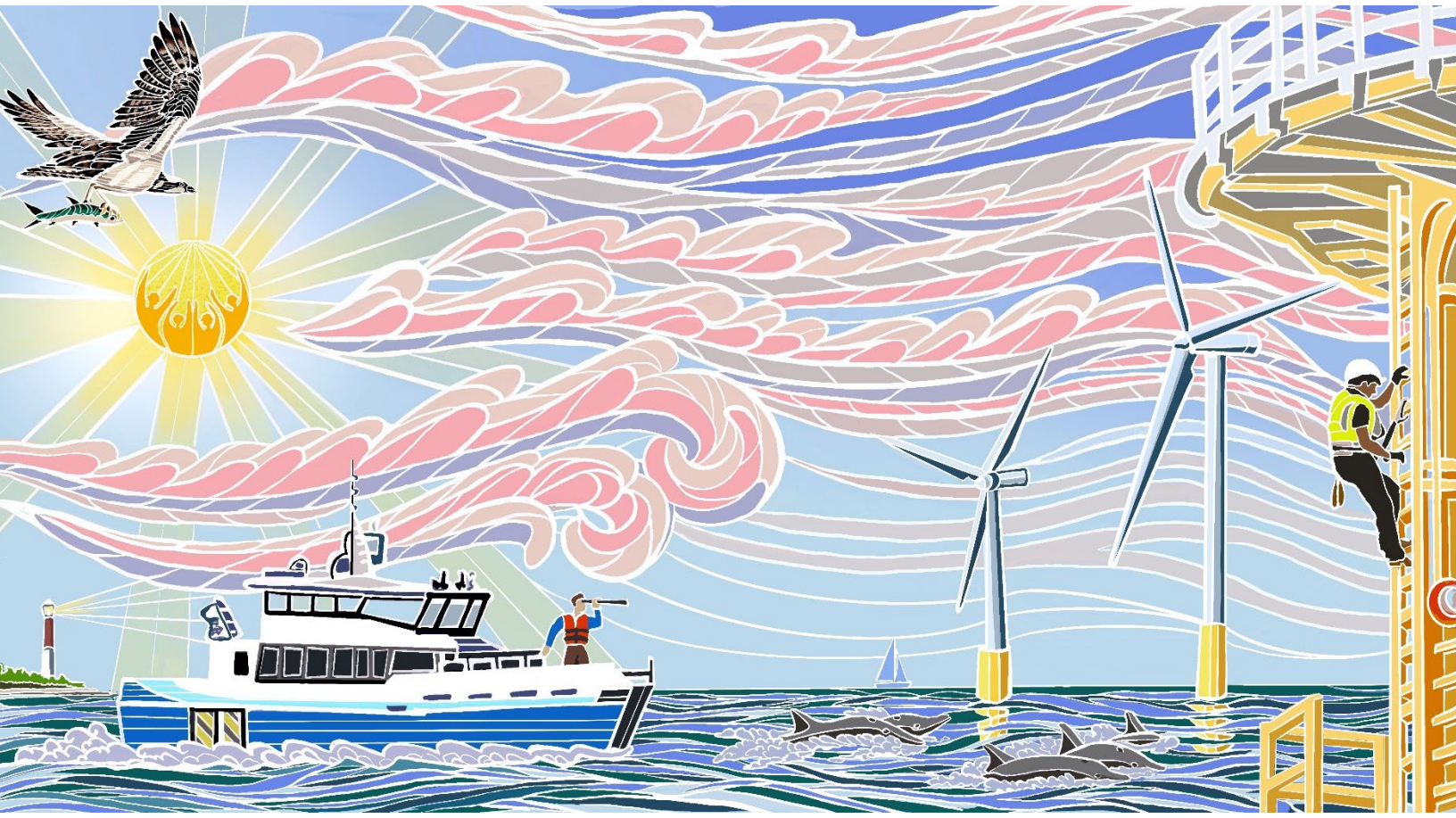

Appendix II-O

Offshore Historic Resources Visual Effects Assessment (HRVEA)

March 2024

Note: At the time of the initial development of this report, development of a substation and/or converter station at the Brook Road Site in Howell Township, New Jersey was considered. The Brook Road site is now expected to be prepared and developed as part of the State of New Jersey Board of Public Utility (BPU) State Agreement Approach 1.0 (SAA)1 to support the delivery of offshore wind energy onshore. In collaboration with the regional gird operator PJM Interconnection (PJM) NJBPU conducted a study that examined whether an integrated suite of open access transmission facilities designated to support the delivery of offshore wind energy onshore could best facilitate meeting New Jersey's expanded offshore wind goals. Under the SAA 1.0 Award all permitting for site preparation activities, including construction activities to provide a "fit for purpose" site, for an associated substation and/or converter station will be the responsibility of the BPU's SAA-awardee at the Brook Road Site. Therefore, impacts associated with site preparation have not been considered as part of the Project Design Envelope (PDE) of the Project. Discussion of the site has been retained as part of the study area in this report to demonstrate the completeness of Atlantic Shores' multi-year development efforts.

[1] New Jersey Board of Public Utilities Selects Offshore Wind Transmission Project Proposed by Mid-Atlantic Offshore Development and Jersey Central Power & Light Company in First in Nation State Agreement Approach Solicitation

Technical Report
Historic Resources Visual Effects Assessment
Atlantic Shores North Offshore Wind – Wind Turbine Area

Prepared for:

Atlantic Shores Offshore Wind LLC

Prepared by:

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December 2022, Revised January, April, September, and December 2023, January and March 2024

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GLOSSARY

AC	alternating current
ADLS	Aircraft Detection Lighting Systems
AMSL	Above Mean Sea Level
AOWL	aviation obstruction warning light
APE	The Area of Potential Effects (APE) is the area in which the Atlantic Shores North Offshore 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 Wind, LLC	The owner and proponent of the Atlantic Shores North Project
Atlantic Shores North Offshore Wind Project	Atlantic Shores' proposal to develop the Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0549 for the generation of renewable energy from offshore wind (The Project)
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
DC	direct current
DEM	Digital Elevation Model
DSM	Digital Surface Model
ECC	Export Cable Corridor
EDR	Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.
FAA	Federal Aviation Administration
GIS	Geographic Information System
GPS	Global Positioning System
HDD	horizontal directional drilling

HRVEA	Historic Resources Visual Effects Assessment
HVAC	high voltage alternating current
HVDC	high voltage direct current
km	kilometer(s)
km^2	square kilometer(s)
KOP	Key Observation Point
Lease Area	The entire Lease Area OCS-A 0549 that Atlantic Shores acquired from BOEM
Lidar	Light Detection and Ranging
LUCY	Look Up Cultural Resources Yourself (NJDEP's cultural resources web mapping service)
m	Meter (1 meter = 3.38 feet)
MCPS	Monmouth County Parks System
MCHSI	Monmouth County Historic Sites Inventory
mile	Statute mile (1 mile = 1.61 kilometers = 0.87 nautical miles)
MDS	Maximum Design Scenario
MLLW	mean lower low level
MSL	mean sea level
MW	Megawatt = One million watts
nm	Nautical Mile (1 nm = 1.15 statute mile)
NCDC	National Climatic Data Center
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966
NHL	National Historic Landmark
NJBPU	New Jersey Board of Public Utilities

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 above ground historic properties
OCS	Outer Continental Shelf
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
ROW	Right-of-way
SAA	State Agreement Approach
SHPO	State Historic Preservation Office
sq mi	Square Mile
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Office

USCG	United States Coast Guard
USGS	United States Geological Survey
SLVIA	Seascape, Landscape, and Visual Impact Assessment
STATCOM	static synchronous compensator
Viewshed	Area of potential Project visibility defined by maximum structure height and mapped topography, vegetation, buildings, and structures within the study area
WTA	The Wind Turbine Area, the southern portion of Lease Area OCS-A 0549 that will be developed for Atlantic Shores as described in this Historic Resources Visual Effects Assessment
WTG	Wind Turbine Generator
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 historic resources visual effects assessment (HRVEA) in support of the Atlantic Shores North Construction and Operations Plan (COP) for an offshore wind energy generation project within Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0549 for renewable energy generation from offshore wind (herein referred to as the Project). The Project is comprised of up to 157 wind turbine generators (WTGs) and up to 8 small, 4 medium or 3 large offshore substations (OSSs).

The HRVEA evaluated the Project's potential visual effects on aboveground historic properties listed on or eligible for listing in the National Register of Historic Places (NRHP) located within the Project's Preliminary Area of Potential Effects (PAPE). In order to determine the PAPE, and the maximum extent to which the Project would be visible onshore, EDR completed a viewshed analysis and field verification and determined that the PAPE would be all areas of potential Project visibility within a 46-mile (74 km) viewshed buffer from the WTGs.

Based on existing records of state and federal agencies, GIS databases, previous cultural resources surveys, local inventories, historical collections, and field survey, 113 aboveground historic properties were identified within the PAPE. Through desktop refinement of the PAPE and field verification of potential visibility within the PAPE, 1091 potential aboveground historic properties were assessed for potential visual impacts. Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5, 26 aboveground historic properties have the potential to be adversely affected by the Project.

1.0 INTRODUCTION

1.1 Purpose of the Investigation

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 historic resources visual effects assessment (HRVEA) in support of the Atlantic Shores North Construction and Operations Plan (COP) for an offshore wind energy generation project within Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0549 for renewable energy generation from offshore wind, comprised of up to 157 wind turbine generators (WTGs) and up to 8 small, 4 medium or 3 large offshore substations (OSSs).[1] The offshore wind energy generation project is referred to herein as the Atlantic Shores North Offshore Wind Project, or the Project.

The purpose of the HRVEA is to evaluate the Project's potential visual effects on the qualities that make aboveground historic properties eligible for listing in the National Register of Historic Places (NRHP). Per 36 CFR Part 800.16, aboveground 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). This assessment is limited to onshore aboveground historic properties including NHLs and properties that are listed in the NRHP, as well as aboveground properties designated as historic in New Jersey, including potential traditional cultural properties (TCPs).[2]

The assessment of potential adverse impacts to aboveground historic properties described herein includes the following attachments included at the end of the report to provide more detailed presentations of the information discussed:

- Attachment A. National Historic Landmarks – Property Information and Visual Effects Assessment
- Attachment B. Historic Districts – Property Information and Visual Effects Assessment
- Attachment C. Individual Historic Properties – Property Information and Visual Effects Assessment
- Attachment D. Aboveground Historic Property Information and Visual Effects Assessment Table
- Attachment E. Visual Simulations
- Attachment F. All Parcels Reviewed

[1] The wind energy Project within the Lease Area is more fully described in Volume I (Project Information) of the COP for the Project (EDR, 2023a).

[2] There are currently no known Native American TCPs within the PAPE. However, the Project may still have the potential to affect TCPs not currently identified on state or local registers. Therefore, Atlantic Shores will continue to engage in consultation with the appropriate state and tribal authorities regarding this issue.

1.2 Regulatory Context for Review of Effects on Historic Properties

This HRVEA is intended to assist BOEM, federally recognized Native American Tribes, the New Jersey Historic Preservation Office (NJHPO), and other participating agencies and consulting parties/stakeholders with a review of the Project under Sections 106 and 110(f) of the National Historic Preservation Act (NHPA), and the National Environmental Policy Act (NEPA).

In 2020, the BOEM Office of Renewable Energy Programs issued updated *Guidelines for Providing Archaeological and Historic Property Information, Pursuant to 30 CFR 585*[3] (BOEM, 2020), which states the following with regard to identification of historic properties:

> *BOEM requires detailed information regarding the nature and location of historic properties that may be affected by an applicant's proposed activities to conduct review of the plan under Section 106 of NHPA (54 U.S.C. § 306108). As defined in the regulations implementing Section 106 [36 CFR § 800.16 (1) (1)],*
>
> *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 maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. This term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria"* (BOEM, 2020: 2).

The *Guidelines for Providing Archaeological and Historic Property Information* includes methods for identification of historic properties, as well as coordination with BOEM, federally recognized Native American Tribes, Tribal Historic Preservation Offices (THPOs) and relevant State Historic Preservation Offices (SHPOs).

The discussion of visual effects on aboveground historic properties in this HRVEA also considers the temporary effects of the construction and installation of the Project on the visual setting of aboveground historic properties. The construction and installation of the Project may result in temporary intrusions (such as traffic, noise, and lights) to the visual setting of aboveground historic properties; however, these activities are temporary and are not anticipated to effect or diminish the characteristics for which potential aboveground historic properties may be listed in, determined eligible for listing in, or may be potentially eligible for listing in the NRHP. Temporary intrusions during construction and installation activities are not anticipated to result in significant effects on aboveground historic properties.

[3] Available online at https://www.boem.gov/sites/default/files/renewable-energy-program/Guidelines-for-Providing-Archaeological-and-Historic-Property-Information-Pursuant-to-30CFR585.pdf (Accessed June 17, 2020).

1.3 Project Design Envelope

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. Atlantic Shores' proposed offshore wind energy generation facilities will be located in Lease Area OCS-A 0549, which is 81,129 acres (328.3 square kilometers [km2]) in area (see Figure E-1). Lease Area OCS-A 0549 is located north of and is adjacent to Atlantic Shores' Lease Area OCS-A 0499. At its closest point, the Lease Area is approximately 8 miles (mi) (13.5 kilometers [km]) from the New Jersey coast and approximately 60 mi (96.6 km) from the New York State coast. The facilities to be installed within the Lease Area will include:

- a maximum of up to 157 wind turbine generators (WTGs);
- up to 8 small, 4 medium, or 3 large offshore substations (OSSs);
- inter-array and/or inter-link cables connecting the WTGs and OSSs; and
- up to one permanent meteorological (met) tower.

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 fishermen) 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 and/or New York State waters to landfall sites on the New Jersey and/or New York coastlines.

The Monmouth ECC extends from south to north along the eastern side of the Lease Area. This ECC will also be used to convey export cables associated with the Lease Area OCS-A 0499 project. It then continues north prior to turning west to a terminus at multiple potential landfall sites in southern Monmouth County, New Jersey (Monmouth Landfall Sites). The total length of the Monmouth ECC associated with the Project from the Lease Area to the furthest potential landfall location is approximately 66.9 mi (107.6 km). This ECC will also be used to convey export cables associated with the Lease Area OCS-A 0499 project.

The maximum length of the Northern ECC associated with the Project from the Lease Area to the furthest potential landfall location is approximately 90.4 mi (145.5 km). The Northern ECC extends north from the Lease Area to the New York State waters boundary, where it splits into branches to reach Lemon Cre4ek and Wolfe's Pond Landfall Sites on southwest Staten Island in Richmond County, New York and The Fort Hamilton Landfall Site in Brooklyn in Kings County, New York. The Asbury Branch of the Northern ECC extends westward from the Northern ECC approximately 8.96 mi (14.4 km) to the potential Asbury Landfall Sites in northern Monmouth County, New Jersey.

Atlantic Shores will use horizontal directional drilling (HDD) technology to install the export cables from the end of the ECCs to the Landfall Sites 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 collocated along existing roadways and utility rights-of-way (ROWs) to new or existing onshore substation and/or converter station sites. The Project requires the ability to interconnect at the identified POIs to not only accommodate the maximum amount of electricity that could be generated by the Project but also to enable the delivery of renewable offshore wind energy into both the New Jersey and New York markets.

BOEM's visual assessment guidance (Sullivan 2021) identifies a need for the methodology to be "flexible enough to accommodate changes in facility design that might occur during the approval process. This is referred to as a Project Design Envelope (PDE) and considers a range of potential project components in terms of quantity, energy output, size, export cable routes, and onshore substation/converter station, and interconnection options. This approach allows developers flexibility in design while still accounting for locations within the PDE that are unsuitable for development due to constructability, environmental, cultural, or economic limitations. To evaluate the potential visual effects associated with the visible components of the Project, reasonable assumptions are applied to select the most conservative visibility and scale scenario, also known as the maximum design scenario (MDS). The MDS analyzed herein considers a layout that 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 Project. The MDS components are described in Section 1.4. It should be noted that the MDE and PDE consider a range of component dimensions that vary based on the model ultimately chosen. For example, the maximum hub height, and maximum rotor diameter may not be used in combination. A maximum hub height could be used with a smaller rotor diameter, ultimately resulting in the maximum blade tip height. Therefore, these dimensions may vary slightly in the models developed for the analyses described herein.

1.4 Offshore Project Description

The wind turbine generators (WTGs) and offshore substations will be located in the BOEM Renewable Energy Lease Area OCS-A 0549 which covers and area measuring 10.5 miles (mi; 16 kilometers [km]) in an east-west direction and 24 mi (37 km) in a north-south direction, covering approximately 126.8 square miles (mi^2; 328.3 square kilometers [km^2]). This area will contain the major visible components of the Project and is referred to as the wind turbine area (WTA or offshore facilities). The WTA is located east of the New Jersey Shoreline generally between Brigantine and Barnegat Light Borough and is approximately 8 mi (13 km) east of Ship Bottom Borough at its closest point to shore (see Figure 1.4-1). In addition, the Project will include inter-array cables and a submarine export cable which will not result in any visible infrastructure and therefore, are only considered in the context of potential visibility and visual impacts resulting during the construction period.

The Project is a wind-powered electric generating facility composed of up to 157 WTGs and associated foundations, up to eight offshore substations (OSS), inter-array and/or inter-link cables connecting the WTGs and the OSSs, and up to one permanent meteorological (met) tower. Additionally, offshore submarine export cables located in both federal waters and New Jersey and/or New York territorial waters, will connect the OSSs to a transition vault in Monmouth County, New Jersey and/or Richmond County, Brooklyn County, or Kings County, New York. The

submarine cables and transition vaults will not result in any operational visual impacts. Section 1.5 describes the onshore components of the Project extending landward from the transition vaults. The MDS considered evaluates the largest WTG dimensions currently under consideration, which provides a conservative assessment of theoretical WTG visibility from onshore locations. This is represented by a 20-plus megawatt (MW) WTG, with a rotor diameter of 967.8 ft (295 m), a hub height of 574.1 feet (ft; 175 meters [m]), and a total height of 1046.6 ft (319 m) above mean sea level ([ASML] 1048.8 above mean lower low water [MLLW]) with a blade in the upright position (see Figure 1.4-2 and Table 1.4-1). WTGs and OSSs will be aligned in a uniform grid with rows in an east-northeast to west-southwest orientation spaced 1.0 nautical mile (nm) (1.15 mi; 1.9 km) apart, and rows in a north to south orientation spaced 0.6 nm (0.69 mi; 1.1 km) apart (see Figure 1.4-1). The HRVEA also considers the smallest proposed substation. This is considered the MDS because a total of eight OSSs would be required under this scenario, as opposed to larger options which would require three to four units to serve the same function. The eight proposed OSSs will be located between the turbines on an east to west axis. Figure 1.4-1 illustrates the layout considered. Each "small" OSS measures approximately 98.4 ft (30 m) wide, 131.2 ft (40 m) long, and 98.4 ft (30 m) high. Considering the foundation, the OSSs are expected to reach a maximum height of 172.6 ft (52.6 m). The dimensions of all components represented in this HRVEA are shown in Figures 1.4-2 and 1.4-3, and Tables 1.4-1 and 1.4-2.

Figure 1.4-1. WTA Location and WTG and OSS Layout.

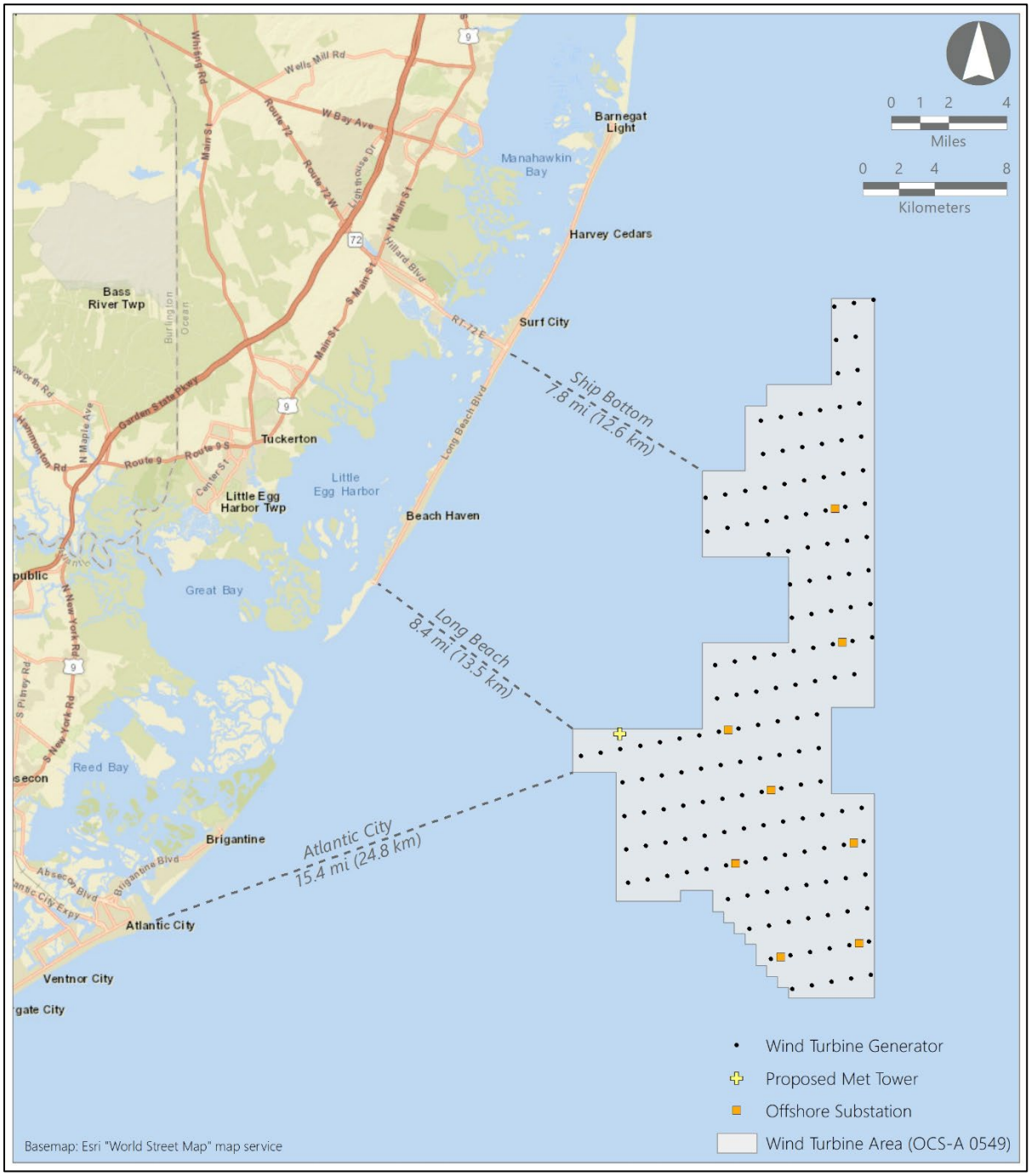


Table 1.4-1. WTG Dimensions

WTG Component/Parameter	Maximum WTG
Turbine Height (AMSL)	1046.6 ft (319 m)
Hub Height (AMSL)	574.1 ft (175 m)
Air Gap (AMSL) to the Bottom of the Blade Tip	78.0 ft (23.8 m)
Base (tower) Diameter (at the bottom)	32.8 ft (10 m)
Base (tower) Diameter (at the top)	27.9 ft (8.5 m)
Nacelle Dimensions (length x width x height)	150.9 ft × 65.6 ft × 65.6 ft (46 m × 20 m × 20 m)
Blade Length	479 ft (146 m)
Maximum Blade Width	32.8 ft (10 m)
Rotor Diameter	967.8 ft (295 m)

Table 1.4-2. OSS Dimensions

~400 MW Small OSS (HVAC)	Height Above Mean Sea Level (MSL)
Top Side Length	131.2 ft (40 m)
Top Side Width	98.4 ft (30 m)
Top Side Height	98.4 ft (30 m)
Foundation Diameter	39.4 ft (12 m)
Foundation Height	74.1 ft (22.6 m)
Total Height	172.6 ft (52.6 m)

Each WTG will consist of four major components: the foundation, the tower, the nacelle, and the rotor:

- **Foundation.** For the purpose of this HRVEA, it was assumed that each of the WTGs will be supported by a monopile foundation consisting of a single steel pile driven into the sea floor. The monopile foundation at MSL is a tubular steel structure, upon which the tower transition will be mounted. The foundation will extend above the water surface, and the exposed portion of the foundation will be yellow in color (RAL 1023) in accordance with BOEM's *Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development* (BOEM 2021). A boat landing and hoist 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 Project are tapered hollow steel structures manufactured in up to four sections. The assembled towers have a diameter of approximately 33 ft (10 m) at the base and 28 ft (8.5 m) at the top. Two amber U.S. Coast Guard (USCG) navigation lights will be mounted on the deck at the base of each tower at a height of 55.8 ft (17 m). In accordance with the BOEM and Federal Aviation Administration (FAA) obstruction marking standards (BOEM 2021), the turbine will be painted a light grey (RAL 7035) to pure white (RAL 9010). This HRVEA considers RAL 9010 in all analyses. Additionally, the tower will be equipped with a minimum of three low intensity (L-810) red flashing aviation obstruction warning lights

(AOWL) at the approximate mid-section of the tower (301.2 ft [91.8 m]) 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. Two AOWLs are proposed to be located on top of the nacelle, in accordance with BOEM and FAA guidelines at a height of 615.2 ft (187.5 m). 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 located at the mid-tower position. It is assumed that the nacelle will be the same color as the tower and will not include any obvious lettering, logos, or other exterior markings.
- **Rotor.** A rotor assembly is mounted on the nacelle to operate upwind of the tower. The rotor consists of three composite blades. The three-bladed rotor assembly will be consistent with the tower color. The rotor will be the most animated portion of the turbine, spinning at up to 10 revolutions per minute and can therefore attract viewer attention, when visible.

The OSSs will consist of enclosed structures mounted to a monopile foundation. The enclosure will be painted white (similar to the WTGs) and have gangways and stairways mounted on the exterior of the structure for personnel access. Exterior lighting will consist of up to three low intensity shielded lights on each long face of the main structure and safety illumination which will only be activated when personnel are present. As with the WTG foundations, the OSS foundations will be painted yellow and mounted with a maximum of two USCG approved amber lights, in accordance with USCG and BOEM standards. The top of the OSS will have an equipment crane, communications tower, heating and ventilation structures, and generators. Additionally, BOEM or the FAA may require one or more (maximum of two) medium intensity FAA L-864 lights if deemed necessary for aviation safety. A diagram illustrating the appearance and dimensions of the WTG and OSS evaluated in this study are presented in Figures 1.4-2 and 1.4-3.

A single permanent meteorological (met) tower may be installed within the Lease Area during construction (see Figure 1.4-1). The foundation options for the met tower include all options under consideration for WTG foundations and the construction methodologies are assumed to be the same as those for WTG foundations (see Section 4.2 of the COP). There is sufficient conservatism in the total estimates of seafloor disturbance from WTG foundation installation to account for the impacts from the met tower's installation (see Section 4.11 of the COP). The maximum height of the met tower will not exceed 16.5 ft (5 m) above the hub height of the largest WTG installed. Therefore, it is conservative to assume the maximum height of the met tower will be 590.6 ft (180 m) above MSL. The met tower itself is expected to be composed of square lattice consisting of tubular steel. It will be equipped with a deck estimated to be approximately 50 ft by 50 ft (15 m by 15 m) mounted at approximately the same elevation as the interface between the WTGs and their foundations. A schematic of a representative met tower is provided as Figure 1.4-4.

Figure 1.4-2. Diagram of the Wind Turbine Generator

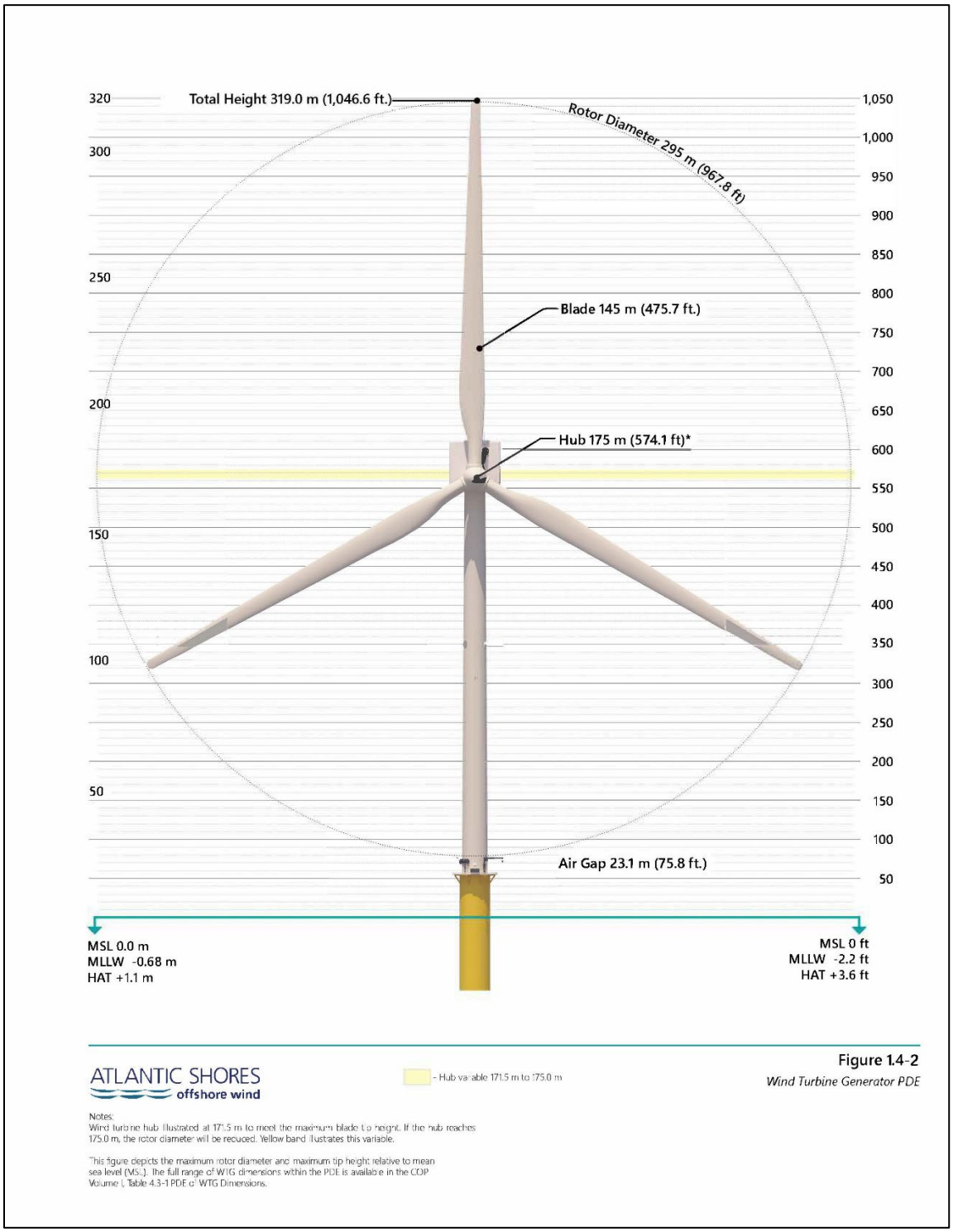


Figure 1.4-3. Diagram of the Offshore Substation

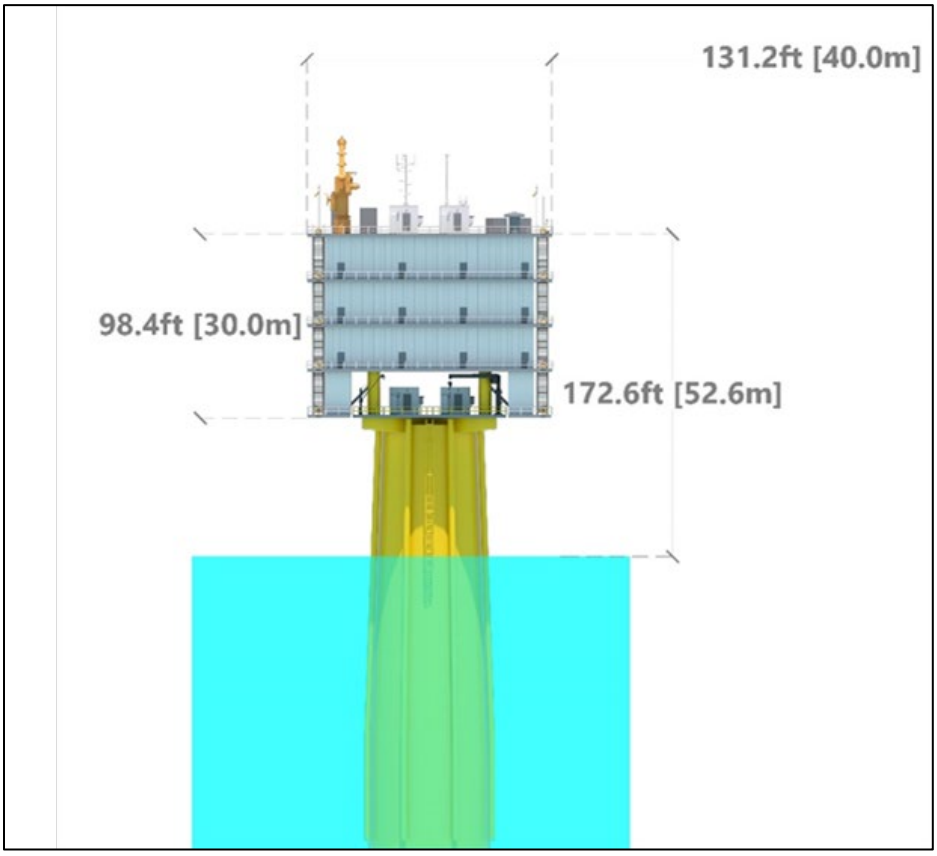
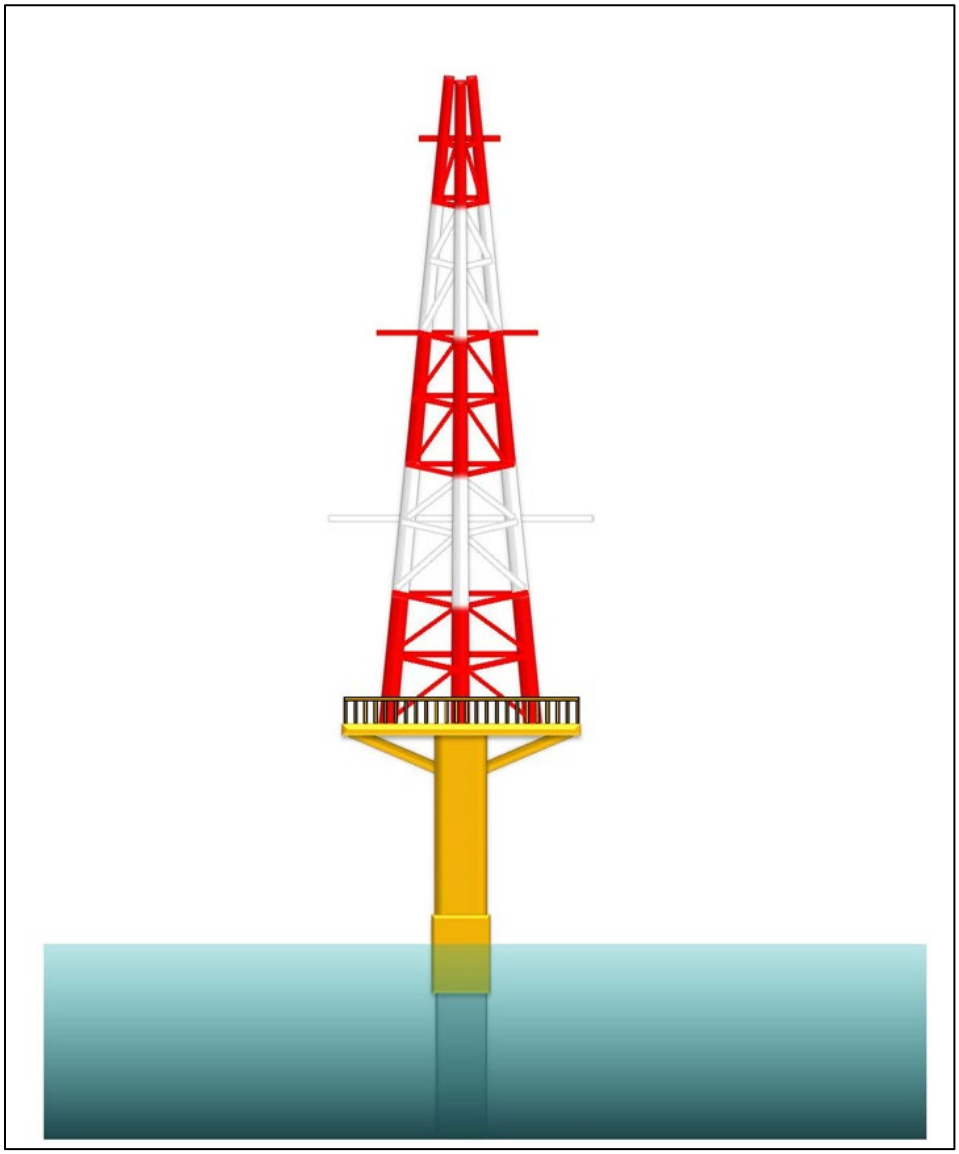


Figure 1.4-4. Representative Met Tower Schematic



1.5 Proposed Project Components – Onshore Facilities

The submarine export cables located in both federal waters and New Jersey and/or New York territorial waters will connect the OSSs to a transition vault in Monmouth County, New Jersey and/or Richmond County, Brooklyn County, or Kings County, New York. From the landfall, onshore interconnection cables will be installed underground primarily along existing roadways and/or electric transmission rights-of-way (ROWs) to the proposed onshore substation and/or converter station site options. From the proposed onshore substations and/or converter stations, the onshore interconnection cables will continue to the proposed point of interconnection (POI) substations for interconnection to the electrical grid.

Atlantic Shores is exploring a range of HVAC and/or HVDC export options depending on the point of interconnection and ultimate project capacity. Therefore, depending on the transmission option selected, the Project could use any of the proposed onshore interconnection cable route options. Regardless of which option is ultimately constructed, the transmission components will not result in any operational visual impacts and therefore, only the short-term construction impacts are considered in this analysis.

Atlantic Shores is considering a total of eight HVAC onshore substation and/or HVDC converter station sites in New Jersey and/or New York. This component of the Project will result in visible infrastructure during the long-term operational phase of the Project. Atlantic Shores has identified five optional locations for HVAC onshore substations and/or HVDC converter stations in New Jersey (see Figure 1.5-1), three of which have been identified for the Larrabee Onshore Interconnection Cable Route Options and two of which have been identified for the Atlantic Onshore Interconnection Cable Route Options (see COP Section 4.9). A description of the New Jersey onshore substation and/or HVDC converter station sites is provided in Table 1.5-1.

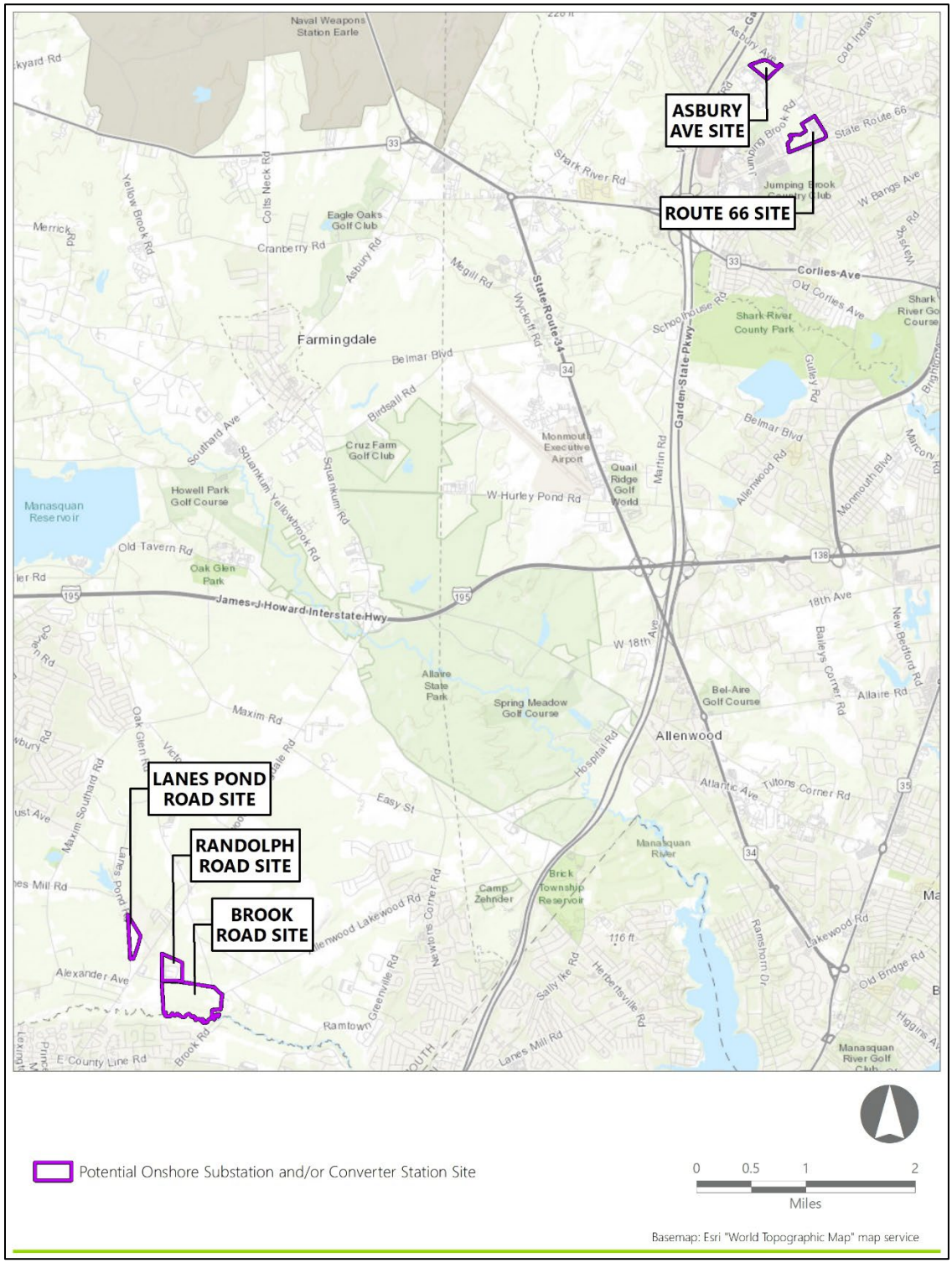
Table 1.5-1. New Jersey Onshore Substation and/or HVDC Converter Station Options

Site	Municipality and County	Size (Acres)	Description
Lanes Pond Road Site (Larrabee)	Howell Township, Monmouth County	16.3	The Lanes Pond Road Site, currently consisting of managed agricultural land and mixed forest, is an approximately 16.3-acre parcel north-northwest of the existing Larrabee Substation. It is bordered by Lanes Pond Road to the west, Miller Road to the north, the New Jersey Southern rail corridor to the east, and a residence to the south.
Randolph Road Site (Larrabee)	Howell Township, Monmouth County	24.7	The Randolph Road Site, currently occupied by buildings associated with the Arnold Steel Company, is an approximately 24.7-acre parcel northeast of the existing Larrabee Substation. It is bordered by Randolph Road to the south, and an existing transmission line corridor to the west, Dicks Brook and mixed forests to the north, and a mix of forest and residential development to the east.
Brook Road Site (Larrabee)[a]	Howell Township, Monmouth County	99.4	The Brook Road Site, currently a vacant wooded lot, is an approximately 99.4-acre parcel. It is bordered by the existing Larrabee Substation to the west, Randolph Road to the north, Oak Glen Road and Brook Road to the east, and to the south by the North Branch of the Metedeconk River which makes up the Monmouth/Ocean County line.

Site	Municipality and County	Size (Acres)	Description
Route 66	Neptune Township, Monmouth County	35.1	The Route 66 Site is located on the corner of State Route 66 and Green Grove Road in Neptune Township. This former insurance office campus consists primarily of large parking areas, approximately 2 acres of vacant building coverage, and about 18 acres of forested land. The site is bounded by Route 66 to the south, Green Grove Road to the east, and commercial properties to the north and west.
Asbury Avenue	Tinton Falls Borough, Monmouth County	15.7	The Asbury Avenue Site is located east of the Garden State Parkway and southwest of Asbury Avenue in Tinton Falls. The site is currently completely forested, and a large senior living campus is situated to the southwest of the site, on the opposite side of an existing high voltage transmission line ROW.

a. Note that Atlantic Shores is not undertaking construction activities for the Brook Road Site, since it will be developed separately by the awardee of the New Jersey Board of Public Utilities (NJBPU) State Agreement Approach (SAA).

Figure 1.5-1. New Jersey Substation/Converter Station Sites



Additionally, Atlantic Shores has identified three optional locations (see Table 1.5-2) for an HVAC onshore substation and/or HVDC converter station in New York, two of which have been identified for the Fresh Kills/Goethals Onshore Interconnection Cable Route options and one which has been identified for the Gowanus Onshore Interconnection Cable Route options. Both Fresh Kills/Goethals site options are located on land parcels that have experienced significant development and/or disturbance. The Sunset Industrial Park site option would consist of a substation and/or converter station within the highly developed waterfront area of the Upper New York Bay near the South Brooklyn Marine Terminal (see Figure 1.5-2).

Table 1.5-2. New York Onshore Substation and/or HVDC Converter Station Options

Site	Municipality and County	Size (Acres)	Description
Arthur Kill Road	New York, Richmond County	208.6	This site is a former Kinder Morgan petroleum storage facility which is located on the eastern shore of the Arthur Kill River in the Borough of Staten Island. The site is bounded by the river to the west, Arthur Kill Road to the east, Ellis Road to the south, and Johnson Street to the north. Clay Pit Ponds State Park borders the southeastern corner of the site, which is currently occupied by a ground-mounted solar facility. With the exception of the west boundary, the site is generally surrounded by forest or vegetation.
River Road Site	New York, Richmond County	150.3	The River Road Site is also located on the Arthur Kill, in the Borough of Staten Island, Richmond County. It is bounded to the west by the river, to the north by Staten Island Parkway, the east by 8th Avenue, and to the south by Pralls Creek. Existing land uses in the area appear to be rapidly converting to warehouse, shipping and distribution centers as evidenced by the recent construction of a very large Amazon warehouse complex. The remaining land directly adjacent to the site appears to be vacant with patches of former development, scrub shrub vegetation, and a grid of former access roads throughout the site.
Sunset Park	New York, Kings County	21.8	The Sunset Industrial Park site is located in the Upper Bay of the Hudson River in the Borough of Brooklyn, Kings County, New York. Specifically, the site is in the Park Slope Neighborhood adjacent to the Gowanus Bay/Canal. This area is primarily defined by numerous marine ports, docks, greenway parks, industrial parks, and commercial facilities. The waterfront land

Site	Municipality and County	Size (Acres)	Description
			uses are backed by dense residential and mixed-use communities interspersed with historic parks and greenways. Recently established parks along the waterfront appear to be the result of combined efforts of development authorities and newly constructed commercial facilities.

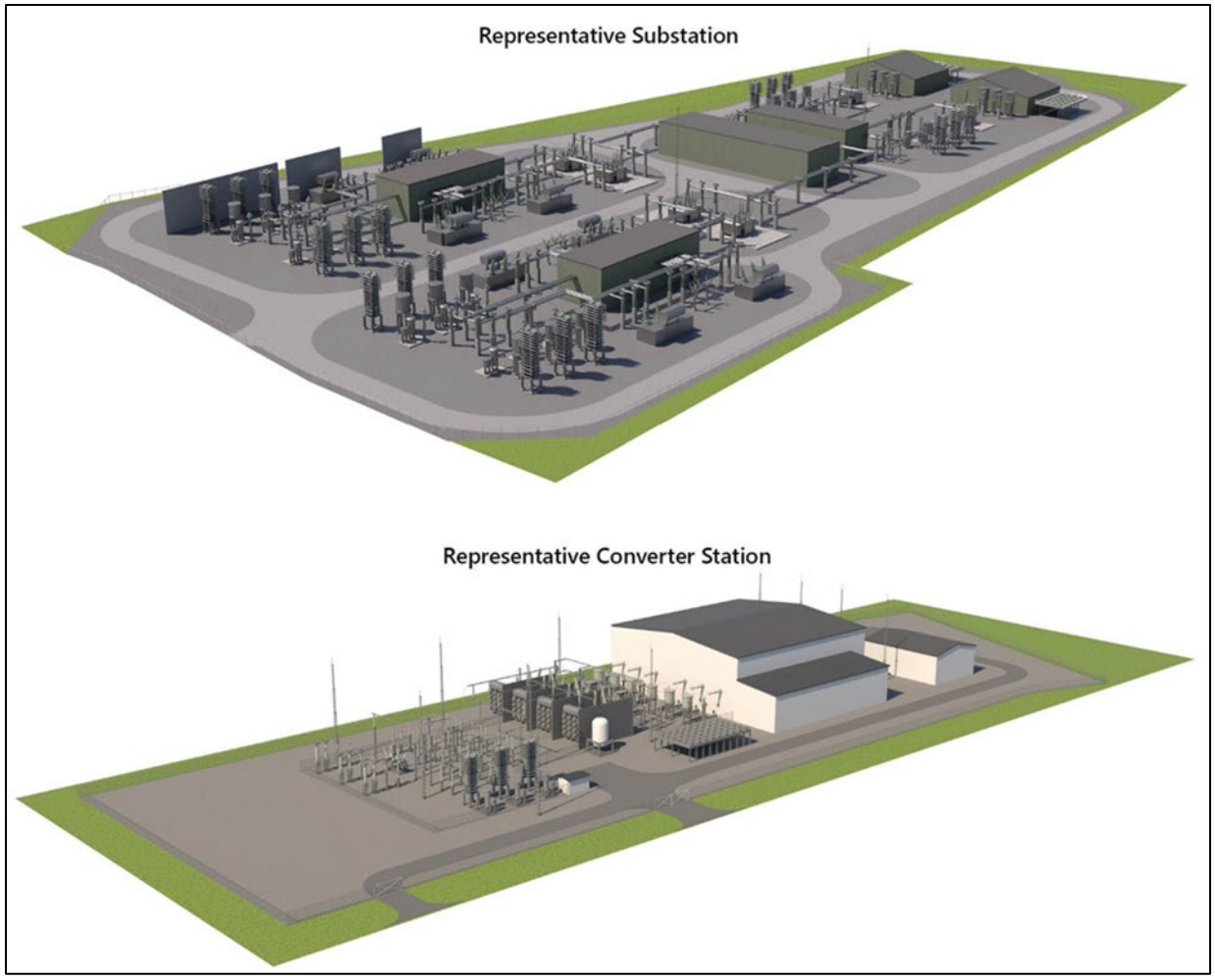
Figure 1.5-2. New York Substation/Converter Station Sites

The HVAC onshore substation and/or HVDC converter station design and specific equipment will depend on whether the transmission cables are HVAC or . If HVAC is selected, the equipment and facilities installed at the site

and facilities installed at the site will 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. Based on preliminary design information, representative three-dimensional (3D) models of typical HVAC onshore substation and HVDC converter station options are illustrated in Figure 1.5-3.

As mentioned previously, the onshore substation is the only portion of the Project that is anticipated to be visible during the operational phase of the Project.

Figure 1.5-3. Typical Rendering of a Representative Converter Station/Substation



2.0 PRELIMINARY AREA OF POTENTIAL EFFECTS

2.1 Project's Potential Effect on Aboveground Historic Properties

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 offshore Project activities 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 Project. Instead, the Project 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, 2022a).

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, 2022a).

Per NHPA Section 106, 36 CFR § 800.5 (a)(2)(i-vii), adverse effects on historic properties include, but are not limited to:

(2) *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'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 which 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 (CFR, 2022a).

The primary adverse effect on aboveground historic properties resulting from the Project would be consistent with 36 CFR § 800.5(a)(2)(v), "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features." The potential effect resulting from the introduction of WTGs into the visual setting for any historic or architecturally significant property is dependent on several factors, including distance, visual dominance, orientation of views, viewer context and activity, and the types and density of modern features in the existing view (such as buildings/residences, overhead electrical transmission lines, cellular communications towers, billboards, highways, and silos).

Additional considerations are required when a federal undertaking may adversely affect an NHL. Section 110 (f) of the NHPA states:

> *(f) Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmarks, and shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking* (CFR, 2022b).

The HRVEA considers the Project potential effects on a given aboveground historic property – i.e., potential changes resulting from the introduction of WTGs or other Project components in the property's historic setting. As it pertains to aboveground historic properties, *setting* is defined as "the physical environment of a historic property" and is one of seven aspects of a property's *integrity*, which refers to the "ability of a property to convey its significance" (NPS, 1990:44-45). The other aspects of integrity include location, design, materials, workmanship, feeling, and association (NPS, 1990). The rationale and sources of information that were relied upon to develop EDR's recommendations for potential effects on aboveground historic properties are further discussed in Section 4.0 of this report.

2.2 Methodology to Determine the Preliminary Area of Potential Effects (PAPE)

Under Section 106 of the NHPA, the geographic scope of review of a given project (or undertaking) is determined based on the Project's Area of Potential Effects (APE), defined as follows:

> *Area of potential effects means 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. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking* (36 CFR 800.16(d)).

The APE for a project is determined by the responsible federal agency in consultation with relevant SHPOs. BOEM will determine the Project APE based on consultation with the relevant SHPOs once BOEM has formally initiated NHPA Section 106 consultation for the Project.[4]

A standard visual study area for offshore wind farms has not been expressly defined in regulatory guidance documents. However, *Information Guidelines for a Renewable Energy Construction and Operations Plan* (*COP*) (BOEM, 2020) indicates that visual effects should be evaluated using photo simulations from locations within "the onshore viewshed from which renewable energy structures, whether located offshore or onshore, would be visible."

