained.

All resultant dredged material from Venice Lagoon would be placed upland at the Tuckahoe Turf Farm.

Bader Field Lagoon
Approximate Coordinates: Latitude: 39.359380, Longitude: -74.453190.
Maintenance dredging of 42,202.0-cubic yards of shoaled sediments from an approximately 13.40-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Bader Field Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Bader Field Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Bader Field Lagoon would be placed upland at the Tuckahoe Turf Farm.

Chelsea Harbor
Approximate Coordinates: Latitude: 39.351552, Longitude: -74.460122.
Maintenance dredging of 151.0-cubic yards of shoaled sediments from an approximately 1.29-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Chelsea Harbor was excavated/constructed during the early 1900s. No historical records were found to indicate that the Chelsea Harbor area was ever historically dredge-maintained.

All resultant dredged material from Chelsea Harbor would be placed upland at the Tuckahoe Turf Farm.

Fenton Place Lagoon
Approximate Coordinates: Latitude: 39.358180, Longitude: -74.448722.
Maintenance dredging of 6,646.0-cubic yards of shoaled sediments from an approximately 5.74-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Fenton Place Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Fenton Place Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Fenton Place Lagoon would be placed upland at the Tuckahoe Turf Farm.

Ventnor Lagoon
Approximate Coordinates: Latitude: 39.351839, Longitude: -74.457452.
Maintenance dredging of 575.0-cubic yards of shoaled sediments from an approximately 1.78-acre footprint to -5.0-feet below the plane of Mean Low

Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Ventnor Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Ventnor Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Ventnor Lagoon would be placed upland at the Tuckahoe Turf Farm.

Dredge Material Placement:

All resultant dredged material, estimated to be approximately 597,761.0-cubic yards of sand and silt, would be disposed at three (3) locations: the DH#86 sub-aqueous restoration site in Beach Thorofare located in Atlantic City, Atlantic County, New Jersey; the upland Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey; and the upland Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey.

DH#86:
Approximate Coordinates: Latitude: 39.360598, Longitude: -74.469802.
Approximately 334,069.0-cubic yards of dredged material from the dredge sites listed above would be mechanically and hydraulically placed into DH#86 in accordance with Department of the Army (DA) Permit Number NAP-2020-00059-95 (Enclosure A). DH#86 is an approximately 14.0-acre man-made subaqueous borrow pit feature formed by historical sand mining activities. DH#86, located in Beach Thorofare, is one of several subaqueous pits within the New Jersey Atlantic bay system that was used as a sediment borrow site for construction of roadways, bridges, and building lots in Atlantic City and the surrounding area. The depth below the existing surrounding natural seabed within DH#86 ranges from approximately 5.0-feet below Mean Low Water (MLW) at the shallowest to 57.0-feet below MLW at the deepest. DA Permit Number NAP-2020-00059-95, issued on 10 June 2020 to the New Jersey Department of Transportation – Office of Maritime Resources (NJDOT-OMR), authorized the restoration of DH#86 via in-water discharge of dredged material. DH#86 is owned and maintained by NJDOT-OMR. Placement of dredged material into DH#86 by Atlantic City is contingent upon execution of a use agreement between Atlantic City and NJDOT-OMR.

Tuckahoe Turf Farm:
Approximate Coordinates: Latitude: 39.680137, Longitude: -74.782414.
Approximately 111,217.0-cubic yards of dredged material would be loaded into trucks and transported to the Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey, for upland placement.

Kinsley's Landfill:
Approximate Coordinates: Latitude: 39.793075, Longitude: -75.105967.
Approximately 152,475.0-cubic yards of dredged material would be loaded into trucks and transported to Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey, for upland placement.

PURPOSE: The stated purpose of this project is to maintain safe navigational depths for transiting emergency, commercial, and recreational vessels; and restore a man-made subaqueous borrow pit feature formed by historical sand mining activities.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Due to COVID-19, comments on the proposed work should be submitted via email, within thirty (30) days, to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District at **PhiladelphiaDistrictRegulatory@usace.army.mil**. If it is necessary to provide a paper copy, comments should be submitted, within thirty (30 days), via traditional hard copy mail to the U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390, Attn: CENAP-OPR.

The USACE Cultural Resource Specialist is currently reviewing the proposed permit action for potential impacts to Historic Properties eligible for or listed on the National Register of Historic Places. A determination of effects will be coordinated with the State Historic Preservation Office, the Tribes and other consulting parties.

A preliminary review of this application indicates that the proposed work may affect listed aquatic-based species or their critical habitat. Pursuant to Section 7 of the Endangered Species Act (ESA), the Philadelphia District will evaluate the potential effects from the proposed actions to these species and their habitat and consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

Pursuant to Section 7 of the Endangered Species Act (ESA, a preliminary review of this application indicates that the proposed work would not affect land-based species or their critical habitat. Given

USACE's no effect determination, as per Section 7 of the ESA, no further consultation with the U.S. Fish & Wildlife Service is required.

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries for all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

Per Federal Regulations 33 CFR 325.1(d)(7), the applicant has stated that compensatory mitigation is not required because the proposed project is expected to result in an overall net increase in habitat functions and values through beneficial re-utilization of dredged material to restore the man-made subaqueous borrow pit feature known as DH#86.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

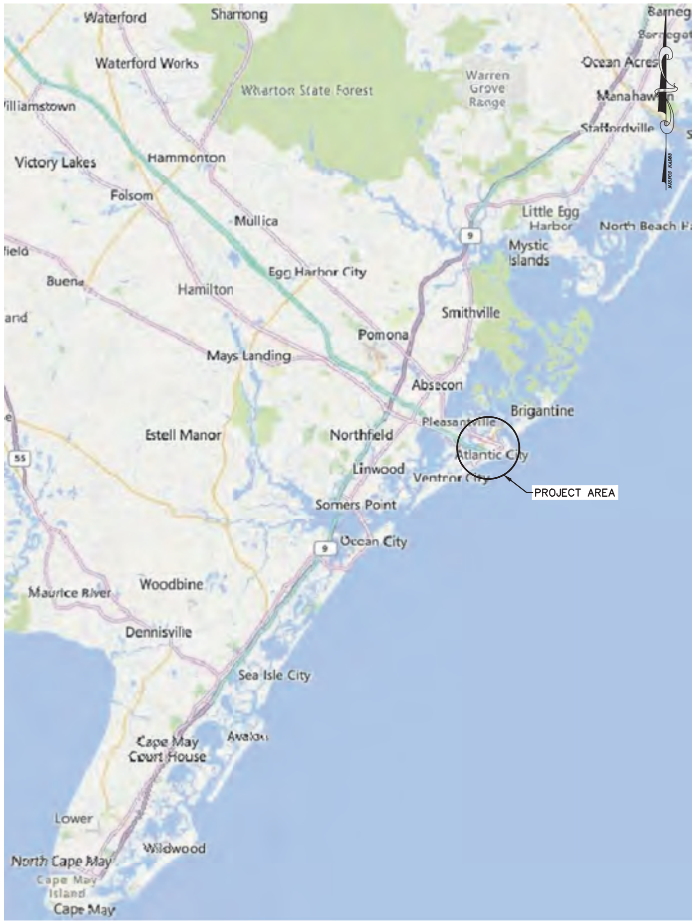
Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, in writing to **PhiladelphiaDistrictRegulatory@usace.army.mil,** with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by contacting Mr. Robert Youhas of my staff via email at **robert.youhas@usace.army.mil**, or by phone at 215-656-6729.

FOR: Todd A. Schaible
Chief, Regulatory Branch

ATLANTIC CITY, NEW JERSEY
MAINTENANCE DREDGING PROJECT

VICINITY MAP
SCALE: 1" = 20,000'



LOCATION MAP
SCALE: 1" = 5,000'

SHEET INDEX

SHT.NO.	DRAWING TITLE	DATE:
1	COVER SHEET	06/17/21
2	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
3	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
4	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
5	DREDGE CROSS SECTIONS	06/17/21
6	DREDGE CROSS SECTIONS	06/17/21
7	DREDGE CROSS SECTIONS	06/17/21

Xrefs: R-DREDGE PRISMS.dwg; R-AERIALPIX4D.dwg; R-DREDGE PRISMS
Layout Tab Name: COVER, Images:
S:\2019\191106-21\dwg\F-PERMIT PRISMS.dwg Last Saved By:hislop

NO.	DATE	REVISION	DRAWN	CHK	REL

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CIVIL ENGINEERING ◻ LAND SURVEYING ◻ ENVIRONMENTAL PERMITTING
NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

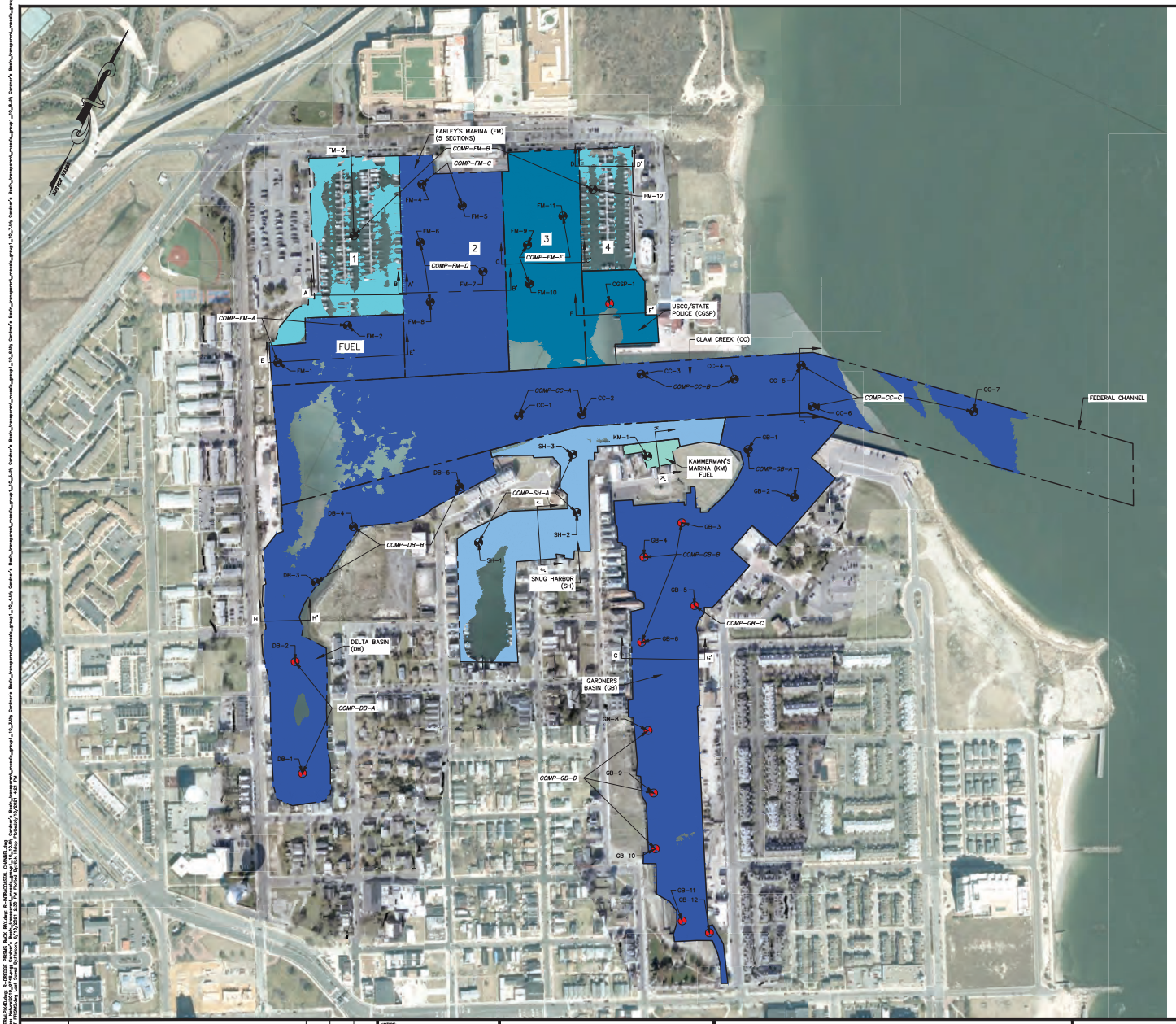
COVER SHEET
FOR
ATLANTIC CITY INLET MARINA AREA

SITUATED IN
ATLANTIC CITY ATLANTIC COUNTY NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY NJH	CHECKED BY JR
SCALE 1"=200'	DATE 06/17/21

ACT ENGINEERS, INC.

SHEET
1 OF 7



GENERAL NOTES:

1. PHYSICAL FEATURES OUTSIDE OF THE SITE HAVE NOT BEEN COMPLETELY SHOWN.
2. THE LOCATIONS AND/OR EXISTENCE OF ANY UNDERGROUND UTILITY SERVICE LINES NOT SHOWN WERE NOT VISIBLE AT THE TIME OF SURVEY AND ARE UNKNOWN.
3. UNDERGROUND ENCROACHMENTS, IF ANY HAVE NOT BEEN SHOWN.
4. IF THIS DOCUMENT DOES NOT CONTAIN THE RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL AND MAY HAVE BEEN ALTERED. HORIZONTAL DATUM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, (N.J.S.P.C.S., NAD 83). VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). AND WAS CONVERTED TO TIDAL DATUM USING TIDAL ELEVATIONS BASED ON: A PLAN ENTITLED "NEW JERSEY INTRACOASTAL WATERWAY, ATLANTIC CITY, NEW JERSEY, VICINITY OF CLAM CREEK EXAMINATION", DATED 09/05/2018, DEVELOPED BY U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA CORPS OF ENGINEERS PHILADELPHIA, PENNSYLVANIA.
5. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.
6. THE BATHYMETRIC SURVEY WAS CONDUCTED ON 11/05/19 & 11/06/19 BY ACT ENGINEERS, INC.
7. SEDIMENT SAMPLING COLLECTION WAS CONDUCTED FROM 6/8/20 TO 6/12/20 AND ON 8/10/20 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.47'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.

REFERENCE NOTES:

AERIAL PHOTO IMAGERY OBTAINED USING UAS TECHNOLOGY BY ACT ENGINEERS, INC. ON 11/09/2019.