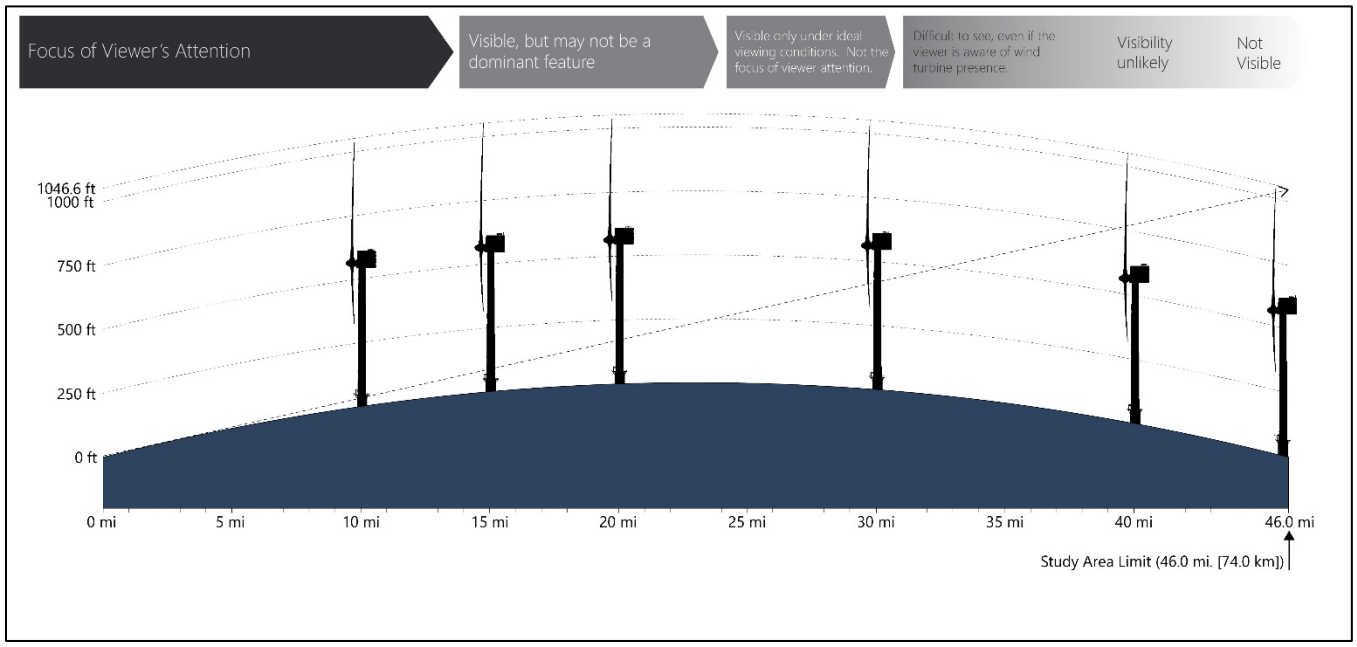
The first step in defining the maximum extent of WTG visibility in an offshore setting is to determine the likely physical threshold based on the screening effect of the curvature of the earth combined with the visibility limiting factors such as human visual acuity and atmospheric perspective. Observations of constructed offshore wind facilities are also useful in determining WTG visibility diminishment thresholds, but these studies have only been conducted on Project with significantly smaller WTGs. For example, EDR completed observations of the operational Block Island Wind Farm which utilizes five WTGs with a maximum height of 589 feet (179.5 m [459.8 feet lower than the Project's WTG]). These observations suggest that based on this smaller technology, the WTGs will generally become completely screened by curvature of the earth and/or atmospheric perspective at a distance between 35 and 46 miles (56.3 and 74 km), depending on the elevation of the viewer.

A study completed in Europe, *Offshore Wind Turbine Visibility and Visual Impact Threshold Distances* (Sullivan et al., 2013) concluded that offshore wind facilities were judged to be a major focus of visual attention at distances up to 10 miles (16.1 km); were noticeable to casual observers at distances of almost 18 miles (29 km); and were visible with extended or concentrated viewing at distances beyond 25 miles (40.2 km) (Sullivan et al., 2013). Although these studies consider WTGs that are smaller than those included in this HRVEA, they are still relevant in that the most influential limiting factor in WTG visibility from open coastal locations is atmospheric perspective (Sullivan et al., 2013). These influences on WTG visibility are generally independent of the size of the technology. Moisture and atmospheric particles will always have a significant influence on visibility over the ocean regardless of the size of the technology. However, it is anticipated that when viewed under clear weather conditions, the visual prominence of

[4] Per 36 CFR § 800.3(c), federal agencies must consult with Native American Tribes and THPOs when determining the APE if historic properties within tribal lands (reservation or federal trust properties) may be affected by an undertaking.

larger WTGs will extend over a greater distance and could be the focus of viewer beyond 10 miles (16 km) away. Furthermore, regarding the technology under consideration for the Project, it is anticipated that visibility from beach level under clear conditions will include a portion of the WTG blades at a distance of 46 miles (74 km) (see Figure 2.2-1).

Figure 2.2-1. Wind Turbine Visibility



For these reasons, it is anticipated that a 40 mile (64.4 km) visual study area and viewshed buffer is considered conservative for the purpose of evaluating visual effects of an offshore wind project. This is also supported by standard human visual acuity thresholds. Assuming a maximum resolution of the human eye is conservatively 28 seconds of an arc or 0.008 angular degrees (Deering, 2019) at 40 miles (64.4 km), human vision can resolve an object that is approximately 30 feet (9.1 m) in diameter. The WTGs considered in this HRVEA have a maximum blade width of 33 feet (10.1 m), suggesting that at a distance of 40 miles (64.4 km), they would be near the maximum threshold of potential visibility and would not result in visual impacts to onshore resources. However, based on ongoing consultations with BOEM, the Project viewshed (and PAPE) has been extended to use a 40 nautical mile (46 mi, 74 km) study area.

2.2.1 Viewshed Analysis

The viewshed analysis (prepared as part of the *Seascape, Landscape, and Visual Impact Assessment* (SLVIA) [EDR, 2023b]) was based upon a highly detailed digital surface model (DSM) of the area within 46 miles (74 km) of the

WTA generated from lidar data,[5] which includes the elevations of land features, buildings, trees, and other objects large enough to be resolved by lidar technology (see Figure 2.2-2). A bare-earth digital elevation model (DEM), representing topography only, was also created in order to make corrections to the DSM and to the initial viewshed result. The DSM and DEM were both created with a horizontal resolution of 3 meters (m) to allow direct comparison of ground elevation with the elevation of surface features (such as buildings and vegetation).

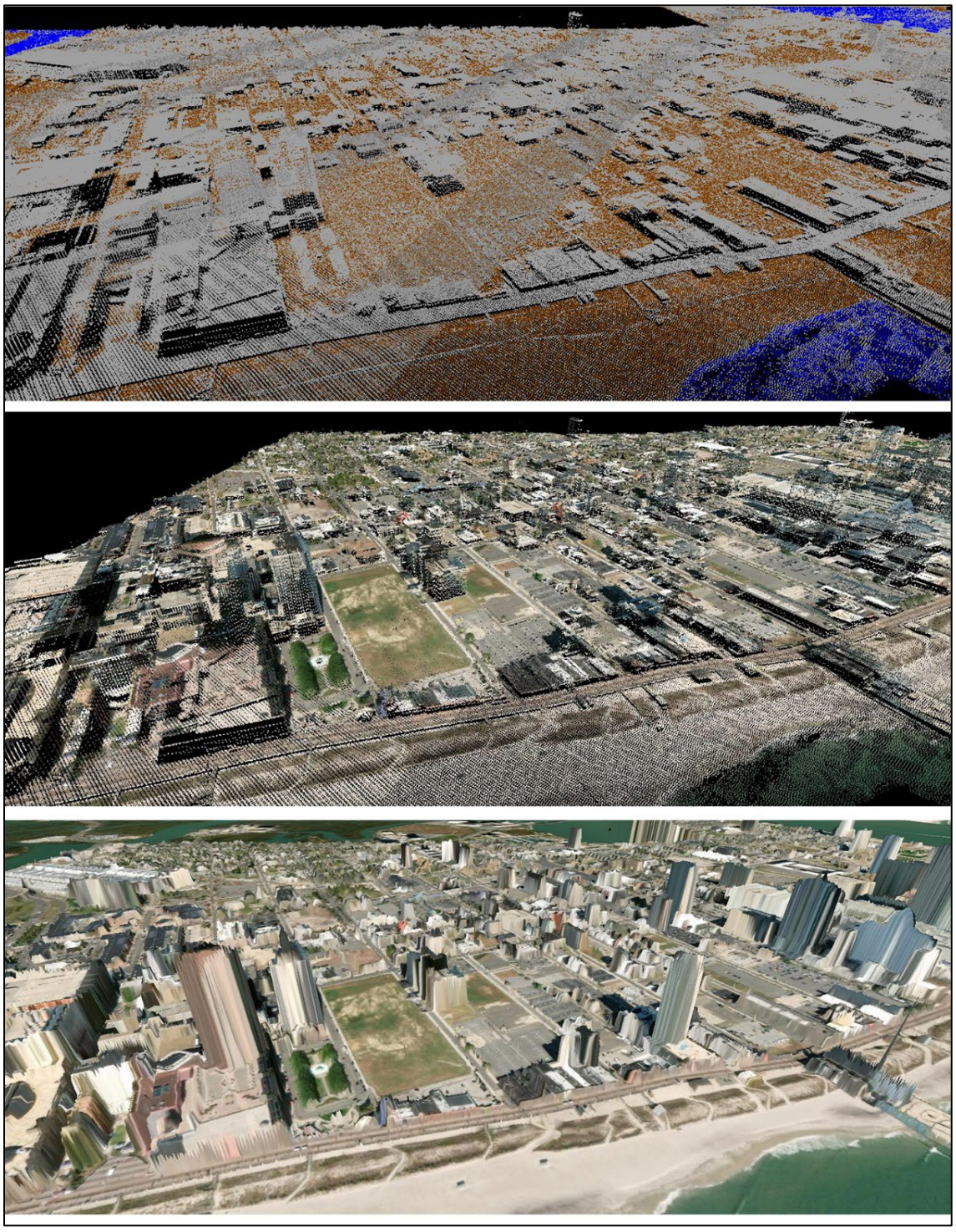
Transmission lines and roadside utility lines that are reflected in the lidar data are mis-represented in the initial DSM as solid walls/screening features. In order to correct for this, DSM elevation values within transmission line corridors and within 50 feet (15.2 m) of road centerlines were replaced with DEM bare-earth elevation values. To account for some small lidar data gaps, USGS 10 m resolution DEM and NLCD data were used to complete the DSM lidar model. The DSM was then used as a base layer for the viewshed analysis, which was conducted using ESRI ArcGIS® software with the Spatial Analyst extension and earth curvature corrections.

The analysis of potential Project visibility within the 46-mile (74 km) viewshed radius, was based on 200 points representing the WTG locations currently under consideration (using latitude and longitude coordinates provided by Atlantic Shores), an assumed maximum blade tip height of 1,048.8 feet (319 m), and an assumed viewer height of 6 feet (1.83 m). Additional, viewshed analyses were completed to assess visibility of the following:

1. aviation obstruction lights at a height of 607 feet (185 m)
2. mid-tower aviation obstruction lights, at an elevation of 287 feet (87.5 m)
3. USCG navigation lights on the WTG deck at an elevation of 57 feet (17.3 m).

[5] Lidar data availability varies throughout the 46-mile (74 km) viewshed radius, requiring the use of more than one data source. The following four lidar datasets were incorporated into the DSM: NOAA 2014, USGS 2015, Cumberland County 2008, and American Recovery and Reinvestment Act (ARRA) 2010.

Figure 2.2-2. Raw Lidar Point Cloud (top), Colored Point Cloud (center), Processed DSM (bottom).



Once the viewshed analysis was complete, a conditional statement was used within ArcGIS® to set Project visibility to zero in locations where the DSM elevation exceeded the bare-earth (DEM) elevation by 6 feet (1.83 m) or more, indicating the presence of vegetation or structures that exceed viewer height.

This was done for the following reasons:

1) Without this adjustment in locations where trees or structures are present in the DSM, the viewshed would reflect visibility from the treetops or building roofs, which is not the intent of this analysis.
2) Ground-level vantage points within buildings or areas of vegetation exceeding 6 feet (1.83 m) in height will generally be screened from views of the Project.

The resulting viewshed analysis provides an accurate prediction of visibility from onshore resources. However, changes to vegetation (such as growth or clearing) earthwork, and the addition or removal of structures since the lidar data were collected may result in minor visibility discrepancies.

Because it accounts for the screening provided by buildings/structures and trees, this lidar-based viewshed analysis results in a more accurate and precise representation of probable Project visibility than the standard industry practice. However, because it is possible that very small landscape features may go undetected in the DSM, and/or may have changed since the lidar data were collected, the viewshed is a robust, but not definitive, model of the areas from which the Project may be visible. In addition, certain characteristics of the WTGs that may influence visibility (color, low profile, distance from viewer, etc.) are not into taken consideration in the analyses. Therefore, being located within the DSM viewshed does not necessarily equate to actual Project visibility.

The results of the viewshed analysis and corresponding delineation of the Preliminary Area of Potential Effects (PAPE) are described below.

2.2.2 Field Review of Potential Visibility

EDR staff conducted site visits and field review between 2020 and 2022 to evaluate the potential visibility of the Project from visually sensitive resources within the PAPE, including aboveground historic properties (see Section 3.2.2). Per the SLVIA, "visually sensitive resources (VSRs) include resources that have been identified in publicly available documents and GIS databases provided by national, state, or local governments, organizations, and/or Native American tribes as important sites which are afforded some level of recognition or protection" (EDR, 2023b; COP Appendix II-M).

As described in the SLVIA (EDR, 2023b; COP Appendix II-M1), field review and photography for the Atlantic Shores North Offshore Wind Project occurred between July 2020 and March 2022. The purpose of this exercise was to verify the existence of direct lines of sight to proposed WTG locations from candidate key observation points (KOPs; see Table 4.1-1, Figure 4.1-1, and Attachment E) and other VSRs (including aboveground historic properties) with potential visibility of the Project, as indicated by viewshed analysis. Field review was also used to obtain photographs from selected KOPs for subsequent use in the development of visual simulations (see Section 4.1.2), and largely confirmed the results of the lidar viewshed analysis. In addition, as further described in Section 3.2.2, field surveys

were conducted by Secretary of the Interior (SOI) Qualified Professionals in support of the HRVEA in November and December 2022 and January 2023. Survey fieldwork included systematically driving public roads within the PAPE to document previously identified (e.g.., NRHP-listed and eligible) aboveground historic properties and to evaluate the NRHP eligibility of additional structures and properties within the PAPE.

Several factors that are not considered in the viewshed analysis will influence the visibility and visual prominence of the WTGs, such as screening provided by vegetation, structures, or other objects, as well as atmospheric and weather effects. Field verification generally confirmed the results of the viewshed analysis in shoreline areas, where predicted visibility was confirmed by open views of the ocean. However, field review also identified areas where the viewshed analysis indicated potential visibility, but field review indicated no visibility of the ocean and/or Project because of the extent of screening provided by vegetation, structures, or other objects. The lack of ocean views from areas included in the viewshed was particularly associated with inland settings and densely developed areas (see Section 3.2). Therefore, while the viewshed analysis provides an accurate and conservative model of theoretical visibility of the Project, field review determined that this analysis generally overstates visibility of the Project, particularly from inland locations. This is particularly the case when the Project is viewed from distant viewing locations that only include potential visibility of the WTG blade tips.

2.3 The Project's Preliminary Area of Potential Effects

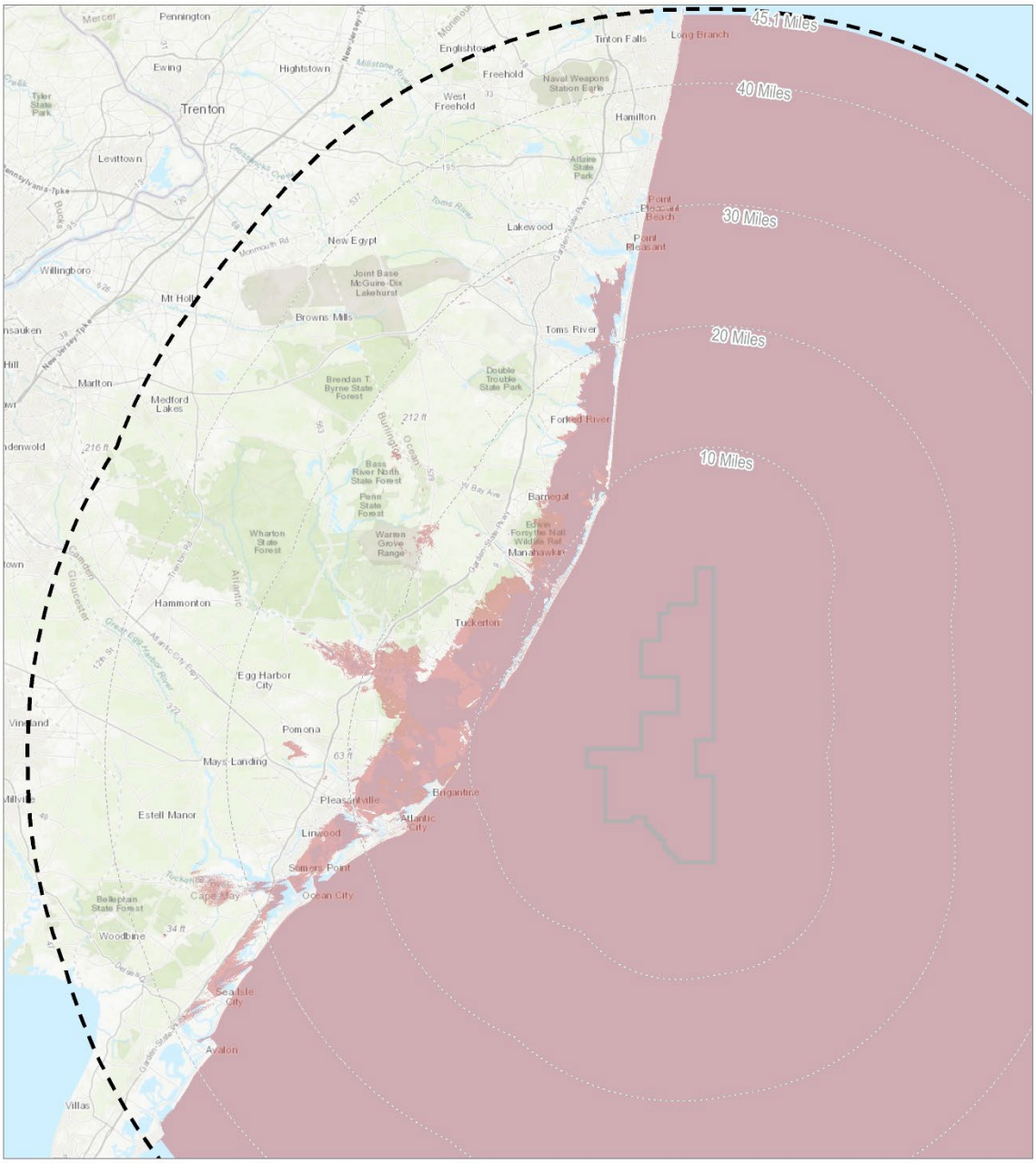
Based on the results of the analyses described above and on previous BOEM determinations, and to provide a conservative assessment of potential Project visibility from aboveground historic properties, the lidar-based viewshed analysis of potential WTG and OSS visibility, or PAPE, identifies the area of maximum theoretical visibility of the Project located within 46 miles (74 km) of the WTA boundary (see Figure 2.3-1). A 46-mile (74 km) viewshed radius around the proposed WTG and OSS locations was established as the maximum limits of theoretical visibility for the Project based on the maximum height of Project components, their location, curvature of the earth, atmospheric conditions, and human visual acuity.

Potential Project visibility, as indicated by the viewshed analyses, is illustrated in Figure 2.3-1. Within the 46-mile (74 km) radius around the WTA, visibility will be eliminated in large areas where buildings/structures and vegetation screens views toward the Project. Forest land is the dominant land use within the mainland portions of the study area and will significantly reduce potential Project visibility throughout the area. In areas of concentrated human settlement, buildings/structures will also significantly screen outward views. Considering the screening provided by buildings/structures, vegetation, and topography, potential onshore Project visibility is largely restricted to the ocean shoreline, salt marshes and bays backing the barrier islands, inland along wetlands and waterways connecting to Great Bay and Great Egg Harbor Bay, and areas of clearing for agricultural purposes or large residential lots. Generally, areas of visibility extend up to approximately 500 to 2,000 feet (152.4 to 609.6 m) inland from the shoreline, before breaking up into smaller pockets of visibility and then dissipating completely.

Despite the anticipated limitations of the viewshed analysis, field verification confirmed that the PAPE provides an a very conservative representation of the areas that could potentially be impacted by the Project. The aboveground historic properties within the PAPE with the highest potential for visibility of the Project are those that are those

located closest to the oceanfront and bayfront shorelines, specifically those properties intentionally constructed or oriented to take advantage of panoramic ocean views (see Section 3.2.2).

Figure 2.3-1: Preliminary Area of Potential Effects



3.0 IDENTIFICATION OF ABOVEGROUND HISTORIC PROPERTIES

In order to determine the presence of aboveground historic properties (both those previously inventoried in state databases and other public sources, as well as potential aboveground historic properties that have not been previously recorded), EDR undertook the following steps:

- Preparation of an historic context for the New Jersey shore, focusing on the areas where the PAPE was located, to determine the aboveground historic property types that may be present within the PAPE (Section 3.1);
- Development of an appropriate field survey methodology incorporating robust desktop analysis and review of previously identified as well as potential aboveground historic properties within the PAPE (Section 3.2.1); and,
- Field surveys to document the existing conditions, integrity, maritime setting, and views toward the Project, of the properties identified as part of the desktop review and analysis (Section 3.2.2).

3.1 Historic Context of the New Jersey Shore

The New Jersey coast is approximately 130 miles (209 km) long and extends from Sandy Hook Bay to Cape May. The shore is defined by a series of barrier islands that shield the coast, mainland harbors, coastal lakes, and rivers to the interior. The PAPE is located within portions of Monmouth, Ocean, Atlantic, and Cape May counties which make up the New Jersey Shore. The New Jersey Shore has a history of significant weather events that remake beaches, alter the barrier islands, and destroy man-made structures, making the waterfront areas into a landscape constantly redefined by change.

3.1.1 Early Settlement

The New Jersey coast was originally the home of the Lenni-Lenape:

> *Commonly, referred to as the Delaware Indians by European emigrants, the Lenape lived in autonomous villages along New Jersey's various tributaries and back bays. These waterways acted as natural highways, traversable by small watercraft such as dug-out canoes. Led by local Sachems and Councils of Elders, these communities typically relied on hunting, fishing, gathering, and small-scale agriculture for survival* (SEARCH, 2022).

In the early seventeenth century, the Dutch purchased from the Lenni-Lenape a tract of land four miles along the Delaware Bay and 12 miles inland starting at Cape May Point to establish a colony on the Delaware River. In 1632, Davi Pieterson DeVries established a fishing and whaling village at Cape May known as New Town (the site is now underwater). Euro-American settlement along the coast began in earnest in the late seventeenth century. Somers Point, located in Atlantic County, southwest of Atlantic City on Great Egg Harbor Bay, is the oldest settlement in Atlantic County and was founded in 1693 when the Somers family established their plantation. Originally known as Somerset Plantation, Somers Point became a borough in 1866. Its location on Great Egg Harbor Bay led to it

becoming a popular port of call, and its close location to the resort areas of Ocean City and Atlantic City prompted rapid residential and commercial development in the region (Cape May Co. Planning, 1980; Somers Point, 2022).

3.1.2 Maritime History

The economy of the New Jersey shore was defined by a mixture of agriculture and maritime trades with many farmers deriving a living from the sea. A group of towns in the PAPE developed along the Shore Road which runs from the Great Egg Harbor River to the Mullica River (Thompson, 1987). Shore Road dates to 1716 and was the first public road in Atlantic County (Willis et al., 1915). As noted by the Linwood Historic District (89000800) NRHP nomination:

> *These towns all have a history that includes the maritime trades. Although shipbuilding along the south Jersey shore never became a nationally important industry as it did in the major ports of Boston and Philadelphia, many local men followed the sea. Fish and shellfish from Scull Bay and the Atlantic Ocean beyond also provided a livelihood for many residents of the Shore Road towns until well into the twentieth century* (Thompson, 1987).

Shipbuilding in the region was at its height from approximately 1830 to 1880 (Willis et al., 1915). However, shipbuilding has its roots in the region dating back to the seventeenth century to support local whaling fleets. In 1688, and again in 1694, the colonial assembly passed legislation to encourage shipbuilding that exploited the region's pine barrens. As noted by John W. Sinton in his 1978 Pinelands study, "the industry grew prodigiously in the 1700's as shipyards opened all along the coast and up major rivers (Fittipaldi, 1986)."

The community of Tuckerton, identified by NJHPO as an NRHP-eligible historic district for its association with maritime history, is located inland between Pohatcong Lake, Tuckerton Creek, and Little Egg Harbor. While many modern writers refer to Tuckerton as the third designated Port of Entry by Congress in the 1780s, that is not strictly true. Congress designated multiple points of entry along the Atlantic coast. In 1789, Tuckerton was designated a Port of Delivery for the Burlington district. Tuckerton was upgraded to an official Port of Entry in 1796 after the residents of Little Egg Harbor lobbied Congress for a separate district (Stemmer, 2022).

In the mid-nineteenth century, the federal government invested in a series of lighthouses along the New Jersey coast "so that in sailing the light of one is not lost till the next is in sight" (Princeton, 2022). The NRHP-listed Absecon Lighthouse (71000492) was constructed in 1856 under the direction of Lt. George Meade, who later commanded Union forces at the Battle of Gettysburg. Constructed of iron and brick, it rises 171 feet. The lighthouse was decommissioned in 1933 and was moved to its current location from its original site closer to the inlet. The NRHP-listed Hereford Lighthouse (77000859) was designed by Paul Pelz and completed in 1874. His use of the Stick Style is unique on the East Coast, though he designed five similar lighthouses on the West Coast. The structure was residential, with living quarters for the keeper and the tower itself, which is 57 ft tall. The lighthouse was moved 150 ft to its current location after a 1913 storm damaged its foundation. The lighthouse continued to function until 1964 when an automated light nearby rendered it obsolete. In the 1980s, an automated light was installed in the tower to bring it into service again (Wilson, 1971; New Jersey Historic Sites Staff, 1977).

Starting in 1848, the federal government allocated funds for the establishment of a series of life-saving boathouse stations along the coast of New Jersey. At that time, there were no permanent life-saving crews. Instead, local volunteers responded to maritime emergencies. Ultimately deemed inadequate, congress allocated funds in 1871 for paid station crews and the establishment of additional stations. Between 1871 and 1874, 41 lifesaving stations were built along the New Jersey coast alone. The U.S. Life-Saving Service was formally established in 1878 and eventually became the basis for the U.S. Coast Guard in 1915. U.S. Life-Saving stations typically were located close to the beach and were equipped with living quarters, a lookout tower, and a boathouse (USCG, 2013, Princeton, 2022). A total of 45 stations were established on the New Jersey coast and operated by the U.S. Life-Saving Service before the creation of the Coast Guard. Only 15 of these stations are still extant (York, 2011). The NRHP-eligible Little Egg Harbor U.S. Life-Saving Station #23 within the PAPE is a legacy of this era. The resource 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 in 1937 and its location in proximity to the ocean was imperative for rescuers to reach nearby shipwrecks on the Atlantic Ocean. The facility currently houses the Rutgers University Mullica River Field Station (Heritage Studies, 1981). The NRHP-eligible The North Wildwood Life Saving Station was built in 1938 by the Works Progress Administration for U.S. Coast Guard. The two-story Colonial Revival building has a columned porch with a roof balustrade, single-story flanking wings, gabled dormers, and a large look-out cupola. The station operated the adjacent Hereford Lighthouse until 1964 when both facilities were closed. The station was turned over to the State of New Jersey and became a marine police station (New Jersey Coastal Heritage Trail Route, 2023).

3.1.3 Transportation and Residential Development

Transportation to the coast was primarily by ship, but as the railroad expanded, vacation opportunities for people of modest means became accessible (Zerbe et al., 2004). The Camden & Atlantic Railroad line opened between Camden to Absecon Island in 1854, which contributed to the rapid development of Atlantic City. However, Cape May county was slower to develop by comparison, as railroads did not arrive until after the end of the Civil War (NJHPO, 2013). The barrier islands began to see intense development during this period with the establishment of residential resort communities typically constructed by speculative developers. Some of the earliest communities established just inland along trade routes like the Shore Road were outstripped by vacation spots like Atlantic City (which saw some half a million visitors a year by the 1870s) (Thompson, 1989; Zerbe et al., 2004; Princeton, 2022). According to the NJHPO:

> *The first State highway system was enacted into law in 1917 and largely constructed during the ten years thereafter. … As these highways were constructed, recreational opportunities widened. More areas of the Jersey shore came under development (NJHPO, 2013).*

As the automobile took over as the driver of development, "the result was a new form of resort, one which anticipated Miami Beach as well as much of the remainder of the twentieth century New Jersey seashore development in its low density and wide streets" (Thomas, 1986).

These developments are adjacent to and offer clear views of the ocean. Residential neighborhoods and commercial clusters were constructed to provide access to the nearby beach and ocean views. Consequently, for many aboveground historic properties of this type, a relationship with the Atlantic Ocean is essential to their historic

integrity. These developments represent popular period styles (Stick, Queen Anne, Gothic Revival, and Colonial Revival) and building types (bungalow, foursquare). Many of these are loosely defined as cottages; wood shingle cladding is a substantive defining feature of many of these coastal houses. Located on the shore and within the PAPE, the NRHP-listed and eligible historic districts of Beach Haven, Bay Front (Somers Point), Saint Leonard's Tract (Ventnor City), and John Stafford (Ventnor City) reflect the shift in the development along the coast driven by improved transportation networks and middle-class recreation.

The NRHP-listed John Stafford Historic District (88000723) is a district encompassing three residential blocks in the city of Ventnor. Bounded by Atlantic, Austin, and Vassar Avenues and the Boardwalk, the district is comprised of some 30 buildings. The residences within the district were built between 1914 and 1924 by the developer John Stafford and were designed by Philadelphia architects such as Frank Seeburger and J. Fletcher Street (Thomas, 1986).

The NRHP-eligible Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930. The 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. The Saint Leonard's Tract Historic District is significant 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 (Clark, 2013).

3.1.4 Recreation

The New Jersey coast has a long history as a vacation spot and a place for recreation for dwellers of urban centers such as New York City and Philadelphia. Hotels figured prominently in resort development. Some, like the United States Hotel (no longer extant) in Atlantic City, were owned by railroad companies (Princeton, 2022). Most of the prominent nineteenth century waterfront hotels are no longer extant. However, later generations of resort hotel development remain and still retain commanding ocean views. The NRHP-eligible Ritz Carlton Hotel is an 18-story building clad in brick that opened in June 1921. Constructed with elements of the Beaux Arts style, the building was designed by New York City architect Sir Charles Wetmore and was a prominent hotel in Atlantic City in the 1920s. The hotel was one of several hotels converted into army barracks during World War II, and in 1969 was converted into apartments (ACFPL, 2022).

De facto segregation was in place in Atlantic City from the 1920s to the 1960s where the city's African American community, concentrated on the Northside, was forced to use only the Missouri Avenue Beach. Commonly known as Chicken Bone Beach, it was located on city-owned land in front of Convention Hall and the Million Dollar Pier. A Black entertainment district developed in the Northside where prominent Black entertainers like Sammy Davis, Jr. performed at night clubs and then enjoyed bathing at the Missouri Avenue Beach with other African American vacationers (Bear, 2019; PBS, 2019; CBB 2022). In neighboring Brigantine City, the Brigantine Hotel, constructed in 1927 in the Art Deco style, was for a time a prominent desegregated hotel where both white and black guests could enjoy the associated beachfront. Purchased by the racially integrated Peace Mission Movement led by the Black pastor Father Divine, the Brigantine for a brief time in the 1940s provided inexpensive lodging and meals, and beach access for its followers and interested guests of both races. Seen by many as a racially integrated cult, the Mission

encountered resistance in Brigantine City. Under pressure, the Mission sold the hotel to the Atlantic City-based Black beauty product magnet, Sara Washington Spencer, who kept the hotel and beach open to both Black and White guests (Roi, 1948; Schultz and Kelly, 2002; Lurie and Mappen, 2004).

In 1923, Henry Phipps purchased the barrier island of Island Beach with the goal of building a resort for the upper class. A steel magnate, Phipps had a mansion built for himself in 1927. Dubbed the Ocean House, the one-and-one-half-story, cross-gabled residence was erected as part of the proposed development, though the Great Depression and Phipps's death ended any plans for a resort. In 1953, Phipps's estate sold the entire property, which had been incorporated as the borough of Island Beach, to the state of New Jersey. In 1959, the land was opened to the public as Island Beach State Park, with the Ocean House reserved as a gubernatorial vacation retreat. Because the resort was never developed the majority of the island's natural landscape was preserved. Within the boundaries of the park is the NRHP-eligible Judges Shack, which was constructed ca. 1911, and is the last known surviving example of its type. The Judge's Shack is a simple one-story vernacular fishing building converted on the interior in the 1940s into a rustic family retreat. Named for Judge Richard Hartshorne, the simple fishing shack was purchased by Hartshorne in 1942 and converted to a family weekend retreat. The building was moved to its current location in 1952 (IslandBeachNJ.com, 2022; Friends of Island Beach State Park, 2022; Kise Franks & Straw Inc., 1996).

Beach clubs have been a popular active and passive recreation space since the late 1800s. The clubs provided access to the beachfront, restaurants, both adult and children's swimming pools, spaces to play sports such as tennis, basketball, and spaces for families including bathhouses, playgrounds, and picnic areas. The clubs provided a comfortable place for families or individuals to spend free time in the warmer months for the cost of a membership fee. Today the beach clubs of New Jersey have become significant shoreline features and continue to provide extensive amenities to their members. The NRHP-eligible Deal Casino Beach Club is a beach-side, day use recreation facility including 570 bath houses ranging in size from 80 to 300 square feet, a large salt-water swimming pool, a large sundeck surrounding the pool area, and a long brick privacy wall with integrated public and commercial-use rooms. The original Deal Casino was built in 1907; "casino" was used at that time to refer to gathering places. The existing complex was built in 1957 (Kelly, 2023; The Plot, 2023).

3.1.5 Boardwalks

Historic properties like the NRHP-eligible Atlantic City Boardwalk Historic District reflect these resort communities' recreational connection to the water. Intended to prevent sand from being tracked into area businesses, the first iteration of a boardwalk was more appropriately called a "foot walk" and led from the beach to the business district of Atlantic City. In 1870, railroad conductor Alexander Boardman and hotelier Jacob Klein proposed an alternate design that would be the basis for the modern boardwalk. The design included wood planks arranged in a herringbone pattern with a concrete and steel substructure. As Atlantic City expanded and developed into the late nineteenth century, the boardwalk was reconstructed with more hotels, piers that housed carousels and dance floors, and electrical signs. Amusement piers were introduced to Atlantic City in the 1890s. These piers extended from the boardwalk into the ocean, and each offered unique entertainment options (Berberabe, 2021).

The boardwalks of New Jersey reached the pinnacle of their popularity in the 1920s with most communities undertaking continued upgrades and improvements. The Music Pier at Ocean City's boardwalk was opened in the

summer of 1929. It is located on the southeast side of the 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. 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.

The Great Depression led to a downturn in visitation to the New Jersey Shore. The Great Atlantic Hurricane of 1944 also caused significant damage, particularly to beachside recreational properties like the boardwalks (Berberabe, 2021; Discover Seaside Heights, 2011). Resort communities enjoyed a postwar resurgence in popularity which was also helped by the completion of superhighways, most significantly the NRHP-eligible Garden State Parkway (1946-1957), which further linked the barrier island communities with distant urban centers. New accommodations for highway travelers changed some of the architectural character of the vacation spots. As the Motels of the Wildwoods Multiple Property Documentation Form (64500880) notes:

> *The architects and builders in The Wildwoods worked to bring the high-style architecture of Florida down to an "everyman's" level. … Many of the most fantastical motels are constructed of simple concrete block walls and then use wood framing to create the modern appendages such as butterfly roofs, angled walls and porte-cocheres that match the stylistic designs conjured by the exotic names of the motels* (Zerbe et al., 2004).

The Aloha is a late example of Doo Wop or Populuxe motels built in Wildwood during the 1950s and 1960s. It is located adjacent to the boardwalk and the Wildwood beach, though the constraints of its narrow lot required that it be oriented perpendicular to the waterfront. It has several of the defining characteristics of the type, including three stories, continuous porches with wide, overhanging eaves supported by exposed steel beams and metal railings, and a second-story sundeck positioned at a right angle to the building.

While the automobile initially brought more tourists to the area, the usage of a car rather than a train led to visitors opting to stay at the shore for days at a time rather than an entire week or longer. Additionally, as air travel became more accessible for more Americans, many opted to vacation in destinations farther south in the Carolinas and Florida (ACFLP, 2022; Berberabe, 2021).

As noted above, weather-related events have resulted in significant physical impacts to boardwalks and their surrounding buildings. Most recently, Hurricane Sandy in 2014 caused extensive damage to several of New Jersey's boardwalks. A third of the boardwalk at Ocean Grove was destroyed and Sea Bright's entire boardwalk was destroyed and rebuilt by volunteers. After the storm, Atlantic City undertook a $34 million reinvestment campaign that included upgraded lighting, improvements to parks, and façade improvements for businesses (Urgo, 2015; Dube, 2016). Therefore, although the historic materials of boardwalks may have been replaced several times throughout their lifespan, New Jersey's boardwalks retain historic significance as a public gathering spot to take advantage of the maritime setting and location near and/or views of the water.

The historical significance of boardwalks is often rooted in their continuity of use as a focus for public recreation and may not be dependent on the integrity of materials and design for the boardwalk structures themselves, adjacent structures, or their visual settings. Despite the variability in historic integrity of boardwalks within the PAPE

(as well as alterations to many of the buildings located along them), potential visual impacts to boardwalks resulting from the Project have been identified as being of particular interest to the NJHPO. A meeting was held with the NJHPO on July 25, 2022, during which boardwalks were discussed as being of elevated interest and increased potential for adverse visual effects due to being a historic public gathering place along the water.

3.1.6 Primary Seaside Communities Within the PAPE

Although there are numerous smaller villages and population centers along the New Jersey shore with active economies tied to the water (through recreation, tourism, and other means), the primary seaside communities within the PAPE are Asbury Park, Atlantic City, Ocean City, and North Wildwood City.

Asbury Park is located in the extreme eastern extent of Monmouth County on the Atlantic shore between Allenhurst/Loch Arbour (to the northeast) and Ocean Grove (to the southwest). The most significant period of development in this area of the Jersey Shore took place in 1871 when New York City industrialist and devout Methodist James Bradley purchased a desolate stretch of land in what today constitutes Asbury Park. Bradley was inspired by the teachings of Bishop Francis Asbury and the success of the nearby seaside Methodist community in Ocean Grove. The land was platted and plans were made for residential lots, parks, and streets in what was to be a place for "healthful relaxation and quiet reflection" (Asbury Park Museum, 2021). The community was incorporated as a borough in 1874 and quickly attracted vacationers from New York City, Philadelphia, Newark, and Jersey City. By 1893 Asbury Park was chartered as a city and boasted large hotels, a bustling business district, reliable rail service, high style churches, and Victorian-era beach cottages. Realizing his ambition of a more pious community had been lost, Bradley sold his last real estate interests in the city in the early 20th century which brought on a subsequent wave of development. Into the 1920s and 1930s, Asbury Park became known for its impressive entertainment venues (including the Asbury Park Convention Hall constructed between 1928 and 1930), amusement attractions, stores, and hotels. In contrast to the predominantly white travelers and residents of Asbury Park, a minority community comprising African Americans, Jews, and immigrants was established in West Side or West Park anchored by a thriving business artery along Springwood Avenue. Asbury Park came to prominence in the American music scene in the late 1970s when Southside Johnny and the Asbury Jukes played a live concert at the Stone Pony located on Ocean Avenue North to commemorate their debut album. The band was well known in the local music scene as the house band for the Stone Pony and the band and live concert and radio broadcast catapulted the career of a then-unknown Bruce Springsteen (Asbury Park Museum, 2021; The Stone Pony, 2022).

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).

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, the Ocean City Association was formed by a group of Methodist ministers and purchased Peck's Beach. The group envisioned creating a Christian seaside resort. They sold 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).

North Wildwood City is in Cape May County north of Wildwood City on the Atlantic coast barrier island known as Five Mile Beach. The area was used as a fishing, herding, and whale processing locale during the seventeenth and eighteenth centuries and did not have any permanent settlement until the village of Anglesea was established by Swedish fishermen around 1870. The hazardous conditions at the Hereford Inlet at the north end of the island prompted the construction of the Hereford Lighthouse, completed in 1874. A rail line was established between Cape May Courthouse and Anglesea in 1884, which, along with the Rio Grand bridge, made the island more accessible from the mainland. Shortly after, in 1885, Anglesea was designated a borough. The community was renamed North Wildwood in 1906 to capitalize on the tourist trade that was booming in their neighbor to the south. Within eleven years the municipality grew large enough to be designated as a city. The area's economic base is commercial with an emphasis on tourism, including hotels and boardwalk attractions (Zerbe et al., 2004; History of North Wildwood, 2022).

3.2 Methodology to Identify Aboveground Historic Properties[6]

As noted in Section 1.1, an aboveground historic property is defined per 36 CFR 800.16 as any property that has been listed in, or determined eligible for listing in, the NRHP, or designated an NHL. To identify aboveground historic properties that could be affected by the Project, EDR first conducted a desktop review of the records of state and federal agencies, GIS databases, previous cultural resources surveys, local inventories, and historical collections to develop an inventory of previously identified aboveground historic properties within the PAPE for the Project.

Resources reviewed as part of this process included:

- The New Jersey Department of Environmental Protection (NJDEP) Look Up Cultural Resources Yourself (LUCY) website (NJDEP, 2021a)

[6] As discussed in Section 1.2, this report addresses only aboveground historic properties within the PAPE for the Project.

- The Atlantic County Division of Parks and Recreation Historical Sites webpage (Atlantic County, 2021)
- The Monmouth County Parks System (MCPS) Monmouth County Historic Sites Inventory (MCHSI) website (MCPS, 2021)
- Multiple Property Documentation Forms for relevant aboveground historic properties located within the PAPE
- Aboveground historic properties identified as part of studies conducted by BOEM in 2012 in order to prepare a GIS database of known aboveground cultural resources/historic properties that could be affected by the introduction of offshore energy facilities along the east coast of the United States[7]
- Municipal-level (i.e., county, town, city, or village) historian's offices and associated online databases
- Privately run local and regional historical societies.

In addition, EDR identified any potentially previously unreported aboveground historic properties (i.e., properties that appear to be at least 40 years of age or more that have not been previously documented or included in existing historic databases) located within the PAPE. This process included the following:

- Identification of all structures within the PAPE using the Microsoft United States Building Footprint database
- Obtaining open parcel data and assessors' information to determine the age of the structures (if available) in order to identify all structures within the PAPE that are 40 years of age or greater
- Completion of a desktop analysis, including a review of recent aerial photographs, street views, and pictometry images (where available) to determine whether each structure is extant, or no longer meets NRHP eligibility criteria (i.e., has lost integrity or is clearly not historically significant)
- Delineation of potential historic districts for neighborhoods or clusters of properties consisting of similar style and construction dates, or otherwise linked by historic significance to review as part of field surveys.

A viewshed analysis (described in Section 2.2.1) was completed to determine which specific potential aboveground historic properties were located within the PAPE (i.e., within areas where there is a theoretical potential for visibility of the Project). This analysis was conducted by first using the Spatial Join extension in the ESRI ArcGIS® software to determine which aboveground historic properties within the 46-mile (74 km) radius of the WTA boundary were

[7] Klein, J.I., M.D. Harris, W.M. Tankersley, R. Meyer, G.C. Smith, and W.J. Chadwick. 2012. Evaluation of visual impact on cultural resources/historic properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits. Volume I: Technical report of findings. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2012-006. 24 pp., and Klein, J.I., M.D. Harris, W.M. Tankersley, R. Meyer, G.C. Smith, and W.J. Chadwick. 2012. Evaluation of visual impact on cultural resources/historic properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits. Volume II: Appendices. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2012-007. 10 appendices.

found to fall within the preliminary viewshed. Next, redundant points were eliminated, along with contributing properties (e.g., those not individually significant) which were located within historic districts.

The aboveground historic properties located within the PAPE may be considered to have "potential visibility." In other words, the Spatial Join function used by ESRI ArcGIS® determined that some portion of each aboveground historic property was found to intersect with the viewshed. To provide a more accurately defined list of aboveground historic properties that may have potential views of the Project, a further level of assessment of the aboveground historic properties within the PAPE was completed, which was intended to focus the assessment of potential visual effects on aboveground historic properties to those that would have more precise assessment of potential visibility.

Based on the initial viewshed analysis a total of 13,924 candidate properties were identified in the 46-mile (74 km) viewshed buffer and PAPE. Single "pixels," or "cells," of visibility produced in the 3 m viewshed assessment for the Project (described in Section 2.2.1) represent 0.00222-acre, or approximately 96 square feet (8.9 square meters) of space and may be considered erroneous or otherwise not representative of actual visibility. Therefore, aboveground historic properties with only one "cell" of visibility were not considered to have actual views of the Project and were removed from further consideration for potential impacts. In addition, the viewshed analysis indicated potential Project visibility within the boundaries of properties where further review indicated that no components of the WTGs (e.g., blade tips) would be visible from these properties; therefore, these properties were removed from further consideration.

Screening provided by vegetation, structures, or other objects, especially from inland and developed areas, affects the potential visibility of the Project from a given parcel located within the PAPE, and was also taken into consideration as part of desktop review. Based on observations gathered as part of field review, as well as previous experience conducting historic resources surveys and assessing visibility and potential impacts for previous offshore wind projects, candidate properties with less than 0.25-acre of potential visibility as well as less than 10 percent of potential PAPE visibility within their boundaries were observed to be generally located in areas of considerable screening by vegetation, buildings, and distance. Therefore, actual Project visibility was anticipated to be unlikely. See Figures 3.2-1 through 3.2-3 for examples of properties located in these areas of minimal potential Project visibility described above, where significant screening that would limit or eliminate Project visibility were documented during field surveys.

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Figure 3.2-1. View East to the Project from Danby Place in Point Pleasant Beach.

Although the PAPE indicates potential visibility from houses along side streets extending from the Point Pleasant Beach Boardwalk, due to the intervening built environment potential views of the water (and the Project) are completely screened. The distance to the Project is approximately 29.7 miles.

Figure 3.2-2. View West to Ocean Front Road in Point Pleasant Beach.

Although the PAPE indicates potential visibility along Ocean Front Road in Point Pleasant Beach, due to the recent dune restoration, potential views of the water (and the Project) are completely screened. The distance to the Project is approximately 28.8 miles.

Figure 3.2-3. View Northeast along Salem Road to the Project.

Although the PAPE indicates potential visibility from several points along Salem Road in Margate City, due to the intervening built environment potential views of the water (and the Project) are completely screened. The distance to the Project is approximately 21.4 miles.

As a result of this process, 1091 potential aboveground historic properties were considered for further desktop review and analysis as described below.

3.2.1 Desktop Review and Analysis

EDR's SOI Qualified architectural historians performed a desktop review to determine which properties are nonextant or are clearly not eligible for the NRHP. Of the remaining properties, the majority of these were buildings that based on parcel data were built greater than 40 years ago but that may not meet NRHP eligibility criteria (i.e., are not historically or architecturally significant). A review of the sources identified above include only aboveground historic properties and did not include any previously identified archaeological sites located within the WTA PAPE.

Analyses of the Project's potential to effect archaeological resources are described in the MARA (Appendix II-Q to the COP) and Terrestrial Archaeological Resources Assessment (Appendix II-P to the COP) reports.

3.2.2 Field Surveys

Following the completion of the desktop review of potential aboveground historic properties, field surveys were conducted by SOI qualified professionals in November and December 2022. Survey fieldwork included systematically driving public roads within the PAPE to document the integrity and setting of previously identified aboveground historic properties (e.g., NRHP-listed and eligible properties) and to evaluate the potential views of the Project, as well as NRHP eligibility of the structures and properties within the PAPE. When properties within the PAPE that appeared to satisfy NRHP eligibility criteria (or that were worthy of further investigation) were identified, the integrity of the properties was documented by EDR's SOI Qualified architectural historians. This included photographs of the building(s) (and property) and field notes describing the style, physical characteristics and materials (e.g., number of stories, plan, external siding, roof, foundation, and sash), condition, physical integrity, and other noteworthy characteristics for each resource. Other known criteria aside from architecture which may contribute to a property's NRHP eligibility were also noted and evaluated. In particular, the maritime setting and views toward the ocean (and ultimately, the Project) were also documented from each property surveyed in order to assess potential effects to any properties determined to be historic (see Section 4.1.4).

EDR's evaluation of potential aboveground historic properties within the PAPE focused on the seven aspects of integrity (location, setting, design, materials, workmanship, feeling, and association) to assess the potential architectural significance of each property. If deemed appropriate, individual buildings located within thematically related clusters were documented collectively as historic districts. For previously identified aboveground historic properties within the PAPE whose NRHP eligibility had not formally been determined, EDR took updated photographs and collected field notes to inform a recommendation of potential NRHP eligibility. Where significant changes to materials or form were found to have occurred, or if a property was found to no longer be standing, an updated recommendation of NRHP eligibility was recorded. All potential aboveground historic properties included in the surveys were photographed and assessed from public rights-of-way and were evaluated based solely on the visible exterior of the structures.

Following completion of the field surveys these properties were further evaluated for potential NRHP eligibility based on desktop research. Approximately 88 percent of the properties documented during the field surveys were removed from further consideration and analysis due to being nonextant or not meeting NRHP eligibility criteria. In addition, several properties that were newly identified during the field surveys were determined based on desktop review to not be located in the PAPE, and therefore were not considered for further analysis. It is worth noting that field review conducted as part of the surveys confirmed that actual views toward the ocean and the Project were significantly more limited than the viewshed analysis indicated. In particular, site visits to several inland potential aboveground historic properties demonstrated that although the viewshed indicated potential views of the Project along roadways and in clearings, actual visibility toward the water was significantly limited and, in many cases, completely screened by buildings, topography, and vegetation. In addition, it was observed during field surveys that actual visibility of the water (and therefore, potential visibility of the Project) from developed areas adjacent to the

shoreline was fairly limited and generally did not extend beyond 500 feet. Therefore, properties located over 500 feet from the shoreline that have not been previously identified as a historic property per 30 CFR 585 and clearly did not meet NRHP eligibility criteria were not further considered as part of this analysis. Examples of these types of properties are depicted in Figure 3.2-4 and 3.2-5.

Figure 3.2-4. View Northeast to the Project from the intersection of Arctic Avenue and North Mississippi Avenue in Atlantic City.

Potential aboveground historic properties were identified along Arctic Avenue in Atlantic City. Although the PAPE indicates potential visibility along the roadway, due to the intervening construction and its inland location (distance to the Project is approximately 17.6 miles), potential views of the water (and the Project) are completely screened.

Figure 3.2-5. View East to the Project across Great Bay from Oyster Creek Road in Galloway Township.

Although the PAPE indicates potential visibility from Oyster Creek Road in Galloway Township, due to the distance to the Project (distance to the Project is approximately 15.7 miles), potential views of the water (and the Project) are completely screened.

3.3 Aboveground Historic Properties within the PAPE

Following a review of the field survey results, EDR identified a total of 113 aboveground historic properties within the Project PAPE for assessment of potential adverse impacts, including two NHLs, 26 individual properties and historic districts listed in the NRHP, 57 individual properties and historic districts formally determined eligible for the NRHP, and 28 individual properties and historic districts recommended to meet NRHP eligibility as a result of field surveys. Historic districts were identified as a single aboveground historic property rather than to each of the contributing properties, as not all contributing properties within historic districts are located in the PAPE.

All aboveground historic properties within the PAPE assessed for potential adverse impacts are depicted in Figure 3.2-1 and summarized and enumerated in Table 3.2-1 and Attachment D. The potential effect on each individual NHL located within the PAPE is included in Attachment A, each historic district in the PAPE in Attachment B, and each individual property listed on, recommended, or determined eligible for listing in the NRHP in Attachment C.

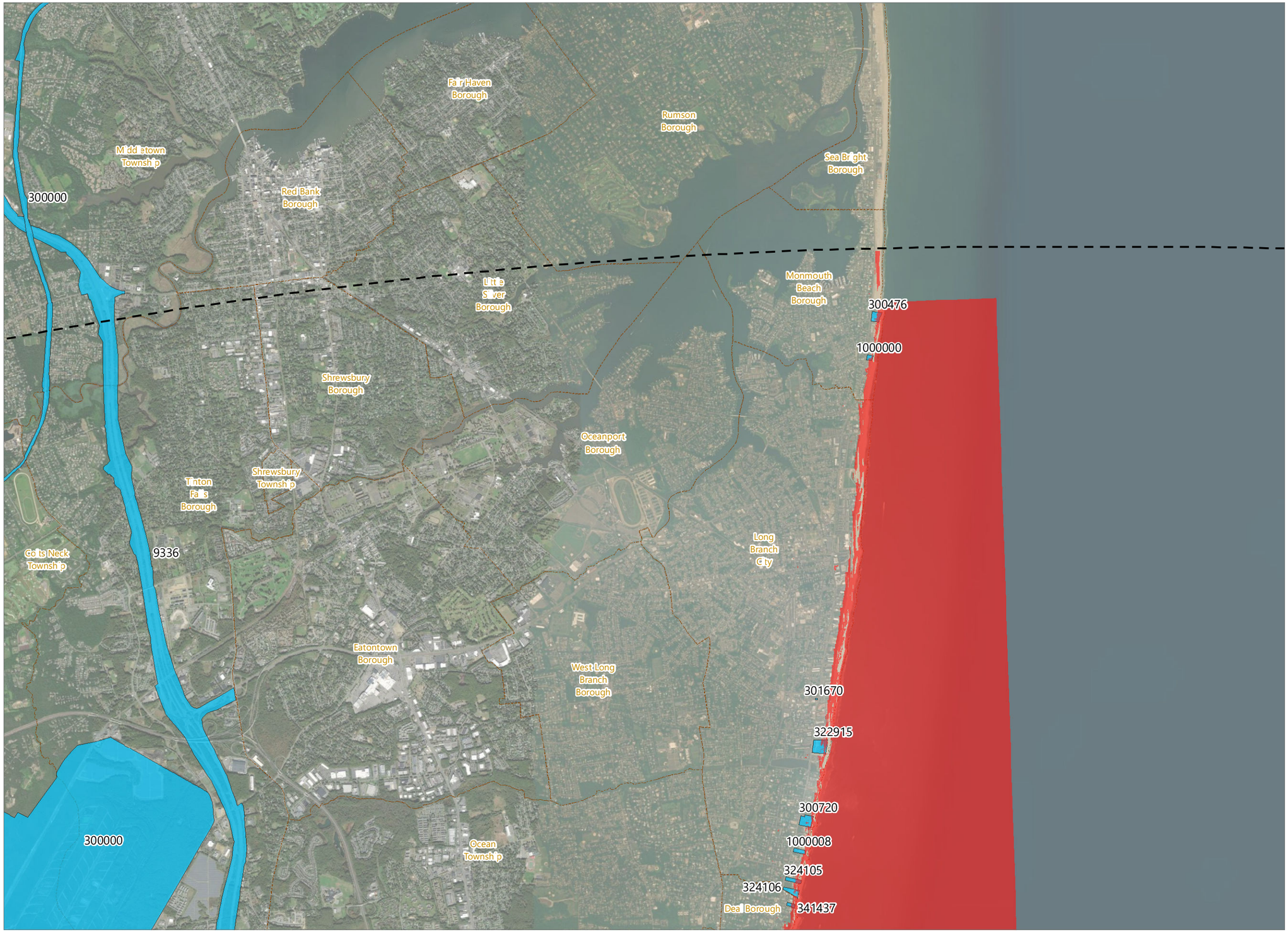
Table 3.3-1. Aboveground Historic Properties within the PAPE

Property Designation	Occurrences of Aboveground Historic Properties Within The PAPE
NHL properties	2
Aboveground Historic Properties and Historic Districts Listed in the NRHP	26
Aboveground Historic Properties and Historic Districts Determined Eligible for Listing in the NRHP*	57
Aboveground Historic Properties and Historic Districts Recommended Eligible for Listing in the NRHP**	28
Total	**113**

* This includes properties formally determined NRHP-eligible by NJHPO or BOEM whose NRHP eligibility was confirmed as part of the field surveys.

** This includes properties previously inventoried without a formal determination of NRHP eligibility that have been recommended by EDR to meet NRHP eligibility, including properties contributing to NRHP-eligible historic districts.