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

ABSECON INLET SURVEY DATA OBTAINED VIA US ARMY CORPS OF ENGINEERS – PHILADELPHIA DISTRICT & MARINE DESIGN CENTER.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
CLAM CREEK	96,368	26,342	122,710	−15 (+1)
FARLEY'S MARINA – FUEL	15,586	4,527	20,113	−15 (+1)
FARLEY'S MARINA – 1	2,597	7,937	10,534	−7 (+1)
FARLEY'S MARINA – 2	77,804	13,201	91,005	−15 (+1)
FARLEY'S MARINA – 3	21,823	9,916	31,739	−10 (+1)
FARLEY'S MARINA – 4	57	1,381	1,438	−7 (+1)
GARDNERS BASIN	157,866	16,865	174,731	−15 (+1)
SNUG HARBOR	16,966	6,148	23,114	−9 (+1)
DELTA BASIN	44,078	8,476	52,554	−15 (+1)
KAMMERMAN'S MARINA	2,283	319	2,602	−6 (+1)
USCG/ ST. POLICE	6,167	2,437	8,604	−10 (+1)
TOTAL	441,595	97,549	539,144	--

CORE SAMPLE ID #	COMP SAMPLE ID #	COMP % SAND
FM-1 AND FM-2	COMP FM-A	34.94
FM-3 AND FM-12	COMP FM-B	22.6
FM-4 AND FM-5	COMP FM-C	16.0
FM-6 AND FM-7 AND FM-8	COMP FM-D	17.0
FM-9 AND FM-10 AND FM-11	COMP FM-E	23.8
CC-1 AND CC-2	COMP CC-A	47.1
CC-3 AND CC-4	COMP CC-B	25.0
CC-5 AND CC-6 AND CC-7	COMP CC-C	47.4
DB-1 AND DB-2	COMP DB-A	22.87
DB-3 AND DB-4 AND DB-5	COMP DB-B	70.4
GB-1 AND GB-2	COMP GB-A	20.0
GB-3 AND GB-4 AND GB-6	COMP GB-B	19.6
GB-5	COMP GB-C	79.0
GB-8 AND GB-9 AND GB-10	COMP GB-D	55.3
GB-11	COMP GB-E	37.30
GB-12	COMP GB-F	54.24
SH-1 AND SH-2 AND SH-3	COMP SH-A	34.7
KM-1	COMP KM-A	83.0
CGSP-1	COMP CGSP-A	75.6

COLOR LEGEND

- ELEVATION −15 AND ABOVE
- ELEVATION −10 AND ABOVE
- ELEVATION −9 AND ABOVE
- ELEVATION −7 AND ABOVE
- ELEVATION −6 AND ABOVE
- ELEVATION −5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

SAMPLE EXCEEDS NJDEP RESIDENTIAL DIRECT CONTACT CRITERIA

NO.	DATE	REVISION	DRAWN	CHK	REL

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MAINTENANCE DREDGE PERMIT PLAN
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY | SITUATED IN ATLANTIC COUNTY | NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	19110621
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21
ACT ENGINEERS, INC.	
SHEET: 2 OF 7	

GENERAL NOTES:

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5. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.
6. THE BATHYMETRIC SURVEY WAS CONDUCTED ON 04/05/21 & 04/06/21 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.39'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.
10. PHYSICAL SAMPLES FOR PENROSE CANAL AND VENICE LAGOON WERE COLLECTED ON 05/06/21.

REFERENCE NOTES:

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
PENROSE CANAL	3,816	1,909	5,725	-5 (+1)
VENICE LAGOON	2,187	1,131	3,318	-5 (+1)
TOTAL	6,003	3,040	9,043	--

COLOR LEGEND

- ELEVATION -15 AND ABOVE
- ELEVATION -10 AND ABOVE
- ELEVATION -9 AND ABOVE
- ELEVATION -7 AND ABOVE
- ELEVATION -6 AND ABOVE
- ELEVATION -5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

NO.	DATE	REVISION	DRAWN	CHK	REL

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NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

MAINTENANCE DREDGE PERMIT PLAN FOR ATLANTIC CITY BACK BAY

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21

ACT ENGINEERS, INC.

SHEET 3 OF 7

GENERAL NOTES:

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6. THE BATHYMETRIC SURVEY WAS CONDUCTED ON 04/05/21 & 04/06/21 BY ACT ENGINEERS, INC.
7. SEDIMENT SAMPLING WAS CONDUCTED ON 04/06/21 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.39'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.
10. PHYSICAL SAMPLES FOR CHELSEA HARBOR AND VENTNOR LAGOON WERE NOT COLLECTED.

REFERENCE NOTES:

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
BADER FIELD LAGOON	31,819	10,383	42,202	–5 (+1)
CHELSEA HARBOR	81	70	151	–5 (+1)
FENTON PLACE LAGOON	25,303	7,358	32,661	–5 (+1)
VENTNOR LAGOON	135	440	575	–5 (+1)
TOTAL	57,338	18,251	75,589	––

CORE SAMPLE ID #	COMP SAMPLE ID #	COMP % SAND
BF–1	COMP BF–A	88.8
BF–2	COMP BF–B	59.0
BF–3	COMP BF–C	88.6
FP–1	COMP FP–A	76.6
FP–2	COMP FP–B	82.5

COLOR LEGEND

- ELEVATION –15 AND ABOVE
- ELEVATION –10 AND ABOVE
- ELEVATION –9 AND ABOVE
- ELEVATION –7 AND ABOVE
- ELEVATION –6 AND ABOVE
- ELEVATION –5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

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MAINTENANCE DREDGE PERMIT PLAN
FOR
ATLANTIC CITY BACK BAY

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

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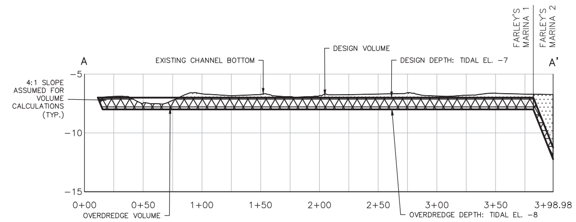
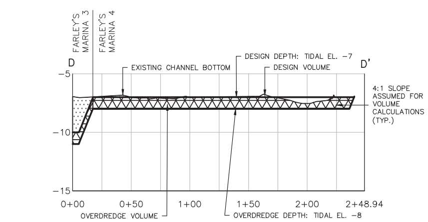
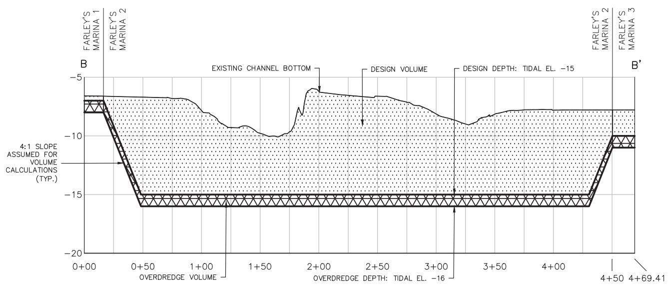
ACT ENGINEERS, INC.



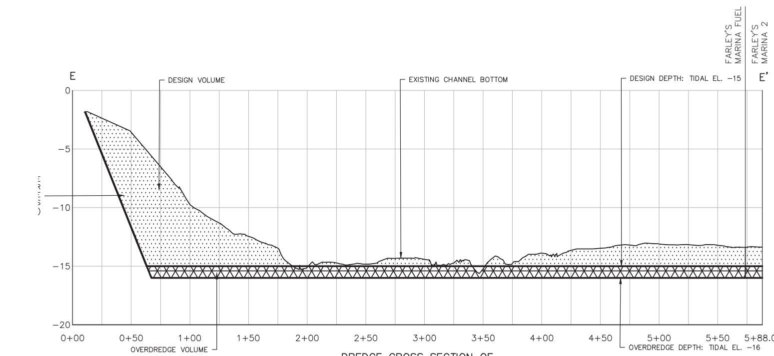
DREDGE CROSS SECTION OF FARLEY'S MARINA 1



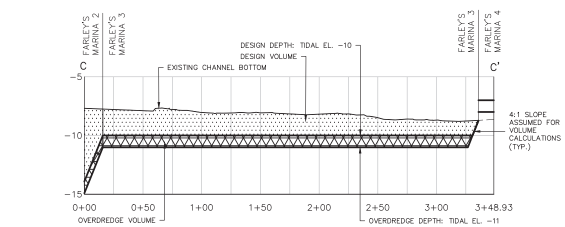
DREDGE CROSS SECTION OF FARLEY'S MARINA 4



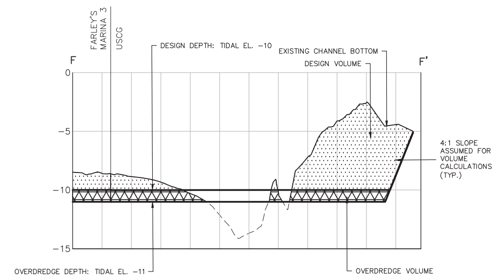
DREDGE CROSS SECTION OF FARLEY'S MARINA 2



DREDGE CROSS SECTION OF FARLEY'S MARINA FUEL



DREDGE CROSS SECTION OF FARLEY'S MARINA 3



DREDGE CROSS SECTION OF USCG

NO.	DATE	REVISION	DRAWN	CHK	REL

NOTICE:

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VERTICAL SCALE IN FEET (6 0 6 12)

HORIZONTAL SCALE IN FEET (60 0 60 120)

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SUITE 3
ROBBINSVILLE, NJ 08691
Voice (609) 918-0200
www.actengineers.com

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A SMALL BUSINESS ENTERPRISE
CIVIL ENGINEERING ◘ LAND SURVEYING ◘ ENVIRONMENTAL PERMITTING
NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

CADD FILE F-PERMIT PRISMS	PROJECT NO. 191106-21
DRAWN BY NJH	CHECKED BY JR
SCALE 1"=6' 1"=60'	DATE 06/17/21

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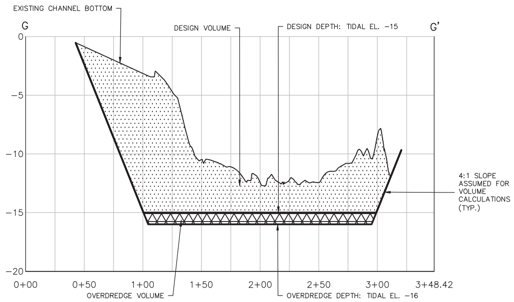
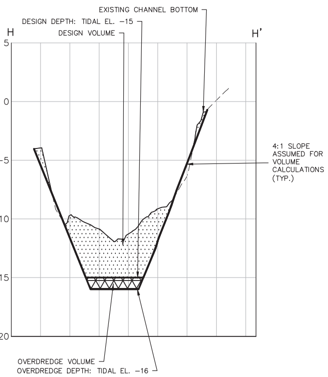
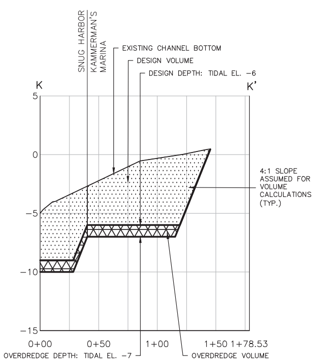


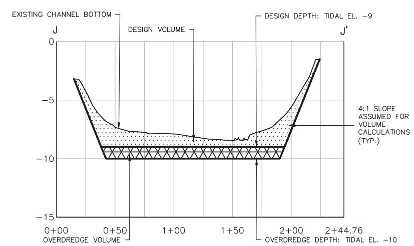
DREDGE CROSS SECTION OF
GARDENERS BASIN



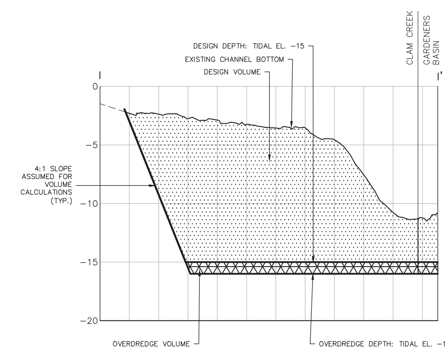
DREDGE CROSS SECTION OF
DELTA BASIN



DREDGE CROSS SECTION OF
KAMMERMAN'S MARINA



DREDGE CROSS SECTION OF
SNUG HARBOR



DREDGE CROSS SECTION OF
CLAM CREEK

NO.	DATE	REVISION	DRAWN	CHK	REL

6 0 6 12
VERTICAL SCALE IN FEET

60 0 60 120
HORIZONTAL SCALE IN FEET

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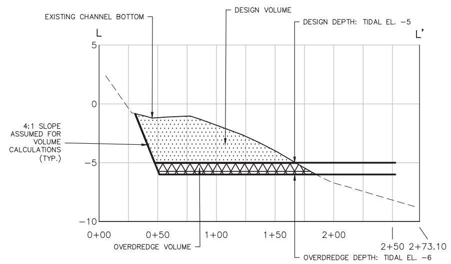
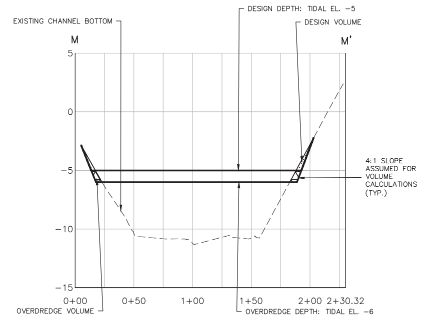
DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

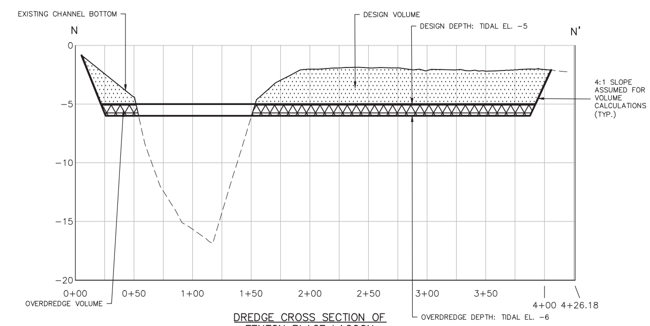
CADD FILE F-PERMIT PRISMS	PROJECT NO. 191106-21
DRAWN BY NJH	CHECKED BY JR
SCALE 1"=6' 1"=60'	DATE 06/17/21
ACT ENGINEERS, INC.	
SHEET 6 OF 7	