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects



Atlantic Shores Offshore Wind Project

Outer Continental Shelf

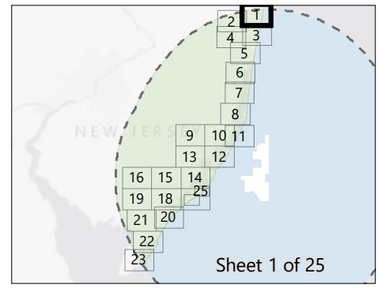
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



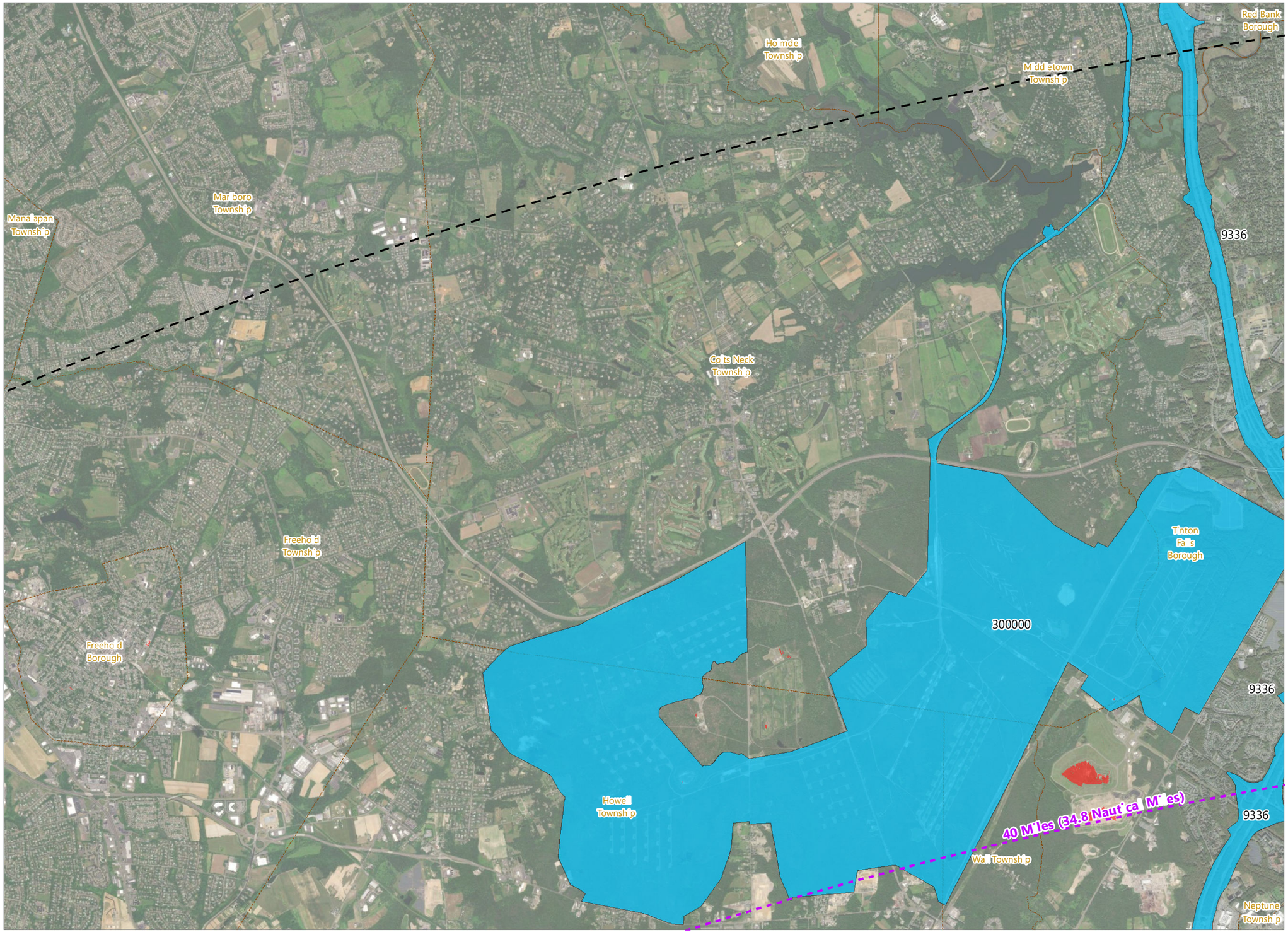
0 0.25 0.5 1
Miles

Prepared December 18, 2023
Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects



Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

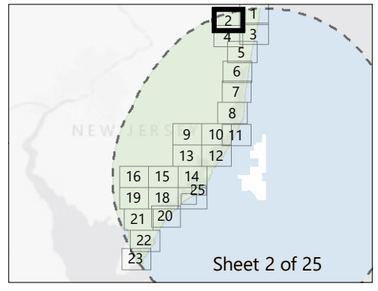
Aboveground Historic Property

- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

Prepared December 18, 2023

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ATLANTIC SHORES offshore wind

EDR

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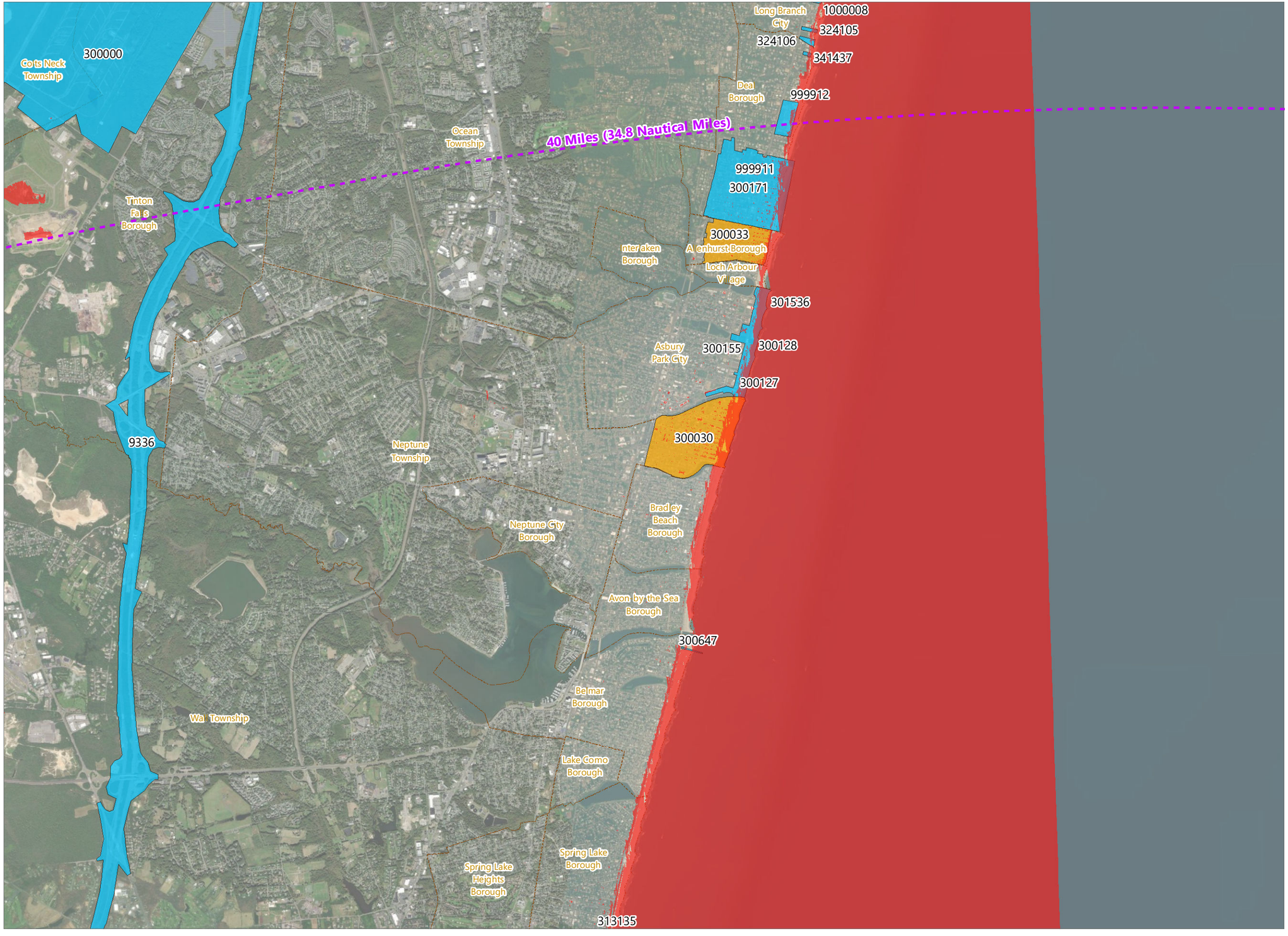


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

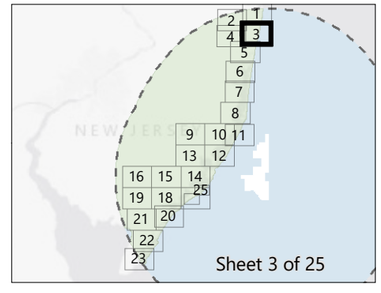
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

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Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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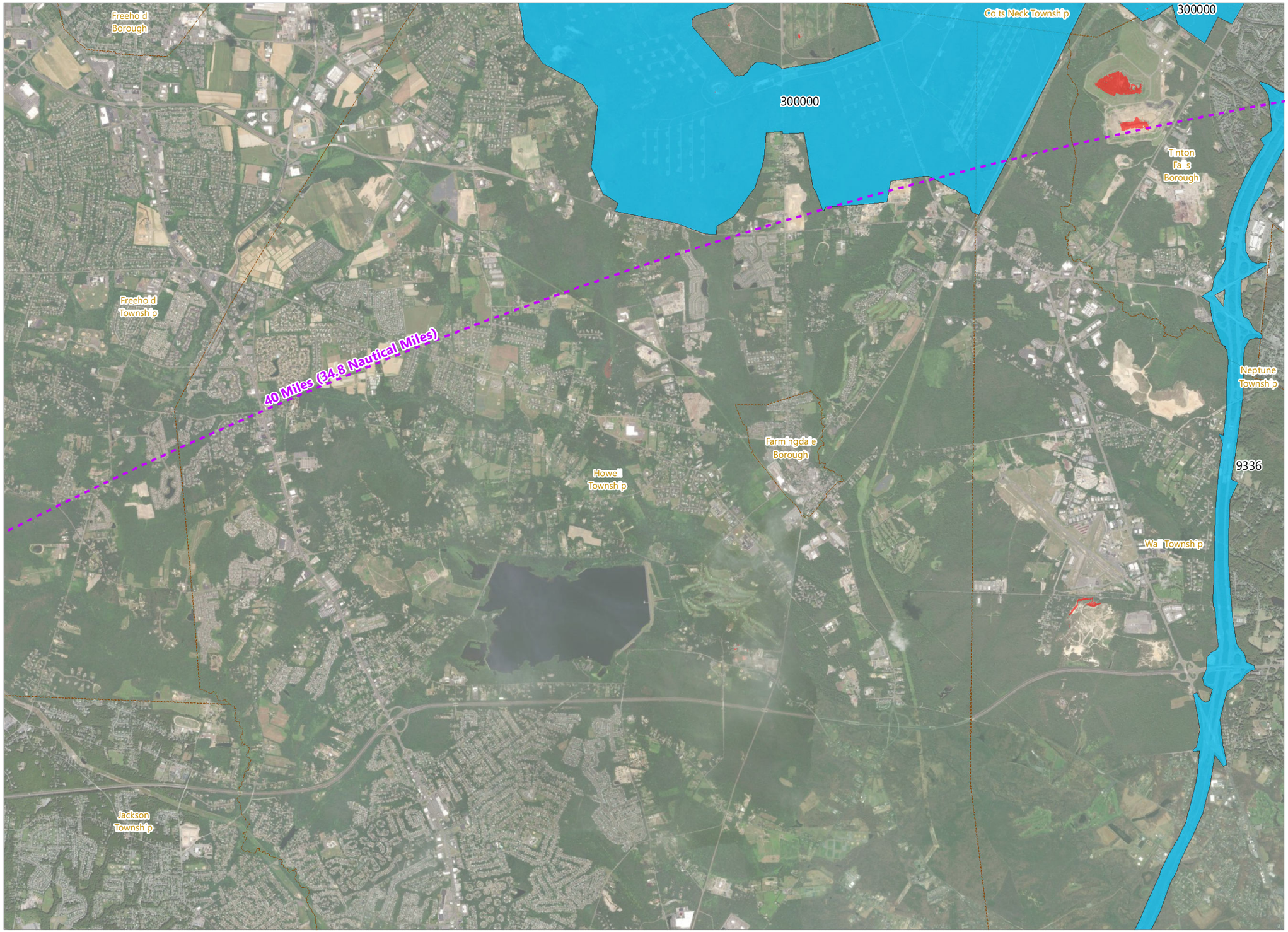


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

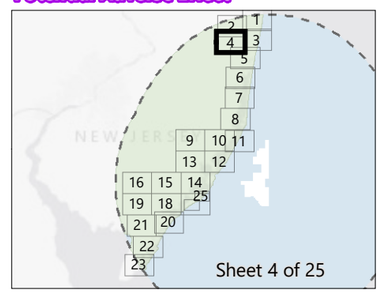
Aboveground Historic Property

- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

Prepared December 18, 2023

Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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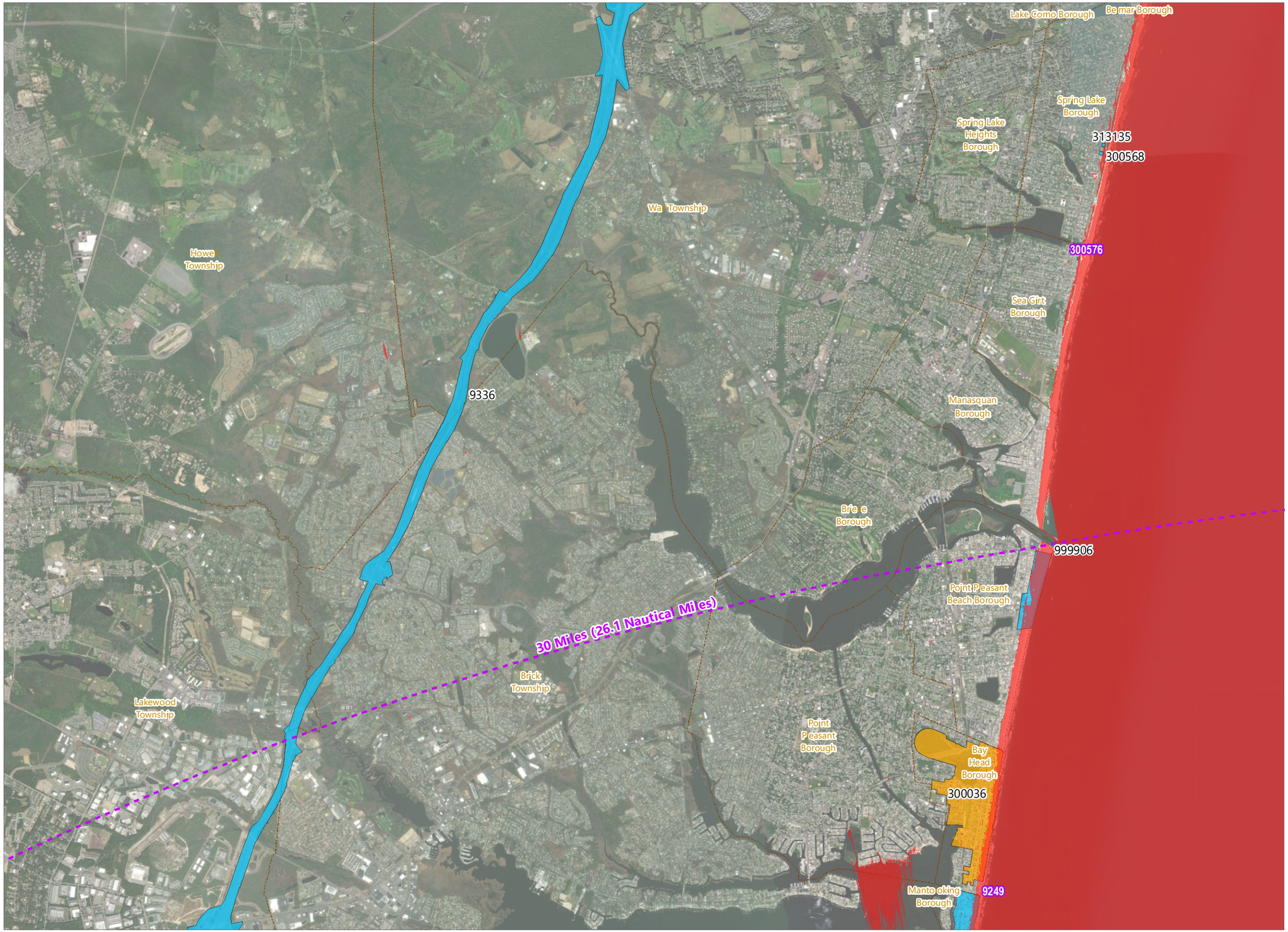


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

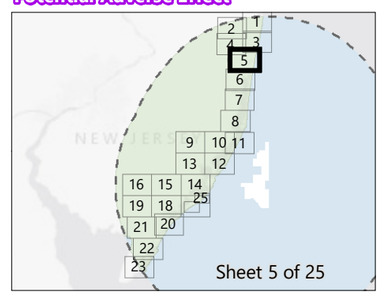
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Listed Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1
Miles

Prepared December 18, 2023
Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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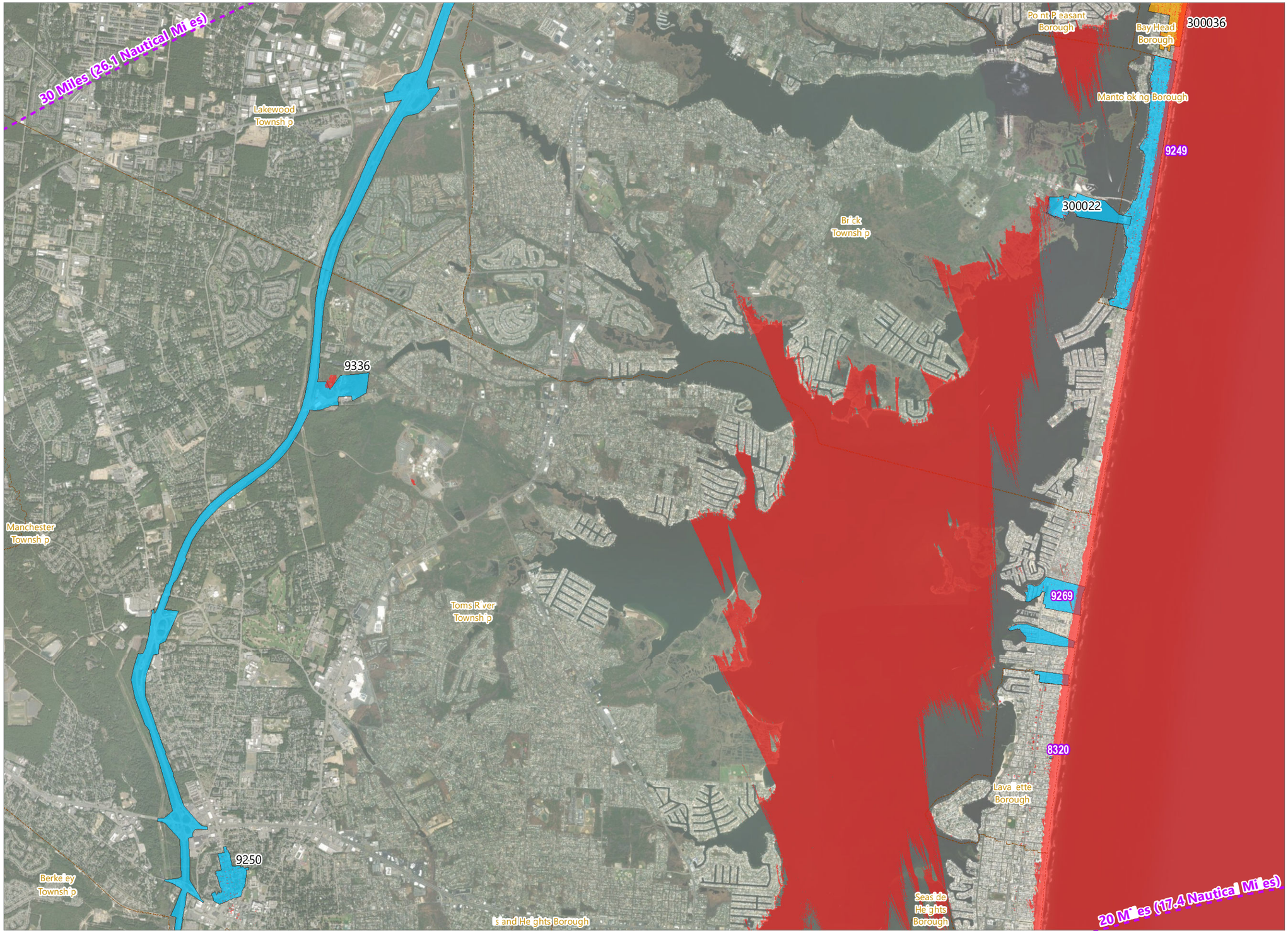


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

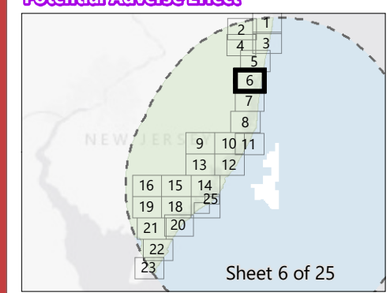
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

Prepared December 18, 2023

Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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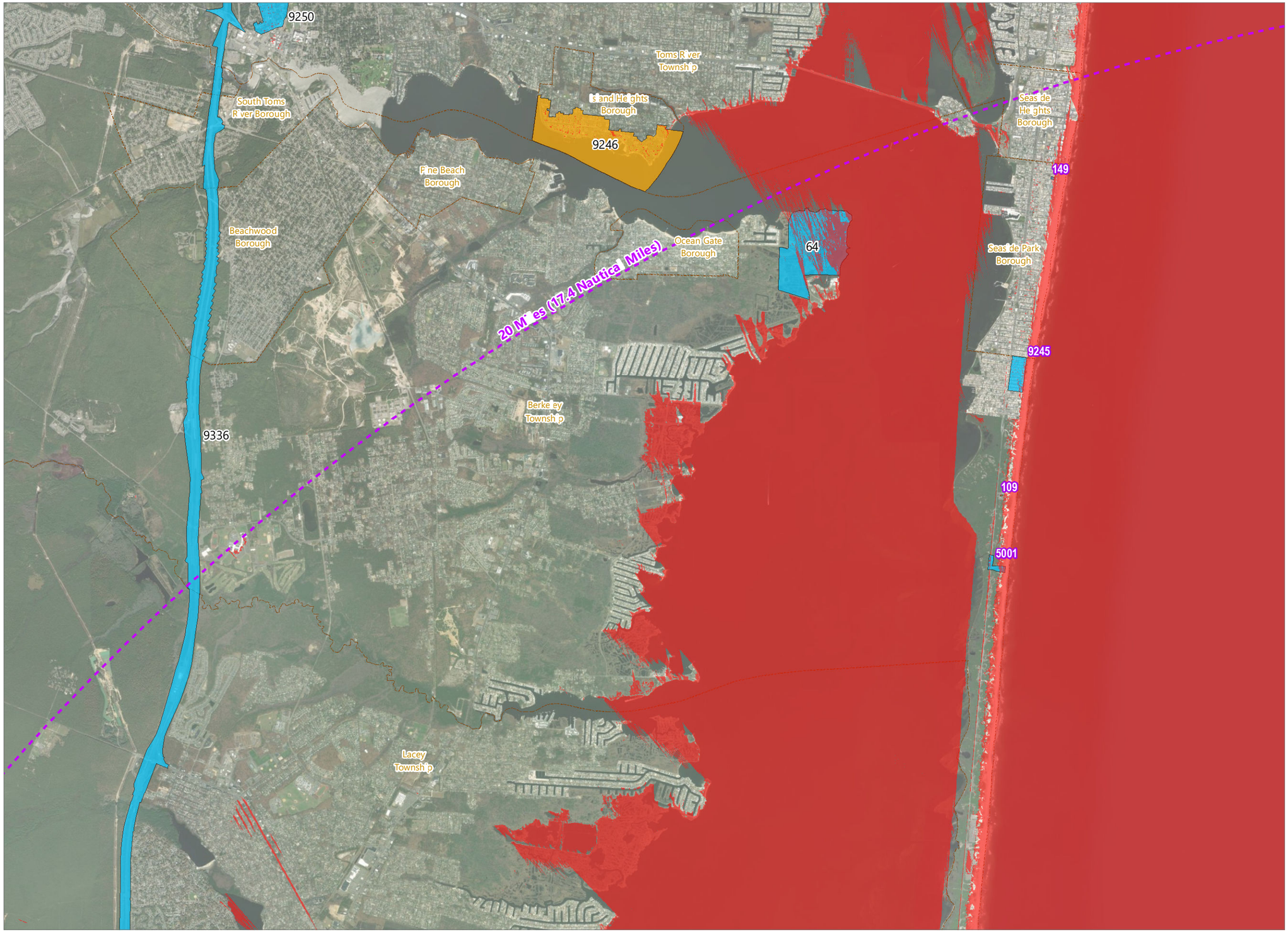


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

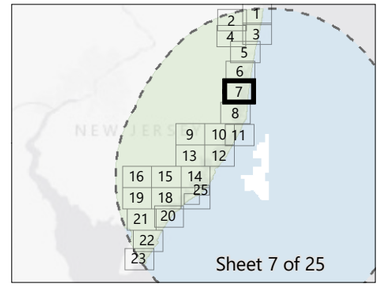
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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Miles

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Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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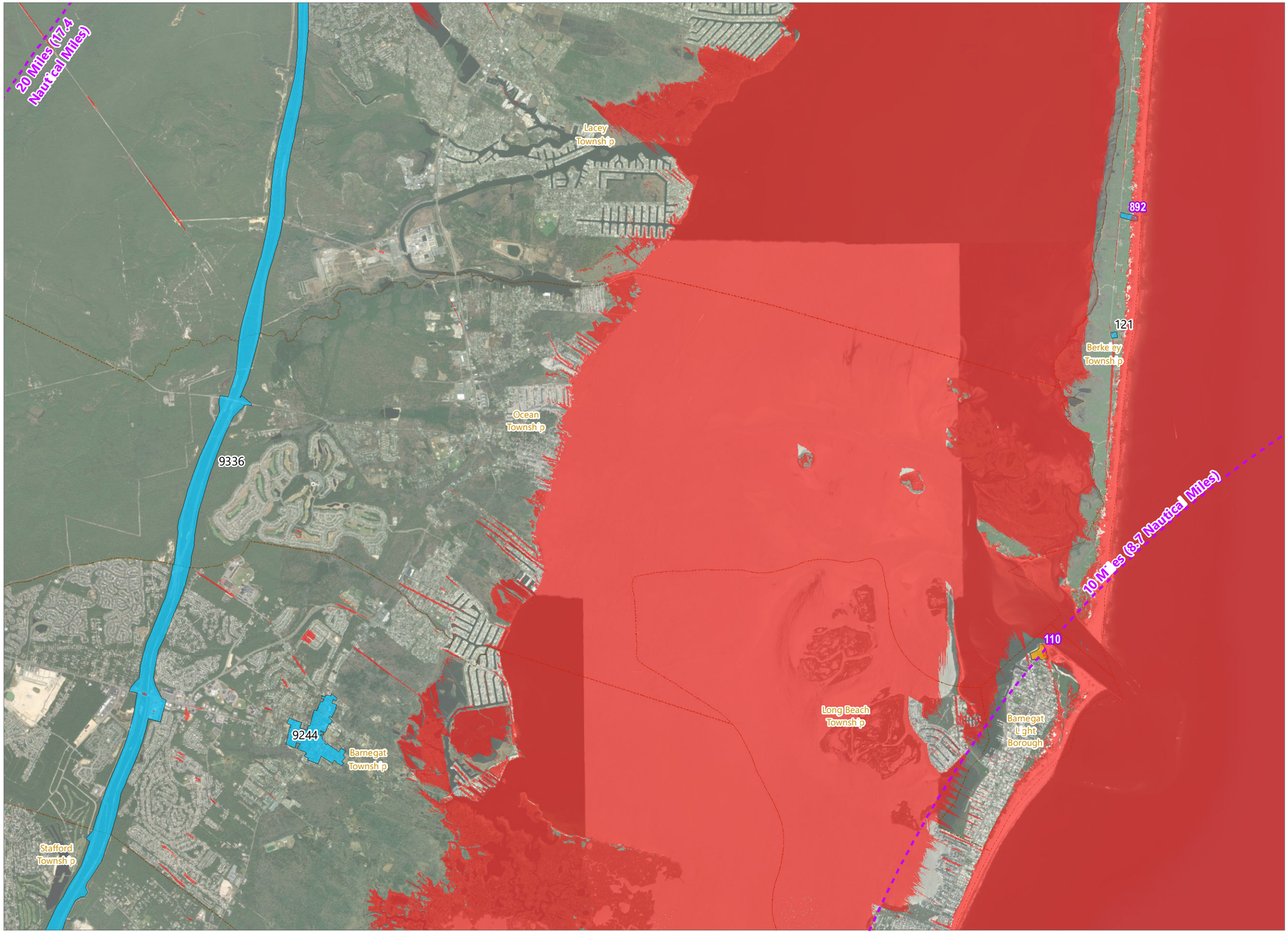


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

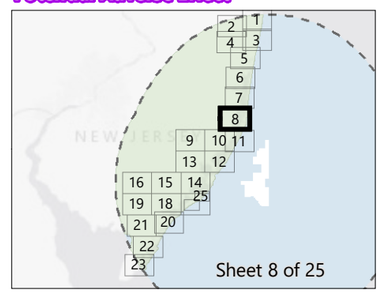
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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Miles

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ATLANTIC SHORES offshore wind

EDR

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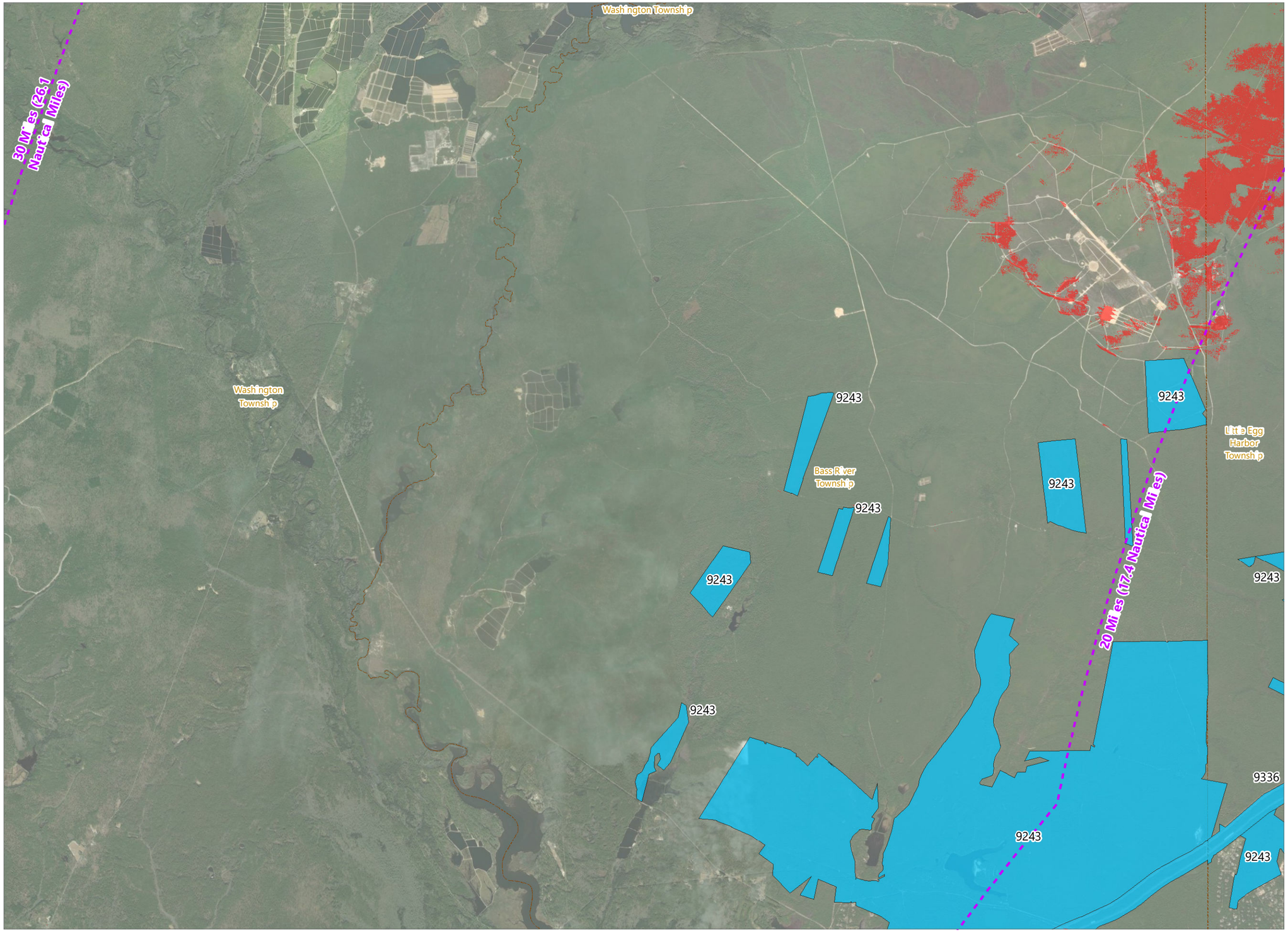


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

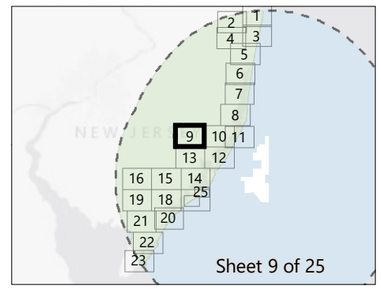
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1
Miles

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Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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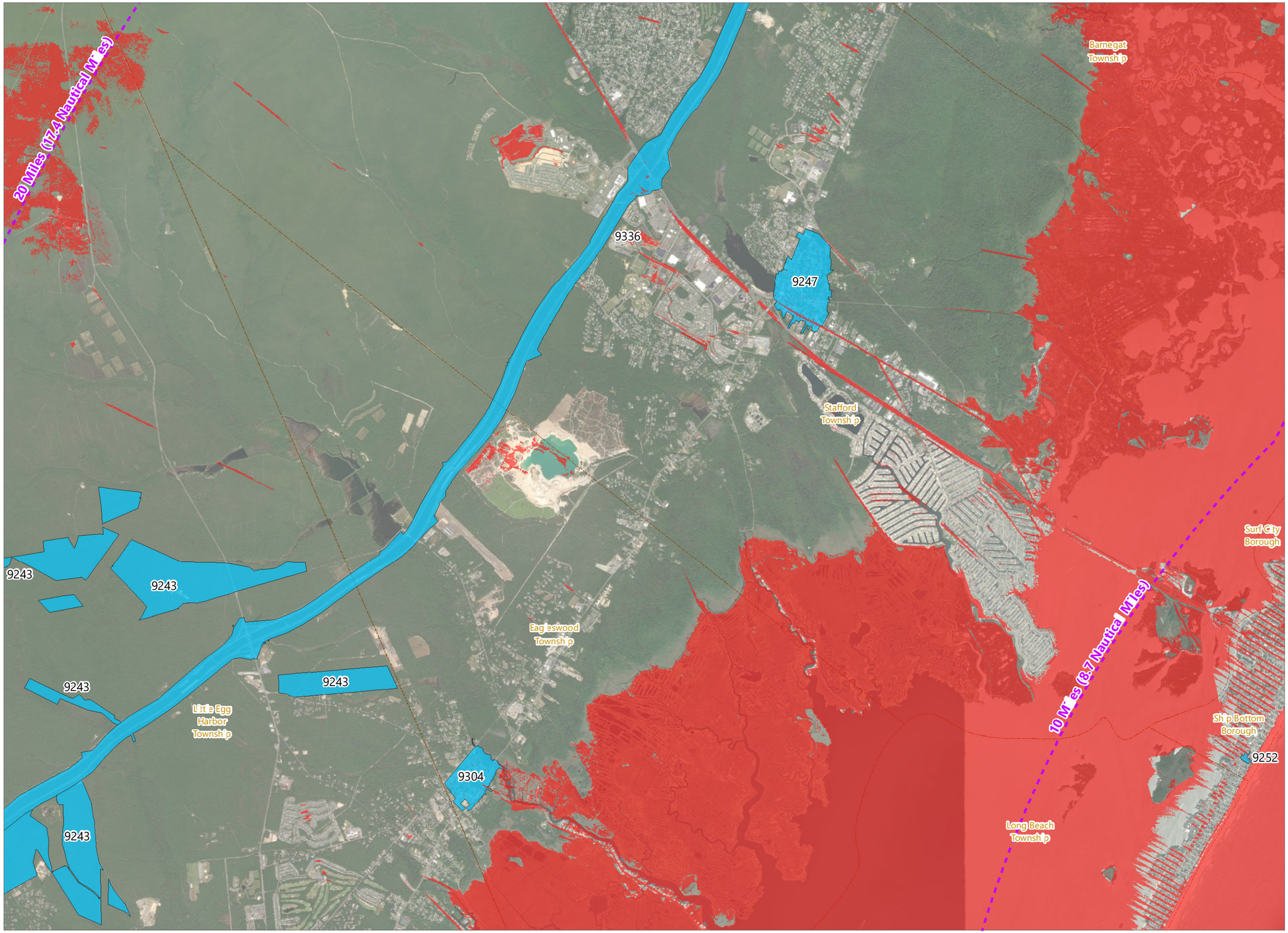


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

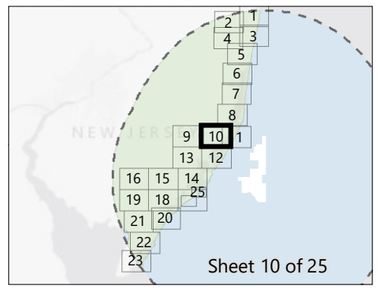
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1
Miles

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ATLANTIC SHORES offshore wind

EDR

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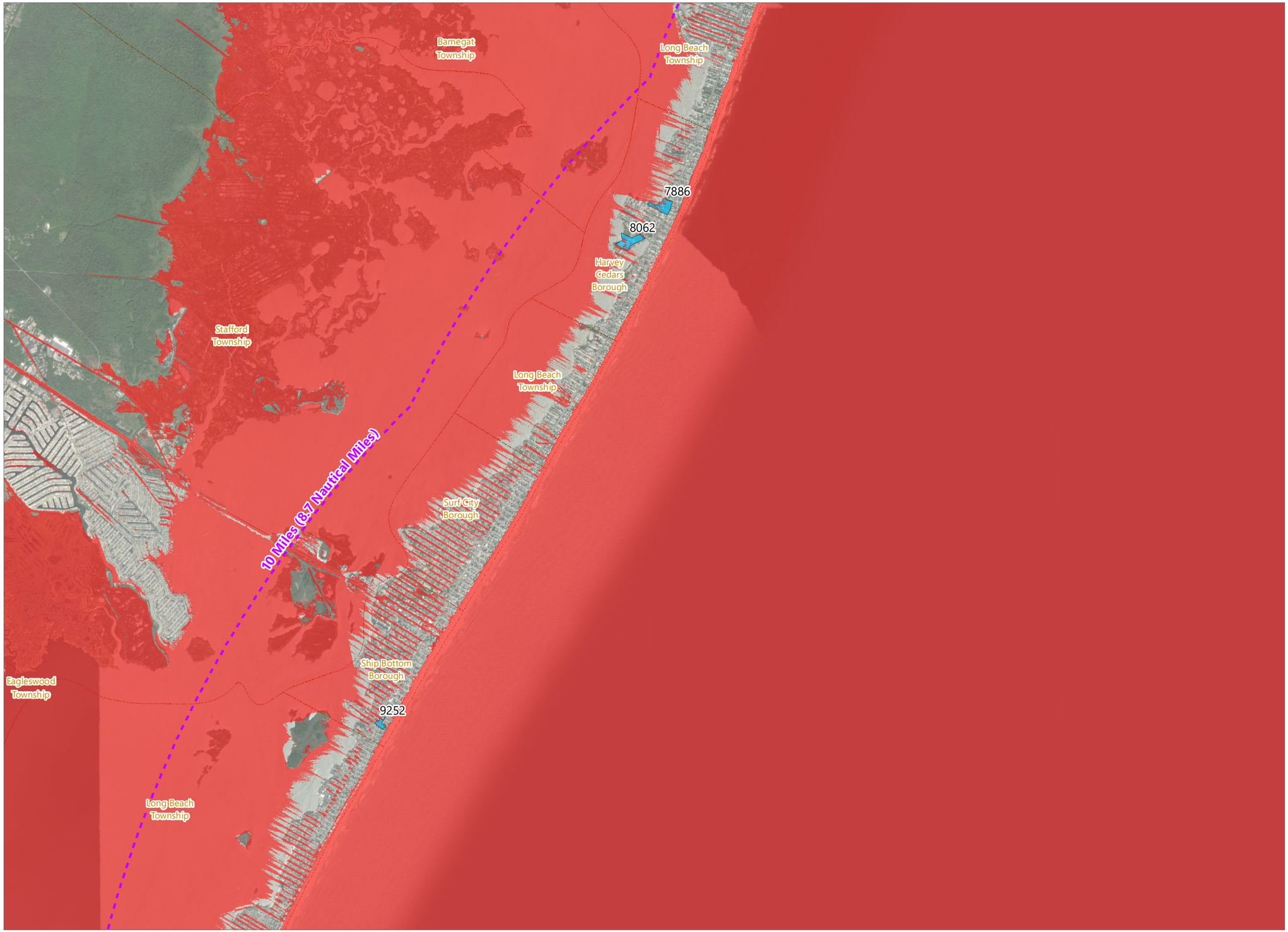


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

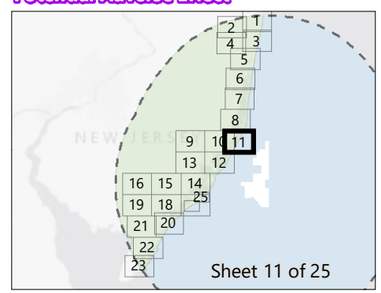
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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Miles

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ATLANTIC SHORES offshore wind

EDR

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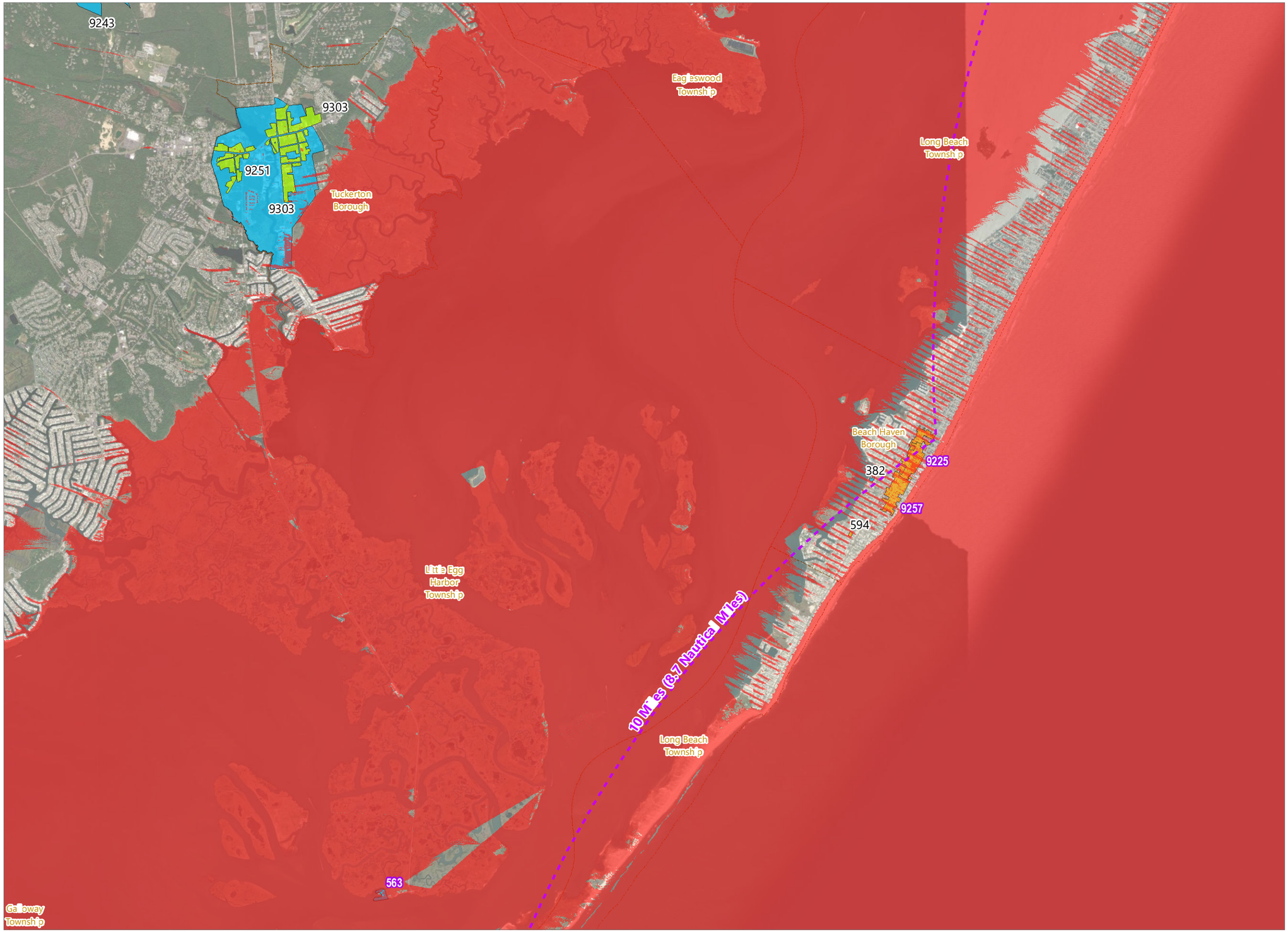


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

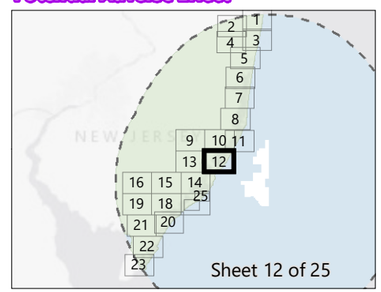
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Potentially NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

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ATLANTIC SHORES offshore wind

EDR

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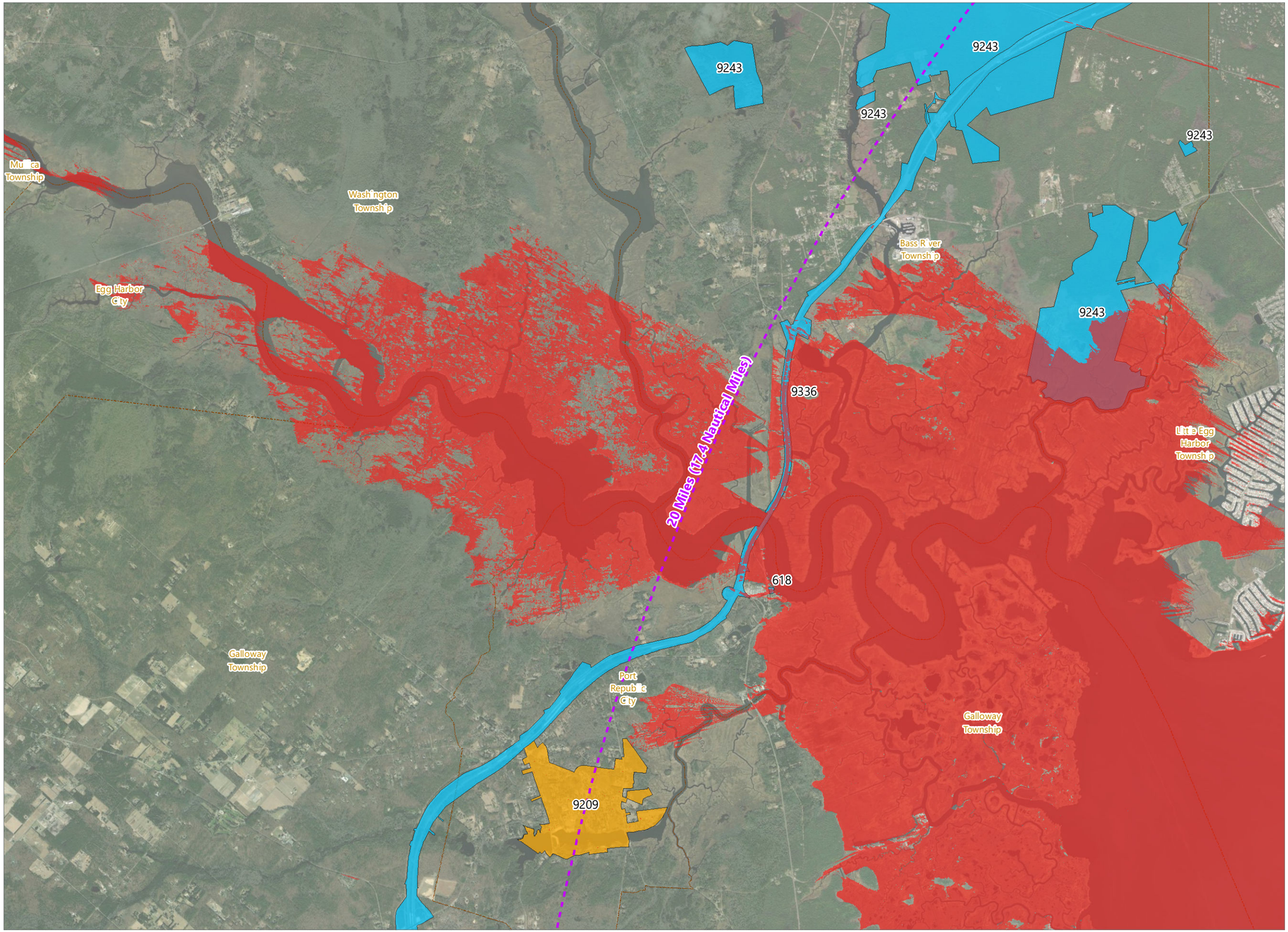


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

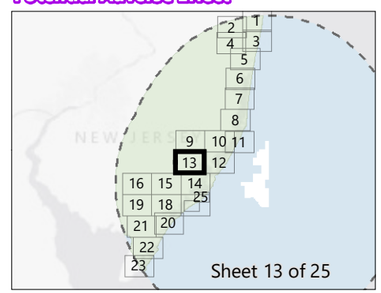
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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ATLANTIC SHORES offshore wind

EDR

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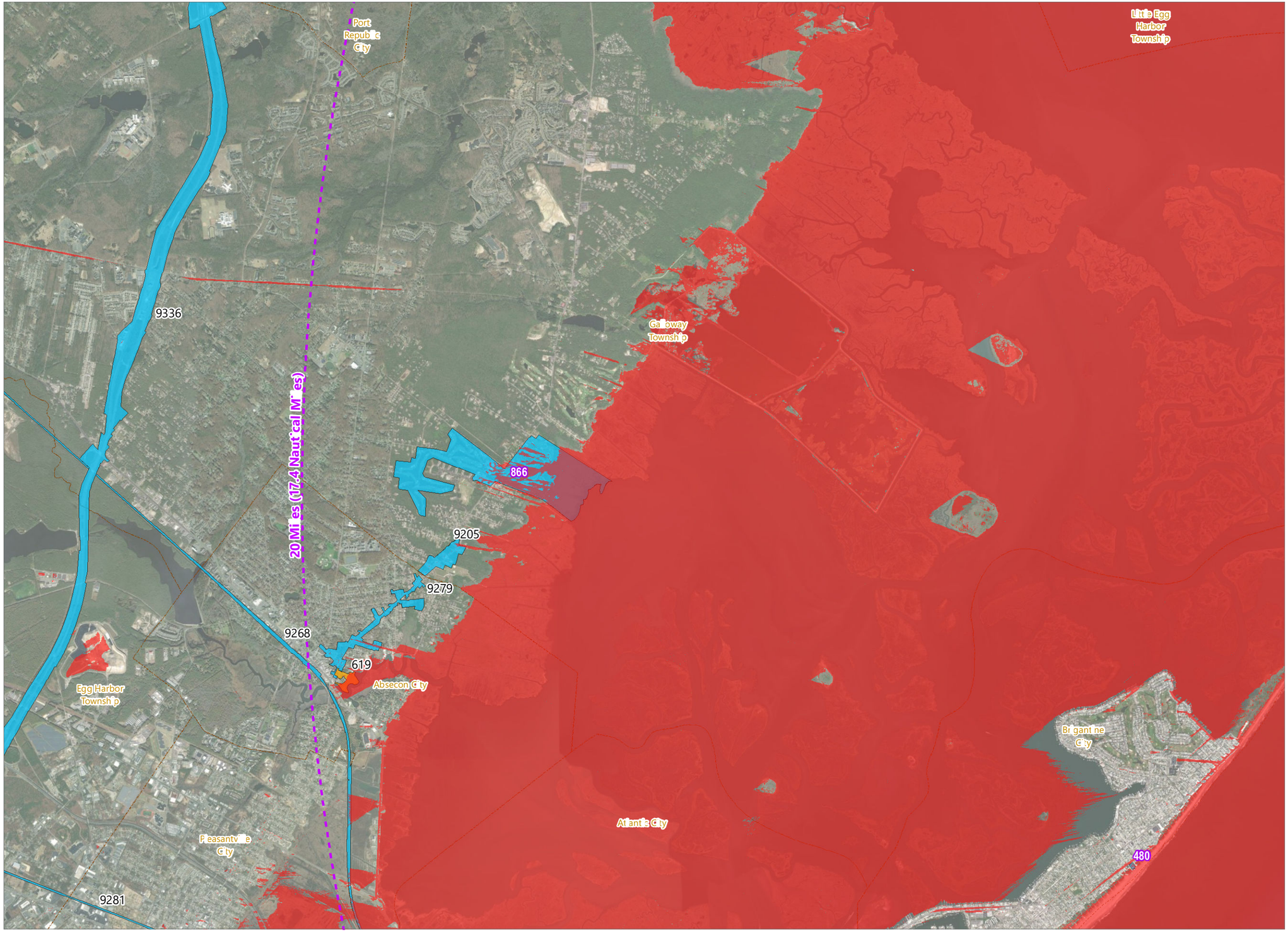


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

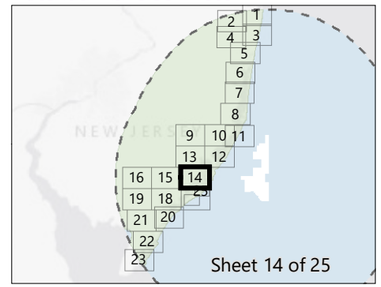
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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ATLANTIC SHORES offshore wind

EDR

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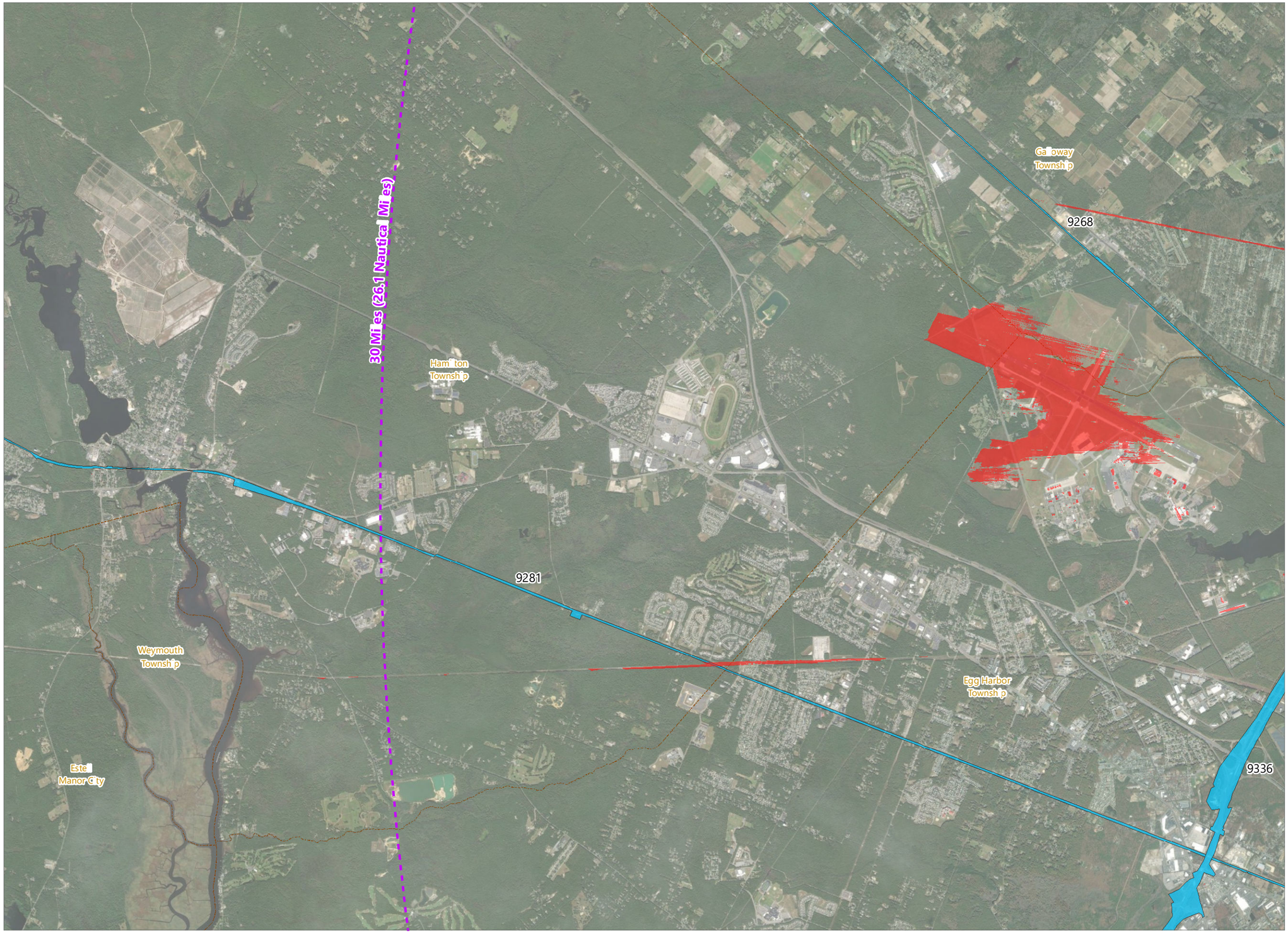


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

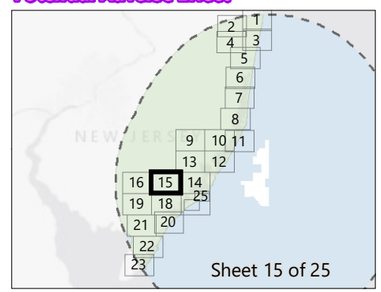
Aboveground Historic Property

- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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Miles

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ATLANTIC SHORES offshore wind

EDR

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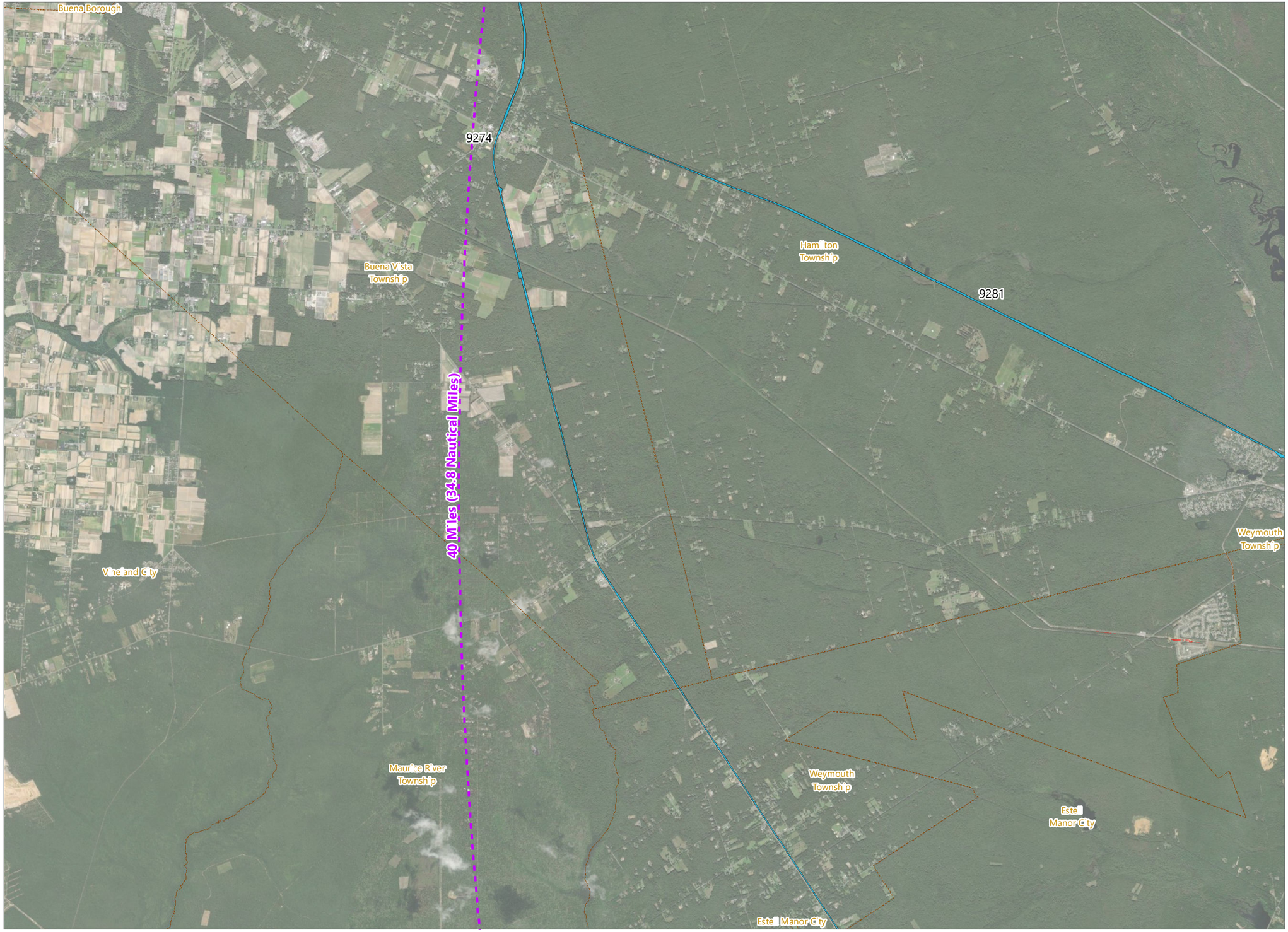


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

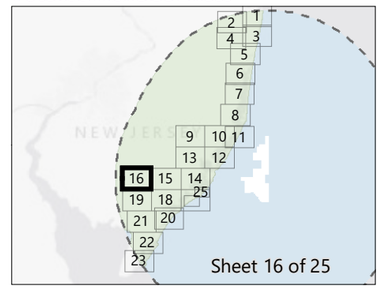
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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ATLANTIC SHORES offshore wind

EDR

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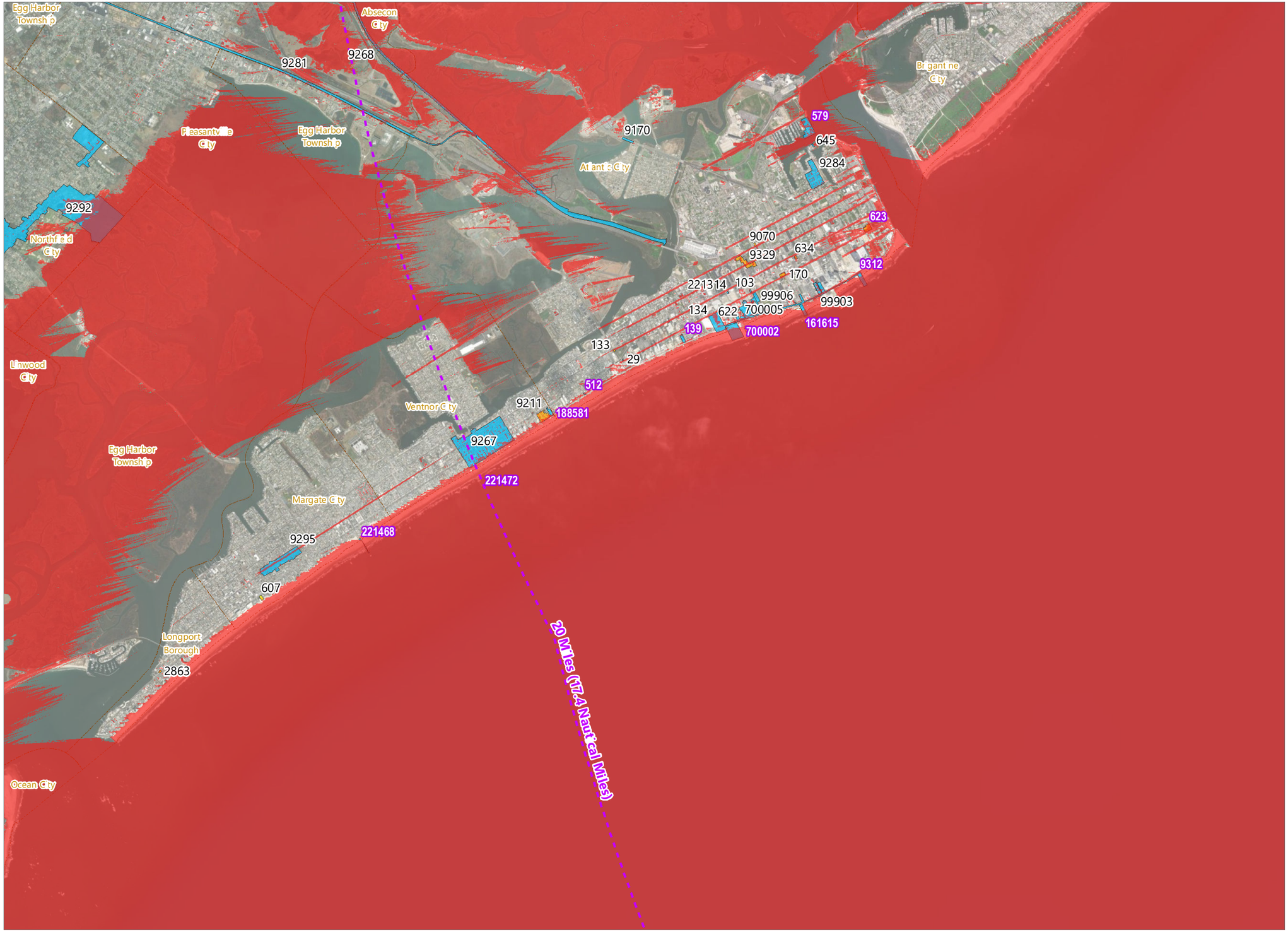


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

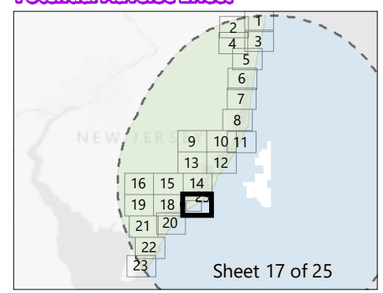
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
National Historic Landmark
NRHP-Listed Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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ATLANTIC SHORES offshore wind

EDR

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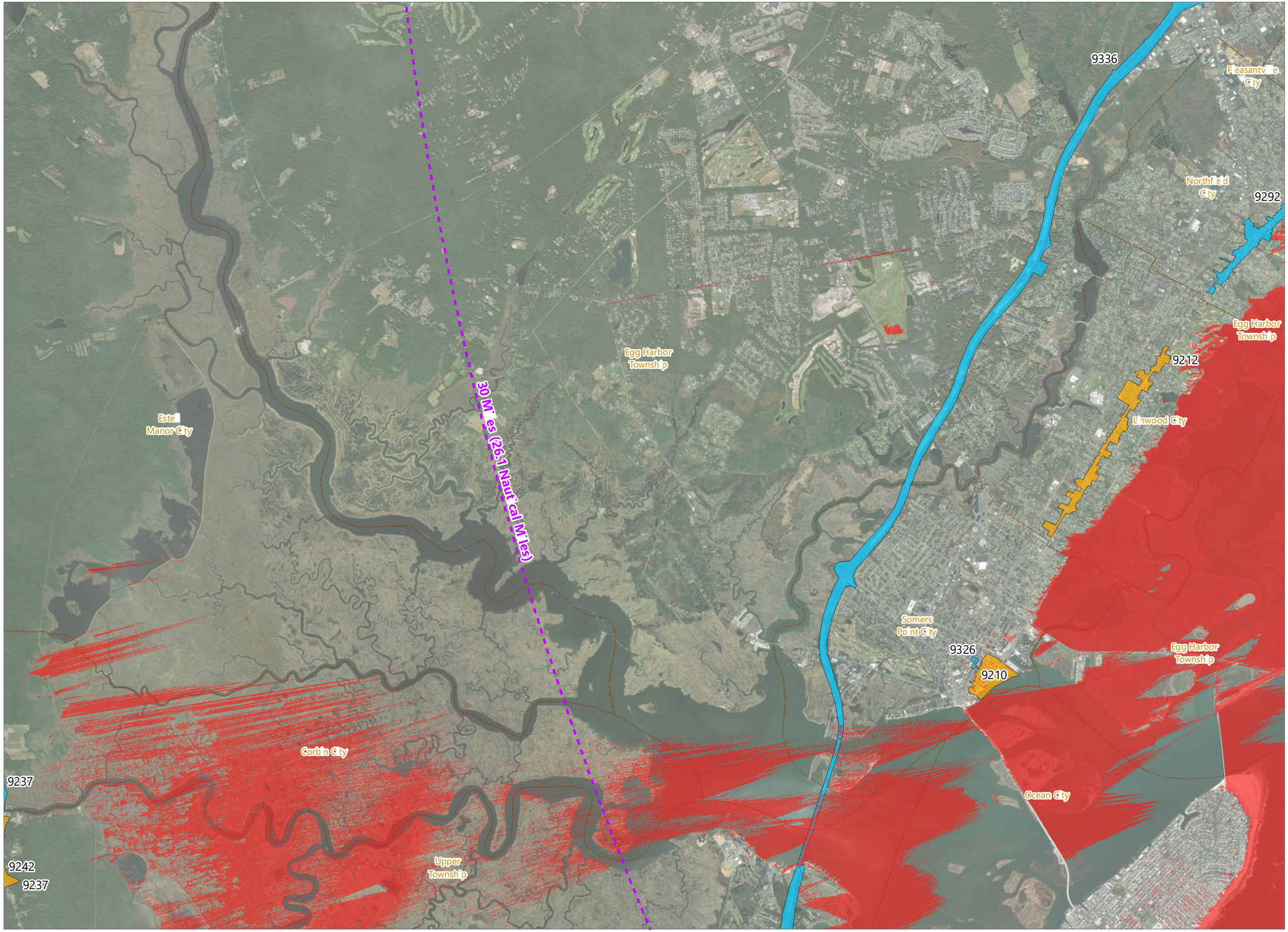


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

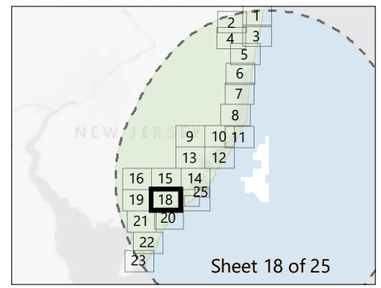
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

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ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects

Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

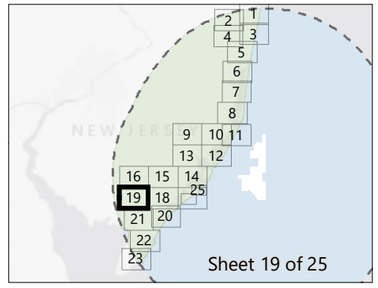
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

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Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

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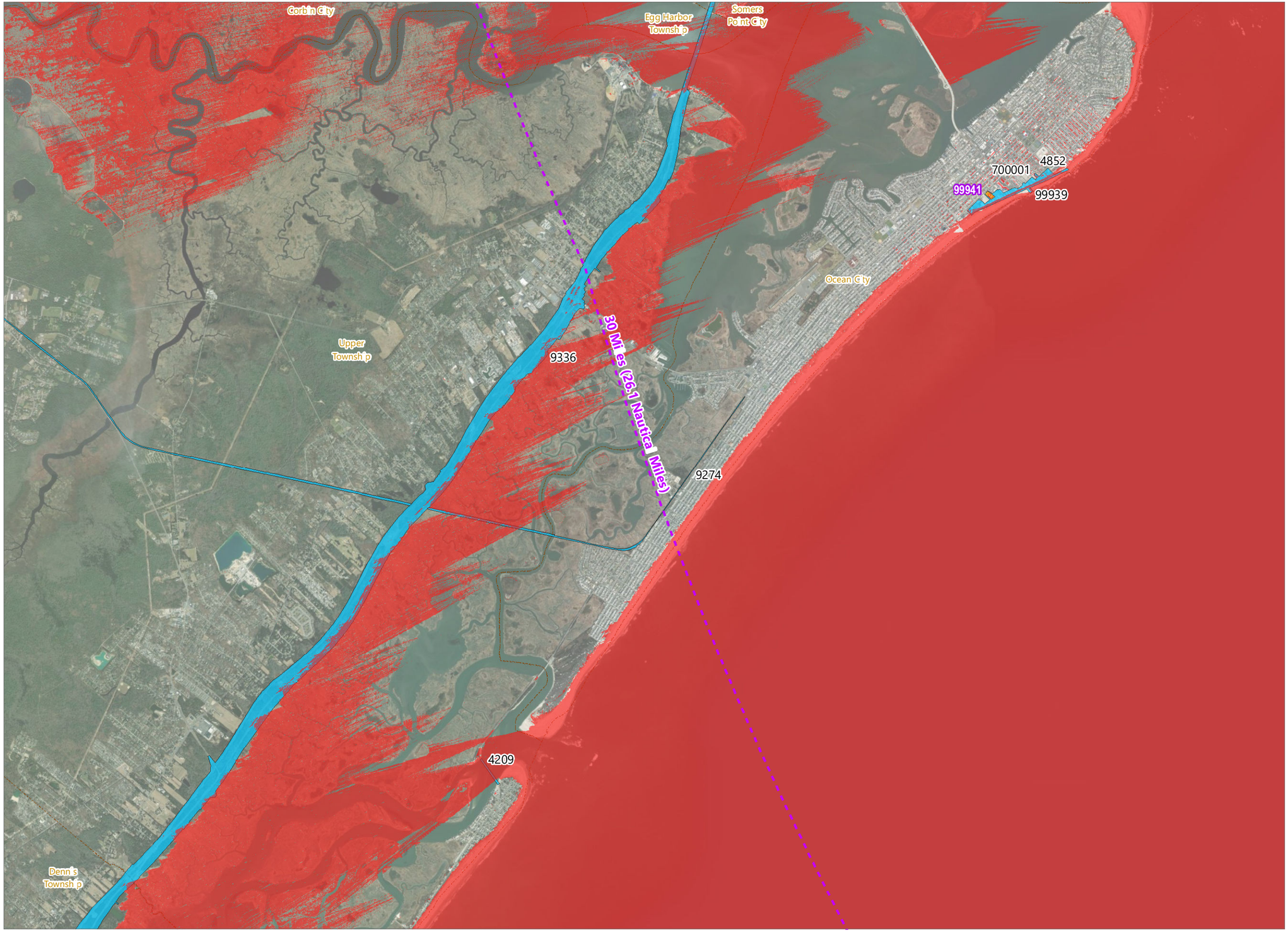


Atlantic Shores Offshore Wind Project

Outer Continental Shelf

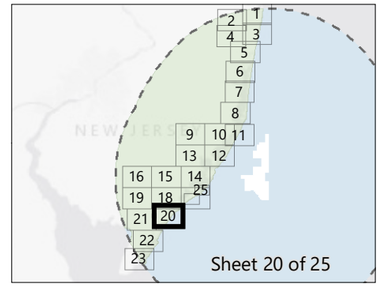
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Listed Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



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Miles

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ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects

Atlantic Shores Offshore Wind Project

Outer Continental Shelf

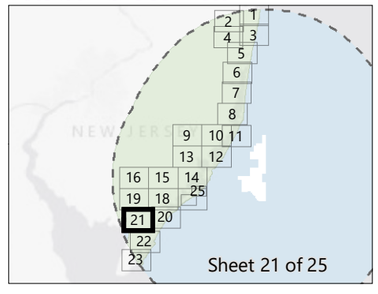
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



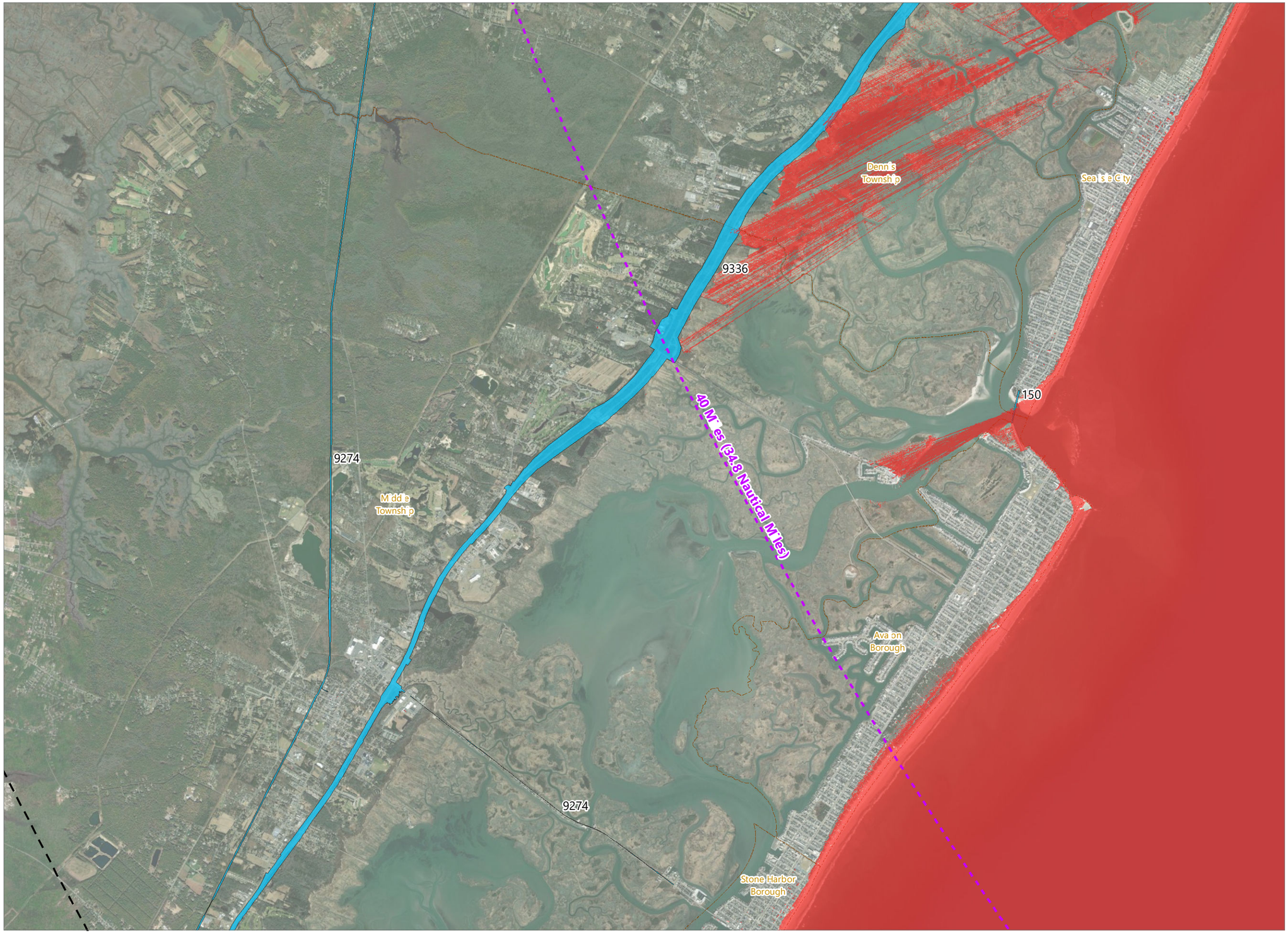
0 0.25 0.5 1
Miles

Prepared December 18, 2023
Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects



Atlantic Shores Offshore Wind Project

Outer Continental Shelf

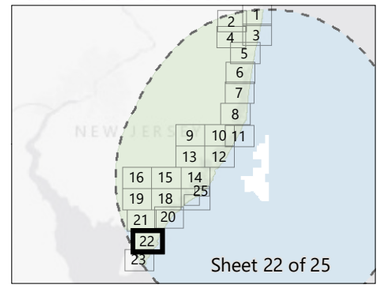
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1
Miles

Prepared December 18, 2023
Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects

Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

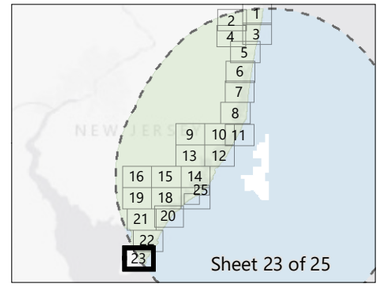
Aboveground Historic Property

- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

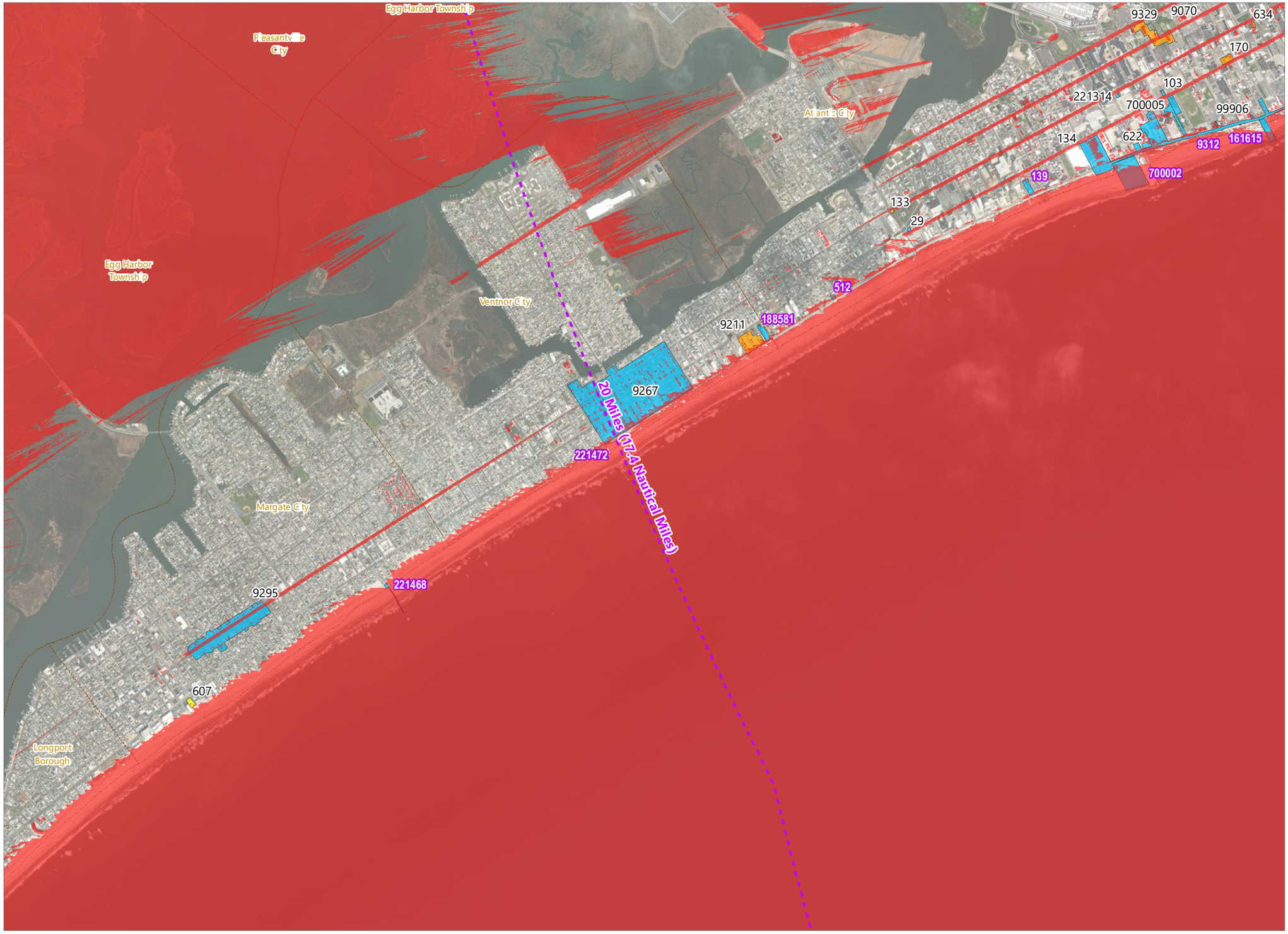
Prepared December 18, 2023

Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects



Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- 40-Nautical Mile Viewshed Radius
- Turbine Distance Interval
- Preliminary Area of Potential Effects (PAPE)

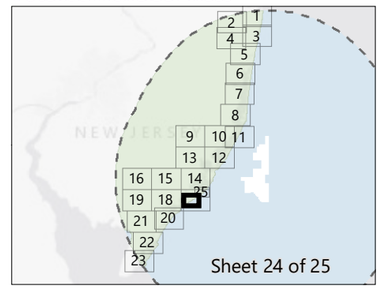
Aboveground Historic Property

- National Historic Landmark
- NRHP-Listed Property
- NRHP-Eligible Property
- Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

Prepared December 18, 2023

Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Figure 3.3-1: Aboveground Historic Properties within the Preliminary Area of Potential Effects

Atlantic Shores Offshore Wind Project

Outer Continental Shelf

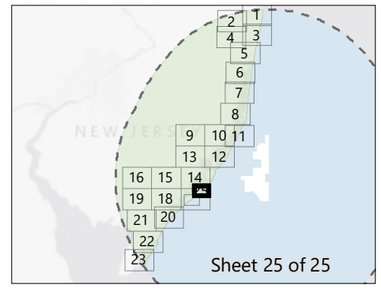
Historic Resources Visual Effects Assessment

40-Nautical Mile Viewshed Radius
Turbine Distance Interval
Preliminary Area of Potential Effects (PAPE)
Aboveground Historic Property
National Historic Landmark
NRHP-Listed Property
NRHP-Eligible Property
Municipal Boundary

Label Key for Historic Properties

No Adverse Effect

Potential Adverse Effect



0 0.25 0.5 1

Miles

Prepared December 18, 2023

Basemap: Esri ArcGIS Online "World Imagery" map service

ATLANTIC SHORES offshore wind

EDR

Table 3.3-2. Aboveground Historic Property Legend

Survey ID	Property Name	Municipality
619	John Doughty House	Absecon City
9279	North Shore Road Historic District	Absecon City
300128	Asbury Park Convention Hall	Asbury Park City
300155	Howard Johnson's Pavilion	Asbury Park City
300127	Asbury Park Casino and Carousel	Asbury Park City
301536	Waterfront Resort Historic District	Asbury Park City
20	1425 Boardwalk	Atlantic City
645	419 Carson Avenue	Atlantic City
623	Absecon Lighthouse	Atlantic City
103	Administration Building for the Board of Education	Atlantic City
9284	Atlantic City Beautiful Historic District	Atlantic City
9312	Atlantic City Boardwalk Historic District	Atlantic City
134	Atlantic City Convention Hall	Atlantic City
161615	Central Pier	Atlantic City
700005	Claridge Hotel	Atlantic City
221314	Equitable Trust Bank Building	Atlantic City
9070	Liberty Hotel	Atlantic City
700002	Missouri Avenue Beach (Chicken Bone Beach)	Atlantic City
9329	Northside Institutional Historic District	Atlantic City
99903	Resorts Casino (Haddon Hall)	Atlantic City
139	Ritz Carlton Hotel	Atlantic City
512	Riviera Apartments	Atlantic City
634	Segal Building	Atlantic City
170	St. Nicholas of Tolentine Church	Atlantic City
29	The Knife and Fork Inn	Atlantic City
9170	U.S. Route 30 Bridge (SI&A # 0103-152)	Atlantic City
579	USCG Station Atlantic City	Atlantic City
622	Warner Theatre (façade)	Atlantic City
133	World War I Memorial (Soldiers and Sailors Monument)	Atlantic City
150	Townsend Inlet Bridge (SI&A # 3100003)	Avalon Borough, Middle Township, Sea Isle City
110	Barnegat Lighthouse	Barnegat Light Borough
9244	Barnegat Historic District	Barnegat Township
9243	Bass River State Forest Historic District	Bass River Township
300036	Bay Head Historic District	Bay Head Borough
382	Little Egg Harbor Yacht Club	Beach Haven Borough
9225	Beach Haven Historic District	Beach Haven Borough
594	Sherbourne Farm	Beach Haven Borough

Survey ID	Property Name	Municipality
9257	Beach Haven Historic District (Boundary Increase and Additional Documentation)	Beach Haven Borough
300647	Belmar Fishing Club	Belmar Borough
64	AT&T Transmitter Building and Antenna Field	Berkeley Township
9245	Midway Camps Historic District	Berkeley Township
109	U.S. Lifesaving Station Number 14	Berkeley Township
5001	Island Beach State Park Historic District	Berkeley Township
892	The Judge's Shack	Berkeley Township
121	Forked River Coast Guard Station No. 112	Berkeley Township
300022	Mantoloking Marine Historic District	Brick Township
480	Brigantine Hotel	Brigantine City
9237	North and South Tuckahoe Historic District	Corbin City and Upper Township
341437	7 Jerome Avenue	Deal Borough
999912	Deal Casino Beach Club	Deal Borough
999911	Deal Ocean Apartments	Deal Borough
300171	Deal Esplanade Historic District	Deal Borough
300033	Allenhurst Residential Historic District	Allenhurst Borough
9304	West Creek Historic District	Eagleswood Township
9281	West Jersey and Atlantic Railroad Historic District	Egg Harbor Township
9205	Conovertown Historic District	Galloway Township
866	Seaview Golf Club (historic), Clarence Geist Pavilion	Galloway Township
9268	Camden and Atlantic Railroad Historic District	Galloway Township
8062	Harvey Cedars Hotel	Harvey Cedars Borough
7886	Small Estate	Harvey Cedars Borough
8320	Stevens House	Lavallette Borough
9269	Ocean Beach Historic District (Units 1, 2, and 3)	Lavallette Borough
9212	Linwood Historic District	Linwood City
563	Little Egg Harbor US Life Saving Station #23	Little Egg Harbor Township
301670	Windmill Restaurant	Long Branch City
322915	San Alfonso Retreat	Long Branch City
300720	Ocean Beach Club of Elberon	Long Branch City
1000008	Breakwater Beach Club	Long Branch City
324105	Sur Mer	Long Branch City
324106	Elberon Bathing Club	Long Branch City
133	Great Egg Coast Guard Station	Longport Borough
9249	Mantoloking Historic District	Mantoloking Borough
607	Lucy, the Margate Elephant	Margate City
9295	Ventnor Parkway Historic District	Margate City
221468	Margate Fishing Pier	Margate City

Survey ID	Property Name	Municipality
300476	Monmouth Beach Bath and Tennis Club	Monmouth Beach Borough
1000000	35 Ocean Avenue N	Monmouth Beach Borough
9336	Garden State Parkway Historic District	Multiple
300030	Ocean Grove Camp Meeting Association Historic District	Neptune Township
36277	Aloha Motel	North Wildwood City
38	Hereford Lighthouse	North Wildwood City
39	North Wildwood Life Saving Station	North Wildwood City
700006	Alante Motel	North Wildwood City
36724	Lou Booth II Motel/Le Boot Motel	North Wildwood City
700004	Matador Motel	North Wildwood City
34811	Sahara Motel	North Wildwood City
9292	Shore Road Historic District	Northfield City
99941	Flanders Hotel	Ocean City
99939	Music Pier	Ocean City
4852	Gillian's Wonderland Pier	Ocean City
700001	Ocean City Boardwalk	Ocean City
999906	Point Pleasant Beach Boardwalk	Point Pleasant Beach Borough
9209	Port Republic Historic District	Port Republic City
618	Chestnut Neck Boat Yard	Port Republic City
300576	Sea Girt Lighthouse	Sea Girt
149	U.S. Life Saving Station No. 13	Seaside Park Borough
9252	Ship Bottom Historic District	Ship Bottom Borough
9210	Bay Front Historic District	Somers Point City
313135	2 Passaic Avenue	Spring Lake Borough
300568	2 Warren Avenue	Spring Lake Borough
9247	Manahawkin Village Historic District	Stafford Township
132	U.S. Lifesaving Station #35	Stone Harbor Borough
9250	Toms River Main Street Historic District	Toms River Township
9246	Island Heights Historic District	Toms River Township
9251	Tuckerton Historic District	Tuckerton Borough
9242	South Tuckahoe Historic District	Upper Township
4209	Corson's Inlet Bridge (SI&A # 3100002)	Upper Township
221472	Ventnor City Fishing Pier	Ventnor City
9267	Saint Leonard's Tract Historic District	Ventnor City
9211	John Stafford Historic District	Ventnor City
188581	Vassar Square Condominiums	Ventnor City
300000	Naval Ammunition Depot Earle Historic District	Wall Township
9274	Atlantic City Railroad Cape May Division Historic District	Winslow Township, Folsom, Richland, Dorothy, Estell Manor, Corbin City, Woodbine, Dennis Township, Ocean City, and Cape May

3.3.1 National Historic Landmarks

NHLs are historic properties that have been determined to be nationally significant by the Secretary of the Interior. NHLs can be buildings, sites, districts, structures, or objects that "demonstrate exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archaeology, technology and culture." In order for a historic property to be considered for designation as a NHL, the property must meet at least one of the following criteria:

1. *That is associated with events that have made a significant contribution to, and are identified with, or that outstandingly represents, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or*
2. *That are associated importantly with the lives of persons nationally significant in the history of the United States; or*
3. *That represent some great idea or ideal of the American people; or*
4. *That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for the study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or*
5. *That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or*
6. *That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts, and ideas to a major degree* (NPS, 2022).

When assessing potential adverse effects on an NHL, the federal agency, in this instance BOEM, must provide a higher standard of care, as required by Section 110(f) of the NHPA. Section 110(f) requires the agency *to the maximum extent possible undertake such planning and actions as may be necessary to minimize harm to the landmark*.

Two NHLs are located within the PAPE (see Table 3.3-3).

Table 3.3-3. National Historic Landmarks within the PAPE

EDR Survey ID	Property Name	Property Address	NRHP Status	Figure Reference
134	Atlantic City Convention Hall	Boardwalk between Pacific, Mississippi, and Florida Avenues	National Historic Landmark	Figure 3.3-1, Sheets 22, 29, 30
607	Lucy, the Margate Elephant	Decatur and Atlantic Avenues	National Historic Landmark	Figure 3.3-1, Sheets 22, 29

3.3.1.1 Atlantic City Convention Hall

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).

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 building's location on the Atlantic coast lends to its historic significance as a beachside attraction within Atlantic City.

3.3.1.2 Lucy, the Margate Elephant

Lucy, the Margate Elephant NHL was built in 1881 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).

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.

3.3.2 NRHP-Listed, NRHP-Eligible, and Potentially Eligible Historic Properties and Districts

The 113 aboveground historic properties within the PAPE (including the two NHLs discussed in Section 3.2.1, which are not included in the summaries below) are located primarily on the barrier islands or on mainland New Jersey in proximity to the bays and coves. A summary of the municipalities where the PAPE is present and where potential impacts to aboveground historic properties were assessed, as well as a table identifying the aboveground historic properties within the PAPE in each municipality is included below. Additional detailed information for each of the aboveground historic properties can be found in Attachments B and C, on Figure 3.3-1, and sorted by municipality in the table included as Attachment D.

As noted above, historic districts within the PAPE are counted as a single aboveground historic property, in order to take a conservative approach to assessing potential impacts to the entirety of those districts, as well as due to

inconsistency in the availability of information in existing documentation regarding the total number as well as addresses of contributing properties within those districts.

3.3.2.1 Atlantic County

Absecon City

Absecon City is located in the eastern extent of Atlantic County bordering Absecon Bay. Prior to the establishment of permanent Euro-American settlements, Atlantic County was explored by the Dutch in the early 1600s. In 1664 New Jersey became an English province and this area of Atlantic County became known as Little Egg Harbor or Egg Harbor. The construction of the King's Highway (modern-day Shore Road) in 1716 opened the area to more settlement and by 1776 what is today known as Absecon was a bustling seaport with a fishing economy reliant on its bayfront location. Development in the community was furthered by the arrival of the Camden and Atlantic Railroad in 1854. Absecon was incorporated as a town in 1872 and as a city in 1902. The construction of the White Horse Pike (modern-day U.S. Route 30) in 1932 made Absecon a last stop on the mainland for automobile traffic on the way to the popular resort town of Atlantic City (to the southeast). Today, Absecon is a primarily residential community with commercial development primarily confined to the Route 30 and Shore Road corridors (Reid, 2002).

Table 3.3-4. Aboveground Historic Properties in the PAPE – Absecon City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9279	North Shore Road Historic District	N. Shore Road roughly bounded by Creek Road to the south and the town line to the north.	NRHP-Eligible (NJHPO-Determined)	18.96	Figure 3.3-1, Sheet 14
619	John Doughty House	40 North Shore Road	NRHP-Listed	19.58	Figure 3.3-1, Sheet 14

Atlantic City

Atlantic City is located 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. Euro-American development on Absecon Island was slow in the early-to-mid eighteenth century as it was only accessible by boat. The first recorded settler was Jeremiah Leed who built a house in the vicinity of Atlantic City in 1783. In 1850, Dr. Jonathan Pitney (who lived in nearby Absecon) 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 20th century. The 1950s saw a decline in visitation due to the advent of air travel and the newly formed highway system in the United States. In an effort to revive the city, gambling was legalized in 1976 and Atlantic City enjoyed a boom in tourism. The numerous casinos continue to draw visitors to the area (ACFPL, 2022).

Table 3.3-5. Aboveground Historic Properties in the PAPE – Atlantic City*

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9284	Atlantic City Beautiful Historic District	N. Connecticut Avenue roughly bounded by N. Massachusetts, N. New Jersey, Barret, and Adriatic Avenues	NRHP-Eligible (NJHPO-Determined)	16.35	Figure 3.3-1, Sheets 17, 25
29	The Knife and Fork Inn	3600 Atlantic Avenue	NRHP-Eligible (NJHPO-Determined)	18.48	Figure 3.3-1, Sheets 17, 24
133	World War I Memorial (Soldiers and Sailors Monument)	South Albany Avenue, Ventnor Avenue and O'Donnell Parkway	NRHP-Listed	18.52	Figure 3.3-1, Sheets 17, 24, 25
103	Administration Building for the Board of Education	1809 Pacific Avenue	NRHP-Eligible (NJHPO-Determined)	17.25	Figure 3.3-1, Sheets 17, 24, 25
221314	Equitable Trust Bank Building	2030 Atlantic Avenue	NRHP-Eligible (BOEM-Determined)	17.39	Figure 3.3-1, Sheets 17, 24, 25
9070	Liberty Hotel	1519 Baltic Avenue	NRHP-Listed	17.08	Figure 3.3-1, Sheets 17, 24, 25
9329	Northside Institutional Historic District	N/A	NRHP-Listed	17.13	Figure 3.3-1, Sheets 17, 24, 25
9170	U.S. Route 30 Bridge (SI&A # 0103-152)	U.S. Route 30 (Absecon Boulevard) over Beach Thorofare	NRHP-Eligible (NJHPO-Determined)	17.81	Figure 3.3-1, Sheets 17, 25
700005	Claridge Hotel	120 South Indiana Avenue	NRHP-Eligible (NJHPO-Determined)	17.21	Figure 3.3-1, Sheets 17, 24, 25
634	Segal Building	1200 Atlantic Avenue	NRHP-Listed	16.78	Figure 3.3-1, Sheets 17, 24, 25
170	St. Nicholas of Tolentine Church	1409-1421 Pacific Avenue	NRHP-Listed	16.92	Figure 3.3-1, Sheets 17, 24, 25
645	419 Carson Avenue	419 Carson Avenue	NRHP-Eligible (NJHPO-Determined)	16.34	Figure 3.3-1, Sheets 17, 25
622	Warner Theatre (façade)	Atlantic City Boardwalk between Michigan and Arkansas Avenues	NRHP-Eligible (NJHPO-Determined)	17.38	Figure 3.3-1, Sheets 17, 24, 25
512	Riviera Apartments	116 South Raleigh Avenue	NRHP-Eligible (NJHPO-Determined)	18.89	Figure 3.3-1, Sheets 17, 24
139	Ritz Carlton Hotel	2715 Boardwalk	NRHP-Eligible (NJHPO-Determined)	17.93	Figure 3.3-1, Sheets 17, 24, 25
623	Absecon Lighthouse	Pacific and Rhode Island Avenues	NRHP-Listed	16.10	Figure 3.3-1, Sheets 17, 25
579	USCG Station Atlantic City	900 Beach Thorofare	NRHP-Eligible (NJHPO-Determined)	16.30	Figure 3.3-1, Sheets 17, 25
700002	Missouri Avenue Beach (Chicken Bone Beach)	N/A	NRHP-Eligible (EDR-Recommended)	17.45	Figure 3.3-1, Sheets 17, 24, 25
161615	Central Pier	1400 Boardwalk	NRHP-Eligible (NJHPO-Determined)	16.88	Figure 3.3-1, Sheets 17, 24, 25
9312	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)	16.30	Figure 3.3-1, Sheets 6, 17, 24, 25
20	1425 Boardwalk	1425 Boardwalk	NRHP-Eligible (NJHPO-Determined)	16.34	Figure 3.3-1, Sheets 5, 17, 24, 25
99903	Resorts Casino (Haddon Hall)	1121 Boardwalk	NRHP-Eligible (EDR-Recommended)	16.69	Figure 3.3-1, Sheets 17, 25

*The Atlantic City Convention Hall is also located in Atlantic City and discussed in section 3.3.1.1.

Brigantine City

The city of Brigantine is located in the extreme southeastern extent of Atlantic County on Brigantine Island. The island was first visited by European explorers in the early 1600s when the Dutch sailed by the island and in 1609 when English explorer visited the island and described it as "pleasant land to see". The island was reportedly used as a hideout by pirates in the late 1600s, namely Captain William Kidd and the notorious Captain Teech, otherwise known as Blackbeard. Since the 1700s, hundreds of shipwrecks have occurred off the coast of the island which gave the island the name Brigantine, a type of seventeenth century ship. 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. Brigantine had two development periods, first in 1880 when the Brigantine Land Company began platting land and selling lots. The most meaningful development period occurred in the early 1920s when the Island Development Company undertook large scale development on the majority of the island. The city was formally incorporated during this period 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 which promoted visitation to the land. The North Brigantine Natural Area on the northern limit of the island was added to New Jersey's Natural Area System in 1967 to preserve the salt marsh habitats, coastal dunes, and rare species habitats (Lurie and Mappen, 2004; The History Store, 1986).

Table 3.3-6. Aboveground Historic Properties in the PAPE – Brigantine City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
480	Brigantine Hotel	1400 Ocean Avenue	NRHP-Eligible (EDR-Recommended)	13.25	Figure 3.3-1, Sheets 14, 25

Corbin City

Corbin City is located in the extreme southern extent of Atlantic County and is bordered by Estelle Manor to the north and west, the Great Egg Harbor Bay to the east, and the Tuckahoe River and Upper Township (Cape May County) to the south. Corbin City has the distinction of being the smallest city in New Jersey with a population of roughly 500. The city was formed from Weymouth Township in 1922 and was named for notorious railroad magnate Austin Corbin. Corbin was born in New Hampshire and relocated to New York City eventually becoming the president of the Long Island Railroad. Corbin had an unsavory reputation as a "robber baron" and died on his Newport, New Hampshire estate in 1896. It is unclear why or how the city named itself Corbin and little information in available for the twentieth century history of the community. In recent years, Corbin City has fought to avoid ongoing efforts to merge the city with Upper Township in Cape May County (Buildings of New England, 2022; City of Corbin, New Jersey, 2022).

Table 3.3-7. Aboveground Historic Properties in the PAPE – Corbin City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9237	North and South Tuckahoe Historic District*	Main Street and NJ 50 from 303 NJ 50 to 2057 NJ 50	NRHP-Eligible (NJHPO-Determined)	34.78	Figure 3.3-1, Sheets 18, 19, 23
9274	Atlantic City Railroad Cape May Division Historic District**	Winslow Township, Folsom, Richland, Dorothy, Estell Manor, Corbin City, Woodbine, Dennis Township, Ocean City, and Cape May	NRHP-Eligible (NJHPO-Determined)	29.02	Figure 3.3-1, Sheets 16, 17, 19, 20, 21, 22, 23

*The Atlantic City Railroad Cape May Division Historic District is a linear district and is considered an aboveground historic property in Hammonton Township.
* The North and South Tuckahoe Historic District is located in Corbin City and Upper Township.

Egg Harbor Township

Egg Harbor Township is located in the southeastern extent of Atlantic County and is bordered on the southwest by the Great Egg Harbor River. This area of Atlantic County was first explored by Europeans in 1614 when Dutch explorer Cornelius Jacobsen Mey navigated to the mouth of the Great Egg Harbor River while looking for new settlement sites. The name "Egg Harbor" was given to the area due to the abundance of shorebird and waterfowls eggs observed by the explorer. New Jersey became an English province in 1664 and the Great Egg Harbor was originally located within Gloucester County although Cape May County also claimed some of the area. The boundaries of Gloucester County were legalized in 1710 and formally included the Great Egg Harbor which at the time included all of present-day Atlantic County. Atlantic County was formed from Gloucester County in 1837 and included Egg Harbor, Weymouth, Hamilton, and Galloway Townships. The nineteenth and 20th century economies of the township included milling, shipbuilding, farming, and fishing. During the second half of the nineteenth century, ten cities and townships were formed from Egg Harbor Township, and it presently encompasses 41,600 acres and includes the communities of Bargaintown, English Creek, Sculville, Steelmanville, McKee City, Cardiff, Farmington, and West Atlantic City (GEHTHS, 2022).

Table 3.3-8. Aboveground Historic Properties in the PAPE – Egg Harbor Township*

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9281	West Jersey and Atlantic Railroad Historic District*	Hamilton Township and Egg Harbor Township	NRHP-Eligible (NJHPO-Determined)	19.10	Figure 3.3-1, Sheet 14, 15, 16, 17

*The West Jersey and Atlantic Railroad Historic District is a linear district and is considered an aboveground historic property in Egg Harbor Township.

Galloway Township

Galloway Township is located in the northeastern extent of Atlantic County to the northwest of Reeds Bay and Little Bay and to the southwest of the Mullica River. This area of Atlantic County was first surveyed by Europeans in 1609 when Henry Hudson sailed into Great Bay. In 1614, Dutch explorer Cornelius Jacobsen Mey sailed into Egg Harbor

and mapped the coastline. New Jersey became an English province in 1664; however, meaningful settlement in Galloway Township would not occur until the late eighteenth century. During this time, this area of what was historically Gloucester Township consisted of scattered villages and hamlets. Galloway Township was formed from Egg Harbor Township in 1774 and at its formation included present-day Atlantic City, Port Republic, Mullica, Hammonton, Egg Harbor City, and part of Burlington County. During the nineteenth century, Absecon Creek and the Mullica River were important transpiration routes in the township. Numerous wharves were built on the waterways and shipbuilding became an important economy. The White Horse Pike (modern-day U.S. Route 30) was constructed through the township in 1821 which brought more settlers to the area. The construction of the Camden and Atlantic Railroad in 1854 resulted in growth concurrent with the rise in popularity of Atlantic City. U.S. Route 30 was constructed through the southwestern extent of the township in 1932 and brought continued development in the township as hotels and motels were built along the road. Today, the township remains predominantly rural with areas of residential development throughout the township and commercial development confined to the U.S. Route 30 corridor (Reid, 2022).

Table 3.3-9. Aboveground Historic Properties in the PAPE – Galloway Township*

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
866	Seaview Golf Club (historic), Clarence Geist Pavilion	401 South New York Road	NRHP-Eligible (EDR-Recommended)	17.82	Figure 3.3-1, Sheet 14
9205	Conovertown Historic District	North Shore Road roughly bounded by Old Shore Road to the north and the town line to the south	NRHP-Eligible (NJHPO-Determined)	18.60	Figure 3.3-1, Sheet 14
9268	Camden and Atlantic Railroad Historic District*	Within the former railroad grade that traveled from Camden in Camden County to Atlantic City in Atlantic County.	NRHP-Eligible (NJHPO-Determined)	17.78	Figure 3.3-1, Sheets 12, 14, 15, 17

*The Camden and Atlantic Railroad Historic District is a linear district and is considered an aboveground historic property in Galloway Township.

Linwood City

Linwood is located in the southeastern extent of Atlantic County on Barnegat Bay between Somers Point to the southwest and Northfield to the northeast. Development in the limits of the borough began in 1695 when Thomas Budd, a prominent Philadelphia merchant, sold off large tracts of land in the vicinity of the Great Egg Harbor Bay. The area was first settlement by Euro-American Quakers and was initially called Leedsville. By the late eighteenth century, the community had a lucrative agricultural community sustained by the soil fed by the marshland bordering the Great Egg Harbor Bay. The bay also promoted the growth of a productive shipbuilding and fishing economy and provided the means for trade by sea vessels. As a result, many sea captains resided in Leedsville. In 1880, the name of the community was changed to Linwood as another Leedsville was already established inland in New Jersey. The borough was formally incorporated in 1889 and carved from Egg Harbor Township. In the late nineteenth and into the early 20th century, agriculture remained the primary economy and products from local farmers sustained the new resort communities and hotels located nearby along the Atlantic coast. Linwood saw a boom in postwar residential and commercial development that quickly eliminated the historically agrarian landscape. Today, Linwood remains a primarily residential community (Kirk, 1987).

Table 3.3-10. Aboveground Historic Properties in the PAPE – Linwood

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9212	Linwood Historic District	Roughly Shore Road from Royal Avenue to Sterling Avenue.	NRHP-Listed	24.14	Figure 3.3-1, Sheet 23

Longport City

The borough of Longport City is located on the southern tip of Absecon Island and adjacent to Margate City. Developed as a seaside resort by Philadelphia businessman, Simpson McCullough, Longport was incorporated in 1898. The borough is named after McCullough's friend James Long who had owned but not developed the land prior to McCullough (LPL, 2023). Once noteworthy for its collection of late Victorian architecture, the borough has suffered from intense weather events because of its precarious position, losing 1st through 10th avenues to the ocean between 1900 and 1916. While the borough remains primarily residential in nature, its proximity to Atlantic City made it a desirable real estate market starting in the 1980s which saw much of the Victorian-era housing and historic landmarks replaced with high-density housing units (LPL, 2023; NYT, 2023).