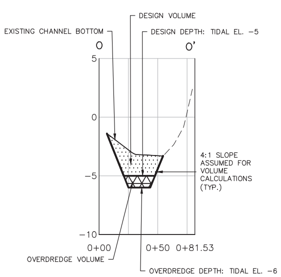
DREDGE CROSS SECTION OF
BADER FIELD LAGOON



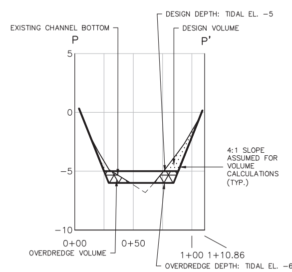
DREDGE CROSS SECTION OF
CHELSEA HARBOR



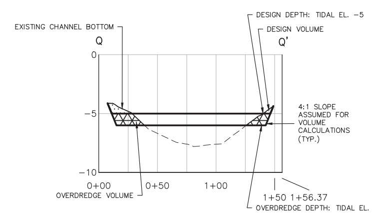
DREDGE CROSS SECTION OF
FENTON PLACE LAGOON



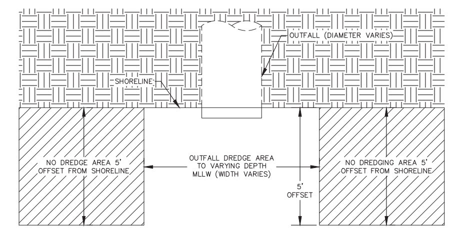
DREDGE CROSS SECTION OF
PENROSE CANAL



DREDGE CROSS SECTION OF
VENICE LAGOON

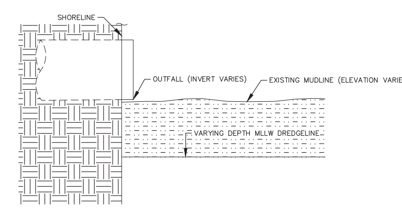


DREDGE CROSS SECTION OF
VENTNOR LAGOON



OUTFALL DREDGE AREA PLAN (TYP.)

SCALE: NO SCALE



OUTFALL DREDGE AREA SECTION (TYP.)

SCALE: NO SCALE

NO.	DATE	REVISION	DRAWN	CHK	REL

VERTICAL SCALE IN FEET (6 0 6 12)

HORIZONTAL SCALE IN FEET (60 0 60 120)

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NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY BACK BAY

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=6' 1"=60'	DATE: 06/17/21

ACT ENGINEERS, INC.

ENCLOSURE A

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PHILADELPHIA DISTRICT
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3390

Regulatory Branch
Application Section II

June 10, 2020

SUBJECT: CENAP-OP-R-2020-00059-95 (NWP#27)
New Jersey Department of Transportation – Office of Maritime Resources
Restoration of Dredged Hole #86 at Beach Thorofare in Atlantic City, Atlantic County, New Jersey
Latitude: 39.360403ºN Longitude: -74.469408ºW

Ms. Genevieve Clifton
New Jersey Department of Transportation
Office of Maritime Resources
1035 Parkway Avenue, Main Building, 3rd Floor
Trenton, New Jersey 08625

Dear Ms. Clifton:

This is in regard to your proposal to restore a subaqueous borrow pit, known as Dredged Hole #86 (DH#86), located at Beach Thorofare in Atlantic City, Atlantic County, New Jersey. Specifically, mechanical and hydraulic discharge of approximately 677,000-cubic yards of dredged material from previously-authorized Department of the Army-permitted maintenance dredging projects into DH#86 shall be undertaken.

Under current Federal regulations, a Department of the Army permit is required for work or structures in navigable waters of the United States and/or the discharge of dredged or fill material into waters of the United States including wetlands.

Based upon our review of the information you have provided, it has been determined that your project is approved by existing Department of the Army Nationwide Permit Number #27 (NWP#27) described below, provided the work is conducted in compliance with the NWP general conditions, regional conditions, and the project specific special conditions.

> ***NWP 27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities.***
> Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.
>
> To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of an intact aquatic habitat or riparian area of the same type

that exists in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: The removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (*e.g.*, the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: **(1)** In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service

(NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; **(2)** as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or **(3)** on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (*i.e.*, prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: **(1)** The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; **(2)** the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or **(3)** the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement.

[**Authorities**: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (Sections 10 and 404)]

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

You are advised that this verification of NWP authorization is valid until the Nationwide Permits expire on **March 18, 2022**, unless the NWP authorization is modified, suspended, or revoked prior to this date. In the event that the NWP authorization is modified during that time period, this expiration date will remain valid, provided the activity complies with any subsequent modification of the NWP authorization.

It is noted that CZM consistency from the State is only required for those activities in or affecting a State's coastal zone. Additionally, some of the NWPs do not involve a discharge of dredged or fill material, and as such, do not require a 401 WQC. If the State has denied the required WQC and/or not concurred with the Corps' CZM consistency determination, the NWP authorization is considered denied without prejudice until an individual project specific WQC and/or CZM approval is obtained.

The State of New Jersey has denied 401 WQC and has not concurred with CZM consistency during the issuance of Philadelphia District's regional conditions for NWP#27. Therefore, you are being directed to seek further review by the state in which they will attach the required Federal consistency determination and certification as part of their review as applicable. This approval must be obtained in order for the activity to be authorized under the NWP and a copy provided to this office before work begins. Any project specific

conditions required by the State for the WQC and/or CZM approval will automatically become part of the NWP authorization.

The activities authorized by this NWP verification must comply with the NWP General Conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. A copy of the NWP General Conditions and the Philadelphia District 2017 NWP Regional Permit Conditions for New Jersey for which this verification is subject to, can be found at:

http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017%20Nationwide%20Permit%20General%20Conditions.pdf

http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017_NJ_Reg_Cond_Final.pdf

In instances where you are unable to access a digital copy of the 2017 NWP General conditions and/or the 2017 NWP Regional Permit Conditions for New Jersey, a hard copy will be transmitted by registered mail to you per request. It is further noted that you may request a copy by email at any time in which the NWP General Conditions and Regional Permit Conditions will be provided to you by facsimile or other electronic means per your request.

Activities which have commenced (i.e, are under construction) or are under contract to commence in reliance upon an NWP will remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed continue to be authorized by that NWP.

You should carefully note that this NWP authorization is based upon your agreement to comply with the terms and conditions of this NWP including any and all attached project specific special conditions listed below. Initiation of any authorized work shall constitute your agreement to comply with all of the NWP's conditions. You should also note that the authorized work may be subject to periodic inspections by a representative of this office. The verification of a Nationwide Permit including all general and special conditions is not subject to appeal.

PROJECT SPECIFIC SPECIAL CONDITIONS:

1. All work performed in association with the above noted project shall be conducted in accordance with the attached project plans identified as E-1 through E-5; all prepared by NJDOT, all entitled “NAP-2020-00059-95” and all dated 29 May 2020.