Table 3.3-11. Aboveground Historic Properties in the PAPE – Longport City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
172161	107 S. 25th Avenue	107 S. 25th Avenue	NRHP-Eligible (EDR-Recommended)	23.04	Figure 3.3-1, Sheet 3

Margate City

Margate City is located in the southeastern extent of Atlantic County. The city is located on Absecon Island between Ventnor City to the northeast and Longport to the southwest. The developmental history of the land that encompasses Margate City is tied to the late seventeenth and early eighteenth-century history of Atlantic County, which was defined by the economies sustained by inland agriculture, boatbuilding, and fishing. The area that constitutes Margate City was first incorporated as South Atlantic City in 1869. The trajectory of the community was influenced heavily by entrepreneur James L. Lafferty who in 1881. Lafferty set out to market his share of parcels in the city in an unusual way with the construction of a hotel and restaurant in the shape of an elephant that he named Lucy. Lafferty's marketing efforts proved to be a success and in addition to the sale of his lots in the city, the Camden and Atlantic Railroad was constructed through the area in 1884. Margate City was incorporated in 1884 and at the time included portions of modern-day Longport, Ventnor City, and southern Atlantic City. Margate City was so successful that in 1929 the mayor of Atlantic City offered to annex the city into its limits, but Margate City refused. Today, Margate City is known as the location of the iconic Lucy the Elephant and is a popular destination south of Atlantic City (History of Margate City, NJ, 2022).

Table 3.3-12. Aboveground Historic Properties in the PAPE – Margate City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
607	Lucy, the Margate Elephant	Decatur and Atlantic Avenues	National Historic Landmark	22.11	Figure 3.3-1, Sheets 17, 24
221468	Margate Fishing Pier	121 S. Exeter Avenue	NRHP-Eligible (EDR-Recommended)	21.12	Figure 3.3-1, Sheets 22, 29
9295	Ventnor Parkway Historic District	Ventnor Avenue between N. Wilson Avenue and N Mansfield Avenue	NRHP-Eligible (EDR-Recommended)	21.66	Figure 3.3-1, Sheets 17, 24

*The Lucy, the Margate Elephant is also located in Margate City and discussed in section 3.3.1.2.

Northfield City

The city of Northfield is located inland in the southeastern extent of Atlantic County and is bordered to the northeast by Pleasantville, to the southwest by Linwood, and to the southeast by the Great Egg Harbor and Lakes Bay. The history of the city is largely tied to the history of Egg Harbor Township as well as Somers Point and Linwood as all three communities are situated along U.S. Route 9 and Shore Road. Northfield was originally called Bakersfield after Daniel Baker who opened a shipyard in the community in 1815. Ships were able to use the various thoroughfares in the adjacent bay area for a direct connection to the Atlantic Ocean. Shipbuilding remained the primary economy in Bakersfield throughout the nineteenth century and in 1840 Atlantic County was reportedly the largest producer of ships on the New Jersey coast. Bakersfield was also the location of an important road junction at the intersection of Mill Road, Shore Road, and Tilton Road. The West New Jersey Railroad was constructed through the town in 1880 and a trolley system was introduced in 1903. At some point during the late nineteenth century, the name of the community changed, evidenced by the incorporation of the city in 1905 when the name was designated as Northfield. The Atlantic County Country Club, one of the oldest operating golf clubs in America, was opened in Northfield in 1897. Although other nearby communities saw a rise in industrial manufacturing after the construction of the railroad, Northfield remained a predominantly quiet and residential community during the 20th century, an identity it maintains today (The History Store, 1986).

Table 3.3-13. Aboveground Historic Properties in the PAPE – Northfield City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9292	Shore Road Historic District	Shore Road roughly bounded by E. Oakcrest Avenue to the south and the town line to the north.	NRHP-Eligible (EDR-Recommended)	22.20	Figure 3.3-1, Sheets 17, 18

Port Republic City

Port Republic City is located in Atlantic County on the Mullica River. The first European settler to the region was John Mullica who sailed up the river now bearing his name in 1637. The first settlement was located at Chestnut Neck near present-day Port Republic. During his voyage, John Mullica landed at Chestnut Neck, then proceeded to Green Bank and Sweetwater (present-day Pleasant Mills) before traveling to Mullica Hills where he settled. Port

Republic was originally called Wrangleboro, and the village provided refuge to the residents in the area during the Revolutionary War when the British Army sacked Chestnut Neck on October 6, 1778. Port Republic became known as Unionville and remained so until it was incorporated as a city on March 1, 1905 (The Historical Marker Database, 2022).

Table 3.3-14. Aboveground Historic Properties in the PAPE – Port Republic City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
618	Chestnut Neck Boat Yard	758 Old New York Road	NRHP-Eligible (NJHPO-Determined)	19.02	Figure 3.3-1, Sheet 13
9209	Port Republic Historic District	N/A	NRHP-Listed	19.32	Figure 3.3-1, Sheet 13

Somers Point City

Somers Point is located in Atlantic County, southwest of Atlantic City on Great Egg Harbor Bay. It is the oldest settlement in Atlantic County and was founded in 1693 when the Somers family established their plantation. Originally known as Somerset Plantation, Somers Point became a borough in 1866. Its location on Great Egg Harbor Bay led to it becoming a popular port of call, and its close location to the resort areas of Ocean City and Atlantic City prompted rapid residential and commercial development in the region (Somers Point New Jersey, 2022).

Table 3.3-15. Aboveground Historic Properties in the PAPE – Somers Point

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9210	Bay Front Historic District	Roughly bounded by Decatur Avenue, Egg Harbor Bay, George Avenue, and Shore Road.	NRHP-Listed	26.25	Figure 3.3-1, Sheet 23

Ventnor City

Ventnor City is located in Atlantic County and is situated on Absecon Island south of Atlantic City and north of Margate. In the late 1800s, the Camden and Atlantic Land Company began development of the area south of Atlantic City, and the name "Ventnor" was chosen in 1899. The name was suggested by Mrs. S. Bartram Richards, who was the wife of the secretary-treasurer of the Camden and Atlantic Land Company and was derived from the seaside resort in England of the same name. The development was officially incorporated on March 17, 1903 (Ventnor City, New Jersey, 2022).

Table 3.3-16. Aboveground Historic Properties in the PAPE – Ventnor City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
221472	Ventnor City Fishing Pier	Cambridge Avenue at the Ventnor City Boardwalk	NRHP-Eligible (EDR-Recommended)	20.02	Figure 3.3-1, Sheets 17, 24
9211	John Stafford Historic District	100 blocks of Vassar Square, Baton Rouge, Marion and Austin Avenues	NRHP-Listed	19.24	Figure 3.3-1, Sheets 17, 24
9267	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.	NRHP-Eligible (NJHPO-Determined)	19.60	Figure 3.3-1, Sheets 17, 24
188581	Vassar Square Condominiums	4800 Boardwalk	NRHP-Eligible (NJHPO-Determined)	19.22	Figure 3.3-1, Sheets 17, 24

3.3.2.2 Cape May County

North Wildwood City

North Wildwood City is located in Cape May County north of Wildwood City on the Atlantic coast barrier island known as Five Mile Beach. The area was used as a fishing, herding, and whale processing locale during the seventeenth and eighteenth centuries and did not have any permanent settlement until the village of Anglesea was established by Swedish fisherman around 1870. The hazardous conditions at the Hereford Inlet at the north end of the island prompted the construction of the Hereford Lighthouse, completed in 1874. A rail line was established between Cape May Courthouse and Anglesea in 1884, which, along with the Rio Grand bridge, made the island more accessible from the mainland. Shortly after, in 1885, Anglesea was designated a borough. The community was renamed North Wildwood in 1906 to capitalize on the tourist trade that was booming in their neighbor to the south. Within eleven years the municipality grew large enough to be designated as a city. The area's economic base is commercial with an emphasis on tourism, including hotels and boardwalk attractions (History of North Wildwood, NJ, 2022).

Table 3.3-17. Aboveground Historic Properties in the PAPE – North Wildwood City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
36277	Aloha Motel	210 John F Kennedy Beach Drive	NRHP-Eligible (EDR-Recommended)	45.18	Figure 3.3-1, Sheet 23
36071	Athens II Motor Inn	201 Ocean Avenue	NRHP-Eligible (EDR-Recommended)	45.18	Figure 3.3-1, Sheet 23
36724	Lou Booth II Motel/Le Boot Motel	510 East 14th Avenue	NRHP-Eligible (NJHPO-Determined)	45.73	Figure 3.3-1, Sheet 23

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
700004	Matador Motel	511 East 16th Avenue	NRHP-Eligible (NJHPO-Determined)	45.83	Figure 3.3-1, Sheet 23
34811	Sahara Motel	510 East 18th Avenue	NRHP-Eligible (NJHPO-Determined)	45.98	Figure 3.3-1, Sheet 23
38	Hereford Lighthouse	111 North Central Avenue	NRHP-Listed	45.13	Figure 3.3-1, Sheet 23
39	North Wildwood Life Saving Station	113 North Central Avenue	NRHP-Eligible (NJHPO-Determined)	45.09	Figure 3.3-1, Sheet 23

Ocean City

Ocean City is located 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. The area became known as Peck's Beach, and it was also used as a cattle-grazing area and people from the mainland would travel to the island for recreation. Parker Miller and his family became the first permanent year-round residents in the mid-1800s. Parker, whose house was constructed in the location of present-day Seventh Street and Asbury Avenue was a marine insurance company agent, and he also raised livestock and farmed the area. In 1879, the Ocean City Association was formed by Ezra B. Lake, James Lake, S. Wesley Lake, and William Burrel, all Methodist ministers, and purchased Peck's Beach. They envisioned creating a Christian seaside resort, and quickly set to work selling commercial and residential lots, and constructed the Tabernacle, which still stands today. Other residents soon built homes, and this was followed by hotels, bridges, railroads, schools, and a boardwalk that was rebuilt numerous times throughout the years. 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 four 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 (Ocean City New Jersey, 2022).

Table 3.3-18. Aboveground Historic Properties in the PAPE – Ocean City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
4852	Gillian's Wonderland Pier	600 Boardwalk	NRHP-Eligible (NJHPO-Determined)	25.91	Figure 3.3-1, Sheet 20
99941	Flanders Hotel	719 East 11th Street	NRHP-Listed	26.46	Figure 3.3-1, Sheet 20
99939	Music Pier	825 Boardwalk	NRHP-Eligible (NJHPO-Determined)	26.12	Figure 3.3-1, Sheet 20
700001	Ocean City Boardwalk	N/A	NRHP-Eligible (NJHPO-Determined)	25.77	Figure 3.3-1, Sheet 20

Sea Isle City

Sea Isle City is located in Cape May County south of Strathmere and north of Avalon on Ludlam Island. Ludlam Island is named after Joseph Ludlam who purchased the island in 1692 from the West Jersey Proprietors, a group of Quakers whose ranks included William Penn. Ludlam used the island to stock cattle and sheep, and residents from the mainland would frequent the island to hunt and fish and enjoy other recreational activities, but no permanent establishments were created. In 1880, Charles Kline Landis, inspired by a trip to Venice, Italy, purchased the island to establish a summer beachside resort. Landis began digging waterways and canals to mimic Venice, some of which are still intact along the Intracoastal. Landis began marketing the area and it quickly became a popular place to fish, and numerous fishing shacks were soon constructed on the island. In 1882, the area of Sea Isle City was incorporated as a borough, and the fishing shacks were soon replaced by summer cottages as families began to come to the area more permanently. That same year saw the arrival of the West Jersey and Seashore Railroad into the area, and in 1893 the Reading Railroad was also extending to the island. The population continued to grow as more full-time residents moved to the area, and Sea Isle City soon boasted numerous houses, hotels, restaurants, stores, and churches. A horse drawn trolley system was established in 1887 and ran from Sea Isle City to Townsends Inlet, in 1904 the animal-drawn trolleys were replaced by electrical operation. Sea Isle City was officially incorporated as a city in 1907. The trolley system was decommissioned in 1917 as the popularity of automobiles became evident, and by the mid-1930s rail traffic to the island was in decline. The advent of the automobile provided easier access to other areas of the island, and this in turn created a trend for more affordable hotels throughout the area (The Shore Blog, 2021).

Table 3.3-19. Aboveground Historic Properties in the PAPE – Sea Isle City*

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
150	Townsend Inlet Bridge (SI&A # 3100003)*	Ocean Highway (CR 619) over Townsend Inlet	NRHP-Eligible (NJHPO-Determined)	37.48	Figure 3.3-1, Sheet 22

*The Townsend Inlet Bridge (SI&A # 3100003) is located within the boundaries of Avalon Borough, Middle Township, and Sea Isle City and is included as an aboveground historic property in Sea Isle City.

Stone Harbor Borough

The borough of Stone Harbor is in the extreme southern section of Seven Mile Island in Cape May County. The first Euro-American settlement dates to 1722 when the barrier island was purchased by Aaron Leaming who used it for logging juniper and housing livestock. The island was purchased by the Seven Mile Beach Company in 1887 with the intention of creating a beach resort. In 1892, the Abbotsford Inn was constructed. The five-story hotel was the first residential building constructed in Stone Harbor and was quickly followed by the construction of seven individual "cottages" between present-day 80th and 83rd Streets. In 1907 the dunes surrounding the nascent settlement of Stone Harbor were graded, marshes were filled in, and a network of streets were paved to accommodate more development. Rapid development was spurred further by the arrival of a rail line connecting Cape May Courthouse to Stone Harbor in 1912, and shortly after a roadway and bridge at present-day 96th Street opened, allowing vehicular traffic from the mainland. Stone Harbor was officially incorporated in 1914 and a boardwalk, theatre, and fishing pier were constructed (VisitNJShore.com, 2023; Sanborn, 1909; Shore Blog, 2021).

Table 3.3-20. Aboveground Historic Properties in the PAPE – Stone Harbor Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
35	U.S. Lifesaving Station #35	11617 Second Avenue	NRHP-Listed	42.88	Figure 3.3-1, Sheet 23

Upper Township

Upper Township is the northernmost township in Cape May County. Originally inhabited by the Lenni-Lenape, European settlement began in the 1690s by whalers, sailors, and fishermen (Cape May County, New Jersey 2022a or b). Upper Township was one of the original New Jersey Townships and was incorporated in 1798 as part of the Township Act. Prior to the Revolutionary War, the township had few populated areas and included the villages of Goldins' or Stites' Point, Littleworth (present-day Petersburg) and Williamsburg, now Tuckahoe (Upper Township, Cape May County, NJ, 2022).

Table 3.3-21. Aboveground Historic Properties in the PAPE – Upper Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9242	South Tuckahoe Historic District	Roughly NJ 557 and NJ 50 from the Tuckahoe River to Kendall Lane	NRHP-Listed	34.83	Figure 3.3-1, Sheets 18, 19
4209	Corson's Inlet Bridge (SI&A # 3100002)	Ocean Drive, Bay Avenue (County Rte. 619) over Strathmere Bay.	NRHP-Eligible (NJHPO-Determined)	32.16	Figure 3.3-1, Sheet 20

3.3.2.3 Monmouth County

Asbury Park City

Asbury Park is located in the extreme eastern extent of Monmouth County on the Atlantic shore between Allenhurst/Lock Harbor (to the northeast) and Ocean Grove (to the southwest). The most significant period of development in this area of the Jersey Shore took place in 1871 when New York City industrialist and devout Methodist James Bradley purchased a desolate stretch of land in what today constitutes Asbury Park. Bradley was inspired by the teachings of Bishop Francis Asbury and the success of the nearby seaside Methodist community in Ocean Grove. The land was platted and plans were made for residential lots, parks, and streets in what was to be a place for "healthful relaxation and quiet reflection" (Asbury Park Museum, 2021). The community was incorporated as a borough in 1874 and quickly attracted vacationers from New York City, Philadelphia, Newark, and Jersey City. By 1893 Asbury Park was chartered as a city and boasted large hotels, a bustling business district, reliable rail service, high style churches, and Victorian-era beach cottages. Realizing his ambition of a more pious community had been lost, Bradley sold his last real estate interests in the city in the early 20th century which brought on a subsequent wave of development. Into the 1920s and 1930s, Asbury Park became known for its impressive entertainment venues (including the Asbury Park Convention Hall constructed between 1928 and 1930), amusement attractions, stores,

and hotels. In contrast to the predominantly white travelers and residents of Asbury Park, a minority community comprising African Americans, Jews, and immigrants was established in West Side or West Park anchored by a thriving business artery along Springwood Avenue. Asbury Park came to prominence in the American music scene in the late 1970s when Southside Johnny and the Asbury Jukes played a live concert at the Stone Pony located on Ocean Avenue North to commemorate their debut album. The band was well known in the local music scene as the house band for the Stone Pony and the band and live concert and radio broadcast catapulted the career of a then-unknown Bruce Springsteen (Asbury Park Museum, 2021; The Stone Pony, 2022).

Table 3.3-22. Aboveground Historic Properties in the PAPE – Asbury Park City

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300128	Asbury Park Convention Hall	1300 Ocean Avenue	NRHP-Listed	38.14	Figure 3.3-1, Sheet 3
300155	Howard Johnson's Pavilion	Ocean Avenue at Fifth Avenue	NRHP-Eligible (NJHPO-Determined)	38.08	Figure 3.3-1, Sheet 3
300127	Asbury Park Casino and Carousel	104-108 Asbury Avenue	NRHP-Eligible (NJHPO-Determined)	37.72	Figure 3.3-1, Sheet 3
301536	Waterfront Resort Historic District	N/A	NRHP-Eligible (EDR-Recommended)	37.70	Figure 3.3-1, Sheet 3

Monmouth Beach Borough

Monmouth Beach Borough is located on the Atlantic coast in the extreme northeastern extent of Monmouth County and is bordered by Sea Bright and the Shrewsbury River to the north and Long Branch to the south. The land that historically comprises Monmouth Beach Borough was acquired by Eliakim Wardell in 1668. Wardell and his descendants had a large farm and throughout the eighteenth and early nineteenth centuries. In 1842, Wardell's great grandson Henry Wardell built a hotel called Ocean House on the Shrewsbury Inlet. In addition to accommodations, the hotel offered swimming, boating, fishing, and was equipped as a steamboat landing. Shortly after opening his hotel, Wardell donated land for a life-saving station in the community, one of the earliest built on the New Jersey coast in 1849. Development in the community was accelerated with the completion of the Long Branch and Sea Shore Railroad in 1865. The train met steamboats at Sandy Hook (located approximately seven miles to the north) and transported passengers down the coast to Monmouth County's beachside communities. After the arrival of the railroad, Dr. Arthur Conover from Freehold (located approximately 16.5 miles to the southwest in the interior of the county) saw the potential in the small community due to its location not only on the Atlantic Ocean but also its position at the mouth of the Shrewsbury River. Conover bought the old Wardell farm for five dollars an acre and quickly resold the acreage for development for one hundred dollars an acre. By 1889 the value per acre ballooned to seven thousand dollars. Conover organized the Monmouth Beach Association and created an exclusive seaside resort. Soon after, elegant beach cottages were built, and civic improvements followed with the construction of churches and schools. The Galilee Fishing Association was founded in 1884 ushering in a major fishing economy that supplied merchants in New York. The borough was formally chartered in 1906 and development continued steadily into the twentieth century. In 1965, six communities in northeastern Monmouth County joined in creating the Northeast Monmouth County Regional Sewage Authority for wastewater disposal and water reclamation. Prior to the formation of the authority, dwellings and businesses relied on individual septic tanks that were often emptied

into the Shrewsbury and Navesink Rivers causing pollution. As a result of the upgraded sewage system, Monmouth Beach saw a development boom resulting in the construction of high-rise condominiums and hotels on the Shrewsbury Inlet, expanded commercial development, and some demolition of the existing housing stock. Monmouth Beach remains a popular beach retreat for New York residents (O'Brien, 2002).

Table 3.3-23. Aboveground Historic Properties in the PAPE – Monmouth Beach Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
1000000	35 Ocean Avenue N	35 Ocean Avenue N	NRHP-Eligible (EDR-Recommended)	45.19	Figure 3.3-1, Sheet 1
300476	Monmouth Beach Bath and Tennis Club	65 Ocean Avenue	NRHP-Eligible (EDR-Recommended)	45.52	Figure 3.3-1, Sheet 1

Neptune Township

Neptune Township is located in southeastern Monmouth County and is bounded by Ocean Township to the north, Asbury Park, Bradley Beach, and Avon-by-the-Sea to the east, Wall Township to the south, and Tinton Falls Township to the west. The early eighteenth-century history of the township is closely tied to the history of both Shrewsbury and Ocean Townships. Prior to its formal organization, the area that would become Neptune Township was generally rural and undeveloped and comprised scattered farms confined primarily to the corridor of modern-day State Route 33 and Jumping Brook Road, both of which were well traveled stagecoach routes that followed former Native American trails. Shark River Village was an early hamlet in the township situated near the intersection of both trails and became a small center of commerce. The village included stagecoach taverns, a sawmill, grist, blacksmith shop, and a wheelwright shop. The blacksmith and wheelwright shop made boats, wagons, and agricultural and household tools. Other smaller mills were located in proximity to Route 33 on the small brooks that flow throughout the township. During the 1860s when the seaside towns to the east of Neptune Township began to see large-scale resort development, Route 33 was improved and lengthened to the west. The arrival of the New York and Long Branch Railroad in the 1870s brought in influx of travelers and new residents to eastern Monmouth County and the northern Jersey Shore. Neptune Township was formally organized in 1879 from Ocean Township and named after the Roman god of water. During the early twentieth century, the economy of the township was reliant on its location near the beachside towns of the Jersey Shore. The construction of the Garden State Parkway in 1954 and continued improvement to Routes 33 and 18 within the township positioned Neptune Township as a major vehicular crossroads of the Jersey Shore. As a result, the township has seen an explosion of planned residential developments and large-scale commercial development near these corridors into the latter half of the twentieth century (Stout, 1967).

Table 3.3-24. Aboveground Historic Properties in the PAPE – Neptune Township*

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300030	Ocean Grove Camp Meeting Association Historic District	N/A	NRHP-Listed	37.06	Figure 3.3-1, Sheet 3
9336/78888974	Garden State Parkway Historic District*	Bergen, Passaic, Essex, Union, Middlesex, Monmouth, Ocean, Atlantic and Cape May	NRHP-Eligible (NJHPO-Determined)	15.41	Figure 3.3-1, Sheets 1, 2, 3, 4, 6, 7, 8, 9, 10, 13, 14, 15, 18, 20, 21, 22, 23

*The Garden State Parkway Historic District is a linear resource located in multiple municipalities in New Jersey and is considered an aboveground historic property in Neptune Township.

Sea Girt

Sea Girt Borough is located in the extreme southeastern limit of Monmouth County on the Atlantic coast and is bordered to the north by Spring Lake Borough, to the south by Manasquan Borough, and to the west by Wall Township. Before its formal organization, the land comprising Sea Girt Borough was historically two vast tracts of farmlands owned by Dr. Charles Montrose Graham and John Sherman. Sherman sold his land to Robert Stockton in 1853 who built a large estate between Stockton Lake and the Manasquan River (modern-day Manasquan) that he called Sea Girt. Meaningful development in the township began with the formation of the Sea Girt Land Improvement Company in 1869. The company worked to bring a segment of the New York and Long Branch Railroad in 1875 which ushered in year-round visitation and development to the community. The original Sea Girt house was converted to a hotel and two five-story additions were added to each side. The palatial resort became a landmark in the town. In 1887, the New Jersey National Guard acquired 120 acres of land in Sea Girt for use as a permanent summer training camp equipped with a rifle range, coastal battery, and mobilization camp. Initially constructed for use during the War of 1812, the camp was in use until World War II. The Sea Girt Lighthouse was constructed by the United States in 1895 and was the last lighthouse on the Jersey Shore constructed with an integral keeper's house. The community experienced another era of development in the early 1900s when additional lots were sold by the Sea Girt Company for summer homes and in 1917 Sea Girt Borough was organized from Wall Township. In 1955, the lighthouse was decommissioned and sold to the borough which maintained ownership until 1981 when the lighthouse was leased to the Lighthouse Citizens Committee to maintain the preservation and maintenance of the structure (Sea Girt Borough, 2022).

Table 3.3-25. Aboveground Historic Properties in the PAPE – Sea Girt

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300576	Sea Girt Lighthouse	9 Ocean Ave N	NRHP-Eligible (EDR-Recommended)	32.37	Figure 3.3-1, Sheet 5

Spring Lake Borough

Spring Lake Borough is located in the extreme southeastern limit of Monmouth County on the Atlantic coast and is bounded by Lake Como Borough to the north, Sea Girt Borough to the south, and Wall Township to the west. The history of Spring Lake Borough centers around the grand hotels and summer homes constructed in the borough limits beginning in 1875. Development was first attempted when the Spring Lake Beach Improvement Company acquired 266 acres of farmland for use as a summer resort. In contrast to the nearby Methodist communities located in Ocean Grove and Asbury Park, the investors in the company put emphasis on the construction of hotels and cottages for wealthy vacationers from New York and Pennsylvania. The completion of an extension of the New York and Long Branch Railroad in 1875 aided in the success of the upstart community. Three substantial hotels were constructed during the late 1870s: the Monmouth House (1876), the Lake House (1876), and the Carleton House (1877). In addition, beach cottages were constructed by other developers and proprietors and rapid growth continued into the 1880s. By 1885, the development in the community resulted in four separate communities: North Spring Lake, Villa Park, Spring Lake Beach, and Como. The Spring Lake Beach Improvement Company conceded that it did not have the funds needed to ensure the upkeep of a police or fire force nor the capacity to maintain the needed infrastructure. After a failed reorganization of the company, a petition was made for the incorporation of a Spring Lake Borough in Monmouth County and in 1892 the borough was formed from Wall Township. The large hotels catering to the wealthy prospered into the twentieth century and many new hotels were opened in the first decades of the century. Spring Lake Borough maintains its predominantly residential and quiet seaside town (Kolarsick-Harrigan, 2020).

Table 3.3-26. Aboveground Historic Properties in the PAPE – Spring Lake Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300568	2 Warren Avenue	2 Warren Avenue	NRHP-Eligible (EDR-Recommended)	33.22	Figure 3.3-1, Sheet 5
313135	2 Passaic Avenue	2 Passaic Avenue	NRHP-Eligible (EDR-Recommended)	33.29	Figure 3.3-1, Sheet 5

Wall Township

Wall Township is located in southeastern Monmouth County and is bordered to the north by Tinton Falls and Neptune Townships; to the east by the boroughs of Belmar, Lake Como, Spring Lake Heights, Sea Girt, Manasquan, and Brielle; to the south by the Manasquan River, and to the west by Howell Township. Prior to its formal organization, the area that comprises Wall Township saw the first Euro-American settlers in the early nineteenth century in proximity to the Manasquan River. During the Revolutionary War, the Union Salt Works and the Shark River Salt Works, in addition to the larger mills on the river, were strategically targeted by the British to disrupt the local supply of grain and salt used for food preservation. A bog iron industry was briefly sustained in the township during the 1820s but was made obsolete by the boom of the Pennsylvania iron industry in the 1850s. By the 1850s, a petition was prepared for the establishment of a new township and in 1851 Wall Township was formally organized from Howell Township. At this time, the township comprised a collection of small and scattered villages including Allenwood, Chapel, New Bedford, Hurleytown, Blansingburg, and Bailey's Corner. The railroad age reached the

township first in 1864 with the arrival of the Raritan and Delaware Bay Line Railroad and in 1873 with the Freehold and Farmingdale Railroad. Agriculture and small trades sustained the local economy into the twentieth century and with the reliable transportation routes provided by the railroad, local products were shipped to larger markets in Philadelphia and New York City. The American Wireless Telegraph Company built their headquarters in the township on the Shark River and a small company town was also constructed in support of the building. After the outbreak of World War I, President Woodrow Wilson persuaded the company to temporarily give control of the complex to the government for the war effort. The site was later acquired by the Camp Evans Signal Corps Laboratory of Fort Monmouth. After the completion of the Garden State Parkway in 1954 and Interstate 195 in 1968, Wall Township saw an influx of planned residential communities. Today, the township is predominantly residential with a growing amount of "big box" commercial development to service the nearby beach communities (Salmon, 2014).

Table 3.3-27. Aboveground Historic Properties in the PAPE – Wall Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300000	Naval Ammunition Depot Earle Historic District	NJ-34	NRHP-Eligible (NJHPO-Determined)	39.60	Figure 3.3-1, Sheets 1, 2, 3, 4, 6

3.3.2.4 Ocean County*

Barnegat Light Borough

Barnegat Light Borough is located in the extreme eastern extent of Ocean County at the northern tip of Long Beach Island. This area of Long Beach Island was first visited by European explorers in 1609 when Henry Hudson reached the vicinity of the borough. The Dutch eventually came to call this area Barendegat, or "Island of the Breakers" for the dangerous sea conditions encountered. The area was used as a hunting and fishing ground for Euro-American settlers in the early nineteenth century. By the middle of the nineteenth century, vacationers from New York reached Barnegat Light Borough by traveling to the mouth of Toms River and sailing south down Barnegat Bay to reach the northern end of Long Beach Island. A railroad trestle was constructed in 1886 connecting the island to the mainland. In 1904, the area was incorporated as Barnegat City and was formally separated from Long Beach Township. It was renamed by referendum to Barnegat Light in 1948 in commemoration of the lighthouse, which had become a landmark on the island. In the 1920s, Norwegian settlers founded the fishing village appropriately named Viking Village on the inlet located on the western side of the borough. The lighthouse and surrounding land were acquired by the state of New Jersey in 1957 and converted into a state park. This area of Long Beach Island continues to be a popular destination for boating and fishing, and for its beach (Barnegat Light Tourism Coalition, 2022; Snyder, 1969).

Table 3.3-28. Aboveground Historic Properties in the PAPE – Barnegat Light Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
110	Barnegat Lighthouse	208 Broadway	NRHP-Listed	9.93	Figure 3.3-1, Sheet 8

Barnegat Township

Barnegat Township is located in the lower half of Ocean County and extends east into Barnegat Bay. The area was originally settled by the Lenape, with European settlement occurring as early as 1720 but more permanent settlements occurring along creeks and bays in the mid-to-late eighteenth century. Early industries included whaling and timber harvesting, which relied on the waterways for shipping and transport. Shipbuilding was also an early industry which contributed to the growth and development along the shores of the area, while farming and berry harvesting were more prevalent inland. Present-day Barnegat Township was originally incorporated as Union Township in 1846 and became part of Ocean County in 1850. The original township included portions of Lacey, Ocean, Harvey Cedars, and Long Beach Township, which were divided and formed as distinct townships throughout the nineteenth century. Barnegat Township was officially renamed 1977, taken from Barnegat Bay and Inlet. The tourism industry has been crucial to the economy and growth of Barnegat Township since the late nineteenth century and continues to the present day, as does commercial and recreational fishing (Snyder, 1969; Barnegat Township, 2022; BBP, 2022).

Table 3.3-29. Aboveground Historic Properties in the PAPE – Barnegat Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9244	Barnegat Historic District	N/A	NRHP-Eligible (NJHPO-Determined)	14.58	Figure 3.3-1, Sheet 8

Bass River Township

Bass River Township is located in the extreme southeastern extent of Burlington County. The Wading River creates a portion of the eastern boundary while the southern boundary comprises the course of the Mullica River. The earliest Euro-American settlers in the township arrived around 1713 and settled near the Bass River. The early pioneers were primarily English Quakers who capitalized on the abundant timber in the pine forests (known as the Pine Barrens). This area of Burlington County was not well suited for agriculture and as a result the early settlers capitalized on the pine forests and rivers. The primary economies and industries in the early-to-mid nineteenth century consisted of iron and charcoal making, papering, lumbering, boat building, and fishing. Additionally, cranberry and blackberry harvesting and mossing were important trades. The township was formally incorporated in 1864 from portions of Little Egg Harbor Township and Washington Township (Conservation & Environmental Studies Center, Inc. 1982). In 1905, the Bass River State Forest was created for the purpose of wildlife and timber management, public recreation, and water management. The Civilian Conservation Corp planted trees and built

camping structures in 1933 that are still enjoyed today. The Bass River State Forest continues to be a popular recreational destination (NJ DEP, 2022).

Table 3.3-30. Aboveground Historic Properties in the PAPE – Bass River Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9243	Bass River State Forest Historic District	Stage Road	NRHP-Eligible (NJHPO-Determined)	15.42	Figure 3.3-1, Sheets 9, 10, 12, 13

*The Bass River State Forest Historic District is located in both Ocean and Burlington Counties.

Bay Head Borough

Bay Head Borough is located on the Barnegat Peninsula barrier spit just south of Point Pleasant Beach Borough and Manasquan Inlet. The Bay Head Historic District is located along the Atlantic coastline with views of the Atlantic Ocean, Bay Head Harbor, and Twilight Lake. While the name Bay Head has its origins in the eighteenth century, a point indicated on period maps, Bay Head Borough is a late nineteenth-century coastal summer resort. In 1877, Edward Howe, David Mount, and William Harris of the Princeton Bank and Trust Company purchased land in Bay Head, which up to this point was largely unsettled, and began to lay the infrastructure for a summer resort. Under the Bayhead Land Company, the resort began development with oceanfront cottages and a hotel and by 1886 Bay Head was formally incorporated as a borough. The Bay Head Historic District comprises much of the borough of Bay Head and is primarily residential in architectural character, although it includes commercial and religious buildings. The building stock dates roughly from 1880 to 1940 and exhibits features of the Shingle, Queen Anne, Craftsman, and Colonial Revival styles. Many of these are simple vernacular examples with wood shingle cladding, porches, and hipped roofs with dormers. A notable contributing element of the historic district is the Bay Head Train Loop, which is the only surviving turning loop in New Jersey. While Bay Head followed a similar development pattern seen on the Jersey Shore in the late nineteenth century, into the twentieth century Bay Head became known more as a private residential community than a resort town. Large summer residences outnumbered hotels and resorts, as wealthy vacationers preferred to demonstrate their wealth in their homes rather than by staying in a grand hotel. The architecture in Bay Head is also unique in that most summer residents opted to use local contractors to build their homes, resulting in more muted vernacular interpretations of the popular revival styles of the time. Additionally, because Bay Head was predominantly residential, it survived the postwar development bust, the effects of the Great Depression, and the rise of the automobile. The opening of the Garden State Parkway in 1954 brought more residents to the area resulting in a surge of mid-century residential dwellings among the late nineteenth and early twentieth-century homes (Ocean County Cultural and Heritage Commission, 1981; Zakalak, 2005).

Table 3.3-31. Aboveground Historic Properties in the PAPE – Bay Head Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300036	Bay Head Historic District	Roughly bounded by the Point Pleasant Beach Borough line, the Atlantic Ocean, the Mantoloking Borough line, and the Point Pleasant Borough line.	NRHP-Listed	27.23	Figure 3.3-1, Sheets 5, 6

Beach Haven Borough

Beach Haven Borough is located in the extreme southern extent of Ocean County in the southern portion of Long Beach Island. This area of Long Beach Island was first explored by Europeans in 1609 when explorer Henry Hudson sailed by the island. Throughout the late seventeenth century and eighteenth century, the area was used by sportsmen for fishing and hunting. The area was also used as pasture for cattle who grazed on the sand hills. Ocean County was formed from Monmouth County in 1850 and by this time the wealthy sportsmen from Philadelphia and inland New Jersey who frequented the island saw a need for a resort community for their families. Tuckerton businessman Archelaus Pharo set out to build a railroad to the proposed resort community with a connection to Tuckerton and onward to Philadelphia in 1871. Pharo also bought 666 acres of land for the resort community and in 1874 Beach Haven Borough was officially formed. The community saw the height of its development in the late nineteenth and early 20th centuries. The primary economies for full-time residents were oystering, fishing, clamming, and working as guides for the sportsmen. The Great Atlantic Hurricane of 1944 caused extensive damage to the borough's hotels and boardwalk and another storm in 1962 resulted in a new zoning law requiring any new constructions to be built on stilts. Beach Haven continues to be a popular seasonal beach community (Borough of Beach Haven, 2022).

Table 3.3-32. Aboveground Historic Properties in the PAPE – Beach Haven Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
382	Little Egg Harbor Yacht Club	401 Berkeley Avenue	NRHP-Eligible (NJHPO-Determined)	10.03	Figure 3.3-1, Sheet 12
594	Sherbourne Farm	319 Liberty Avenue	NRHP-Listed	9.78	Figure 3.3-1, Sheet 12
9225	Beach Haven Historic District	Roughly bounded on the north by 3rd Street, on the east by South Atlantic Avenue, on the south by Pearl Street, on the west by properties to the west of South Beach Avenue.	NRHP-Listed	9.85	Figure 3.3-1, Sheet 16
9257	Beach Haven Historic District (Boundary Increase and Additional Documentation)	Roughly bounded by Atlantic, Bay, Fifth, and Chatsworth Avenues.	NRHP-Listed	9.69	Figure 3.3-1, Sheet 12

Berkeley Township

Berkeley Township is located in the northern limit of Atlantic County and is bounded on the north by Cedar Creek, on the east by Barnegat Bay, on the south by Toms River, and on the west by Manchester Township. The first Euro-

American settlers in this area of Atlantic County were English and arrived in the late seventeenth century. The early economies capitalized on the abundant pine barren forests and proximity to Barnegat Bay and Toms River. Agriculture, lumbering, milling, and boatbuilding were the principal trades. Throughout the eighteenth century, the township was predominantly rural with scattered settlements. The township was formally incorporated in 1875 from Dover Township and Bayville, incorporated in 1881, was the primary locale. The Toms River and Waretown Railroad arrived in the area in 1872 and with it brought sportsmen, vacationers, and new residents. The railroad also spurred the export of local produce and fish and shellfish which helped to sustain a diversified agricultural economy. By the early 20th century, pound fishing (the trapping of large quantities of fish in large nets) and cranberry harvesting became lucrative economies in the township. Although a number of resort communities were proposed and platted in the township, Berkeley Township remained rural and undeveloped throughout the 20th century. The late 20th and early 21st century brought a proliferation of housing to the township which is largely confined to the bayfront areas (Heritage Studies, Inc., 1981).

Table 3.3-33. Aboveground Historic Properties in the PAPE – Berkeley Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
109	U.S. Lifesaving Station Number 14	Central Avenue	NRHP-Listed	16.84	Figure 3.3-1, Sheet 7
121	Forked River Coast Guard Station No. 112	Central Avenue, Island Beach State Park	NRHP-Eligible (NJHPO-Determined)	11.51	Figure 3.3-1, Sheets 8, 17
64	AT&T Transmitter Building and Antenna Field	83 Bayview Avenue (Ocean County Route 617)	NRHP-Eligible (NJHPO-Determined)	19.06	Figure 3.3-1, Sheet 7
5001	Island Beach State Park Historic District	Central Avenue	NRHP-Eligible (EDR-Recommended)	16.23	Figure 3.3-1, Sheet 7
9245	Midway Camps Historic District	Bounded on the north by 14th Avenue, on the east by Ocean Avenue, on the south by 20th Avenue, and on the west by Central Avenue.	NRHP-Eligible (NJHPO-Determined)	17.61	Figure 3.3-1, Sheet 7
892	The Judge's Shack	Central Avenue	NRHP-Eligible (NJHPO-Determined)	12.23	Figure 3.3-1, Sheet 8

Brick Township

Brick Township is located in the northeastern extent of Ocean County and is bordered to the north by Monmouth County, to the east by Point Pleasant Borough and Barnegat Bay, to the south by Barnegat Bay, and to the west by Lakewood Township. The early settlement history of the township is closely tied to Ocean County; the township was one of the original townships organized with the formation of the county in 1850. Prior to its formal organization, the area that would become Brick Township sustained an early milling industry made possible by the abundant timber in the township. During the middle of the eighteenth century, Brick Township contained prosperous sawmills and two early iron forges. By the middle of the nineteenth century, subsistence farming became the primary economy with an emphasis on dairying. Many farmers drove their cattle down the early alignment of modern-day Mantoloking Road towards Barnegat Bay for grazing. Hunting and fishing, specifically shellfish and small game, were also important trades. In the 1850s, cranberry harvesting became the principal economy with Brick Township producing the most cranberries in Ocean County into the early twentieth century. However, the construction of the Point Pleasant Canal in 1925 resulted in the introduction of saltwater into the Metedeconk River and Barnegat Bay

and resulting in the loss of the cranberrying industry. Gunning and fishing clubs became popular in the township at the turn of the twentieth century, along with numerous summer camps. In the early 1920s, a real estate development boom in the township in the 1920s attracted new residents to the more bucolic bayfront areas of Ocean County. Several real estate development companies sold lots in the township; however, restrictive covenants included in the sale of the lots resulted in a predominant white and middle-class population. The opening of the Garden State Parkway in 1954 resulted in a proliferation of residential and commercial development in proximity to the highway corridor. Today, Brick Township has been largescale "big box" commercial development and continued residential development (Donatiello, 2022).

Table 3.3-34. Aboveground Historic Properties in the PAPE – Brick Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
300022	Mantoloking Marine Historic District	Mantoloking Road	NRHP-Eligible (NJHPO-Determined)	25.83	Figure 3.3-1, Sheet 6

Eagleswood Township

Eagleswood Township is located in along Little Egg Harbor in Ocean County between Little Egg Harbor and Stafford Townships. The township was settled by Gervas Pharo and later incorporated in 1874 and includes West Creek and Staffordville. The area was attractive as a place to settle due to its harbor, wildlife, and fertile soil. The name Eagleswood reportedly was chosen because of the eagles that nested in the area. The township was settled along West Creek, with the majority of the eighteenth and nineteenth century residences settled along or nearby the waterway. During the eighteenth and nineteenth centuries, shipbuilding, and lumber became part of the economy of the area and cranberry bogs were located in the township (NJHPO, 1979a).

Table 3.3-35. Aboveground Historic Properties in the PAPE – Eagleswood Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9304	West Creek Historic District	N/A	NRHP-Eligible (NJHPO-Determined)	14.33	Figure 3.3-1, Sheet 10

Harvey Cedars Borough

Harvey Cedars Borough is located in the southeastern extent of Ocean County on Long Beach Island between Barnegat Light (to the northeast) and Surf City (to the southwest). The early history of the borough is closely tied to the development of Barnegat Light Township from which it was incorporated in 1894. The name Harvey Cedars is derived from language used in a 1751 deed that described a tract of land in the vicinity as "a hammock and clump of cedars called Harvest Quarters." Over time, the name was broken down and eventually became Harvey Cedars. In 1850, the Harvey Cedars Hotel (today the Harvey Cedars Bible Conference) was built on the bay side of the community. The early economy relied on the harvesting and export of seaweed which was used for insulation, packing, and the manufacturing of mattresses. Pound fishing was also an important early industry. By the 1870s, the hotel was a popular destination for hunters and sportsmen. A summer resort community grew around the hotel and

by the 1880s real estate speculators bought and platted much of the land between 87th Avenue and Sussex Avenue to the southwest. The arrival of the railroad in 1886 brought a development boom as passengers and freight were able to be transported to Long Beach Island. Another development period came in 1914 when Long Beach Boulevard was improved, bringing in vacationing motorists. During the 1930s, Harvey Cedars gained a reputation as a summer artist colony and became the seasonal residence to painters, sculptors, and architects who soaked in the solitude and inspiration from the seaside setting. Philadelphia architect George Daub was a noted resident who built a number of Modern dwellings in Harvey Cedars, most of which have been lost to hurricanes (Buckholz, 2022).

Table 3.3-36. Aboveground Historic Properties in the PAPE – Harvey Cedars Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
8062	Harvey Cedars Hotel	12 Cedars Avenue	NRHP-Eligible (NJHPO-Determined)	9.09	Figure 3.3-1, Sheet 11
7886	Small Estate	7202 Long Beach Boulevard	NRHP-Eligible (EDR-Recommended)	9.08	Figure 3.3-1, Sheet 11

Lavallette Borough

Lavallette Borough is located in the eastern extent of Ocean County to the north of Seaside Heights and to the south of Mantoloking. It is bordered to the west by Barnegat Bay and to the east by the Atlantic Ocean. New Jersey's barrier islands were first discovered by Europeans during English explorer Henry Hudson's excursions in the early 1600s. Whalers built temporary camps on the barrier island in the mid-to-late seventeenth century, but the area remained largely uninhabited until the latter half of the nineteenth century. Plans for a town in Lavallette were developed in 1878 by the Barnegat Light Improvement Company which filed a plat plan in Ocean County named "Lavallette City by the Sea." The community was named for U.S. Navy Admiral Elie LaVallette who won a decisive battle on Lake Champlain during the War of 1812. The borough of Lavallette was formally incorporated in 1887, although development stagnated until the construction of a railroad from South Seaside Park to Bayhead in 1881. The summer population swelled into the 20th century and the local economies were reliant on commercial fishing and boatbuilding. Development was furthered by the construction of Route 35 in 1911. Lavallette saw a postwar development boom but maintained its small and family friendly feel. After the construction of the Garden State Parkway in 1954, more year-round residents-built homes in Lavallette, many of which are maintained today. The primary commercial corridor is located on Grand Central Avenue (Borough of Lavallette, 2022).

Table 3.3-37. Aboveground Historic Properties in the PAPE – Lavallette Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
8320	Stevens House	1 Brown Avenue/906 Ocean Avenue	NRHP-Eligible (EDR-Recommended)	21.52	Figure 3.3-1, Sheet 6
9269	Ocean Beach Historic District (Units 1, 2, and 3)	The district comprises three separate dense residential areas in Lavallette Borough, each bisected by State Route	NRHP-Eligible (NJHPO-Determined)	22.10	Figure 3.3-1, Sheet 6

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
		35 North and containing orderly east-west streets. Each district is bounded on the east by the beaches at Dover Beaches North (in the northern most district), Chadwick Beach (in the central district), and Island Beach (in the southern-most district).			

Little Egg Harbor Township

Little Egg Harbor Township is located in the southern extent of Ocean County and is bordered to the north by Eagleswood Township, to the east by Little Egg Harbor, to the south by the Atlantic Ocean, and to the west by Burlington County. Its history historically is largely tied to the history of Egg Harbor Township and Tuckerton Borough (formally incorporated from the township in 1901). This area of Atlantic County was first explored by Europeans in 1614 when Dutch explorer Cornelius Jacobsen Mey navigated to the mouth of the Great Egg Harbor River while looking for new settlement sites. The earliest permanent Euro-American settlements in the township were located in proximity to present-day Tuckerton Borough, a prominent shipping port in the eighteenth and nineteenth centuries. The remainder of the township was predominantly rural and agricultural throughout this time.

Additionally, lumbering was an important economy due to the abundant pine barren forests located in the northern portion of the township. Tuckerton was the site of a battle between Colonial and British troops during the Revolutionary War, resulting in the burning of town in 1778. In addition to Tuckerton, the community of Parkertown, in the northern extent of the township, was a short-lived agricultural community in the late nineteenth century. Sea Haven was also a short-lived late nineteenth century resort community that at its height boasted two hotels and a fishing community, although the community is no longer extant. The Tuckerton Wireless, at the time the largest radio tower in the world, was constructed in Little Egg Harbor Township in 1912. The tower was demolished in 1955. Presently, Little Egg Harbor remains a largely rural and residential township with development confined to the corridor of U.S. Route 9 (Heritage Studies, Inc., 1981).

Table 3.3-38. Aboveground Historic Properties in the PAPE – Little Egg Harbor Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
563	Little Egg Harbor US Life Saving Station #23	800 Great Bay Boulevard	NRHP-Eligible (NJHPO-Determined)	11.21	Figure 3.3-1, Sheet 12

Mantoloking Borough

Mantoloking Borough is located in the extreme northeastern extent of Ocean County and is bordered to the north by Bay Head, to the east by the Atlantic Ocean, to the south by Lavallette, and to the west by Jones Tide Pond. The borough's history originated in a land acquisition by Frederick Downer and New York attorney Frank Hall in 1875. Together, the entrepreneurs sold land to two primary development companies, the Seashore Land Company and the Seashore Improvement Company for the creation of a "dry" community that was at the time located in Brick

Township. The community was named Mantoloking, which reportedly translated to "frog ground" or "sand place." The Philadelphia and Long Branch Railroad was constructed through the town in 1881, followed by the construction of the Mantoloking Bridge in 1884. The construction of modern-day U.S. Route 35 (Ocean Avenue North) in 1908 helped to sustain the development of the seaside community and the borough was formally incorporated in 1911. Mantoloking Borough maintains its predominantly residential makeup (Borough of Mantoloking, 2022).

Table 3.3-39. Aboveground Historic Properties in the PAPE – Mantoloking Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9249	Mantoloking Historic District	Bounded on the north by the municipal line with Bay Head Borough, the municipal boundary with Brick Township to the south, the beaches at Mantoloking to the east, and Barnegat Bay to the west	NRHP-Eligible (NJHPO-Determined)	25.11	Figure 3.3-1, Sheets 5, 6

Point Pleasant Beach Borough

Point Pleasant Beach Borough is located in the extreme northeastern extent of Ocean County on the Atlantic coast and is bordered to the north by the Manasquan River and its inlet, to the south by Bay Head Borough, and to the west by Point Pleasant Borough. Prior to its formal organization in 1886, this area of northeastern Ocean County was settled by Euro-Americans in eighteenth century and was used as hunting and fishing land. As a small summer resort community emerged in the early 1880s when Thomas Cook opened his farmhouse to boarders who frequented the area for recreation. Cook was a devout Quaker and as a result his boarding house was dry, and guests could only imbibe in the fresh sea air and picturesque scenery. In 1870, retired sea captain John Cook set out to establish a resort community in the area. Cook set out to cut a road to the coast by way of modern-day Arnold Avenue and laid the groundwork for the construction of a bridge over the Manasquan River in 1875 that provided a much-needed connection to Brielle on the north shore. Cook also secured a connection to the community by way of the New York and Long Branch Railroad. The Point Pleasant Land Company was founded in 1877 and quickly built a large hotel called the Resort House. The first passenger train arrived in 1880 and ushered in an era of rapid residential and commercial development. Six more large hotels sprung up in the community, including the Leighton Hotel, the Beacon Hotel, and Zimmerman's Hotel. After the incorporation of the borough in 1886, a small pavilion was constructed near the beach follow in 1890 by the construction of a rudimentary boardwalk. By 1892, Clark's Landing on the boardwalk was a popular amusement park frequented by seasonal visitors. A permanent boardwalk was constructed in 1915 and its original length spanned the entirety of the beachfront land in the borough. A substantial hurricane in 1938 destroyed the southern section of the boardwalk and it was never rebuilt. Today, Point Pleasant Beach maintains its identity as a small, residential beachfront community (Point Pleasant Beach Borough, 2022).

Table 3.3-40. Aboveground Historic Properties in the PAPE – Point Pleasant Beach Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
999906	Point Pleasant Beach Boardwalk	N/A	NRHP-Eligible (EDR-Recommended)	29.32	Figure 3.3-1, Sheet 5

Seaside Park Borough

Seaside Park Borough is located in Ocean County south of Seaside Heights and north of Island Beach State Park on the Barnegat Peninsula barrier island. The first permanent American settlement began in 1874 and was referred to as Park City. The area was originally part of Dover Township until it became part of Berkeley Township in 1875. After the creation of Berkeley Township, the area became known as Sea Side Park and the area witnessed development as lots were sold, houses constructed, and roads built. In 1898 Seaside Park, still referred to as Sea Side Park, was incorporated as its own borough. In 1900, a tract to the north, known as the Berkeley Tract, was annexed and it was after this that the name was changed to Seaside Park. The area soon boasted grand hotels and resorts and attracted visitors from Philadelphia and New York City. The Pennsylvania Railroad established a line to Seaside Park in 1881 and continued to transport passengers and freight to the area until 1946. The area witnessed the decline of the grand resorts, replaced by more affordable hotels, and eventually evolved into an area with more of a year-round population with the construction of the Garden State Parkway and the Mathis/Tunney Bridges that allowed easier access to the mainland and its commerce (Borough of Seaside Park, New Jersey, 2022).

Table 3.3-41. Aboveground Historic Properties in the PAPE – Seaside Park Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
149	U.S. Life Saving Station No. 13	1701 North Ocean Avenue	NRHP-Eligible (NJHPO-Determined)	19.24	Figure 3.3-1, Sheet 7

Ship Bottom Borough

Ship Bottom Borough is located in southeastern Ocean County on the Atlantic coast and is bordered to the north by Surf City, to the south by Long Beach Township, and to the west by Manahawkin Bay. The borough carries the title of the "Gateway to Long Beach Island" due to its position at the southeastern terminus of the State Route 72 causeway that leads to Long Beach Island. Thought to be one of the oldest place names on Long Beach Island, the name was bestowed on the area after the discovery of a wrecked ship discovered on the beach in 1817. Life Saving Station #20 was constructed in the present limits of the borough in 1872 and the first house constructed in 1898 by the keeper of the lighthouse at the time. A small community grew around the lighthouse; however, the town could not escape its title and in 1910 the Italian boat Fortuna ran around at the beach near 16th Street. In 1925, the small communities of Bonnie Beach, Bonnet Beach, Edgewater Beach, Beach Arlington, and Ship Bottom merged to form a singular borough called Ship Bottom-Beach Arlington. The borough name was changed to Ship Bottom in 1947.

Ship Bottom is considered one of the quintessential quaint Jersey Shore Beach communities with a year-round population around 1,200 that swells to approximately 20,000 in the high season (Ship Bottom, 2022).

Table 3.3-42. Aboveground Historic Properties in the PAPE – Ship Bottom Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9252	Ship Bottom Historic District	N/A	NRHP-Eligible (EDR-Recommended)	8.46	Figure 3.3-1, Sheets 10, 11

Stafford Township

Stafford Township is located in Ocean County just west of Little Egg Harbor, Manahawkin Bay, and Long Beach Island. The township includes the Cedar Bonnet Islands between the barrier island and the mainland. It is bordered to the north by Barnegat Township; to the east by Little Egg Harbor, Manahawkin Bay, and Long Beach Island; to the south by Eagleswood Township; and to the west by Little Egg Harbor Township. Stafford Township contains a mix of dense tract housing, commercial strip development, undeveloped forested land, extensive wetlands, and natural waterways, and is bisected by the Garden State Parkway. The township was incorporated by Royal Charter in 1749 from a portion of Shrewsbury Township, Monmouth County, and became the first government formed in what would become Ocean County. The unincorporated community of Manahawkin quickly became the social and economic center of the township. Cedar harvesting, charcoal manufacturing, and bog iron processing were important early industries along with fishing and glassmaking. Manahawkin resident Dr. William Newell is considered the father of the U.S. Life Saving Service and U.S. Coast Guard. He pioneered the life-saving technique known as the Beach Apparatus Drill, then, as a U.S. Congressman in 1848, he passed the first appropriation to create life-saving stations along the Atlantic Coast. In the late nineteenth century, Stafford Township developed a thriving cranberry industry. In the early twentieth century, vacation home development within the township and on Long Beach Island spurred additional roadbuilding and commercial development. The Beach Haven West community, begun in 1945, is the state's largest "lagoon" development with over 3,600 homes on reclaimed land in Little Egg Harbor. More recently, luxury home development has increasingly occurred within the township.

Table 3.3-43. Aboveground Historic Properties in the PAPE – Stafford Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9247	Manahawkin Village Historic District	N/A	NRHP-Eligible (NJHPO-Determined)	13.60	Figure 3.3-1, Sheet 25

Toms River Township

Named Dover Township until 2006, Toms River Township was established in 1767. Situated on Toms River (Tom's River), the township purportedly gets its name from Thomas Luker, an early ferryman. The economy of the township revolved around maritime trades and shipbuilding well into the nineteenth century and was the site of an important

salt works during the Revolutionary War. The strategic significance of Toms River was such that a raid by the British in 1782 that ended in the burning of the village of Toms River resulted in delays in negotiating the Treaty of Paris. With the creation of Ocean County out of Monmouth in 1850, Toms River became the new county seat. This was followed by a railroad connection in 1866, with both events leading to a period of rapid growth in the mid to late nineteenth century. The arrival of wealthy vacationers brought the pastime of yachting to the township leading to the establishment of the Toms River Yacht Club in 1871, purportedly the second oldest such club in the nation. Today, the Toms River Maritime Museum has a collection of historically significant racing yachts.

Table 3.3-44. Aboveground Historic Properties in the PAPE – Toms River Township

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9246	Island Heights Historic District	N/A	NRHP-Listed	20.52	Figure 3.3-1, Sheet 7
9250	Toms River Main Street Historic District	N/A	NRHP-Eligible (NJHPO-Determined)	23.31	Figure 3.3-1, Sheet 18

Tuckerton Borough

Tuckerton Borough is located in Ocean County and is situated between the New Jersey Pine Barrens and the Bay. European settlement began in 1699, by Quaker brothers Edward and Mordecai Andrews, and a meeting was established by 1702. In 1704, Edward constructed a grist mill at the mouth of present-day Tuckerton Creek, spurring more development and settlement. Tuckerton, originally called Clamtown or Fishtown, became an important and thriving seaport in the eighteenth century, and became a United States Port of Entry. Ebenezer Tucker, a statesman and Revolutionary War patriot became the Collector, with his commission being signed by George Washington and Thomas Jefferson in 1791. A stage line was established between Philadelphia and Tuckerton in 1816 and remained the major public conveyance until 1871 when the Tuckerton Railroad was completed. Possibly New Jersey's first summer resort on Tuckers Island off Little Egg Harbor, where cottages, boarding houses, and school were established. A lighthouse was added to the island in 1848, and the Little Egg Harbor Life-Saving Station was constructed in 1869. This island and all its buildings were destroyed in a storm and the island remains under water today. Present-day Tuckerton Borough was originally part of Burlington County and was annexed into Ocean County in 1891, with Tuckerton established in March of 1901 (Tuckerton Borough of New Jersey, 2022).

Table 3.3-45. Aboveground Historic Properties in the PAPE – Tuckerton Borough

Survey ID	Property Name	Address	NRHP Status	Distance to Nearest Turbine (mi)	Figure Reference
9251	Tuckerton Historic District	U.S. Route 9 and County Route 539, roughly between Parkers Landing and Pohatcong Lake.	NRHP-Eligible (NJHPO-Determined)	14.82	Figure 3.3-1, Sheet 12

4.0 EFFECT OF THE PROJECT ON ABOVEGROUND HISTORIC PROPERTIES

As stated in Section 2.1, 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. The Atlantic Shores North Offshore Wind Project will not have any direct or physical effect on aboveground historic properties but have the potential to have visual effects on aboveground historic properties.

4.1 Considerations for Visual Effects on Aboveground Historic Properties

The potential effect resulting from the introduction of WTGs into the visual setting for an aboveground historic property is dependent on several factors, including:

- those characteristics of a historic property that qualify it for listing in the NRHP (i.e., the rationale for the property's historical significance),
- whether or not a historic property has a maritime setting – and the integrity of that setting, including the presence of existing modern features or other visual elements that post-date a property's period of significance,
- the degree to which a property's maritime setting contributes to the historical significance of the property,
- the distance separating the aboveground historic property from the Project components (i.e., wind turbines and OSS) – which determines the scale of the turbines relative to a viewer's location, and
- the magnitude and nature of visual changes to existing views introduced by the proposed facilities, in terms of visual dominance, orientation of potential views, and density of new visual elements.

The first three of these factors are related to the nature of each historic property and the relationship between each aboveground historic property and the surrounding physical environment. Of particular interest in the assessments for offshore wind facilities are the characteristics of maritime settings associated with some aboveground historic properties and how those settings could be affected by the construction and operation of multiple, large wind turbines on the OCS. The latter two factors summarized above relate to the physical parameters of the proposed facilities and their spatial relationships to aboveground historic properties with potential views of the facilities.

The Project will result in the greatest potential effects on the visual setting of aboveground historic properties located along the shoreline. While all the aboveground historic properties within the PAPE have potential views of the WTGs, because of distance as well as the Earth's curvature, not all of the aboveground historic properties would have views of full WTGs (i.e., in which the entire above-surface WTG structure was visible) and not all aboveground historic properties will be adversely affected by the Project. As further detailed in Section 2.1, an "adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of an aboveground historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity" (CFR, 2022a).

EDR's assessment of potential adverse visual effects to aboveground historic properties is intentionally conservative and intended to identify possible adverse effects that may warrant further consideration through future consultation with agencies and other stakeholders during the Section 106 consultation process.

4.1.1 Quantitative Assessment of Potential Visibility

In addition to the evaluation and consideration of the historic property-specific characteristics described above, EDR analyzed multiple quantitative factors relating to the size, location, and number of new visual elements that would be introduced by the Project and how those factors are related to the specific location of each historic property. The GIS-based viewshed analyses described in Sections 2.2 and 2.3 of this report provided the basis for quantitative assessment of potential visibility of the Project. Data regarding potential visibility of the Project from aboveground historic properties that were considered in the evaluation of potential effects include:

- Distance from the nearest visible WTG
- Blade tip elevation
- WTG aviation light elevation
- Mid-tower aviation light elevation
- USCG light elevation
- Total acreage of aboveground historic property
- Total acreage of visibility within the aboveground historic property
- The portion of the aboveground historic property (percent of acreage) from which the Project would be potentially visible.

As further described in Section 3.0 of this report, the potential visibility and visual effect of the Project was evaluated for all of the aboveground historic properties in the PAPE. Attachments A, B, C, and D provide detailed property-specific visibility data and effects recommendations for each historic property in the PAPE.

The GIS-based viewshed analyses for the Project indicate the portion of WTGs visible above the ocean horizon (AMSL). For example, a visitor to an aboveground historic property with visibility of just blade tips would potentially be able to discern the distant blade tips over the horizon, while a visitor to a property with all four levels of visibility would theoretically have views of the entire above-surface portion of one or more WTGs. In order to provide a conservative assessment of the Project's potential visibility, the number of WTGs visible from each aboveground historic property was tabulated and considers any portion of the WTGs that may extend above with horizon to maximum distance of 46 miles (72.6 km).

With respect to the importance of distance and its relation to the perceived scale of the WTGs from onshore properties, previous determinations by BOEM for proposed offshore wind Project did not find any adverse impacts to aboveground historic properties located beyond 25 miles (40.2 km) of the nearest WTG. The *Finding of Adverse Effect for the Vineyard Wind 1 Project Construction and Operations Plan* (BOEM, 2019) determined that "visual impacts to onshore viewers of WTGs would be expected to be minor" for all proposed WTG size alternatives (BOEM,

2019: 18). In addition, the *Finding of Adverse Effect for the South Fork Wind Farm and South Fork Export Cable Construction and Operations Plan* (BOEM, 2021) states that "BOEM's analysis found that adverse effects would tend to result within 20 miles of WTGs, to properties on elevated seaside bluffs that offer open vantage points within the APE…" (BOEM, 2021: 22).

Several aboveground historic properties within the PAPE have large boundaries, i.e., over 10 acres (4.1 hectares [ha]), so that even a small percentage of the viewshed within such a property's acreage could represent a relatively large area. For example, the Garden State Parkway Historic District (NJID 3874), located within the PAPE, encompasses 4,344 acres (2,162.6 ha) across multiple counties in New Jersey. The viewshed analysis indicated that 1.312 percent of this aboveground historic property had potential views of the Project, or 163 acres, which is still a relatively large area of visibility. Alternatively, aboveground historic properties with very small areas of potential visibility (e.g., < 0.05 acres) due to the screening of ocean views and/or distance from the Project are less likely to experience adverse visual effects due to the very limited nature of the affected views and the low probability that such constrained views are character-defining aspects of the property's historic setting.

The quantitative assessment was intended to provide a baseline characterization of the scope and magnitude of visual change that might be experienced by a person at each aboveground historic property. The results of the quantitative assessment supported a qualitative assessment of the contribution of an aboveground historic property's maritime setting to its historic significance, the level of Project visibility, relationship of specific views towards the Project to the location, design, and historic use of an aboveground historic properties, and the overall sensitivity of each aboveground historic properties to visual effects. The results of this assessment are provided for each historic property in the PAPE in Attachments A, B, C, and D. For example, according to the viewshed analysis the Corson's Inlet Bridge (SI&A # 3100002), Survey ID 4209, in Upper Township was shown to have theoretical visibility of up to 157 WTGs. However, the property's primary historical significance is derived from engineering, the property is located approximately 32.16 miles (51.75 km) from the Project, there is an overall low sensitivity to visual effects due to the transient nature of viewing the sea from a vehicle traveling across the bridge. These qualitative considerations were all taken into consideration in preparing the effects recommendation for this property. Consideration of potential effects to each historic property within the PAPE was also informed by detailed visualizations, as described below.

4.1.2 Visual Simulations

To further characterize the potential visual effect of the Project and to inform the assessment of potential visual effects on aboveground historic properties, realistic photographic simulations of the Project were completed to support the assessments included in the SLVIA and this HRVEA. The photographic simulations were taken from KOPs which were identified by EDR in consultation with Atlantic Shores, state agencies, local stakeholders, and BOEM. A list of the KOP locations can be found in Table 4.1-1 and a map identifying the locations can be found in Figure 4.1-1. The photographic simulations were developed by constructing a three-dimensional (3D) computer model of the proposed WTGs, WTG layout, and offshore substation based on design specifications and coordinates provided by Atlantic Shores. Because Atlantic Shores is evaluating a PDE, a model was prepared using the maximum project dimensions within the PDE. A diagram of the proposed WTG and offshore substation used in the SLVIA are shown in Figures 1.4-2 and 1.4-3.

Simulations were created by aligning each photographic viewpoint through a virtual 3D camera, using digitized location data for elements visible in the photograph. This step involves utilizing aerial photographs and GPS data collected in the field to create an AutoCAD® drawing. The 3D AutoCAD data were then imported into 3DS Max®, and additional components (cameras, modeled scene, etc.) were added. These data were superimposed over photographs as seen through the virtual camera from each of the viewpoints, and minor camera changes (height, roll, bearing) were made as necessary to align all known reference points within the view. This process ensures that the Project elements are shown in proportion, perspective, and proper relation to the existing landscape elements in the view. Consequently, the alignment, elevation, dimensions, and scale of the modeled Project components are accurate and true in their relationship to other landscape elements in each photo. The resulting simulation size included in Attachment E is 15 inches (38.1 cm) wide by 10 inches (25.4 cm) high. At this size and focal length, the simulation should be viewed from a distance of 21 inches (53.3 cm). A full description of the visual simulation methodology is included in the SLVIA for the Project (EDR, 2023b). The simulations can be found in Attachment E.

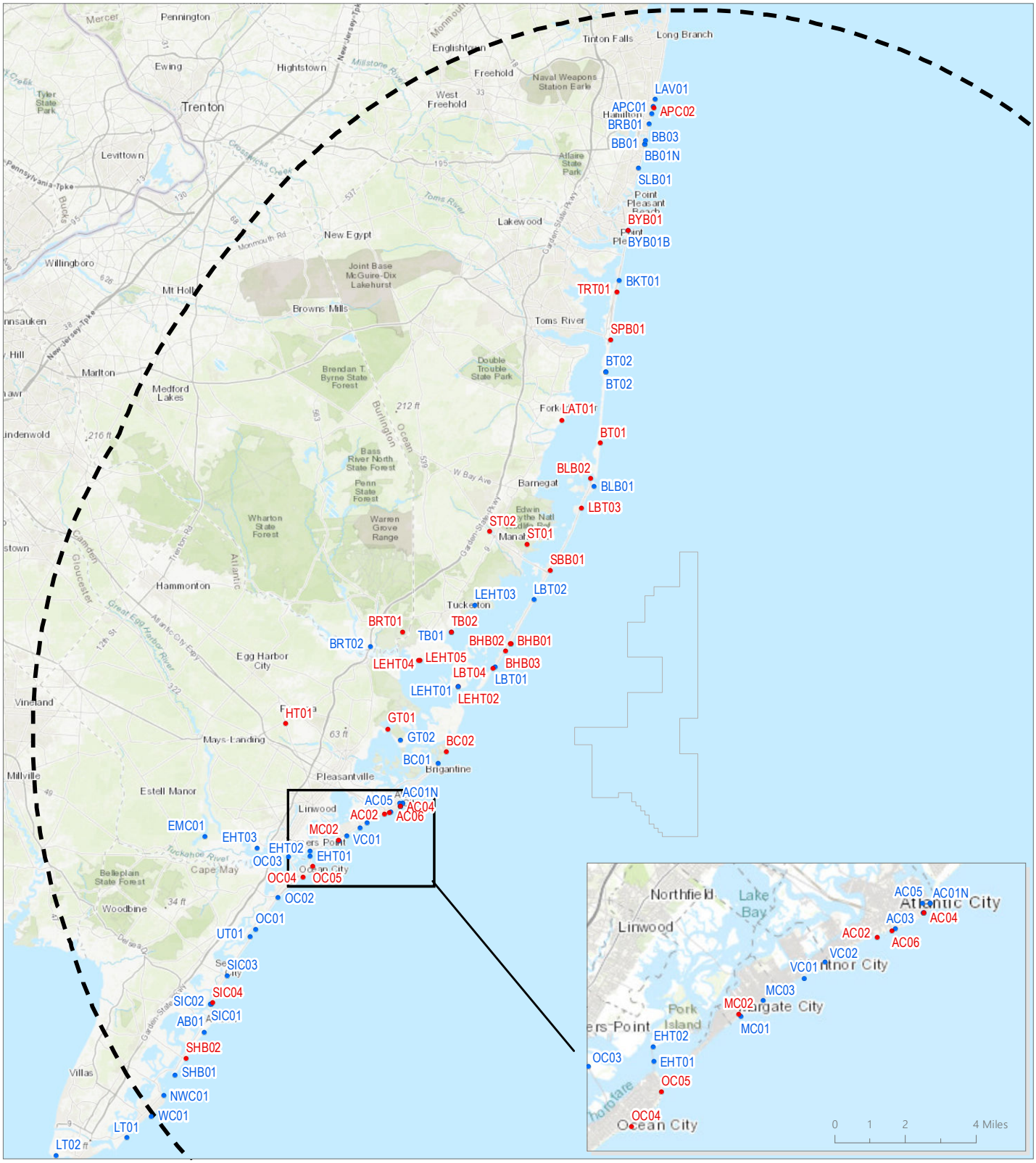
The simulations cover a horizonal field of view of approximately 38.7 degrees. In several simulations, this field of view is insufficient for illustrating the full extent of the Project. When this occurs, several views are simulated in order to capture the Project. These panorama panels always progress from left to right and typically include between two and four images representing both existing and simulated conditions. In addition, the simulations depict the atmospheric conditions present during field photography, which were applied to the simulated offshore facilities in view. An *Initial Visibility Modeling Study* completed by the Rutgers University Center for Ocean Observing Leadership (RUCOOL) analyzed how atmospheric and weather conditions could affect visibility of the Project (RUCOOL, 2021). The study indicates that humidity and temperature could have the potential to reduce visibility of the Project from some areas of the shoreline. This study is described in greater detail and is included as an attachment to the SLVIA (Appendix II-M of the COP).

Table 4.1-1. Key Observation Point Selection

KOP	KOP Name	Location	Latitude, Longitude (WGS 84)	Distance to the Project (mi/km)
APC02	Asbury Park Convention Center (Beach)	Asbury Park City, Monmouth County, New Jersey	40.22099, -73.99873	37.98, 61.12
TRT01	Ocean Beach Historic District	Toms River Twp, Ocean County, New Jersey	39.99382, -74.06042	22.99, 36.99
SPB01	Seaside Park Borough Beach	Seaside Park Borough, Ocean County, New Jersey	39.93536, -74.07165	19.25, 30.98
LAT01	Edwin B. Forsythe NWR at the Woodmansee Estate	Lacey Twp, Ocean County, New Jersey	39.83711, -74.15082	15.3, 24.63
BT01	Island Beach State Park	Berkeley Twp, Ocean County, New Jersey	39.80805, -74.08997	11.73, 18.87
BLB02	Barnegat Lighthouse State Park	Barnegat Light Borough, Ocean County, New Jersey	39.76433, -74.10621	10.07, 16.2

KOP	KOP Name	Location	Latitude, Longitude (WGS 84)	Distance to the Project (mi/km)
LBT03	Beach at Long Beach Island Foundation for the Arts and Sciences	Long Beach Twp, Ocean County, New Jersey	39.72895, -74.12058	9.35, 15.05
SBB01	Ship Bottom Borough Municipal Beach	Ship Bottom Borough, Ocean County, New Jersey	39.65152, -74.17169	8.52, 13.71
TB02	South Green Street Park	Tuckerton Borough, Ocean County, New Jersey	39.57661, -74.33016	14.03, 22.58
BHB01	Beach Haven Historic District	Beach Haven Borough, Ocean County, New Jersey	39.56188, -74.23545	9.85, 15.84
BHB02	Centre Street, Beach Haven	Beach Haven Borough, Ocean County, New Jersey	39.56166, -74.23568	9.84, 15.84
BHB03	Holyoke Avenue, Beach Haven	Beach Haven Borough, Ocean County, New Jersey	39.55258, -74.24419	9.62, 15.48
LBT04	Edwin B. Forsythe NWR, Holgate	Long Beach Twp, Ocean County, New Jersey	39.53091, -74.26447	9.32, 15.00
LEHT02	Great Bay Boulevard Wildlife Management Area - Rutgers Field Station	Little Egg Harbor Twp, Ocean County, New Jersey	39.50912, -74.32037	11.1, 17.86
GT01	Edwin B. Forsythe NWR - Tower	Galloway Twp, Atlantic County, New Jersey	39.45787, -74.43224	16.18, 26.04
BC02	North Brigantine Natural Area	Brigantine City, Atlantic County, New Jersey	39.42954, -74.33968	11.26, 18.12
AC04	Ocean Casino Resort – Sky Garden	Atlantic City, Atlantic County, New Jersey	39.36225, -74.41353	16.2, 26.07
AC02	Jim Whelan Boardwalk Hall NHL	Atlantic City, Atlantic County, New Jersey	39.35245, -74.43817	17.67, 28.44
MC02	Lucy The Margate Elephant	Margate City, Atlantic County, New Jersey	39.32088, -74.51170	22.13, 35.61
OC04	Gillian's Wonderland Amusement	Ocean City, Cape May County, New Jersey	39.2751, -74.56878	26.11, 42.02

Figure 4.1-1: Key Observation Points for Visual Simulations



Atlantic Shores Offshore Wind Project

Outer Continental Shelf

Historic Resources Visual Effects Assessment

- KOP Selected for Simulation
- Candidate Key Observation Point (KOP)
- Project Design Envelope
- 40-Nautical Mile Viewshed Radius

0 2.5 5 10
Miles

Prepared December 1, 2023
Basemap: Esri ArcGIS Online "World Topographic Map" map service.

4.1.3 Other Factors Affecting Visibility and Potential Adverse Visual Effects

The assessment of potential adverse visual effects presented in this analysis is intentionally conservative. Even for aboveground historic properties possessing expansive ocean viewsheds, views of the Project will be highly variable depending on weather and atmospheric conditions. The majority of the simulations illustrate the maximum potential visibility resulting from near-perfect viewing conditions. Most of the visual simulations were photographed during exceptionally clear conditions and in many instances were also backlit by the sun, making the WTGs appear dark against a light, cloudless horizon. While such conditions will occur at various times throughout any given year, they represent uncommon circumstances. That is particularly true of clear viewing conditions that extend more than 20 miles from the shoreline.

Based on analyses completed for the SLVIA, atmospheric conditions will affect the frequency and duration of WTG visibility and the magnitude of visual contrast apparent to observers at all aboveground historic properties within the PAPE. Actual visibility of the Project will be limited by factors such as weather conditions, waves on the ocean surface, humidity, and air pollution (Brodie and Frei, 2020). For example, meteorological records from the Atlantic City International Airport and Ocean City Municipal Airport indicate that average visibility will extend between 2.5 to 10 miles (4 to 10 km) in April, May, and June and between 5 to 12 miles (8 to 19 km) in July and August (EDR, 2023b: Section 3.2.2 and Appendix H). While adverse visual effects to aboveground historic properties may still occur at distances over 20 miles from the nearest wind turbines, as documented in this assessment, such effects may be of limited duration and frequency and, therefore, have a lower intensity than suggested solely by near-optimal viewing conditions.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as summarized above), an assessment of the potential for adverse effect to each of the aboveground historic properties within the PAPE is included in Attachments A, B, C, and D. The results of this assessment are discussed and summarized below in Section 4.2 of this report.

4.1.4 Significance of Maritime Setting

Coastal sections of New Jersey contain a wide variety of aboveground historic properties, many of which are significant, in part or whole, due their associations with historic maritime activities and/or for which views of the various rivers, estuaries, bays, and the Atlantic Ocean are integral components of the properties' historic settings. The physical features of shorelines, including bays, barrier islands/spits, inlets, harbors individually or in combination provide important elements of the settings for many shoreline and coastal aboveground historic properties in the region. For mainland or bayside locations, such water and land features may present enduring aspects of the physical environment and play an important role in conveying how the landscapes and seascapes of the past were related to historic places. This is particularly true where shorelines and barrier islands retain their natural or historic conformation and character.

Aboveground historic properties located in mainland or bayside settings may also be associated with ocean views, though such visual connections are mediated by intervening lands and the built environment that can dominate near- and mid-ground viewsheds. Aboveground historic properties located in ocean-facing areas are more likely to

be associated with historic settings at least partially defined by the great expanse of open water with few, if any, fixed modern elements. Topography and location play important roles in defining the physical and visual settings for most aboveground historic properties, but particularly important for much of coastal New Jersey is the density of the built environment. Closely spaced houses, buildings, and other structures frequently block views of the open ocean from places located a short distance from the shore.

The extent and nature of historic maritime settings may also be influenced by the nature of specific properties and their associated historic uses or functions. For example, historic maritime defense facilities, such as fire control towers, are often associated with specific viewsheds related to the fields of observation for staff. This historic function of such buildings is intimately related to open ocean views. Similarly, life-saving stations located along ocean shorelines or within protected bays and inlets were associated with the observation of ships in distress in addition to the necessities of launching and retrieving rescue boats under often harrowing conditions. Lighthouses and other navigation aids have clear and intimate associations with viewsheds encompassing surrounding waters, though the extent of those viewsheds may be related to specific navigation hazards. For other aboveground historic properties, the association with maritime commerce and related activities is even more direct. Fishing piers, docks, and related marine infrastructure serving the whaling, fishing and recreational boating industries have integral physical and historical relationships with specific water bodies that may include the Atlantic Ocean.

Historic homes and residential historic districts may have complex locational and historic associations with the seas and bays of the region. New Jersey retains numerous examples of historic seaside resorts and neighborhoods that are associated with the expansion of passenger rail services and, subsequently, relatively affordable automobiles serviced by new shoreline road networks. Some of the surviving examples of these places retain features and design elements that reflect seaside locations and the aesthetic appeal of ocean views. Maritime settings for such aboveground historic properties may include distant ocean views. Other historic residential neighborhoods reflect cycles of rapid real estate development that favored density and urban-scale construction; such places may be associated with characteristic streetscapes and architectural forms with few, if any, designed ocean views from properties located beyond immediate shoreline or boardwalk locations. Although far less numerous in the local context, historic agrarian properties, including farmhouses and barns may have been sited on open landscapes that characterized portions of the shoreline before 1850. While such properties may once have had expansive views of the open ocean or other coastal waters, subsequent residential and commercial development and reforestation of former farm fields in the region has substantially altered the historic settings for most such properties.

Lastly, the New Jersey shore has a rich inventory of aboveground historic properties associated with recreation and tourism. Many such places are distinctive for their associations with boardwalks and the numerous public and private beaches located throughout the region. Historic commercial districts luring beachgoers with ornate and fanciful facades, exotic aesthetic details, and large entertainment venues represent a significant part of the New Jersey shore experience for generations of residents and visitors. Although the historic integrity of many of the buildings associated with boardwalks (as well as the boardwalks themselves) is highly variable, the historic significance of these places may be rooted in their continuity of use as public recreational features. The immediate shoreline or boardwalk settings and the vast, open ocean views may represent an important element of their historic maritime settings.

4.1.4.1 Contribution of Maritime Setting to a Property's Significance

The criteria for significant maritime setting used in this HRVEA are consistent with the criteria defined in the 2012 BOEM evaluation of visual impact on coastal cultural resources and historic properties in the North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits:

> *Resources within this category derived their importance, in whole or in part, from their proximity to the sea. They included TCPs, coastal fortifications, parks and seashores, residential estates, lighthouses, life-saving stations, breakwaters, marinas, fishing and resort communities, and shore lodgings of all kinds, including hotels, motels, inns, seasonal cottages, and permanent residences* (BOEM, 2012).

Significant views to the sea were assessed by desktop review of viewshed analysis, online mapping systems, reference to visual simulations, and field observation to determine whether the aboveground historic property has clear, unobstructed views of the sea and whether or not this view contributes to the historic significance of a given aboveground historic property. Visual simulations (discussed below in Section 2.4.3 and included in Attachment E) illustrate representative views from KOPs (including aboveground historic properties) with significant maritime settings.

4.2 Summary of Project Potential Effect on Aboveground Historic Properties

The majority of aboveground historic properties that fall within the Project viewshed will have somewhat obstructed views of the Project due to screening provided by intervening topography, vegetation, and/or buildings and structures. The proposed WTGs are located between 8.46 miles (13.61 km) to 45.52 miles (73.26 km) away from the aboveground historic properties located within the PAPE. Visual simulations prepared for the Project 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. As described in Section 4.1.3 of this report, atmospheric conditions will affect the frequency and duration of WTG visibility from aboveground historic properties within the PAPE which will minimize the visual effect of the Project under some conditions.

Individual historic property assessments and potential effects evaluations integrating the results of archival research, GIS analyses, field surveys and visualization assessments are presented in both graphical form in Attachments A (National Historic Landmarks), B (Historic Districts) and C (Individual Aboveground Historic Properties) and as a comprehensive tabular summary (Attachment D).

Each property-specific summary in Attachments A, B, and C includes:

- Narrative Statement of Significance
- Summary of the Maritime Setting (if applicable)

- Photographs of the historic property and existing conditions, including character-defining views with a map key indicating photograph locations and orientation (where relevant)
- Context photographs showing the existing visual setting of the property and ocean views (if any)
- Graphical representation of the property's location and relative distance to potential WTG positions
- The extent of visibility (areas with potential ground-level views of the Project within the property's boundaries)
- Numerical summary of visibility factors (numbers of WTG elements visible, percentage of property with potential views of the Project, etc.)
- Effects Recommendation synthesizing all of the above.

Attachments A, B, and C include indices of all included aboveground historic properties. For ease of reference and comparison, the numeric visibility factors and narrative descriptions of each property and the effects recommendations are also presented in Attachment D. Properties are presented by municipality and organized alphabetically. The associated sheet(s) of Figure 3.3-1 depicting the location, boundaries, and geographic context of each historic property in the PAPE are cross-referenced in Attachment D.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as summarized above), of the 113 aboveground historic properties located within the PAPE assessed for potential visual effects, the Project will have a potential adverse effect on a total of 26 aboveground historic properties (see Table 4.2-1).

Table 4.2-1. Aboveground Historic Properties Potentially Adversely Affected

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
623	Absecon Lighthouse	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 25
9312	Atlantic City Boardwalk Historic District	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 6, 17, 24, 25
161615	Central Pier	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24, 25
700002	Missouri Avenue Beach (Chicken Bone Beach)	Atlantic City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 17, 24, 25
139	Ritz Carlton Hotel	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24, 25
512	Riviera Apartments	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24
579	USCG Station Atlantic City	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 25
110	Barnegat Lighthouse	Barnegat Light Borough	NRHP-Listed	Figure 3.3-1, Sheet 8
9225	Beach Haven Historic District	Beach Haven Borough	NRHP-Listed	Figure 3.3-1, Sheet 16

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
9257	Beach Haven Historic District (Boundary Increase and Additional Documentation)	Beach Haven Borough	NRHP-Listed	Figure 3.3-1, Sheet 12
9245	Midway Camps Historic District	Berkeley Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 7
109	U.S. Lifesaving Station Number 14	Berkeley Township	NRHP-Listed	Figure 3.3-1, Sheet 7
5001	Island Beach State Park Historic District	Berkeley Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 7
892	The Judge's Shack	Berkeley Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 8
480	Brigantine Hotel	Brigantine City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 14, 25
866	Seaview Golf Club (historic), Clarence Geist Pavilion	Galloway Township	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 14
8320	Stevens House	Lavallette Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 6
9269	Ocean Beach Historic District (Units 1, 2, and 3)	Lavallette Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 6
563	Little Egg Harbor US Life Saving Station #23	Little Egg Harbor Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 12
9249	Mantoloking Historic District	Mantoloking Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 5, 6
221468	Margate Fishing Pier	Margate City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 22, 29
99941	Flanders Hotel	Ocean City	NRHP-Listed	Figure 3.3-1, Sheet 20
300576	Sea Girt Lighthouse	Sea Girt	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 5
149	U.S. Life Saving Station No. 13	Seaside Park Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 7
188581	Vassar Square Condominiums	Ventnor City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
221472	Ventnor City Fishing Pier	Ventnor City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 17, 28

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5, the Project are not anticipated to have a potential adverse effect on the remaining aboveground historic properties within the PAPE (see Table 4.2-2). Detailed assessments of potential adverse effects to aboveground historic properties are depicted in Attachments A-C and listed in the table included as Attachment D.

Table 4.2-2. Aboveground Historic Properties Potentially Not Adversely Affected

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
619	John Doughty House	Absecon City	NRHP-Listed	Figure 3.3-1, Sheet 14
9279	North Shore Road Historic District	Absecon City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 14
300128	Asbury Park Convention Hall	Asbury Park City	NRHP-Listed	Figure 3.3-1, Sheet 3
300155	Howard Johnson's Pavilion	Asbury Park City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 3
300127	Asbury Park Casino and Carousel	Asbury Park City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 3
301536	Waterfront Resort Historic District	Asbury Park City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 3
99906	1425 Boardwalk	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 5, 17, 24, 25
645	419 Carson Avenue	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 25
103	Administration Building for the Board of Education	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24, 25
9284	Atlantic City Beautiful Historic District	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 25
134	Atlantic City Convention Hall	Atlantic City	National Historic Landmark	Figure 3.3-1, Sheets 17, 24, 25
700005	Claridge Hotel	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24, 25
221314	Equitable Trust Bank Building	Atlantic City	NRHP-Eligible (BOEM-Determined)	Figure 3.3-1, Sheets 17, 24, 25
9070	Liberty Hotel	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24, 25
9329	Northside Institutional Historic District	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24, 25
99903	Resorts Casino (Haddon Hall)	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 25
634	Segal Building	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24, 25
170	St. Nicholas of Tolentine Church	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24, 25
29	The Knife and Fork Inn	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
9170	U.S. Route 30 Bridge (SI&A # 0103-152)	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 25
622	Warner Theatre (façade)	Atlantic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24, 25
133	World War I Memorial (Soldiers and Sailors Monument)	Atlantic City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24, 25
150	Townsend Inlet Bridge (SI&A # 3100003)	Avalon Borough, Middle Township, Sea Isle City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 22
9244	Barnegat Historic District	Barnegat Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 8
9243	Bass River State Forest Historic District	Bass River Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 9, 10, 12, 13
300036	Bay Head Historic District	Bay Head Borough	NRHP-Listed	Figure 3.3-1, Sheets 5, 6
382	Little Egg Harbor Yacht Club	Beach Haven Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 12
594	Sherbourne Farm	Beach Haven Borough	NRHP-Listed	Figure 3.3-1, Sheet 12
300647	Belmar Fishing Club	Belmar Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 3
64	AT&T Transmitter Building and Antenna Field	Berkeley Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 7
121	Forked River Coast Guard Station No. 112	Berkeley Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 8, 17
300022	Mantoloking Marine Historic District	Brick Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 6
9237	North and South Tuckahoe Historic District	Corbin City and Upper Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 18, 19, 23
341437	7 Jerome Avenue	Deal Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 1, 3
999912	Deal Casino Beach Club	Deal Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 3
999911	Deal Ocean Apartments	Deal Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 3
300171	Deal Esplanade Historic District	Deal Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 3
300033	Allenhurst Residential Historic District	Deal Borough	NRHP-Listed	Figure 3.3-1, Sheet 3
9304	West Creek Historic District	Eagleswood Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 10
9281	West Jersey and Atlantic Railroad Historic District	Egg Harbor Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 14, 15, 16, 17
9205	Conovertown Historic District	Galloway Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 14
9268	Camden and Atlantic Railroad Historic District	Galloway Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 12, 14, 15, 17
8062	Harvey Cedars Hotel	Harvey Cedars Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 11
7886	Small Estate	Harvey Cedars Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 11
9212	Linwood Historic District	Linwood City	NRHP-Listed	Figure 3.3-1, Sheet 23
301670	Windmill Restaurant	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 1
322915	San Alfonso Retreat	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 1
300720	Ocean Beach Club of Elberon	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 1

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
1000008	Breakwater Beach Club	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 1, 3
324105	Sur Mer	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 1, 3
324106	Elberon Bathing Club	Long Branch City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 1, 3
2863	Great Egg Coast Guard Station	Longport Borough	NRHP-Listed	Figure 3.3-1, Sheet 17
607	Lucy, the Margate Elephant	Margate City	National Historic Landmark	Figure 3.3-1, Sheets 17, 24
9295	Ventnor Parkway Historic District	Margate City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 17, 24
300476	Monmouth Beach Bath and Tennis Club	Monmouth Beach Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 1
1000000	35 Ocean Avenue N	Monmouth Beach Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 1
9336	Garden State Parkway Historic District	Multiple	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 1, 2, 3, 4, 6, 7, 8, 9, 10, 13, 14, 15, 18, 20, 21, 22, 23
300030	Ocean Grove Camp Meeting Association Historic District	Neptune Township	NRHP-Listed	Figure 3.3-1, Sheet 3
36277	Aloha Motel	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
38	Hereford Lighthouse	North Wildwood City	NRHP-Listed	Figure 3.3-1, Sheet 23
39	North Wildwood Life Saving Station	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
700006	Alante Motel	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
36724	Lou Booth II Motel/Le Boot Motel	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
700004	Matador Motel	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
34811	Sahara Motel	North Wildwood City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 23
9292	Shore Road Historic District	Northfield City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 17, 18
4852	Gillian's Wonderland Pier	Ocean City	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 20
700001	Ocean City Boardwalk	Ocean City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 12
99939	Music Pier	Ocean City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 20
999906	Point Pleasant Beach Boardwalk	Point Pleasant Beach Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 5
9209	Port Republic Historic District	Port Republic City	NRHP-Listed	Figure 3.3-1, Sheet 13
618	Chestnut Neck Boat Yard	Port Republic City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 13
9252	Ship Bottom Historic District	Ship Bottom Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheets 10, 11
9210	Bay Front Historic District	Somers Point City	NRHP-Listed	Figure 3.3-1, Sheet 23
313135	2 Passaic Avenue	Spring Lake Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 5
300568	2 Warren Avenue	Spring Lake Borough	NRHP-Eligible (EDR-Recommended)	Figure 3.3-1, Sheet 5
9247	Manahawkin Village Historic District	Stafford Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 25

Survey ID	Property Name	Municipality	NRHP Status	Figure Reference
35	U.S. Lifesaving Station #35	Stone Harbor Borough	NRHP-Listed	Figure 3.3-1, Sheet 23
9250	Toms River Main Street Historic District	Toms River Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 18
9246	Island Heights Historic District	Toms River Township	NRHP-Listed	Figure 3.3-1, Sheet 7
9251	Tuckerton Historic District	Tuckerton Borough	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 12
9242	South Tuckahoe Historic District	Upper Township	NRHP-Listed	Figure 3.3-1, Sheets 18, 19
4209	Corson's Inlet Bridge (SI&A # 3100002)	Upper Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheet 20
9267	Saint Leonard's Tract Historic District	Ventnor City	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 17, 24
9211	John Stafford Historic District	Ventnor City	NRHP-Listed	Figure 3.3-1, Sheets 17, 24
300000	Naval Ammunition Depot Earle Historic District	Wall Township	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 1, 2, 3, 4, 6
9274	Atlantic City Railroad Cape May Division Historic District	Winslow Township, Folsom, Richland, Dorothy, Estell Manor, Corbin City, Woodbine, Dennis Township, Ocean City, and Cape May	NRHP-Eligible (NJHPO-Determined)	Figure 3.3-1, Sheets 16, 17, 19, 20, 21, 22, 23

4.2.1 National Historic Landmarks

As stated above in Section 3.3.1, there are two NHLs located within the PAPE: the Atlantic City Convention Hall and Lucy the Margate Elephant. When assessing potential adverse effects on an NHL, the federal agency, in this instance BOEM, must provide a higher standard of care, as required by Section 110(f) of the NHPA. Section 110(f) requires the agency *to the maximum extent possible undertake such planning and actions as may be necessary to minimize harm to the landmark*.

4.2.1.1 Atlantic City Convention Hall

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.

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 building's location on the Atlantic coast lends to its historic significance as a beachside attraction within Atlantic City.

Viewshed analysis suggests that Project visibility from this general area will be largely limited to the open beach and boardwalk, and a few small parcels of open land that extend inland from there. The ground-level view of the Project will be completely blocked by the first inland row of built structures as one moves into the city. Numerous WTGs will 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 will dominate the viewer's attention from this view.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as summarized above), the Project is not anticipated to result in potential adverse visual effects on the Atlantic City Convention Hall. 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 to provide views of the beach and is anchored by public bath houses adjacent to the beach. The significance of the Atlantic City Convention Hall is primarily its association with historic recreation and the events held within the NHL. While ocean views and the property's association with the Atlantic City Boardwalk are integral to its significance and setting, due to the NHL's orientation to the southeast, visibility of the WTGs to the northeast will be limited. In addition, visibility of the Project is further obstructed by the Million Dollar Pier, which is located on the boardwalk and extends over the Atlantic Ocean.

4.2.1.2 Lucy, the Margate Elephant

Lucy was originally constructed as a real estate advertising gimmick in 1881 and 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. Visibility of the Project is anticipated to be limited from Lucy, the Margate Elephant, due to the development in Margate and the location of Project in relation to the NHL. A visual simulation taken from Lucy, the Margate Elephant NHL is included in Attachment E. 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 m) above the ground. Due to the elevated location of this viewpoint, the sky is unbroken by man-made features (e.g., overhead utility poles and lines), except for the high-rise apartment building on the left side of the view, which blocks the view of the majority of the WTGs from the howdah. Visible WTGs will be confined to the northern margin of the visible ocean horizon.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as summarized above), the Project is not anticipated to result in potential adverse visual effects on Lucy, the Margate Elephant. The NHL is located in an area with a densely built environment characterized by modern (non-historic) architecture; therefore, its integrity of

setting has been diminished. In addition, the surrounding built environment partially screens views of the Atlantic Ocean from ground-level vantage points as well as elevated vantage points from within the NHL and from the howdah. A visual simulation taken from Lucy, the Margate Elephant NHL is included in Attachment E. 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 m) above the ground. Due to the elevated location of this viewpoint, the sky is unbroken by man-made features (e.g., overhead utility poles and lines), except for the high-rise apartment building on the left side of the view, which blocks the view of the majority of the WTGs from the howdah. Visible WTGs will be confined to a small portion of the northern margin of the visible ocean horizon, leaving the majority of the ocean view unaffected. The NHL's significance does not depend on ocean views and the compromised integrity of the existing setting of the property would not be further diminished by the Project.

5.0 SUMMARY AND CONCLUSIONS

As stated above, online data sources, GIS data, public records, NJHPO data, and field surveys were used to review 1091 parcels that included previously identified (e.g., NRHP-listed or NJHPO-identified) aboveground historic properties within the PAPE and/or where public records indicated the potential for buildings greater than 40 years in age (a list of these properties is included as Attachment F). Following completion of the field surveys these properties were further evaluated for potential NRHP eligibility based on desktop research. Field review determined that actual views toward the ocean and the Project were significantly more limited than the viewshed analysis indicated. Approximately 88 percent of the properties documented during the field surveys were removed from further consideration and analysis due to being nonextant or not meeting NRHP eligibility criteria.

Following a review of the field survey results, EDR identified a total of 113 aboveground historic properties within the Project PAPE for assessment of potential adverse impacts, including:

- two NHLs
- 26 individual properties and historic districts listed in the NRHP
- 57 individual properties and historic districts formally determined eligible for the NRHP
- 28 individual properties and historic districts recommended to meet NRHP eligibility as a result of field surveys.

Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5 (as summarized above), of the 113 aboveground historic properties located within the PAPE assessed for potential visual effects, the Project will have a potential adverse effect on a total of 26 aboveground historic properties (see Table 4.1-1).

The Project would introduce new man-made features to the seascape horizon, which includes few existing, fixed modern visual elements. The introduction of the WTGs would likely 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 aboveground 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 PAPE have been subject to multiple phases of development, demolition, and redevelopment. These cycles have substantially altered the historic settings of many aboveground historic properties located along the shorelines where unobstructed views of the Project will be concentrated. In such circumstances, the changes to viewsheds related to the Project may represent a minor, incremental alteration to some settings that have already been compromised.

Atlantic Shores will implement the following measures to avoid or minimize potential adverse visual effects on aboveground historic properties. These measures are based on protocols and procedures successfully implemented for similar offshore Project:

- 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 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 AOLs to approximately 11 hours per year (Capitol Airspace, 2021), thus substantially limiting the nighttime visibility and visual impact of the Project.

Options to avoid potential adverse visual effects on aboveground historic properties are limited, given the nature of the Project (i.e., very tall, vertical structures) and its siting criteria (i.e., established OCS lease area). Therefore, for most wind energy Project, mitigation of impacts to aboveground 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. The specifics of these initiatives are typically identified in consultation with appropriate consulting parties subsequent to the determination of whether a given historic property would be adversely affected by a project.

Based on field review, viewshed analysis, and visual simulations prepared as part of the HRVEA for the Project, the Project are anticipated to have a variable long-term visual effect based on distance, number of WTGs visible. The 113 aboveground historic properties within the PAPE were rated with respect to the potential for adverse visual effects (see Attachments A-D) and were assessed according to the visibility of the Project and its potential effect on their individual characteristics, as described in Attachments A-D. Applying the Criteria of Adverse Effect per NHPA Section 106, 36 CFR § 800.5, a total of 26 aboveground historic properties may be adversely affected by the Project.

Atlantic Shores has initiated outreach with appropriate regional stakeholders who may participate in the BOEM-led Section 106 consultations and development of the EIS under NEPA. To date, Atlantic Shores has initiated correspondence and meetings with Tribal representatives and other stakeholders to discuss the Project. These include the Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Nation, Delaware Tribe of Indians, Mohican Nation Stockbridge-Munsee Band, Narragansett Indian Tribe, Shawnee Tribe and Shinnecock Indian Nation as well as the State-recognized Lenape Indian Tribe of Delaware, Nanticoke Lenni-Lenape Tribal Nation, Ramapough Lenape Indian Nation, Powhatan Renape Nation, and Unkechaug Nation. In addition, Atlantic Shores anticipates

continued consultation with the appropriate federal agencies, NJHPO, NJDEP, and other consulting parties in connection with the Project to identify and evaluate visual effects to aboveground historic properties and to determine avoidance, minimization, or mitigation measures regarding potential effects on aboveground historic properties as required by 30 CFR §585.626(b)(15).

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ATTACHMENT A

National Historic Landmarks – Property Information and Visual Effects Assessment

Attachment A: National Historic Landmarks INDEX

ATLANTIC COUNTY

Atlantic City

Margate City

Atlantic City Convention Hall

Boardwalk between Pacific, Mississippi, and Florida Avenues
Atlantic City, NJ

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Historic Designation National Historic Landmark

Distance to Nearest Turbine 17.57 miles

Number of Blade Tips Visible 52

Property Acreage within PAPE 0.32

Percentage of Property with Potential Visibility 3.7

Visible Light Units

Nacelle Aviation 52
Mid Tower Aviation 52
Coast Guard 0

Nearest KOP AC02

Significance

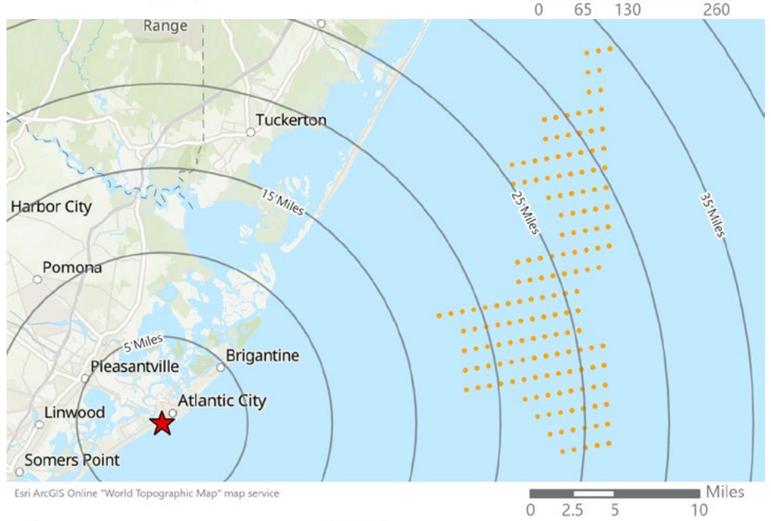
The Atlantic City Convention Hall, constructed in 1926-1929 by Lockwood-Greene and Co., exhibits Beaux Arts and Romanesque style elements and features a cut limestone façade and curved arcade fronting the beach. The arcade features a covered double row of columns anchored by public bath houses on each 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
No Adverse Effect

The significance of the Atlantic City Convention Hall is primarily its association with historic recreation and the events held within the NHL. While ocean views and the property's association with the Atlantic City Boardwalk are integral to its significance and setting, due to the NHL's orientation to the southeast, visibility of the WTGs to the northeast will be limited. In addition, visibility of the Project is further obstructed by the Million Dollar Pier, which is located on the boardwalk and extends over the Atlantic Ocean.

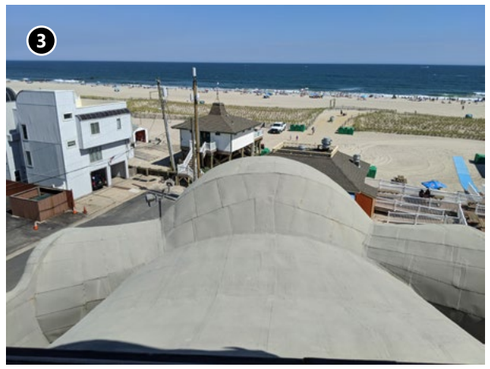


Lucy, the Margate Elephant

Decatur and Atlantic Avenues
Margate City, NJ

Photograph representative of NHL

Photograph representative of NHL



Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Photograph representative of NHL

Historic Designation National Historic Landmark
Distance to Nearest Turbine 22.12 miles
Number of Blade Tips Visible 32
Property Acreage within PAPE 0.02
Percentage of Property with Potential Visibility 4.37
Visible Light Units

Nacelle Aviation 29
Mid Tower Aviation 9
Coast Guard 0

Nearest KOP MC02

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

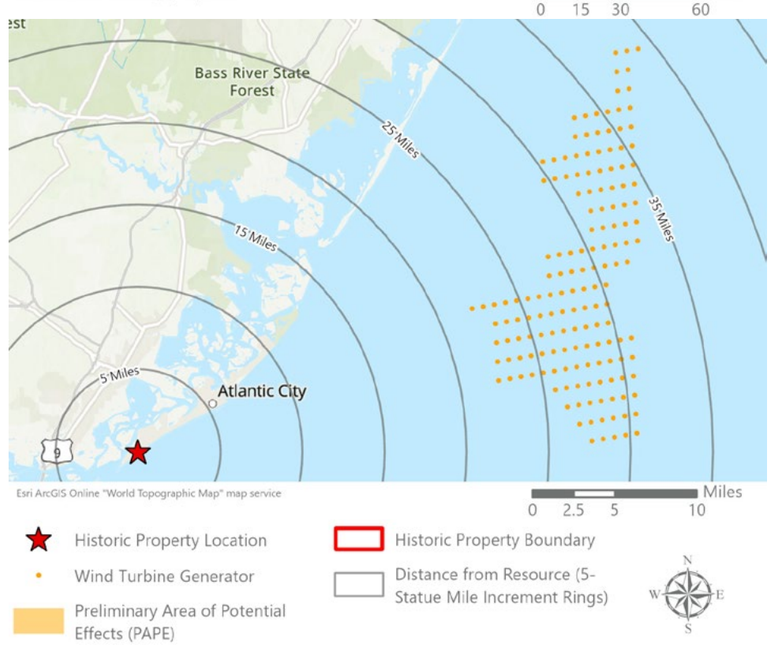
Lucy, the Margate Elephant is located on the edge of the Margate City beach overlooking the Atlantic Ocean. As an example of novelty architecture, this resource is suited to the beachside resort environment. The NHL is located in an area with a densely built environment characterized by modern (non-historic) architecture; therefore, its integrity of setting has been diminished. In addition, the surrounding built environment partially screens views of the Atlantic Ocean from ground-level vantage points. From within the NHL and in particular from the howdah, views of the ocean and sky are largely screened by the adjacent high-rise buildings to the northeast and southwest.

Effect Recommendation

No Adverse Effect

Lucy was originally constructed as a real estate advertising gimmick in 1881 and 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. Visibility of the Project is anticipated to be limited from Lucy, the Margate Elephant, due to the development in Margate and the location of Project in relation to the NHL.

A visual simulation taken from Lucy, the Margate Elephant NHL is included in Attachment E. 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 m) above the ground. Due to the elevated location of this viewpoint, the sky is unbroken by man-made features (e.g., overhead utility poles and lines), except for the high-rise apartment building on the left side of the view, which blocks the view of the majority of the WTGs from the howdah. Visible WTGs will be confined to the northern margin of the visible ocean horizon , leaving the majority of the ocean view unaffected.



ATTACHMENT B
Historic Districts – Property Information and Effects Assessment

Attachment B: Historic Districts Assessment INDEX

North Shore Road Historic District

N. Shore Road roughly bounded by Creek Road to the south and the town line to the north.
Absecon City, NJ

Photograph representative of district

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 18.96 miles

Number of Blade Tips Visible 23

Property Acreage within PAPE 1.89

Percentage of Property with Potential Visibility 2.72

Visible Light Units

Nacelle Aviation 21
Mid Tower Aviation 1
Coast Guard 0

KOP Reference N/A

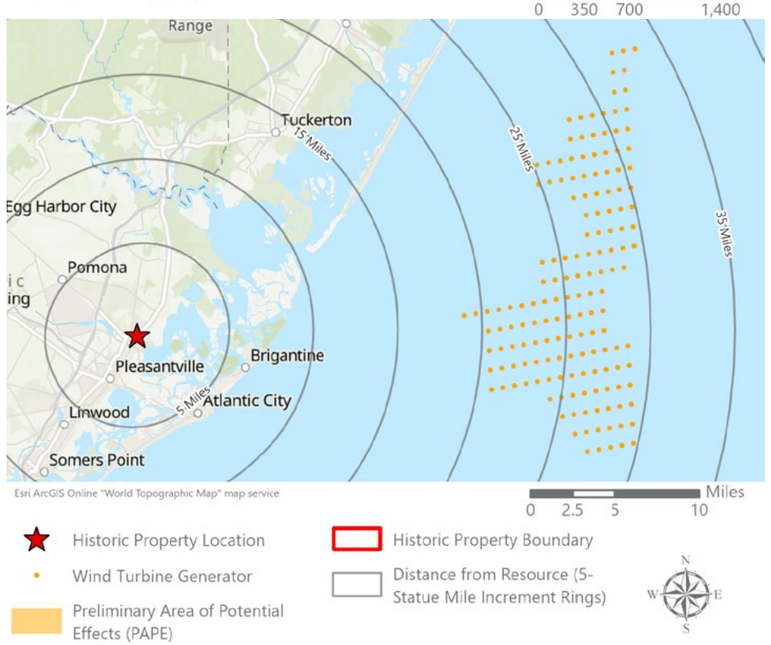
Significance

The North Shore Road Historic District is primarily a residential district centered along North Shore Road. Residences date from around the late-eighteenth to the twentieth century. The houses along North Shore Road, especially in the southern section of the district, are larger in scale and represent "high-style" examples of Italianate, Gothic Revival, Queen Anne, Shingle, and vernacular styles of architecture. This resource has been previously determined eligible for the NRHP by the NJHPO.

Maritime Setting

The North Shore Road Historic District is located on the mainland in Absecon City, Atlantic County, approximately six miles from the Atlantic Ocean. None of the properties within the district are located on the bay or in a maritime setting. However, views of Absecon Creek, which eventually flows into Absecon Bay, are visible at the end of some roads from limited points in the district.

Effect Recommendation
No Adverse Effect
Potential visibility of the Project is anticipated to be limited to 2.7% of the North Shore Road Historic District due to the dense forestation surrounding the historic district, as well as the intervening bays, the Absecon Wildlife Management Area, the New Jersey Pinelands National Reserve, and the buildings and structures located in Brigantine.



Atlantic City Beautiful Historic District

N. Connecticut Avenue roughly bounded by N. Massachusetts, N. New Jersey, Barret, and Adriatic Avenues
Atlantic City, NJ

Photograph representative of district

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 16.35 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0.08

Percentage of Property with Potential Visibility 0.58

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

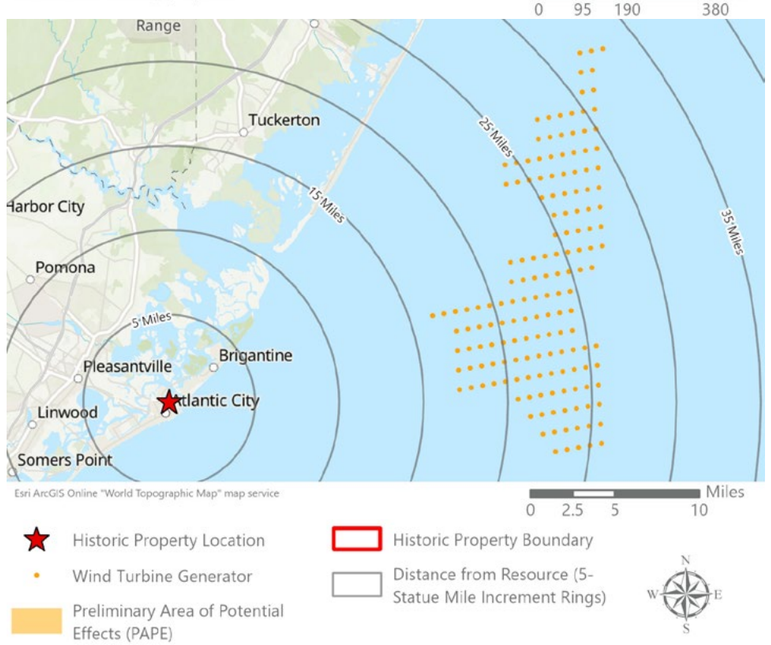
Significance

The Atlantic City Beautiful Historic District was determined to be eligible for listing in the NRHP by NJHPO in 2014 with significance under Criterion C. The district is characterized by Bungalow dwellings located in what was historically known as Bungalow Park.

Maritime Setting

The Atlantic City Beautiful Historic District is situated to the southwest of Absecon Channel in the northern extent of Atlantic City. The district's maritime setting is related to its proximity to the channel rather than the Atlantic Ocean and the district does not have direct views to the ocean or beaches in Atlantic City due to the dense residential and commercial development in the surrounding area.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the district's location on the bay side of Atlantic City as well as the intervening land, structures, and vegetation. Such minimal visibility would not adversely affect the integrity of district's setting.