2. Construction activities shall not result in the permanent disturbance or alteration of greater than 14.0-acres of waters of the United States.

3. Any deviation in construction methodology or project design from that shown on the above noted drawings or repair plan must be approved by this office, in writing, prior to performance of

the work. All modifications to the above noted project plans shall be approved, in writing, by this office. No work shall be performed prior to written approval of this office.

4. This office shall be notified prior to the commencement of authorized work by completing and signing the enclosed Notification/ Certification of Work Commencement Form (**Enclosure 1**). This office shall also be notified within 10 days of the completion of the authorized work by completing and signing the enclosed Notification/Certification of Work Completion/Compliance Form (**Enclosure 2**). All notifications required by this condition shall be in writing. The Notification of Commencement of work may be sent to this office by facsimile or other electronic means; all other notification shall be transmitted to this office by registered mail. Oral notifications are not acceptable. Similar notification is required each time maintenance work is to be done under the terms of this Corps of Engineers permit.

5. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6. No dredged material shall be placed within DH#86 until a Waterfront Development Permit/Acceptable Use Determination is issued by the New Jersey Department of Environmental Protection, which identifies that the material is suitable for beneficial use in this habitat restoration project.

7. Within thirty (30) days following the placement of dredge material into DH#86 to an elevation of -10.0-feet below Mean Low Water, the permittee shall submit a hydrographic survey report to this office detailing as-built conditions.

8. After placement of the final 2.0-foot cap of sand cover material, the permittee shall monitor DH#86 for three (3) years beginning one (1) year after the project has been completed, with submittal of annual monitoring reports to this office no later than December 31st of each full monitoring year. All annual monitoring reports must include the following:

a) For the first year only, provide core logs showing grain size analysis taken a minimum of 1-2 per acre to confirm cap depth and integrity.

b) Seasonal water quality parameters (DO, salinity, pH, temperature and turbidity).

c) Seasonal fisheries surveys in the area of the former DH86 and at control location.

d) Perform annual post-restoration hydrographic surveys.

e) For year three only, provide a benthic community analysis (infauna and epifauna) at locations established in the October 2018 Stockton Coastal Research Center study.

f) For year three only, repeat the recreational use survey reported in the October 2018 Stockton Coastal Research Center study.

Any comments, positive or otherwise, on the procedures, timeliness, fairness, etc., may be submitted to **PhiladelphiaDistrictRegulatory@usace.army.mil**. You may forward your comments along with the signed Notification/Certification of Work Commencement and Completion Forms. If you should have any questions regarding this matter, please contact Mr. Robert Youhas of my staff at 215-656-6729 or write to the above address.

Sincerely,

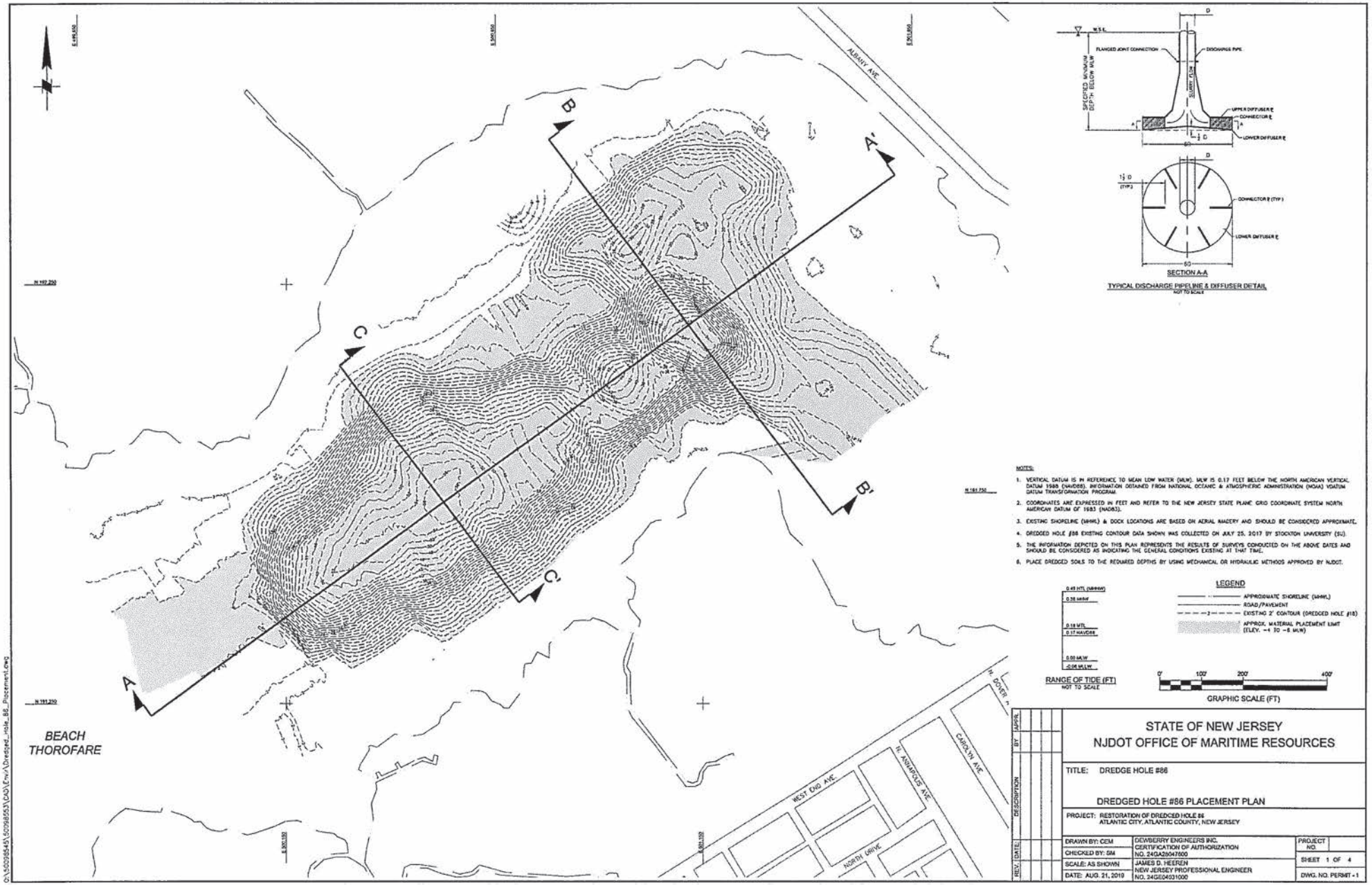
Digitally signed by HAYDUK.MICHAEL.H.1228903783
Date: 2020.06.10 06:14:16 -04'00'