Atlantic City Boardwalk Historic District

Boardwalk roughly bounded by S. Georgia Avenue to the southwest and Garden Pier to the northeast.
Atlantic City, NJ

Photograph representative of district

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 16.3 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 8.86

Percentage of Property with Potential Visibility 24.68

Visible Light Units

Nacelle Aviation 154
Mid Tower Aviation 125
Coast Guard 0

KOP Reference AC02, AC03, AC04N, AC04S, AC04

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 Project due to the Atlantic City Boardwalk Historic District's location on the Atlantic Ocean.. 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 Project will be a significant focus of attention based on proximity and the expansive ocean views available from within the district.

Northside Institutional Historic District

Atlantic City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 17.13 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.52

Percentage of Property with Potential Visibility 12

Visible Light Units

Nacelle Aviation 2
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

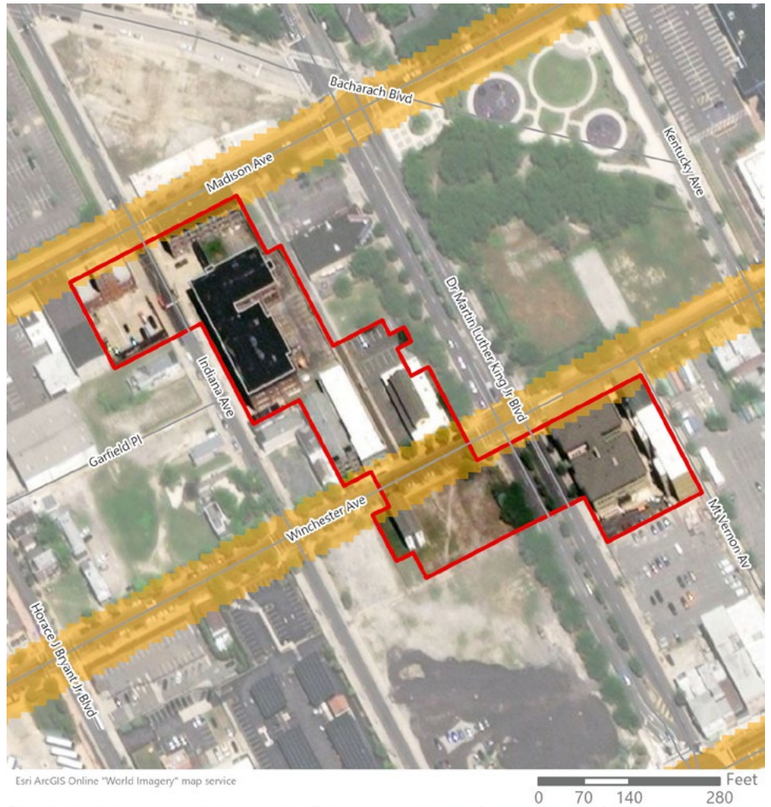
Significance

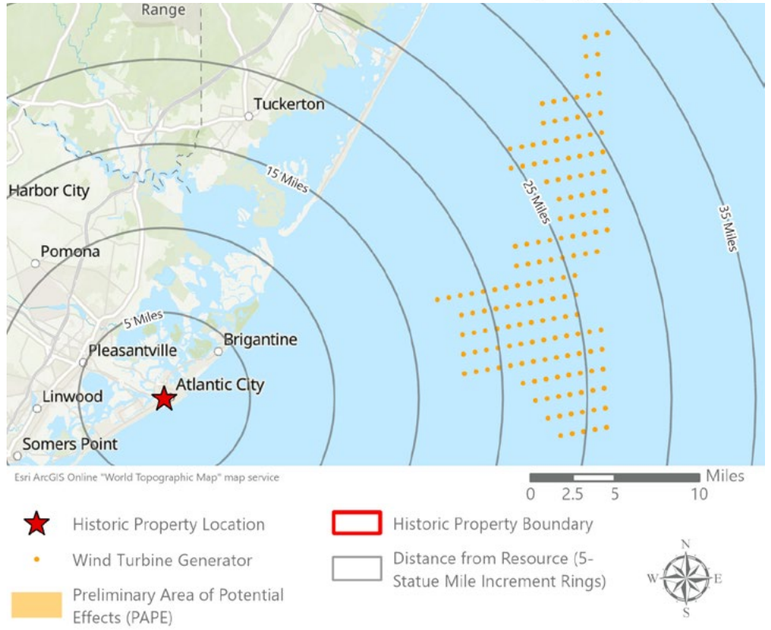
The Northside Institutional Historic District is significant under Criterion A, B and C as the largest concentration of extant institutional buildings in the Northside neighborhood of Atlantic City. The district is significant for the social development of the neighborhood, its association with Dr. Claiborn Morris Cain, Executive Director of the Northside YMCA, and for its institutional architecture.

Maritime Setting

The Northside Institutional Historic District is located on the barrier island approximately .45 miles from the Atlantic Ocean and .5 miles from the Beach Thorofare.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the Northside Institutional Historic District is anticipated to be limited due to the historic district's location three blocks from the Atlantic Ocean as well as the intervening development. In addition, the setting of the aboveground historic property has been greatly altered; therefore, the potential visibility of the Project would not change the integrity of setting.





West Jersey and Atlantic Railroad Historic District

Hamilton Township and Egg Harbor Township
Egg Harbor Township, NJ

Photograph representative of district

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 19.1 miles

Number of Blade Tips Visible 91

Property Acreage within PAPE 4.16

Percentage of Property with Potential Visibility 1.67

Visible Light Units

Nacelle Aviation 31
Mid Tower Aviation 2
Coast Guard 0

KOP Reference N/A

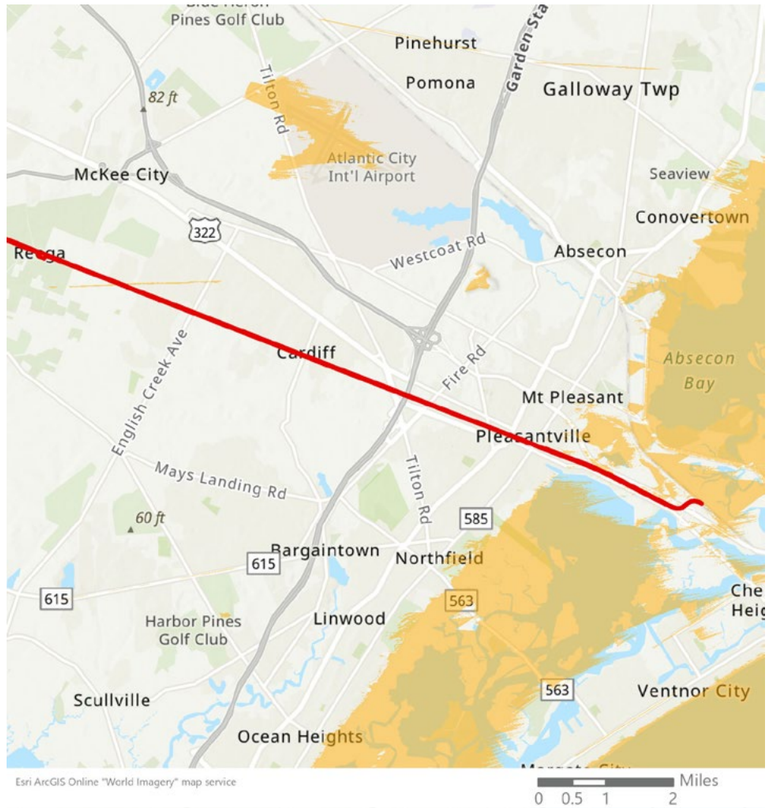
Significance

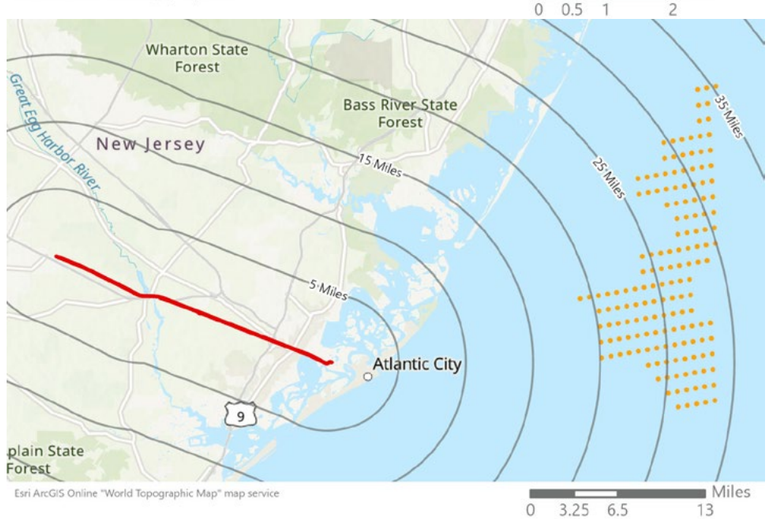
The West Jersey and Atlantic Railroad company constructed the railine connecting Atlantic City and Newfield in 1880. The railroad is significant under NRHP Criterion A for its association with the history of Transportation in New Jersey.

Maritime Setting

While the West Jersey and Atlantic Railroad connects the New Jersey Shoreline to the mainland and crosses over bodies of water, the rail line does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Due to the linear nature of the West Jersey and Atlantic Railroad, visibility of the Project is anticipated to be limited to less than 2% of the district. The intervening development and vegetation will largely screen views of the Project in the distant ocean background from most sections of the historic rail corridor and will not diminish the integrity of property's historic setting or diminish the rail line's historic association with transportation development along the shoreline.





Conovertown Historic District

North Shore Road roughly bounded by Old Shore Road to the north and the town line to the south
Galloway Township, NJ

Photograph representative of district

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 18.6 miles

Number of Blade Tips Visible 12

Property Acreage within PAPE 0.76

Percentage of Property with Potential Visibility 2.31

Visible Light Units

Nacelle Aviation 11
Mid Tower Aviation 9
Coast Guard 0

KOP Reference N/A

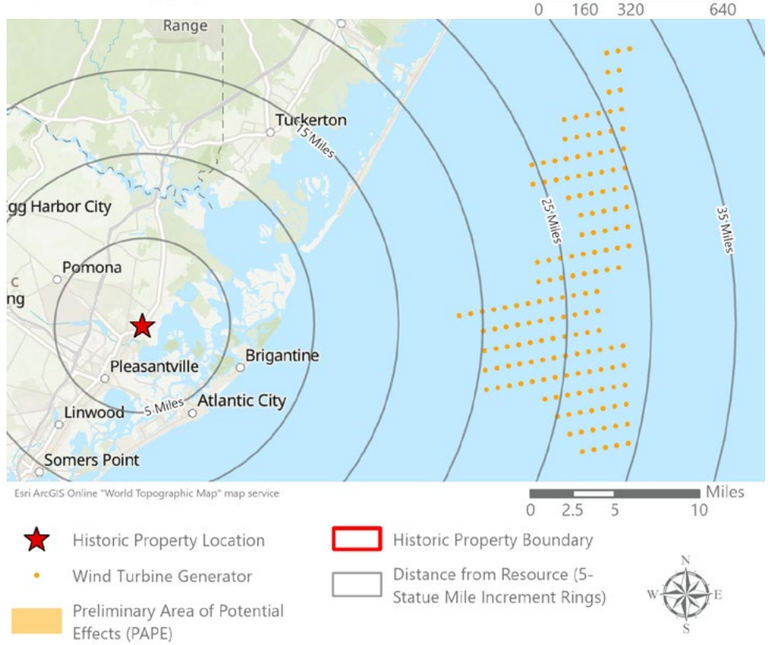
Significance

The Conovertown Historic District encompasses a small residential area established in the 1800s along the east and west side of North Shore Road in Galloway Township, Atlantic County. The majority of the buildings within the district are wood-frame two-story vernacular residences, but the Queen Anne style is also represented. The district has previously been determined eligible for the NRHP by the NJHPO.

Maritime Setting

The Conovertown Historic District is located on the mainland of Galloway Township, Atlantic County, approximately seven miles from the Atlantic Ocean, blocks from Reeds Bay and does not have a direct maritime setting.

Effect Recommendation
No Adverse Effect
Potential visibility of the Project is anticipated to be limited to 2.3% of the Conovertown Historic District due to the dense forestation surrounding the historic district, Reeds Bay, and the islands between the historic district and the Project.



Camden and Atlantic Railroad Historic District

Within the former railroad grade that traveled from Camden in Camden County to Atlantic City in Atlantic County.
Galloway Township, NJ

Photograph representative of district

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 17.79 miles

Number of Blade Tips Visible 138

Property Acreage within PAPE 22.65

Percentage of Property with Potential Visibility 3.16

Visible Light Units

Nacelle Aviation 108
Mid Tower Aviation 10
Coast Guard 0

KOP Reference N/A

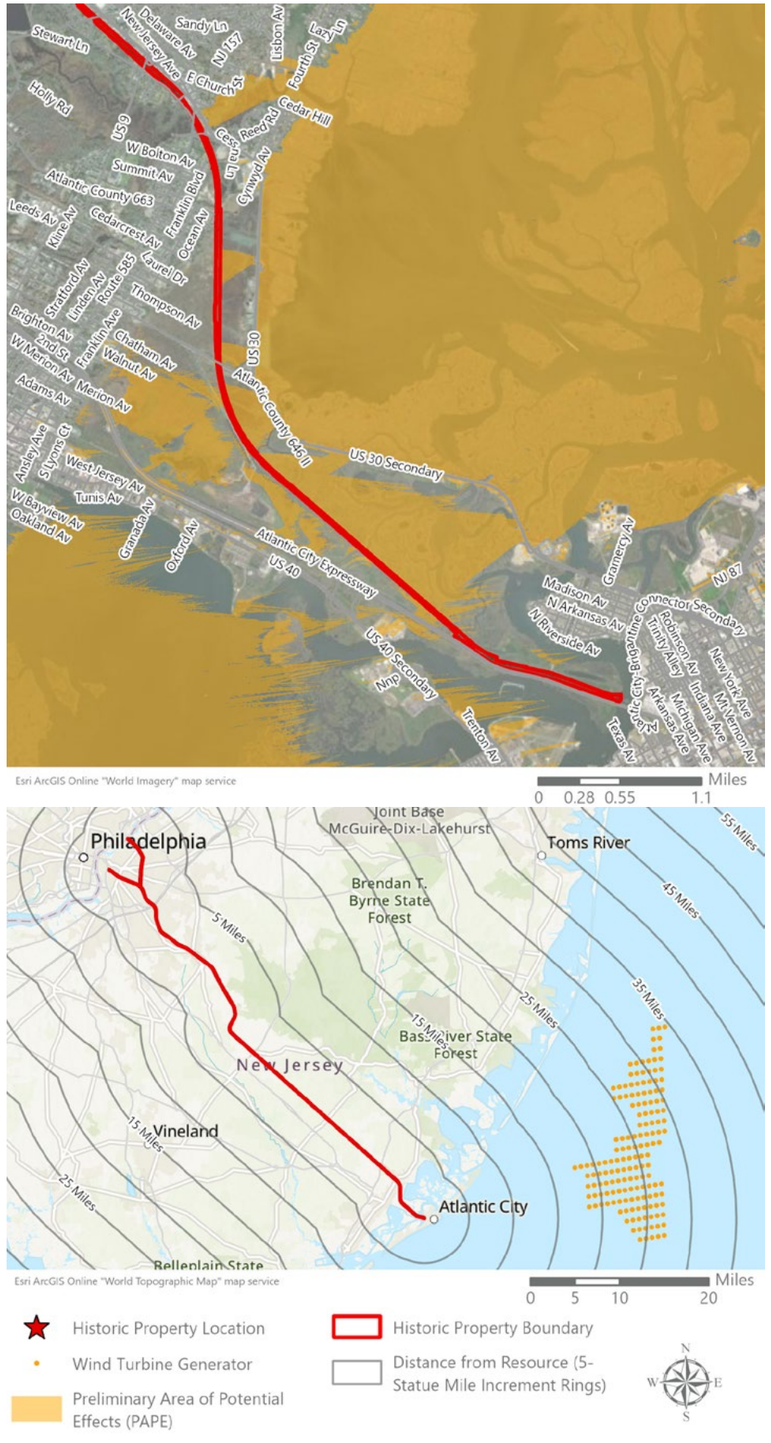
Significance

The Camden and Atlantic Railroad Historic District was determined to be eligible for inclusion in the NRHP by NJHPO in 2012. The district is significant under NRHP Criterion A for its association with the transportation history of Camden and Atlantic Counties.

Maritime Setting

Although the Camden and Atlantic Railroad Historic District crosses bodies of water and connects the barrier island to the mainland, due to its linear nature as a transpiration corridor, the historic district does not have a maritime setting that is sensitive to changes in distant ocean views.

Effect Recommendation
No Adverse Effect
Due to the linear nature of the Camden and Atlantic Railroad Historic District, it is anticipated that the Project will be visible from approximately 3% of the Camden and Atlantic Railroad Historic District. In addition, the significance of the property is not derived from its setting, but its historical association with transportation development in Camden and Atlantic Counties. The railroad's existing integrity of setting has been substantially compromised by redevelopment along the rail corridor and the Project would not substantively affect the property's integrity.



Linwood Historic District

Roughly Shore Road from Royal Avenue to Sterling Avenue.
Linwood City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 24.15 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 0.02

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

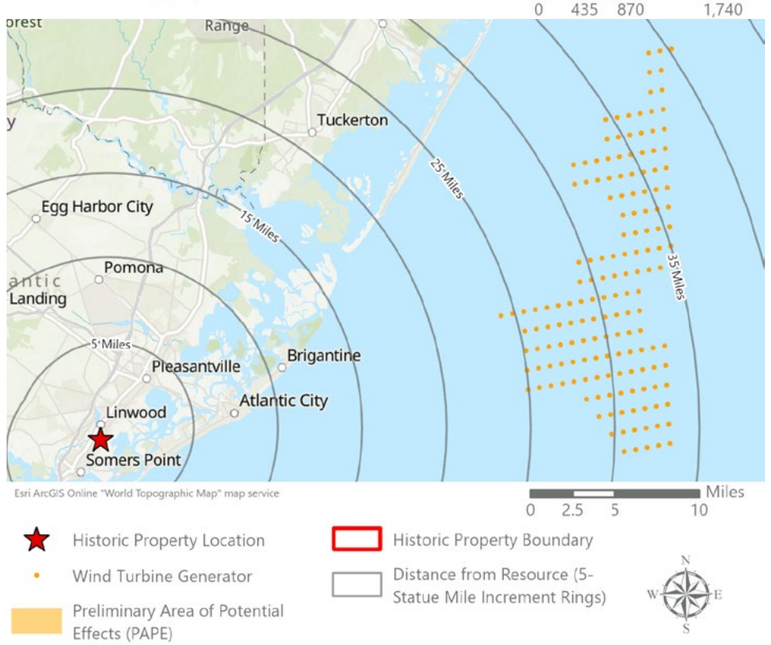
Significance

The Linwood Historic District is centered on a shady stretch of Shore Road and has historic markers announcing the district at either end. The district includes 129 architectural resources built during the period of significance of 1820-1935. These resources are mostly residential and include a wide range of styles popular during this period, from Federal to Craftsman and Colonial Revival. The district was populated by many whose livelihoods were maritime, including sea captains and Thomas Morris, a customs agent whose house represents one of the most intact examples of mid-19th century architecture in the district. The district retains sufficient integrity to retain its listing on the NRHP under Criterion A (Social History) and Criterion C.

Maritime Setting

The Linwood Historic District is located inland on mainland New Jersey and does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is limited to 0.01% of the Linwood Historic District due to the distance between the Project and the historic district as well as intervening development and vegetation. Potential visibility of the Project from these locations would not change the integrity of setting for this property.



Ventnor Parkway Historic District

Ventnor Avenue between N. Wilson Avenue and N Mansfield Avenue
Margate City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 21.66 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 3.71

Percentage of Property with Potential Visibility 20.5

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

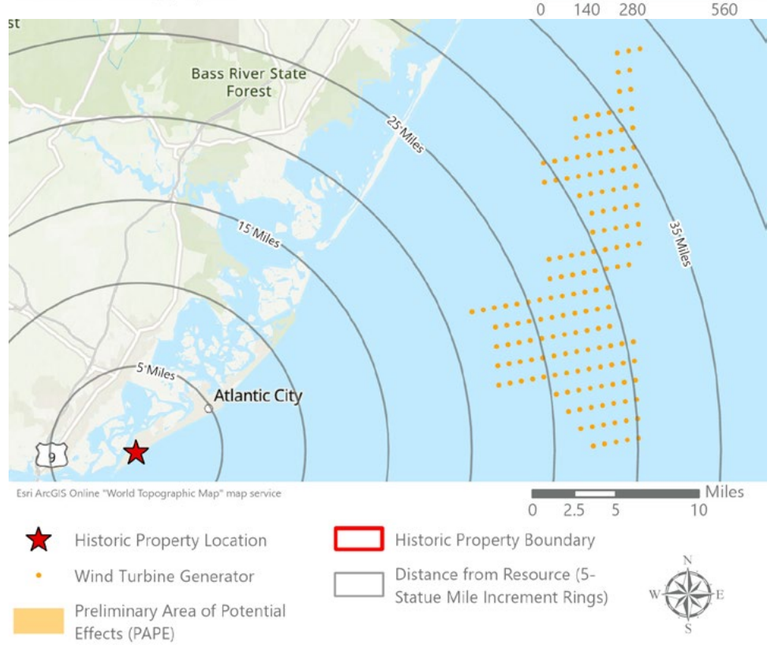
Significance

The Ventnor Parkway Historic District is significant under Criterion C as a grouping of revival-style residences constructed along a landscaped parkway in the 1920s.

Maritime Setting

The Ventnor Parkway Historic District is located two blocks from the Atlantic Ocean on the barrier island.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Ventnor Parkway Historic District. Views of the Project from the sections within the viewshed would not change the integrity of setting for this property, which is strongly associated with the nearby historic parkway and associated landscapes.



Shore Road Historic District

Shore Road roughly bounded by E. Oakcrest Avenue to the south and the town line to the north.
Northfield City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 22.2 miles

Number of Blade Tips Visible 124

Property Acreage within PAPE 62.2

Percentage of Property with Potential Visibility 32.87

Visible Light Units

Nacelle Aviation 36
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

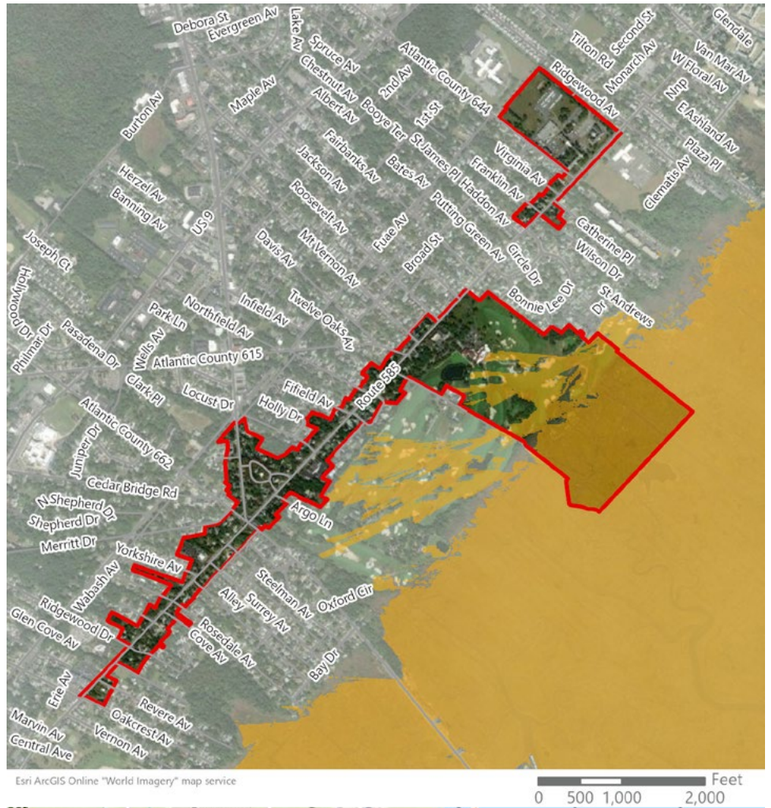
Significance

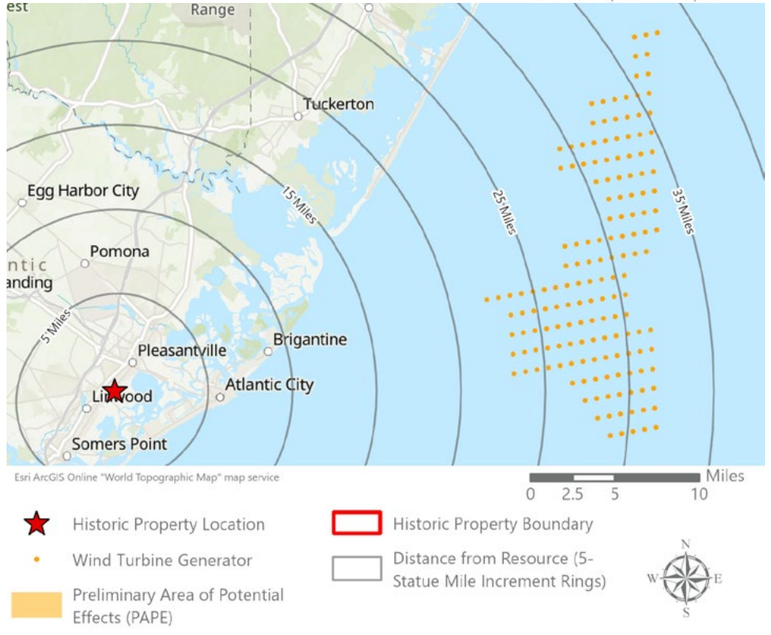
The Shore Road Historic District is a predominantly residential neighborhood of Victorian wood-frame architecture, with vernacular examples of Gothic Revival and Queen Anne styles, as well as modest early twentieth-century homes, including American Foursquare, bungalow, and Dutch Colonial Revival-style structures. The district was evaluated as a part of a county-wide survey of historic resources in North Atlantic County in 1986 and was recommended eligible for listing in the NRHP under Criterion A for its association with the history and development of Northfield City, as well as under Criterion C for its architecture.

Maritime Setting

The Shore Road Historic District is a predominantly residential neighborhood of Victorian wood-frame architecture, with vernacular examples of Gothic Revival and Queen Anne styles, as well as modest early twentieth-century homes, including American Foursquare, bungalow, and Dutch Colonial Revival-style structures. The district was evaluated as a part of a county-wide survey of historic resources in North Atlantic County in 1986 and was recommended eligible for listing in the NRHP under Criterion A for its association with the history and development of Northfield City, as well as under Criterion C for its architecture.

Effect Recommendation
No Adverse Effect
Visibility of the Project is limited to a small portion of the Shore Road Historic District, mainly from portions of the Atlantic City Country Club property, due to the density of the area as well as the historic district's inland location and intervening land, structures, and vegetation. Potential views from within the more developed western portions of the district are substantially screened by buildings and vegetation.





Port Republic Historic District

Port Republic City, NJ

Photograph representative of district

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Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 19.32 miles

Number of Blade Tips Visible 14

Property Acreage within PAPE 0.05

Percentage of Property with Potential Visibility 0.01

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

Significance

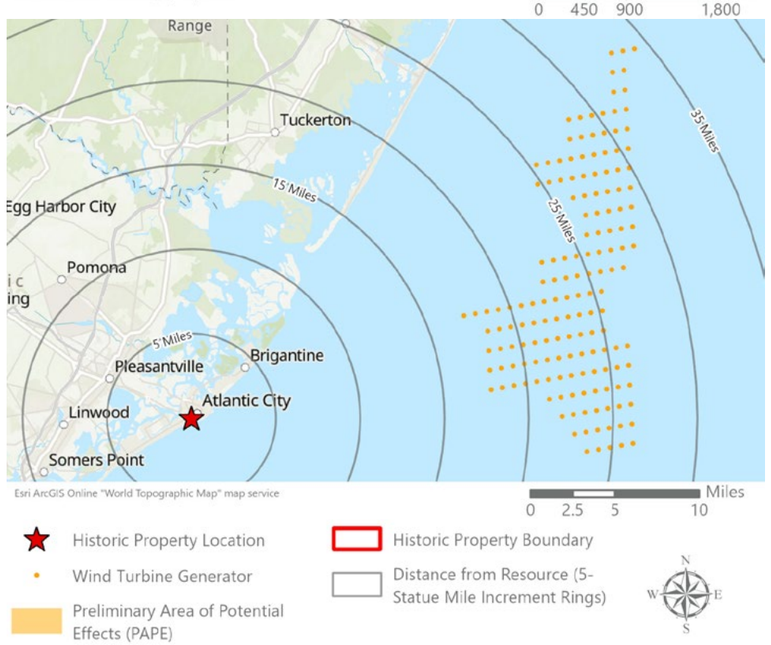
The Port Republic Historic District is significant under Criterion A and C for its association with the development of Atlantic County and its architecture. The district is significant as a nineteenth century residential, industrial, and commercial village located along the Nacote Creek of the Mullica River.

Maritime Setting

Although not an ocean setting, the Port Report Historic District is located along the Nacote Creek and Mill Pond and has a distinct maritime setting as a mill village.

Effect Recommendation
No Adverse Effect

Potential visibility of the Project is anticipated to be limited to.009% of the Port Report Historic District due to the intervening land and structures as well as the Great Bay and islands located between the district and the Project.



Bay Front Historic District

Roughly bounded by Decatur Avenue, Egg Harbor Bay, George Avenue, and Shore Road.
Somers Point City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 26.25 miles

Number of Blade Tips Visible 25

Property Acreage within PAPE 0.63

Percentage of Property with Potential Visibility 1.25

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

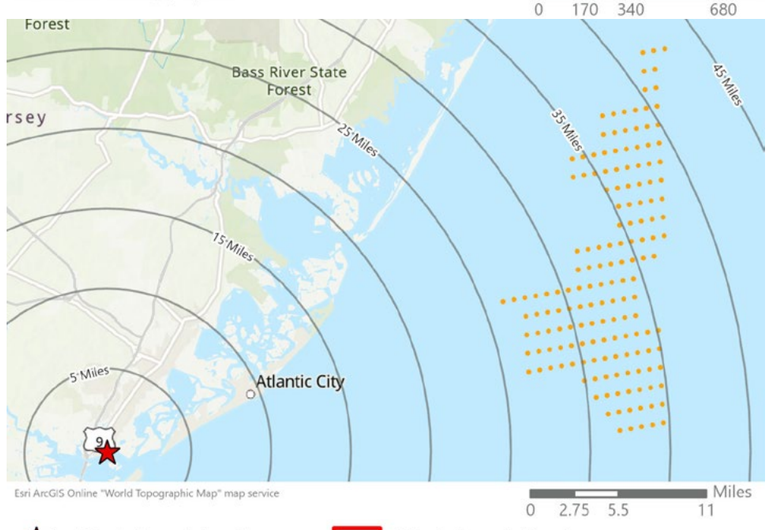
Significance

The Bay Front Historic District is a neighborhood positioned on a gentle hillside leading from Shore Road down to Egg Harbor Bay and bounded by George Street to the west and Decatur Avenue to the east. The district is significant because of its role in the development of southern New Jersey as a resort area. The homes and businesses in the district offered support for water-related recreation in Egg Harbor Bay, which was a quieter extension of the coastal resort communities developing on the barrier islands. It is also significant as a large, cohesive, and intact group of buildings typical of seaside resort areas; most structures were built during the period of significance (1890-1935), particularly cottage, bungalow, and vernacular styles. The district retains sufficient integrity to retain its listing on the NRHP under Criterion A (Entertainment/ Recreation and Social History) and Criterion C.

Maritime Setting

The Bay Front Historic District is bounded by Great Egg Harbor Bay and has a distinctly maritime setting including public access features such as a fishing pier, beach, and parking.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to 1.2% of the Bay Front Historic District due to its location on the mainland as well as the Great Egg Harbor Bay and the intervening vegetation and structures of Ocean City.



John Stafford Historic District

100 blocks of Vassar Square, Baton Rouge, Marion and Austin Avenues
Ventnor City, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 19.25 miles

Number of Blade Tips Visible 82

Property Acreage within PAPE 0.49

Percentage of Property with Potential Visibility 11.67

Visible Light Units

Nacelle Aviation 62
Mid Tower Aviation 42
Coast Guard 0

KOP Reference N/A

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
No Adverse Effect

Visibility of the Project will be limited from within the John Stafford Historic District to areas along the beachfront due to the multi-story, high-rise building to the northeast. In addition, orientation of the beachfront properties and views of the ocean from the district are directed southeast, while views of the Project are located perpendicular to the shoreline.

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, NJ

Photograph representative of district

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 19.61 miles

Number of Blade Tips Visible 109

Property Acreage within PAPE 3.5

Percentage of Property with Potential Visibility 4.82

Visible Light Units

Nacelle Aviation 101
Mid Tower Aviation 80
Coast Guard 0

KOP Reference VC01

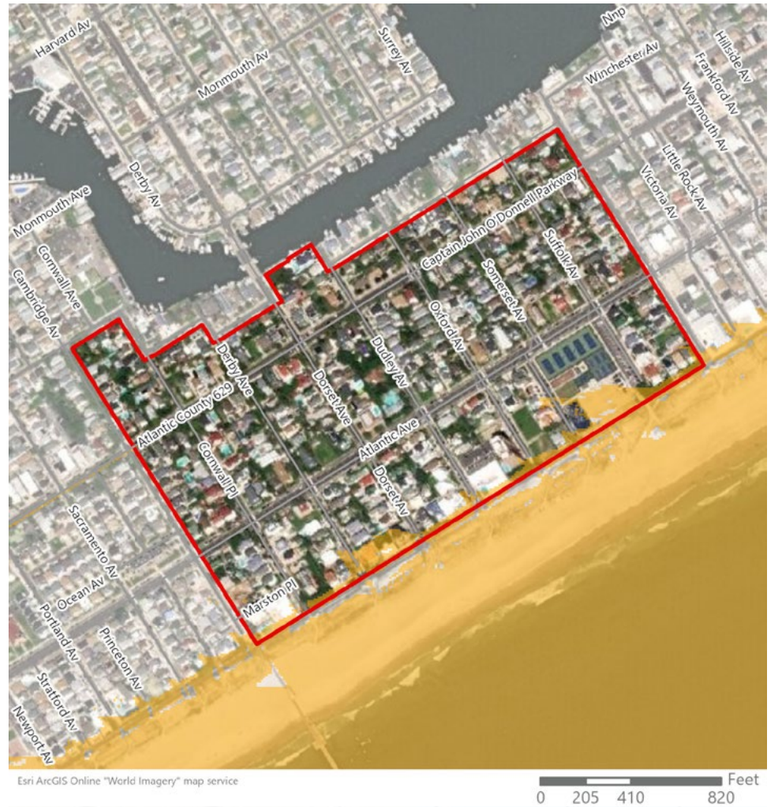
Significance

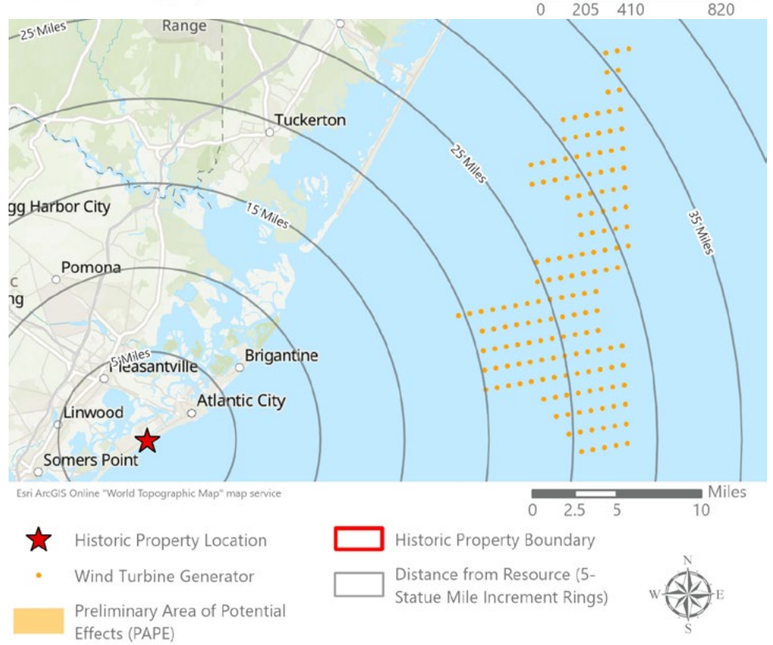
The Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930. The buildings are eligible for the NRHP under Criterion A and C for as a designed community with strict building requirements for its architecture. The St. Leonard's Land Company 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
No Adverse Effect
Visibility of the Project will be limited from within the Saint Leonard's Tract Historic District to areas along the beachfront and scattered interior vantages from within the district. In addition, orientation of the beachfront properties and views of the ocean from the district are directed southeast, while views of the Project are located perpendicular to the shoreline. Available views of the Project will be partially obstructed by intervening development southeast of Atlantic Avenue.





Ocean City Boardwalk

Ocean City, NJ

Photograph representative of district

Photograph representative of district

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Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 25.78 miles

Number of Blade Tips Visible 135

Property Acreage within PAPE 9.63

Percentage of Property with Potential Visibility 26

Visible Light Units

Nacelle Aviation 126
Mid Tower Aviation 21
Coast Guard 0

KOP Reference N/A

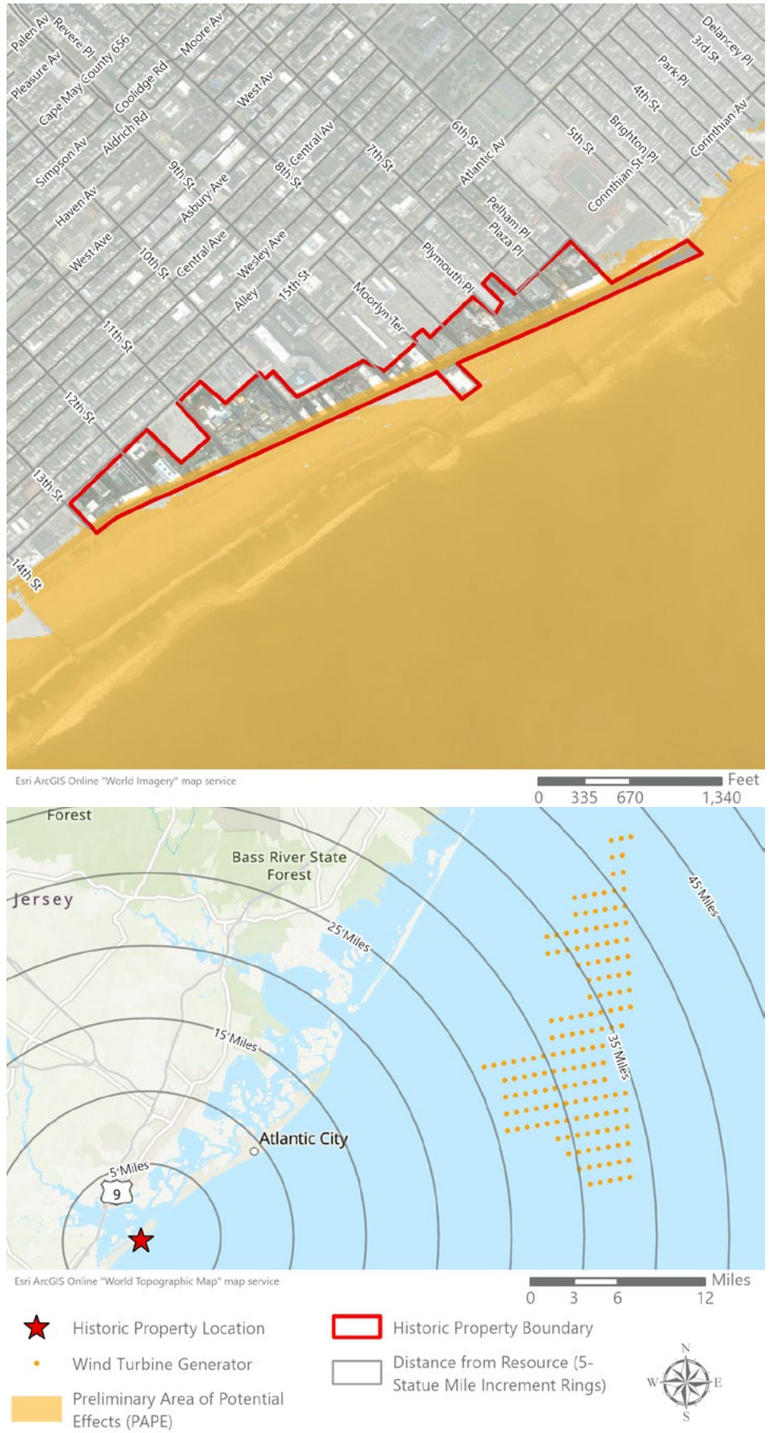
Significance

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
No Adverse Effect
Visibility of the Project from the Ocean City Boardwalk will be limited due to the distance between the historic property and the WTGs (almost 26 miles), as well as the orientation of the associated properties, which, for the most part, are oriented to the southeast, while the WTGs are located northeast of the boardwalk.



South Tuckahoe Historic District

Roughly NJ 557 and NJ 50 from the Tuckahoe River to Kendall Lane
Upper Township, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 34.83 miles

Number of Blade Tips Visible 4

Property Acreage within PAPE 0.03

Percentage of Property with Potential Visibility 0.07

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

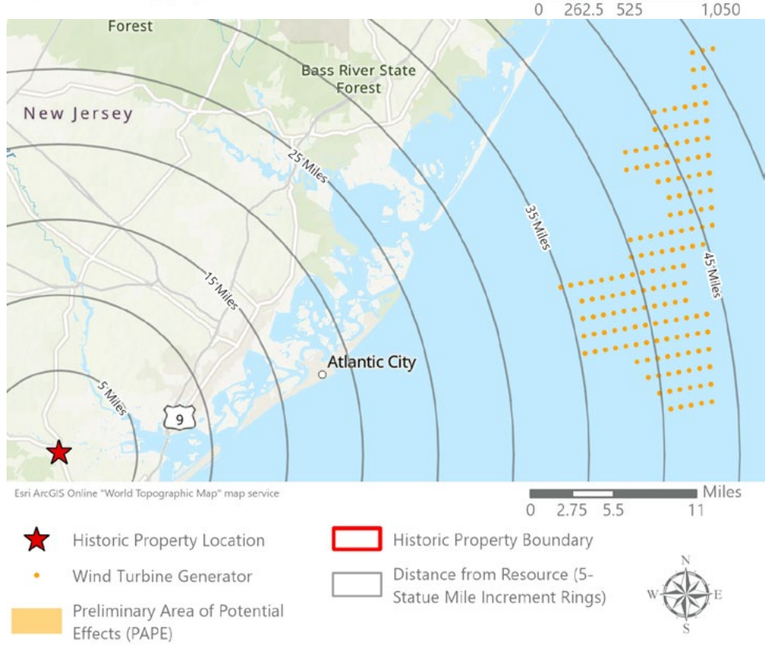
Significance

The South Tuckahoe Historic District encompasses the central area of Tuckahoe village, which played an important part in the development of different modes of transportation, including shipbuilding, railroading, and automobiles. Its architecture dates to between 1810 and 1945, and includes numerous Federal, Gothic, Italianate residences, as well as early twentieth century American Foursquare and Craftsman styles. Non-residential structures of note include a bascule bridge, an early movie theater, and a 1945 diner built to service the automobile traffic. The district has sufficient integrity to retain its listing on the NRHP under Criterion A (Community Development, Transportation) and Criterion C.

Maritime Setting

The South Tuckahoe Historic District is located approximately 8 mi from the Atlantic Coast. The Tuckahoe River and estuary to the east of the district form the most prominent water and wetland elements of the district's historic setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to .06% of the South Tuckahoe Historic District due to the district's inland location and the intervening vegetation and built environment.

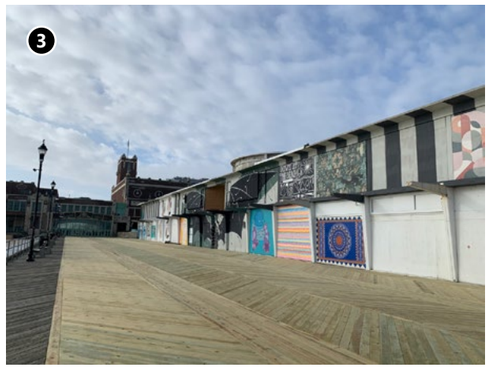


Waterfront Resort Historic District

Asbury Park City, NJ

Photograph representative of district

Photograph representative of district



Photograph representative of district

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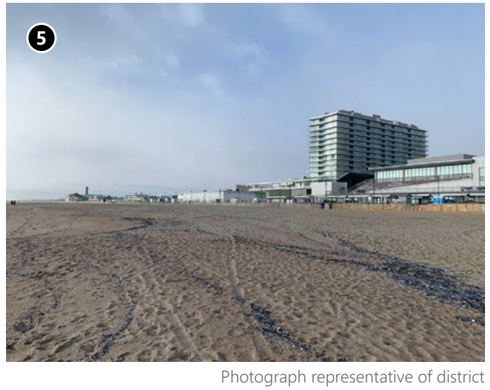


Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 37.7 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 37.3

Percentage of Property with Potential Visibility 45.96

Visible Light Units

Nacelle Aviation 5
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

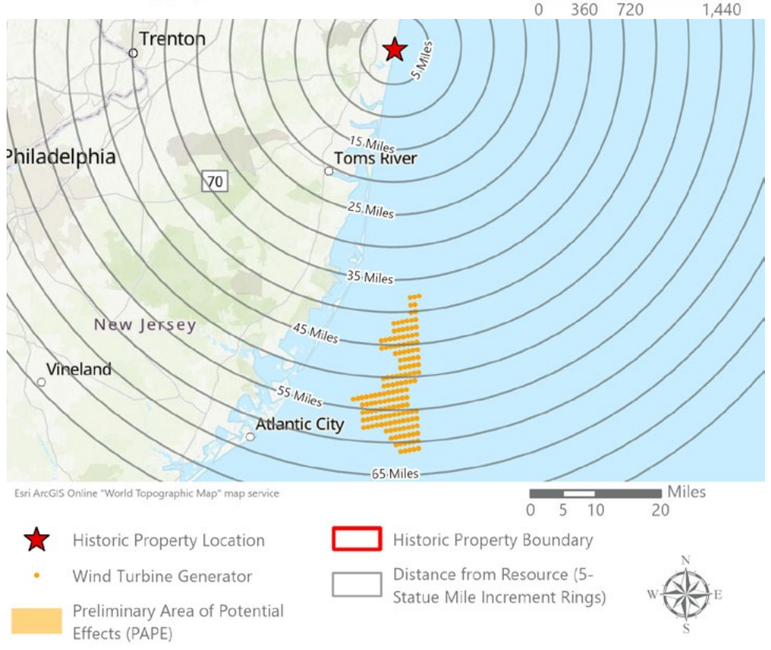
Significance

Asbury Park was founded by James A. Bradley as an idealistic city with open space and parks to improve the mental and physical well-being of the residents. Bradley constructed a boardwalk, piers, and public access to the beach to allow access to all. The Waterfront Resort Historic District embodies what remains of Bradley's plan and is eligible under Criterion A and C for the planned seaside community and its architecture.

Maritime Setting

The Waterfront Resort Historic District is located directly on the water with unobstructed views of the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Waterfront Resort Historic District and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 37 miles.



Allenhurst Residential Historic District

Roughly bounded by the Atlantic Ocean, Main Street, Cedar Avenue, Hume Street and Elberon Avenue.
Deal Borough, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 38.82 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 3.02

Percentage of Property with Potential Visibility 2.6

Visible Light Units

Nacelle Aviation 5
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

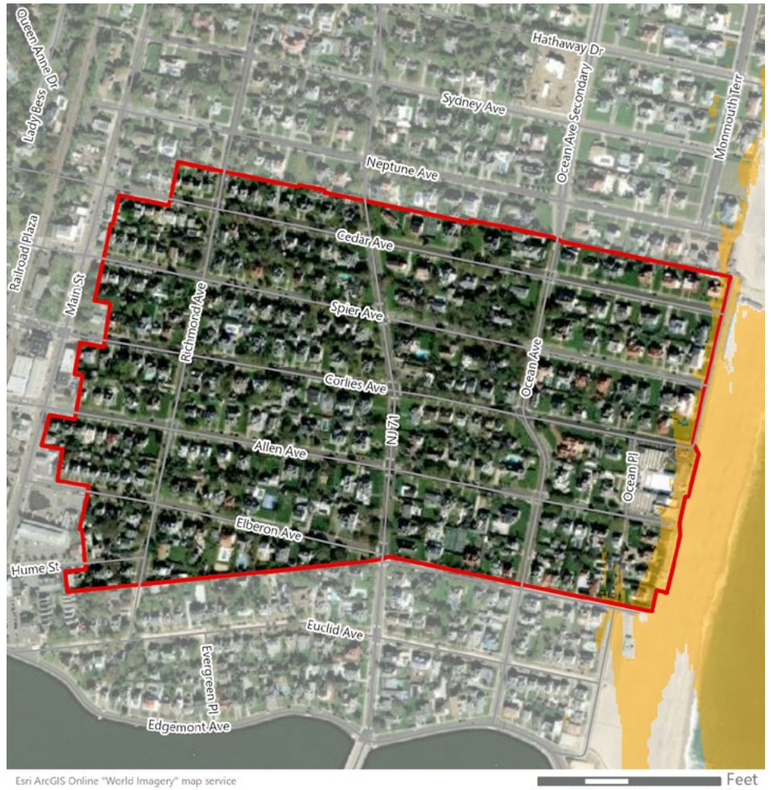
Significance

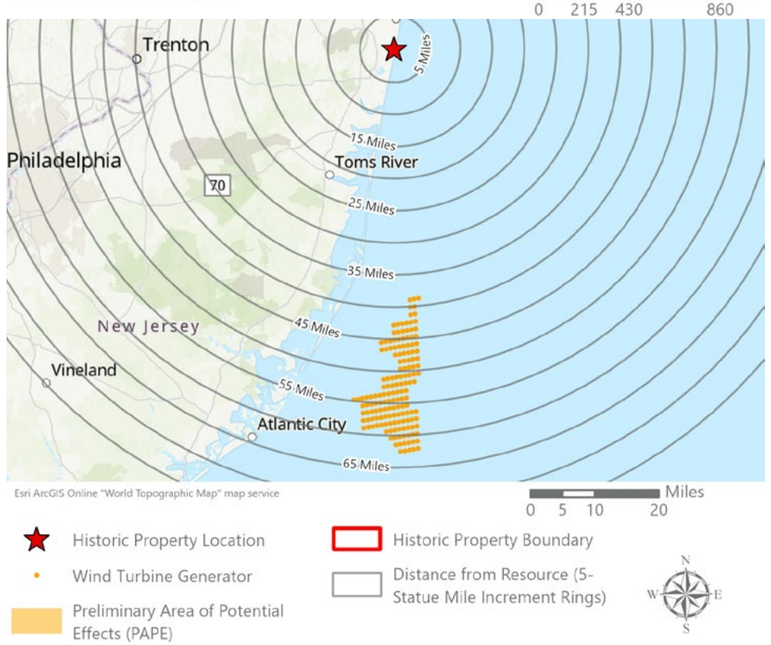
The NRHP-listed Allenhurst Residential Historic District is a collection of some 300 buildings, primarily residential, constructed from 1895 to 1930. The district encompasses the better part of the borough of Allenhurst which is a rectilinear planned community primarily developed by the Coast Land Improvement Company. Architecture represents popular period styles such as Queen Anne, Colonial Revival, Craftsman, and Mission, as well as modest bungaloid typologies. The district meets Criterion C in the area of architecture for its well-preserved collection of resort architecture.

Maritime Setting

The Allenhurst Residential Historic District is a planned resort community located directly on the ocean. Its location was meant to appeal to wealthy vacationers and developed in the late nineteenth and early twentieth centuries specifically because of its maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to 2.6% of the Allenhurst Residential Historic District along the waterfront, due to the distance between the district and the Project as well as the surrounding intervening built environment. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of nearly 39 miles.





Deal Esplanade Historic District

Deal Borough, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 39.09 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 29.43

Percentage of Property with Potential Visibility 11.03

Visible Light Units

Nacelle Aviation 5
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

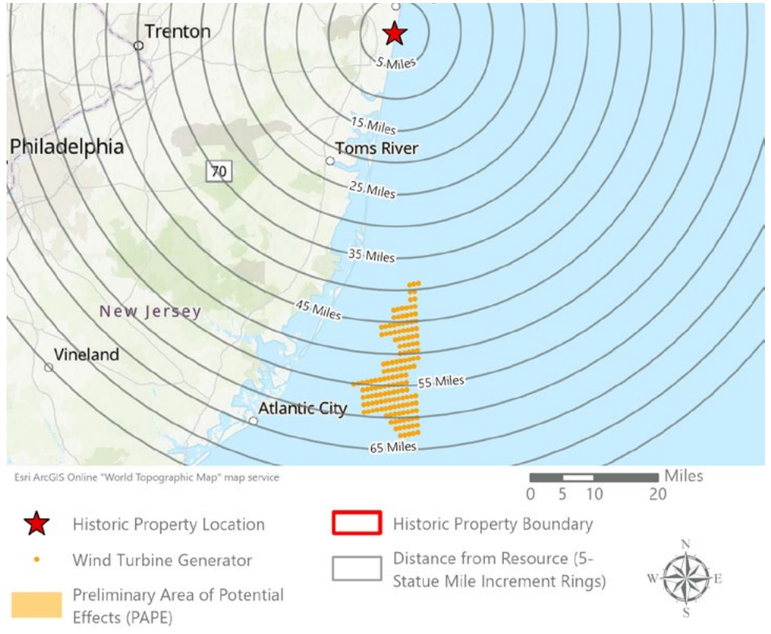
Significance

The Deal Esplanade Historic District is a residential district centered around Deal Esplanade, a wide curvilinear street. The district is significant under Criterion A and C for its design and planning as well as its large residential buildings designed in revival-styles of architecture.

Maritime Setting

The Deal Esplanade Historic District is bounded to the east by the Atlantic Ocean and has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Deal Esplanade Historic District and the Project. In addition, the Deal Esplanade Historic District is significant as a planned community and its architecture. The small portion of the ocean viewscape that could be affected by the Project is oriented at the extreme southern portion of the horizon, roughly 90 degrees away from the shoreline and beaches.



Ocean Grove Camp Meeting Association Historic District

Neptune Township, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 37.06 miles

Number of Blade Tips Visible 58

Property Acreage within PAPE 37.08

Percentage of Property with Potential Visibility 14.69

Visible Light Units

Nacelle Aviation 5
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

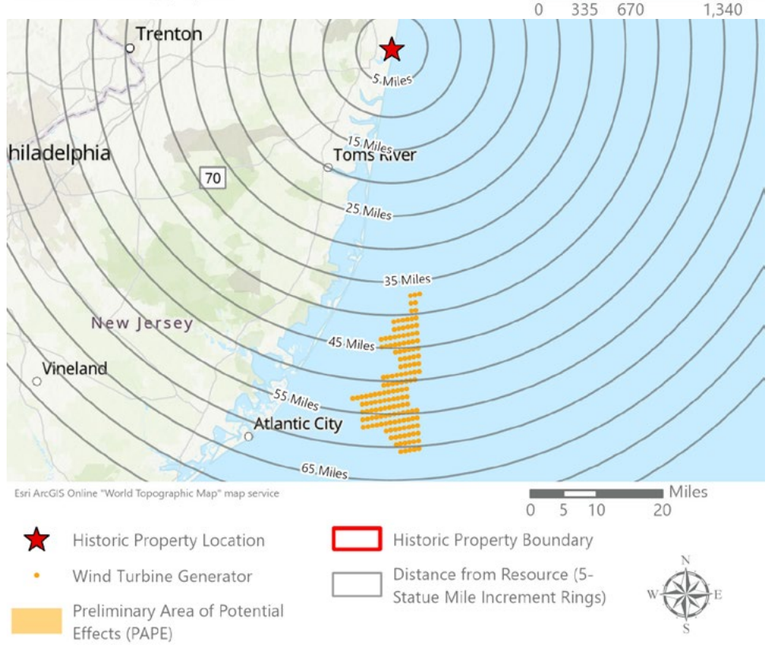
Significance

The area encompassing the Ocean Grove Camp Meeting Association Historic District was established in 1869 as a Methodist summer camp meeting ground, and was incorporated by the New Jersey State Legislature in 1870. The historic district, which includes a large auditorium and tabernacle complex, a church, high school, hotels and residences, mostly exhibits the Stick-style of architecture. The district was listed on the NRHP in 1976 for its significance in Architecture, Community Planning and Development, Religion, and Engineering.