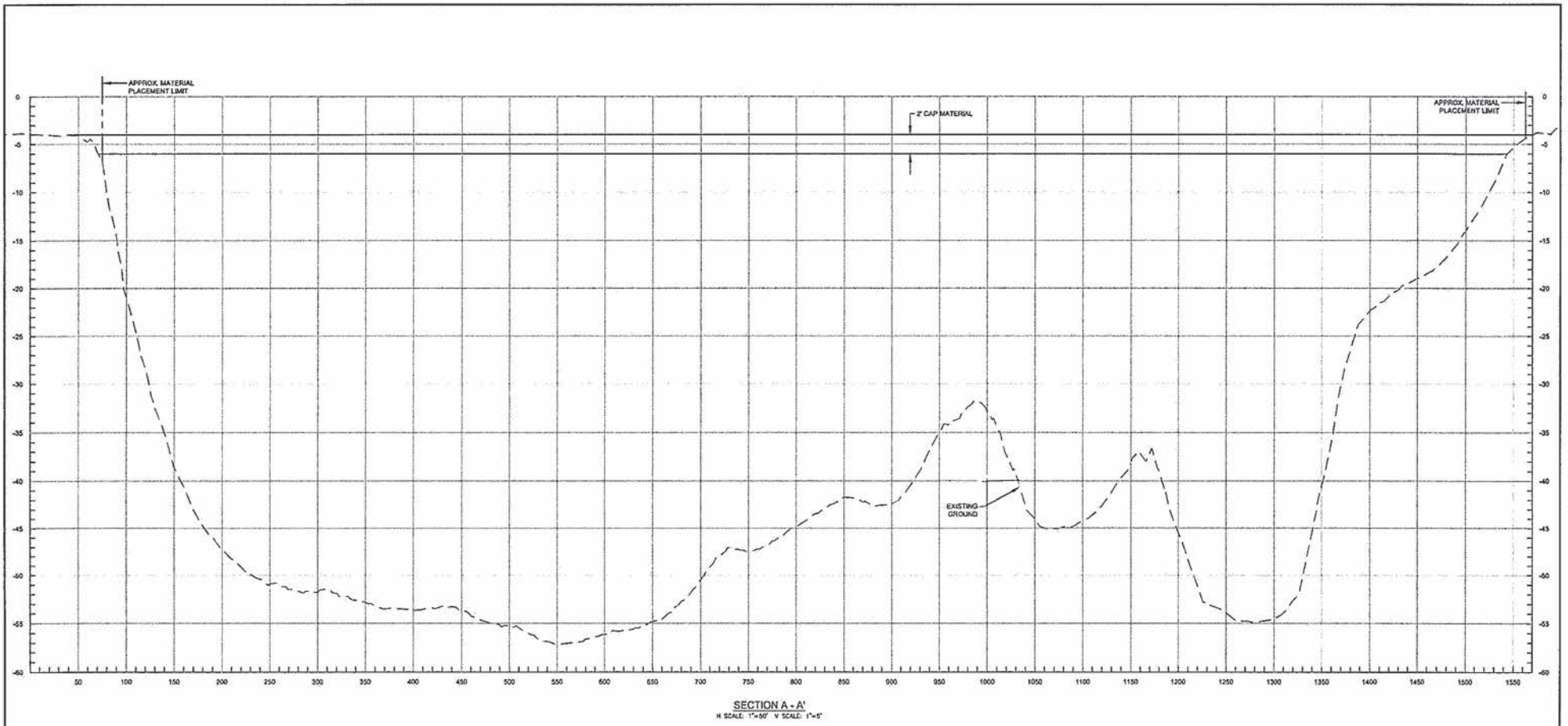
Michael H. Hayduk
Chief, Applications Section II

Enclosures

PROJECT PLANS


West Atlantic City
Venice Lagoon
Atlantic City Expy (Toll road)
84
85
86
87
88
89
Intracoastal Waterway
Dredged Hole 86
Great Island
Little Gut
Ducktown
Bacharach Blvd
694
692
© 2019 Google
Google Earth


ALBANY AVE.
BEACH THOROFARE
REST END AVE
NORTH DRIVE
N. ANNAPOLIS AVE
CAROLYN AVE
N. DOVER
A
A'
B
B'
C
C'
SECTION A-A
TYPICAL DISCHARGE PIPELINE & DIFFUSER DETAIL
NOT TO SCALE
NOTES:
1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.17 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. DREDGED HOLE #88 EXISTING CONTOUR DATA SHOWN WAS COLLECTED ON JULY 25, 2017 BY STOCKTON UNIVERSITY (SU).
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
6. PLACE DREDGED SOILS TO THE REQUIRED DEPTHS BY USING MECHANICAL OR HYDRAULIC METHODS APPROVED BY NJDOT.
LEGEND
APPROXIMATE SHORELINE (MHWL)
ROAD/PAVEMENT
EXISTING 2' CONTOUR (DREDGED HOLE #18)
APPROX. MATERIAL PLACEMENT LIMIT (ELEV. +4 TO -6 MLW)
RANGE OF TIDE (FT)
NOT TO SCALE
GRAPHIC SCALE (FT)
STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES
TITLE: DREDGE HOLE #86
DREDGED HOLE #86 PLACEMENT PLAN
PROJECT: RESTORATION OF DREDGED HOLE #86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY
DRAWN BY: CEM
CHECKED BY: SM
SCALE: AS SHOWN
DATE: AUG. 21, 2019
DEWBERRY ENGINEERS INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA26047600
JAMES D. HEEREN
NEW JERSEY PROFESSIONAL ENGINEER
NO. 24GE04031000
PROJECT NO.
SHEET 1 OF 4
DWG. NO. PERMIT - 1



SECTION A - A'
H SCALE: 1"=50' V SCALE: 1"=5'

0' 50' 100' 200'
GRAPHIC SCALE (FT)

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE 86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047800	PROJECT NO.	
CHECKED BY: SM		SHEET 2 OF 4	
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. PERMIT - 2	
DATE: AUG. 21, 2019			

REV | DATE | DESCRIPTION | BY | APPR.

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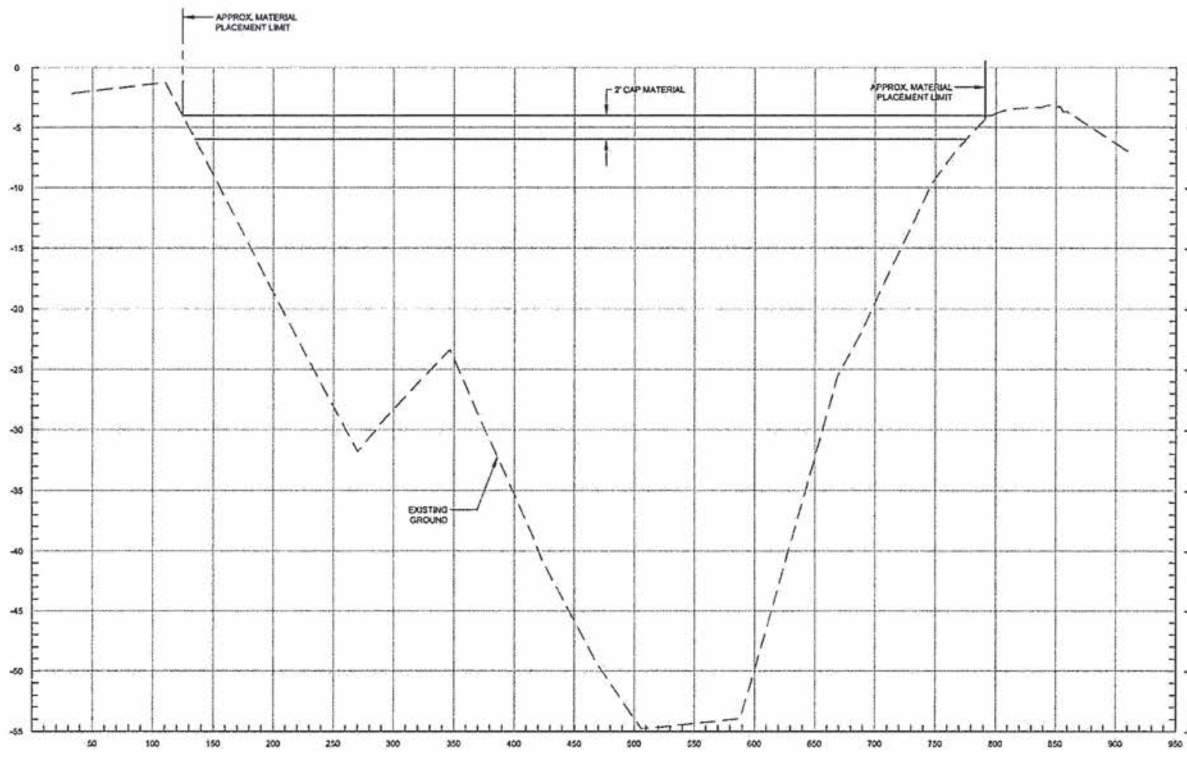


SECTION B - B'
H SCALE: 1"=50' V SCALE: 1"=5'

GRAPHIC SCALE (FT)

REV.	DATE:	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

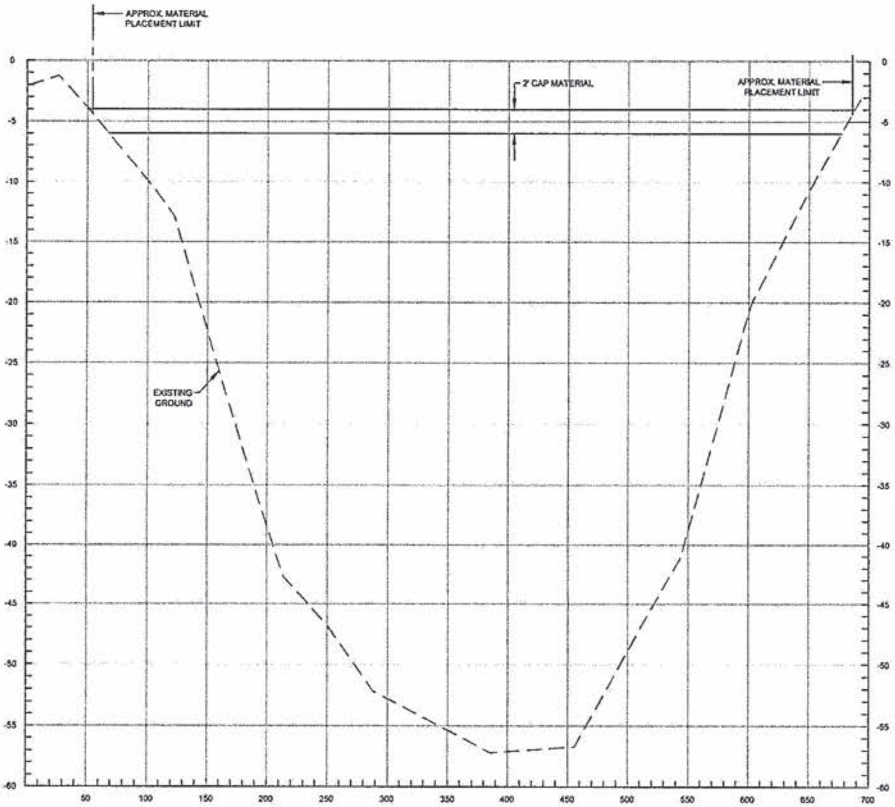
TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE 86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC.	PROJECT NO.
CHECKED BY: SM	CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER	SHEET 3 OF 4
DATE: AUG. 21, 2019	NO. 24GE04031000	DWG. NO. PERMIT-3

O:\50098545\50098553\CAD\Envir\Dredged_Hole_86_Placement.dwg



SECTION C - C'
H SCALE: 1"=50' V SCALE: 1"=5'

GRAPHIC SCALE (FT)
0' 50' 100' 200'

REV.	DATE	DESCRIPTION	BY	APPR.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE 86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: SM		
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	SHEET 4 OF 4
DATE: AUG. 21, 2019		DWG. NO. PERMIT-4

ENCLOSURE 1

NOTIFICATION/CERTIFICATION OF WORK COMMENCEMENT FORM

Permit Number: CENAP-OP-R-2020-00059-95
Name of Permittee: NJDOT – Office of Maritime Resources
Project Name: Restoration of Dredged Hole #86 at Beach Thorofare
Waterway: Beach Thorofare
County: Atlantic County State: New Jersey
Compensation/Mitigation Work Required: Yes ☐ No ☒

TO: U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building – 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390
Attention: CENAP-OP-R

I have received authorization to: Restore a subaqueous borrow pit, known as Dredged Hole #86 (DH#86), located at Beach Thorofare in Atlantic City, Atlantic County, New Jersey. Specifically, mechanical and hydraulic discharge of approximately 677,000-cubic yards of dredged material from previously-authorized Department of the Army-permitted maintenance dredging projects into DH#86 shall be undertaken.

The work will be performed by:

Name of Person or Firm: _____

Address: _____

I hereby certify that I have reviewed the approved plans, have read the terms and conditions of the above referenced permit, and shall perform the authorized work in strict accordance with the permit document. The authorized work will begin on or about _____and should be completed on or about _____.

Please note that the permitted activity is subject to compliance inspections by the Army Corps of Engineers. If you fail to return this notification form or fail to comply with the terms or conditions of the permit, you are subject to permit suspension, modification, revocation, and/or penalties.

_____ _____
Permittee (Signature and Date) Telephone Number

_____ _____
Contractor (Signature and Date) Telephone Number

NOTE: This form shall be completed/signed and returned to the Philadelphia District Office prior to commencing work.

ENCLOSURE 2

NOTIFICATION/CERTIFICATION OF WORK COMPLETION/COMPLIANCE FORM

Permit Number: CENAP-OP-R-2020-00059-95
Name of Permittee: NJDOT – Office of Maritime Resources
Name of Contractor: _____
Project Name: Restoration of Dredged Hole #86 at Beach Thorofare
County: Ocean County State: New Jersey
Waterway: Beach Thorofare

Within 10 days of completion of the activity authorized by this permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building - 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390
Attention: CENAP-OP-R

Please note that the permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to return this notification form or fail to perform work in compliance with the permit, you are subject to administrative, civil and/or criminal penalties. Further, the subject permit may be suspended or revoked.

The authorized work was commenced on _____.

The authorized work was completed on _____.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the above noted permit.

_____ _____
Signature of Contractor Signature of Permittee

Address:_____ Address: _____

_____ _____

Telephone Number:_____ Telephone Number:_____

For project located in areas identified as shellfish habitat, you must include with this form a bill of lading; sales order or any other document(s) demonstrating non-polluting materials were purchased and utilized for your project. I hereby certify that I and/or my contractor have utilized non-polluting materials as defined in the above noted permit.

_____ _____
Signature of Contractor Signature of Permittee