Maritime Setting

The Ocean Grove Camp Meeting Association Historic District is located on the barrier island, along the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project will be limited from within the Ocean Grove Camp Meeting Association Historic District to areas along the beachfront and scattered interior vantages from within the district. In addition, orientation of the beachfront properties and views of the ocean from the district are directed east and the Project is located to the southeast. Potential visibility of the Project would not change the integrity of setting for this property



Naval Ammunition Depot Earle Historic District

NJ-34
Wall Township, NJ

Photograph representative of district

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 39.6 miles

Number of Blade Tips Visible 20

Property Acreage within PAPE 0.02

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

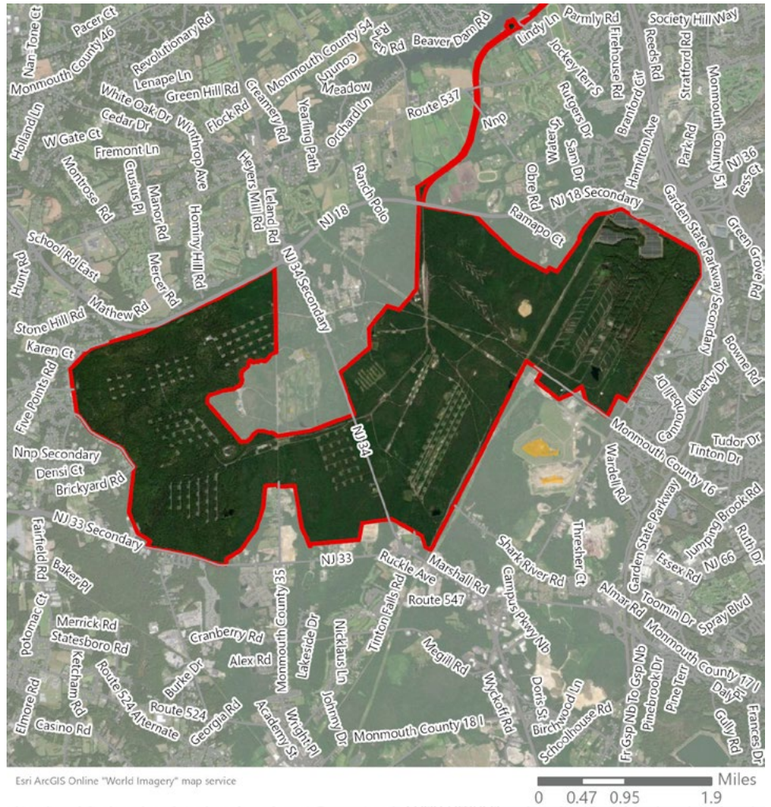
Significance

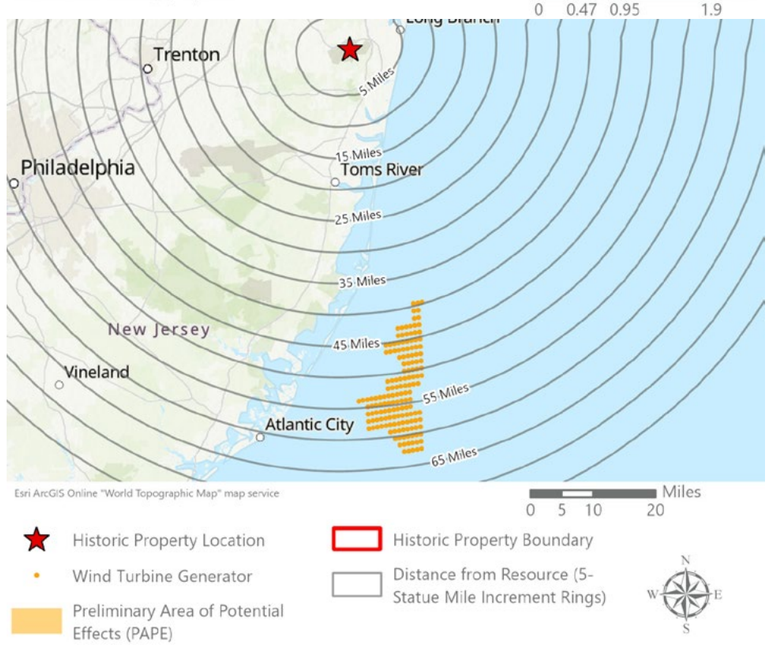
Naval Ammunition Depot Earle (now, Naval Weapons Station Earle) was commissioned in 1943 to facilitate the transportation of ordnance from production facilities to U.S. Navy and Army forces in the European theater of World War II. The facility consists of a large inland storage facility and a two-mile-long pier complex extending into Sandy Hook Bay, connected via the 15-mile-long Normandy Road. The Naval Ammunition Depot Earle Historic District has been determined NRHP-eligible by the NJHPO under Criterion A for the period 1943-1953.

Maritime Setting

The majority of the Naval Ammunition Depot Earle Historic District is located inland at a distance of over five miles from the Atlantic Ocean. The portion of the facility with a maritime setting - the pier complex - has been determined to be noncontributing to the historic district due to alterations and is additionally located outside the 40-mile-radius PAPE.

Effect Recommendation
No Adverse Effect
Visibility of the Project is limited to 0.0002% of the Naval Ammunition Depot Earle Historic District due to the distance between the Project and the historic district as well as intervening development and vegetation. In addition, any potential visibility of the Project from the district would not change the integrity of setting for this property.





Barnegat Historic District

Barnegat Township, NJ

Photograph representative of district

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 14.58 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0.05

Percentage of Property with Potential Visibility 0.06

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

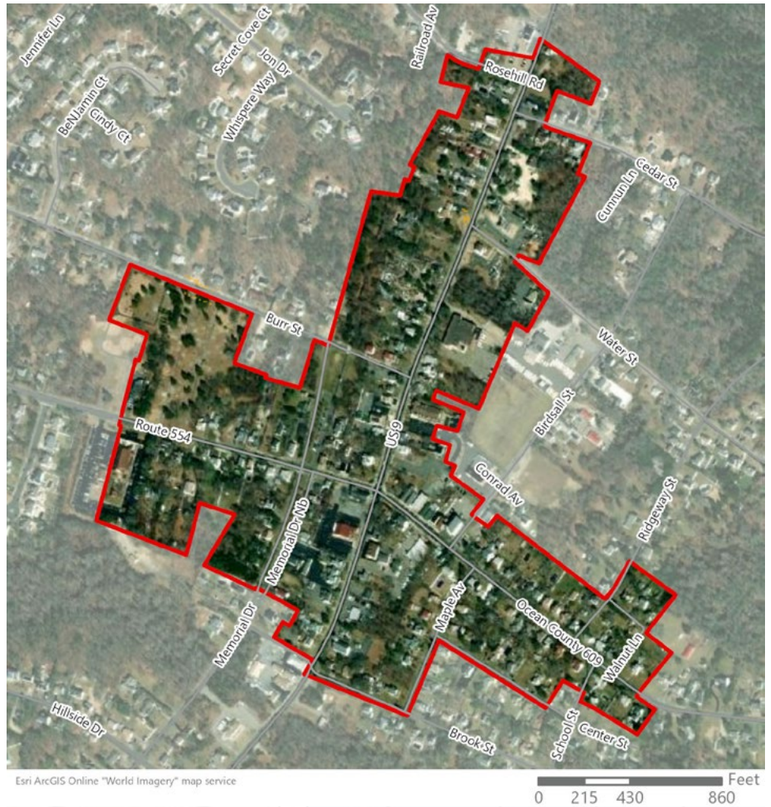
Significance

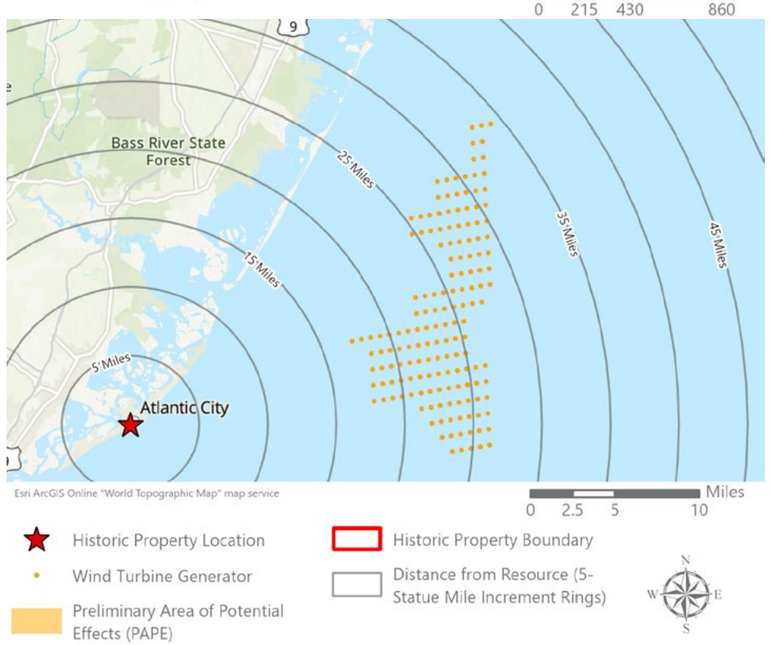
The Barnegat Historic District was determined to be eligible for the NRHP by NJHPO in 1985. The district is significant under Criterion A for Commerce for its association with the early maritime trades in Ocean County and under Criterion C for Architecture as the district contains an excellent collection of nineteenth century residential and commercial architecture.

Maritime Setting

Due to its location on Barnegat Bay and historical ties to maritime commerce, the Barnegat Historic District has a significant maritime setting.

Effect Recommendation
No Adverse Effect
Due to the Barnegat Historic District's location inland as well as the intervening land, development, vegetation in Barnegat as well as on the barrier island, visibility of the Project is anticipated to be limited to approximately .057% of the historic district. Potential visibility of the Project from these locations would not change the integrity of setting for this property.





Bass River State Forest Historic District

Stage Road
Bass River Township, NJ

Photograph representative of district

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 15.42 miles

Number of Blade Tips Visible 137

Property Acreage within PAPE 289.3

Percentage of Property with Potential Visibility 3.98

Visible Light Units

Nacelle Aviation 43
Mid Tower Aviation 0
Coast Guard 0

KOP Reference BRT01

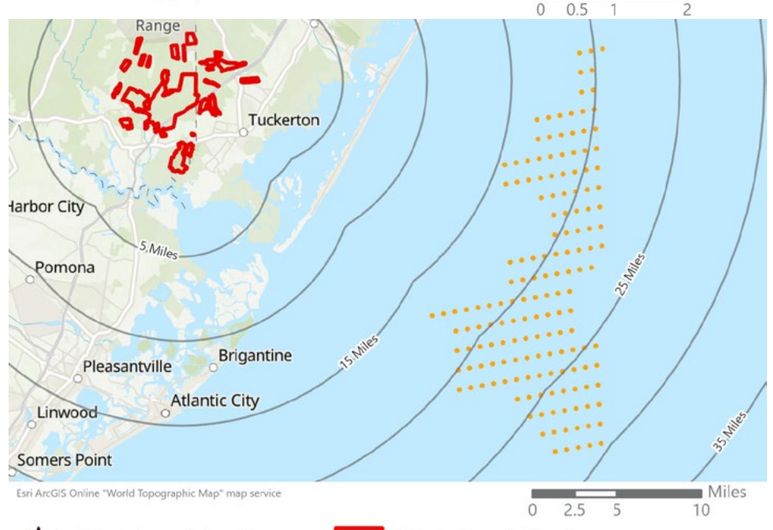
Significance

The Bass River State Forest Historic District was determined to be eligible for inclusion in the NRHP by NJHPO in 2004. The district is eligible under NRHP Criterion A for it association with the Civilian Conservation Corp (CCC) which was responsible for planting some of the pine plantations within the district and state forest.

Maritime Setting

The areas that comprise the Bass River State Forest Historic District are located inland in Bass River Township, along the Bass River within the Bass River State Forest. The area is characterized by the dense forest that contain come of the tallest growing trees in the New Jersey Pine Barrens region.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to less than 4% of the Bass River State Forest Historic District due to its inland location on the mainland and intervening vegetation, structures on the barrier islands. Distant ocean views are not a significant element of the district's historic setting along the Bass River.



Bay Head Historic District

Roughly bounded by the Point Pleasant Beach Borough line, the Atlantic Ocean, the Mantalooking Borough line, and the Point Pleasant Borough line.
Bay Head, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 27.23 miles

Number of Blade Tips Visible 152

Property Acreage within PAPE 29.95

Percentage of Property with Potential Visibility 9.8

Visible Light Units

Nacelle Aviation 66
Mid Tower Aviation 7
Coast Guard 0

KOP Reference N/A

Significance

The Bay Head Historic District is significant as a late nineteenth century coastal summer resort. The district is significant under Criterion A for its association in the development of Bay Head as a resort community and for the Bay Head Train Loop as well as Criterion C for its architecture.

Maritime Setting

The Bay Head Historic District is located along the Atlantic coastline with views of the Atlantic Ocean, Bay Head Harbor and Twilight Lake.

Effect Recommendation
No Adverse Effect

Visibility of the Project from the Bay Head Historic District will be limited due to the distance between the historic property and the WTGs (over 27 miles). In addition, the majority of the buildings are oriented to the buildings is to the east, while the WTGs are located southeast of the historic district, further limiting visibility.

Beach Haven Historic District

Roughly bounded on the north by 3rd Street, on the east by South Atlantic Avenue, on the south by Pearl Street, on the west by properties to the west of South Beach Avenue.
Beach Haven Borough, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 9.85 miles

Number of Blade Tips Visible 32

Property Acreage within PAPE 6.71

Percentage of Property with Potential Visibility 30.76

Visible Light Units

Nacelle Aviation 17
Mid Tower Aviation 11
Coast Guard 1

KOP Reference BHB01

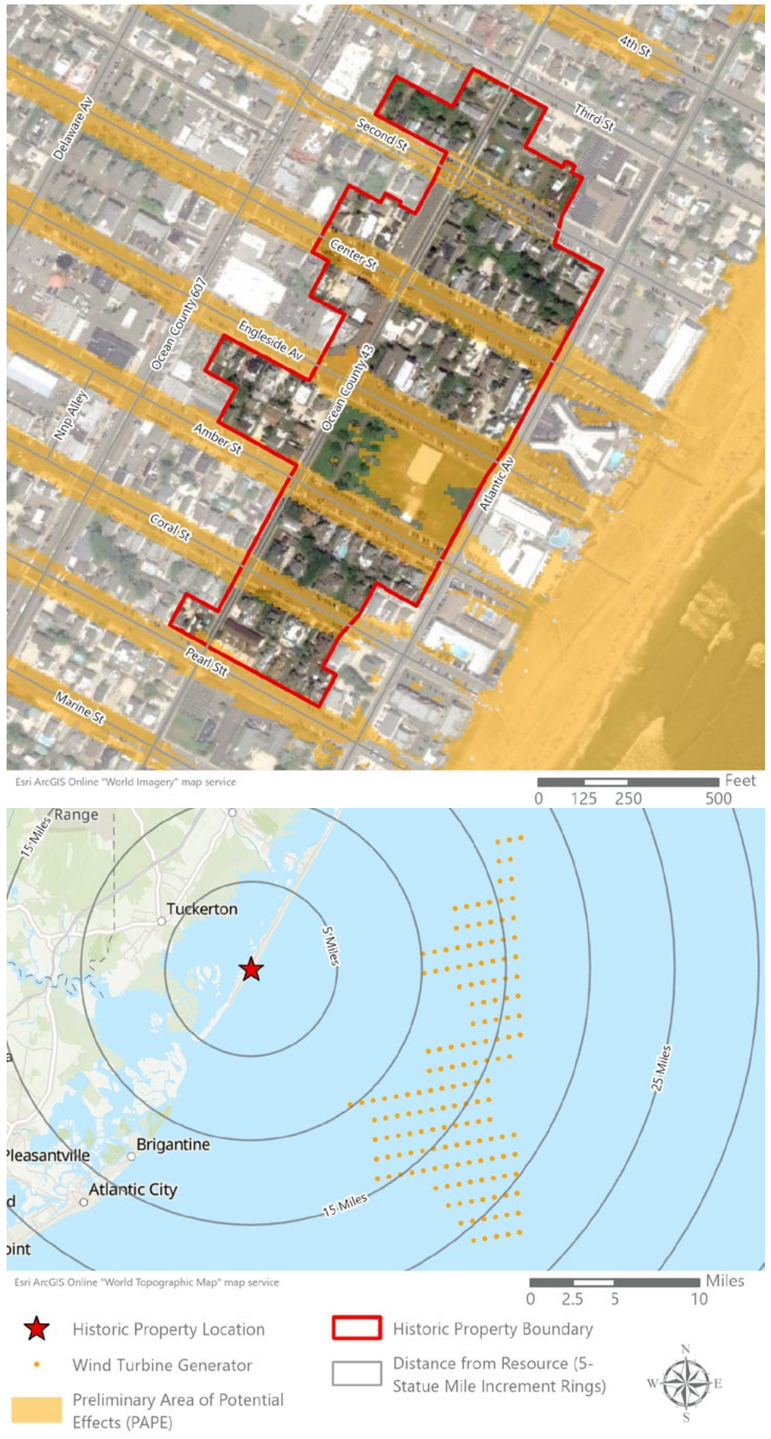
Significance

The Beach Haven Historic District was listed in the NRHP in 1983 with significance under Criterion C with a period of significance that spans from 1878 to 1879. The district is comprised of late nineteenth and early twentieth century mostly vernacular style homes with some high-style residences inter-mixed.

Maritime Setting

Initially conceived as a beach resort in the 1870s, Beach Haven's proximity to the beaches and Atlantic Ocean was an early defining characteristic of the community. The eastern boundary of the district is approximately 500 feet from the beaches at Beach Haven and the Atlantic Ocean.

Effect Recommendation
Adverse Effect
Due to the proximity of the Project to the Beach Haven Historic District, the WTGs are expected to be a significant focus of viewer attention with some blade tips rising above the intervening dunes and buildings.



Beach Haven Historic District (Boundary Increase and Additional Documentation)

Roughly bounded by Atlantic, Bay, Fifth, and Chatsworth Avenues.
Beach Haven Borough, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 9.69 miles

Number of Blade Tips Visible 49

Property Acreage within PAPE 7.77

Percentage of Property with Potential Visibility 20.11

Visible Light Units

Nacelle Aviation 24
Mid Tower Aviation 23
Coast Guard 8

KOP Reference BHB01

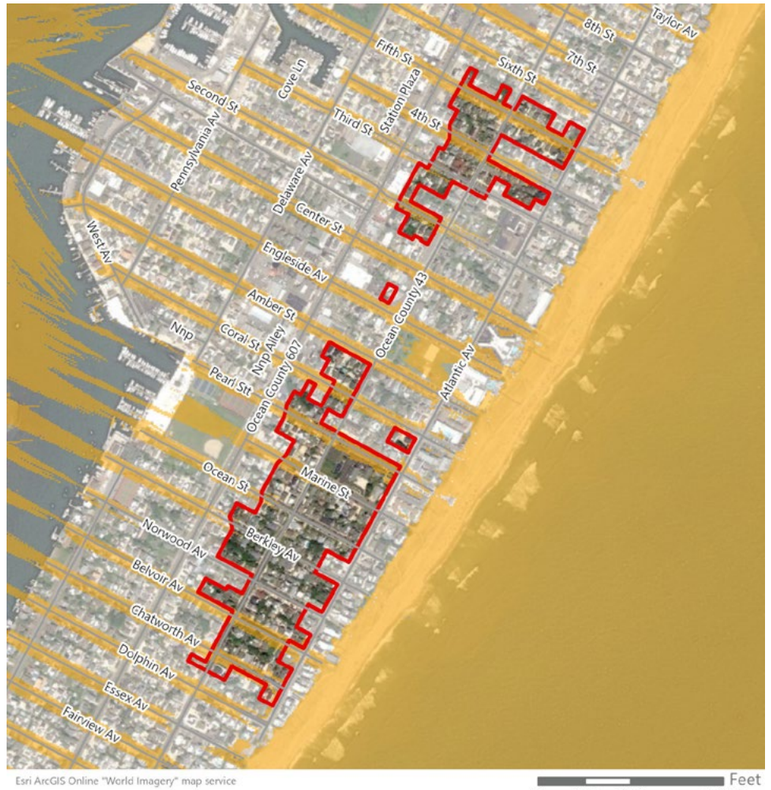
Significance

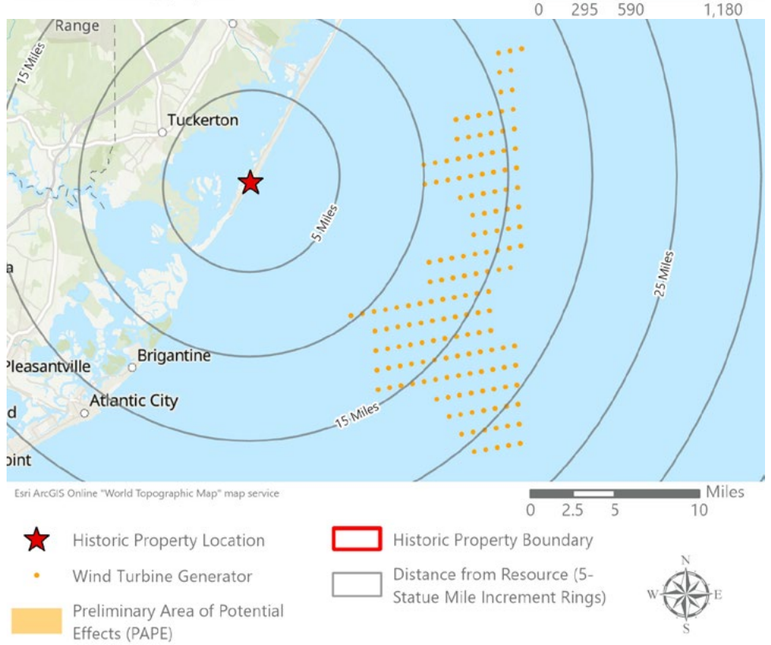
The Beach Haven Historic District (Boundary Increase and Additional Documentation) constitutes an expansion of the Beach Haven Historic District that was originally listed in the NRHP in 1983. The district was listed on the NRHP in 2014. The addendum expanded the boundary of the original district as well as the period of significance, which spans from 1873 to 1940. Additionally, the boundary increase included the addition of significance under Criterion A for Entertainment/Recreation and Community Planning and Development.

Maritime Setting

Initially conceived as a beach resort in the 1870s, Beach Haven's proximity to the beaches and Atlantic Ocean was an early defining characteristic of the community. The eastern boundary of the district is approximately 500 feet from the beaches at Beach Haven and the Atlantic Ocean.

Effect Recommendation
Adverse Effect
Due to the historic district's location one block west from the Atlantic Ocean, the Project is anticipated to be visible from some building interiors and exterior areas along the roadways and in front yards.





Island Beach State Park Historic District

Central Avenue
Berkeley Township, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 16.23 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 2.41

Percentage of Property with Potential Visibility 38.2

Visible Light Units

Nacelle Aviation 157
Mid Tower Aviation 82
Coast Guard 5

KOP Reference N/A

Significance

The Island Beach State Park Historic District encompasses the barrier island and State Park from its northern boundary south of 24th Avenue to Barnegat Inlet. The district includes the Judge's Shack, Henry Phipps House , Francis P. & Augusta H.S. Freeman House , Bay House , Island Beach Borough Hall (Formerly Aeolium Nature Center), Caretaker's Cottage (Currently State Park Police Station), Ocean Swimming Beach (OSB) Pavilion 1, Ocean Swimming Beach (OSB) Pavilion 2, Park Office Gatehouse, 6 Remaining Beach Shacks, as well as the U.S. Lifesaving Station Number 14 and the Forked River Coast Guard Station #112. The barrier island was purchased by Henry Phipps to develop a resort community for the upper class; however, the resort was not developed, and the majority of the island's natural landscape was preserved. The Island Beach State Park Historic District is eligible for listing on the National Register of Historic Places under Criterion A in the area of Conservation. The district's period of significance begins in 1911, with the construction of the first beach shack, and continues through 1973.

Maritime Setting

The Island Beach State Park Historic District has a clear maritime setting as a primarily undeveloped barrier island between the Atlantic Ocean and Barnegat Bay.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from portions of the Island Beach State Park from elevated areas and along the Atlantic Ocean.

Midway Camps Historic District

Bounded on the north by 14th Avenue, on the east by Ocean Avenue, on the south by 20th Avenue, and on the west by Central Avenue.
Berkeley Township, NJ

Photograph representative of district

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 17.61 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 1.39

Percentage of Property with Potential Visibility 5.7

Visible Light Units

Nacelle Aviation 152
Mid Tower Aviation 70
Coast Guard 0

KOP Reference N/A

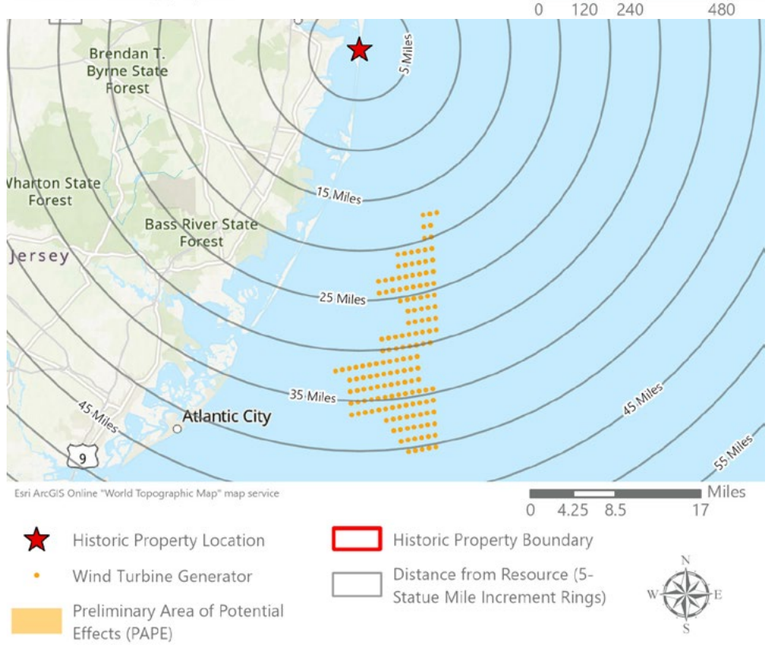
Significance

The Midway Camps Historic District was determined to be eligible for inclusion in the NRHP by NJHPO in 2001. The district is a grouping of one-story, front gabled cottages on concrete piers constructed between ca.1935 and ca.1960 as a planned community. The district is significant under Criterion A and C for its architecture and development as a seasonal resort community.

Maritime Setting

The Midway Camps Historic District was developed as a seaside, seasonal resort community on the Atlantic Ocean. The district is bounded by the Atlantic Ocean to the east and Central Avenue to the west.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the portions of the Midway Camps Historic District along the Atlantic Ocean.



Mantoloking Historic District

Bounded on the north by the municipal line with Bay Head Borough, the municipal boundary with Brick Township to the south, the beaches at Mantoloking to the east, and Barnegat Bay to the west
Brick Township, NJ

Photograph representative of district

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 25.11 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 53.06

Percentage of Property with Potential Visibility 22.14

Visible Light Units

Nacelle Aviation 81
Mid Tower Aviation 19
Coast Guard 0

KOP Reference N/A

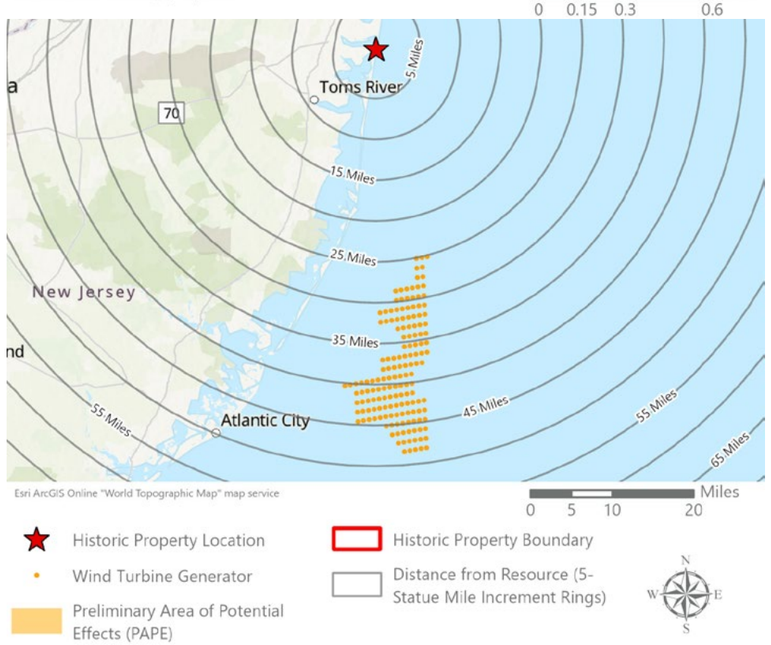
Significance

The Mantoloking Historic District was previously determined to be eligible for inclusion in the NRHP by NJHPO in 1996. The historic district is a grouping of residential buildings from the last quarter of the nineteenth century to the first half of the twentieth century and is significant under Criterion A and C as a coastal resort town for its architecture and as a representative example of the seaside resort movement of Ocean County.

Maritime Setting

The Mantoloking Historic District is a coastal resort community with a clear maritime setting comprising an area from the bay side to the ocean side of the barrier island.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the portions of the Mantoloking Historic District along the Atlantic Ocean.



West Creek Historic District

Eagleswood Township, NJ

Photograph representative of district

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 14.33 miles

Number of Blade Tips Visible 69

Property Acreage within PAPE 0.84

Percentage of Property with Potential Visibility 0.92

Visible Light Units

Nacelle Aviation 30
Mid Tower Aviation 8
Coast Guard 0

KOP Reference N/A

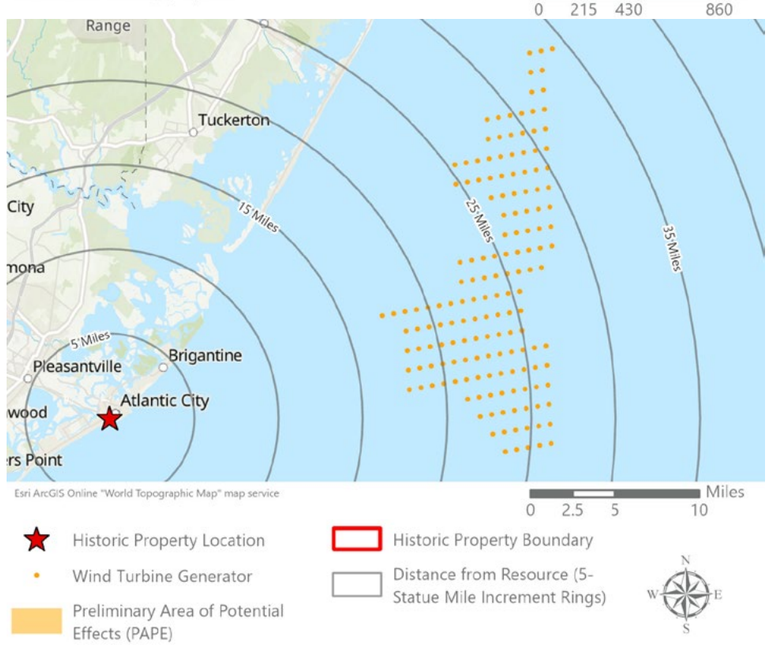
Significance

The West Creek Historic District was determined eligible under Criterion A as an intact example of early settlement and maritime development of Ocean County. It is also eligible under Criterion C as a well-preserved collection of nineteenth century vernacular residential architecture. The period of significance is 1705-1900. The district contains a mix of domestic, commercial, and religious architecture with styles including Federal and Queen Anne. Though many have been altered with new siding and replacement windows, the district retains historic integrity.

Maritime Setting

The West Creek Historic District is located on Westecunk Creek, the New Jersey Pinelands, and the Little Egg Harbor, and although does not have an ocean setting, the district has a maritime setting.

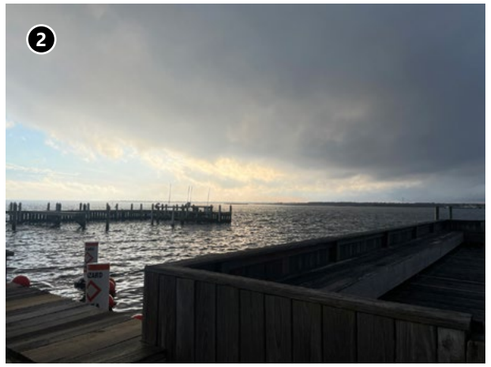
Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to less than 1% of the West Creek Historic District Westecunk Creek and Dock Road, due to the historic district's location on mainland New Jersey, and the intervening tributaries, Little Egg Harbor and the development along the barrier island.



Mantoloking Marine Historic District

Mantoloking Road
Mantoloking Borough, NJ

Photograph representative of district



Photograph representative of district

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Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 25.83 miles

Number of Blade Tips Visible 16

Property Acreage within PAPE 2.53

Percentage of Property with Potential Visibility 3.7

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

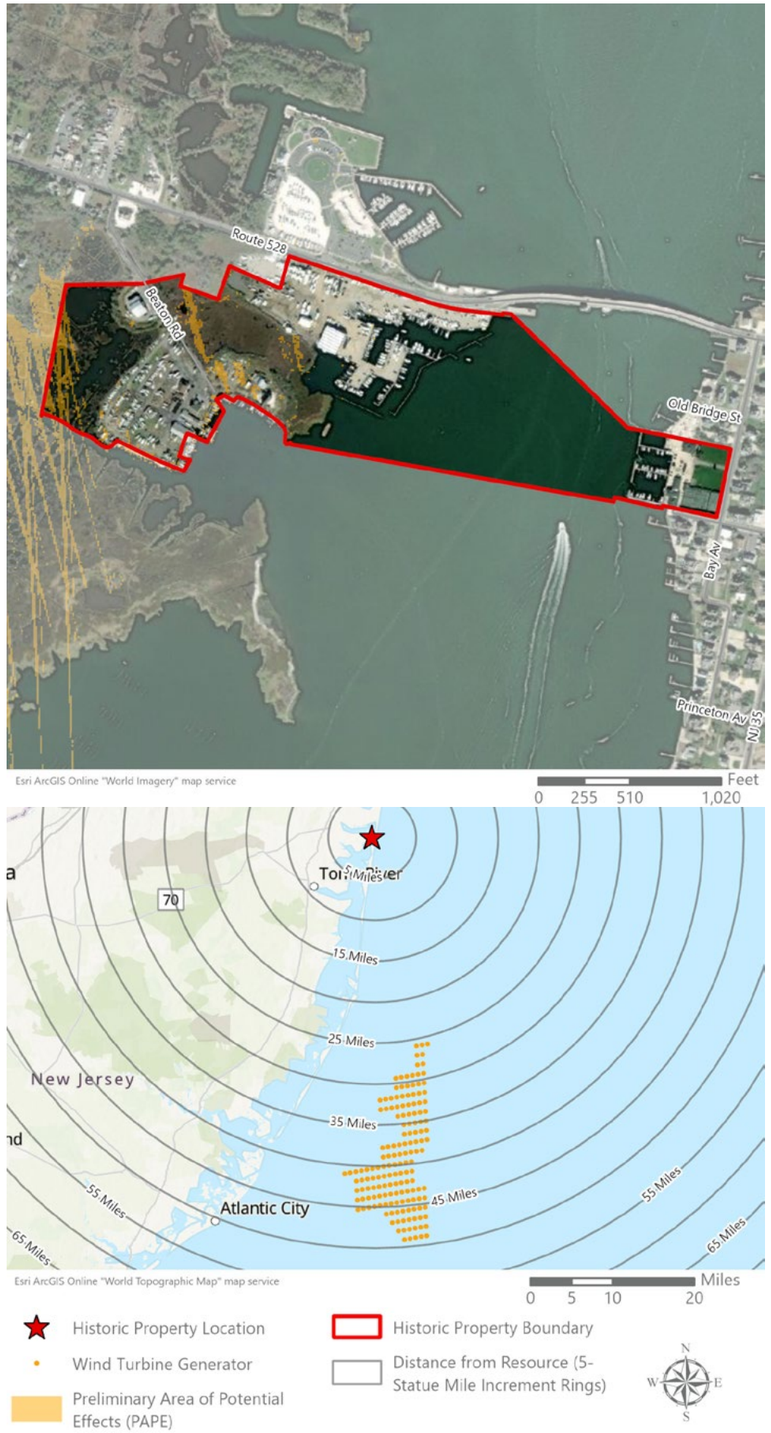
Significance

The Mantoloking Marine Historic District was determined to be eligible for the NRHP in 1996 by NJHPO. The boundary of the district comprises Beaton's Boat Works (determined to be individually eligible in 1992); a non-contributing property at 73 Beaton Road; and Winter Yacht Basin. The district is significant under Criterion A for its association with the Maritime History of Brick Township and Ocean County.

Maritime Setting

The district is located on the west side of Barnegat Bay to the south of Mantoloking Road (State Route 548) and has views of the bay and the eastern shore of the bay. Views to the Atlantic Ocean are obstructed by the built landscape in Mantoloking Borough and the maritime setting of the district is largely tied to its location on Barnegat Bay.

Effect Recommendation
No Adverse Effect
Potential visibility of the Project is anticipated to be limited to.009% of the Mantoloking Marine Historic District due to Barnegat Bay and the intervening land and development on the barrier island.



Point Pleasant Beach Boardwalk

Point Pleasant Beach Borough, NJ

Photograph representative of district

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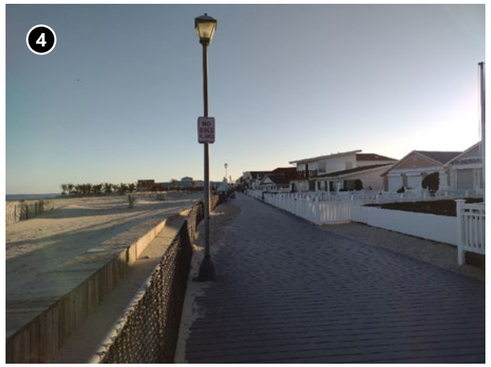


Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 29.32 miles

Number of Blade Tips Visible 128

Property Acreage within PAPE 44.93

Percentage of Property with Potential Visibility 77.67

Visible Light Units

Nacelle Aviation 48
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

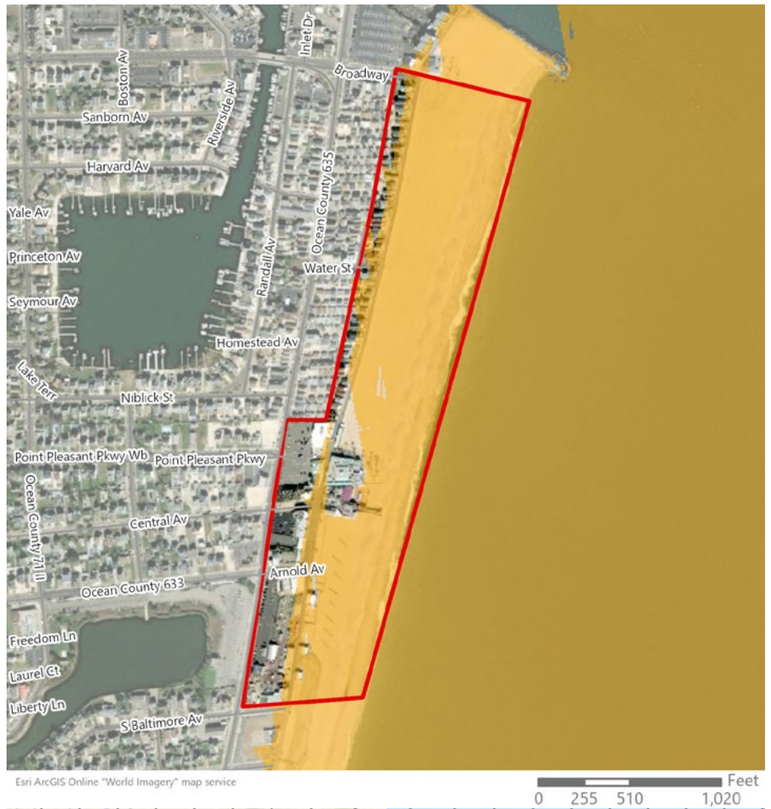
Significance

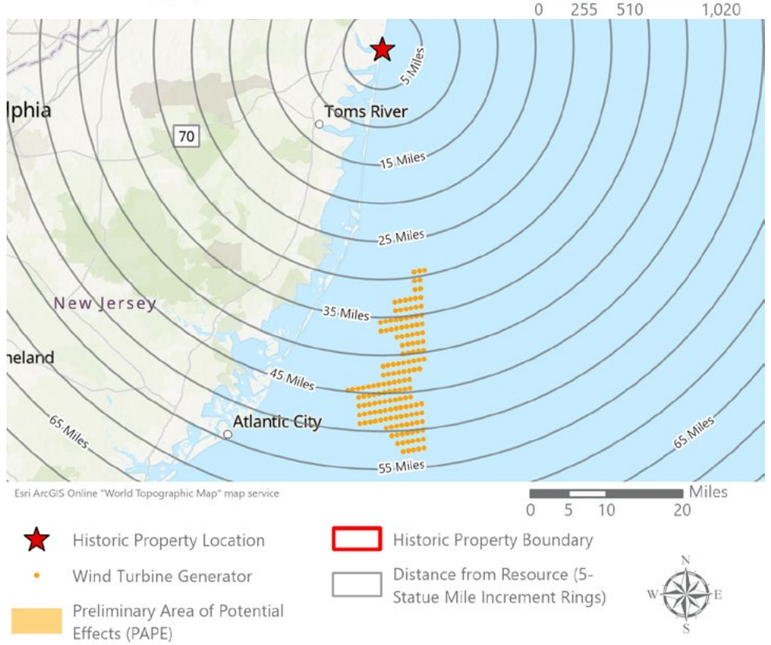
Passenger rail service began in Point Pleasant Beach in 1880, the same year the first beach-front pavilion was constructed in Point Pleasant Beach. Although the first permanent boardwalk was built in 1915, by 1892 the first amusement area, known as Clark's Landing was standing along the waterfront. In 1928, Charles Jenkinson opened Jenkinson's Pavilion which included amusements and a swimming pool. The Point Pleasant Beach Boardwalk remains active today, and is significant under Criterion A and C for its association with the development of Point Pleasant Beach, the development of boardwalks in New Jersey, and its architecture.

Maritime Setting

The Point Pleasant Beach Boardwalk is located along the Atlantic Ocean with unobstructed views of the water.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the Point Pleasant Beach Boardwalk will be limited due to the distance between the historic property and the WTGs (over 29 miles), as well as the orientation of the associated properties, which face eastward, while the WTGs are located southeast of the boardwalk.





Ship Bottom Historic District

Ship Bottom Borough, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 8.46 miles

Number of Blade Tips Visible 4

Property Acreage within PAPE 0.12

Percentage of Property with Potential Visibility 4.19

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

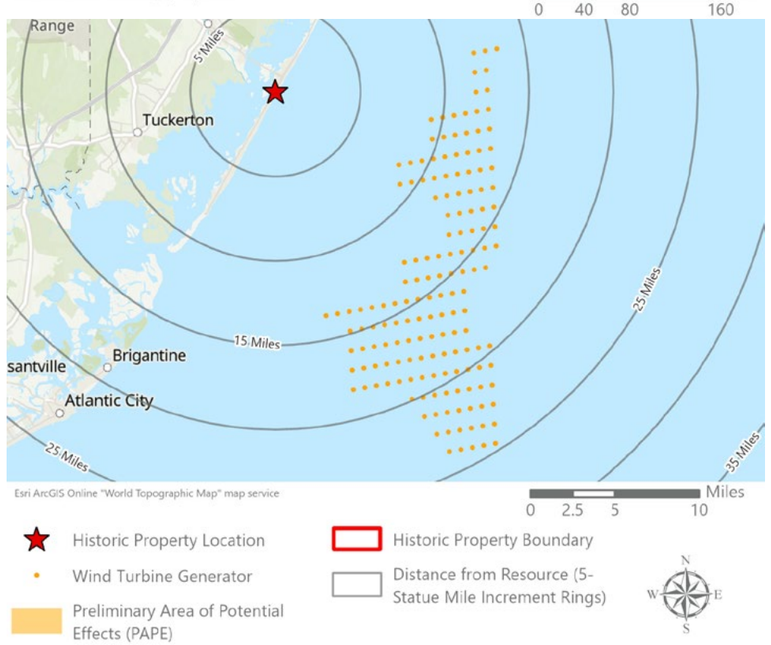
Significance

The Ship Bottom Historic District consists of a group of small vernacular houses located on 27th Street, Ship Bottom Avenue, and 26th Street. Ship Bottom was a small settlement established by fishermen in the early 20th century and the residential stock represents this. The houses are constructed on narrow lots and reflect vernacular building traditions exhibiting rectangular plans with wood shingle and clapboard siding, gable-front, hip, jerkinhead, and gambrel roofs and front porches. The district is recommended eligible for the NRHP under Criteria A and C for its association with the history of New Jersey fishing and architecture.

Maritime Setting

As a grouping of vernacular houses in a community of fishermen located on the barrier island, the historic district has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Ship Bottom Historic District due to the intervening land, buildings and dunes.



Manahawkin Village Historic District

Stafford Township, NJ

Photograph representative of district

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 13.6 miles

Number of Blade Tips Visible 6

Property Acreage within PAPE 3.77

Percentage of Property with Potential Visibility 1.95

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 1
Coast Guard 0

KOP Reference N/A

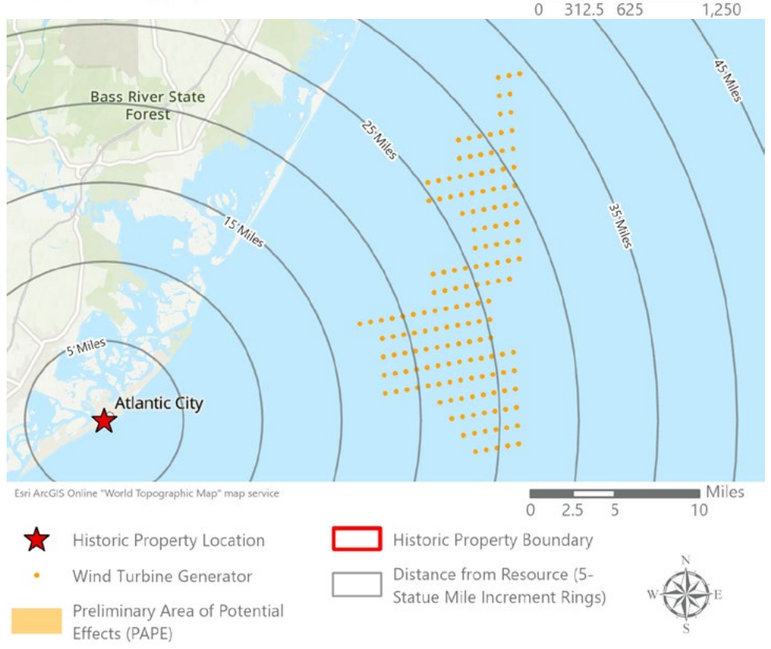
Significance

The Manahawkin Village Historic District is a mixed commercial-residential district comprised primarily of residential buildings of the mid-nineteenth through the late twentieth centuries. This resource has been previously determined eligible for the NRHP by the NJHPO.

Maritime Setting

The Manahawkin Village Historic District is located adjacent to Manahawkin Lake and Mill Creek

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to 1.9% of the Manahawkin Village Historic District due to the district's inland location and the intervening Manahawkin Bay and development on the barrier island.



Island Heights Historic District

Toms River Township, NJ

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Photograph representative of district

Historic Designation NRHP-Listed

Distance to Nearest Turbine 20.52 miles

Number of Blade Tips Visible 21

Property Acreage within PAPE 1.92

Percentage of Property with Potential Visibility 0.62

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

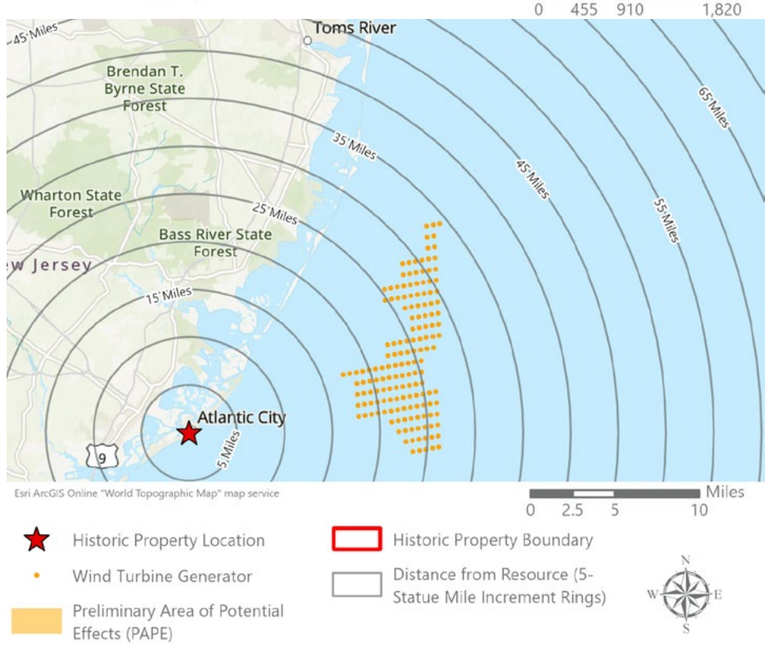
Significance

According to the NRHP form, the Island Heights Historic District is one of the best examples of an intact Victorian planned religious resorts in the sate of New Jersey. The Island Heights Association was incorporated in 1878 and is located along Tom's River, not on the ocean like other religious resorts of the time. The district is significant under Criterion A and C as a planned religious community and for its architecture.

Maritime Setting

The Island Heights Historic District was developed as a planned religious resort community on Tom's River and has a clear maritime setting associated with the river.

Effect Recommendation
No Adverse Effect
Potential visibility of the Project is anticipated to be limited to.06% of the Island Heights Historic District due to its location on the mainland, Barnegat Bay, and the intervening land and development on the barrier island.



Toms River Main Street Historic District

Toms River Township, NJ

Photograph representative of district

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 23.31 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0.01

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

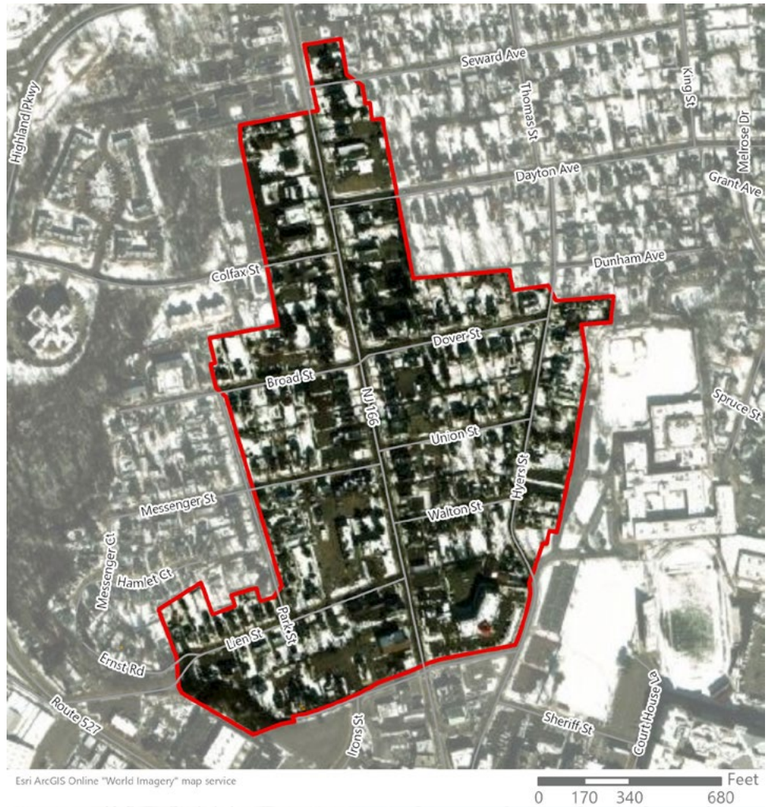
Significance

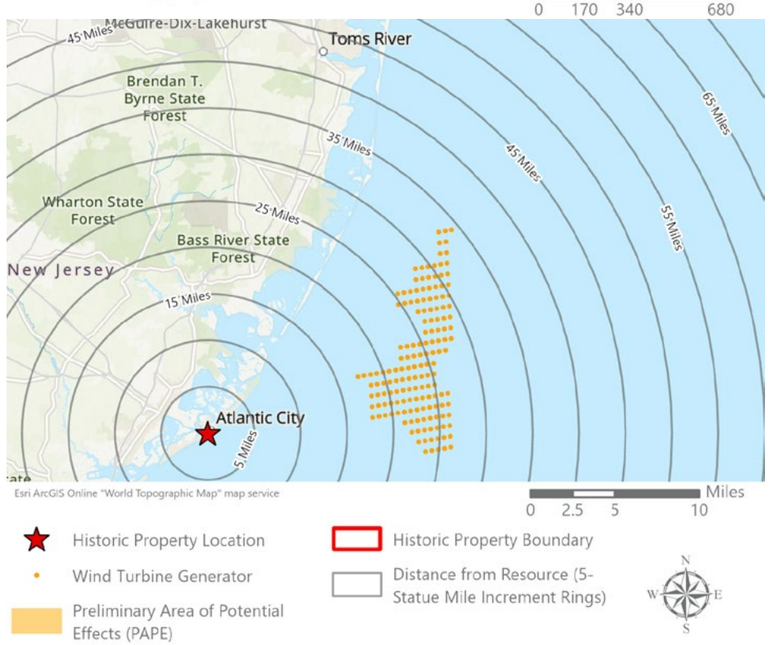
The Toms River Main Street Historic District is comprised of primarily residential buildings of the mid-nineteenth through the mid-twentieth centuries along Main Street and several side streets north of the central business district of Toms River. This resource has been previously determined eligible for the NRHP by the NJHPO.

Maritime Setting

The Toms River Main Street Historic District is located on inland and does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Due to the Toms River Main Street Historic District's location inland as well as the intervening land, development, vegetation in Toms River as well as on the barrier island, visibility of the Project is anticipated to be limited to approximately .009% of the historic district. Potential visibility of the Project from these locations would not change the integrity of setting for this property.





Ocean Beach Historic District (Units 1, 2, and 3)

The district comprises three separate dense residential areas in Lavallette Borough, each bisected by State Route 35 North and containing orderly east-west streets. Each district is bounded on the east by the beaches at Dover Beaches North (in the northern most district), Chadwick Beach (in the central district), and Island Beach (in the southern-most district).

Toms River Township, NJ

Photograph representative of district

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 22.1 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 13.95

Percentage of Property with Potential Visibility 12.22

Visible Light Units

Nacelle Aviation 111
Mid Tower Aviation 37
Coast Guard 0

KOP Reference TRT01

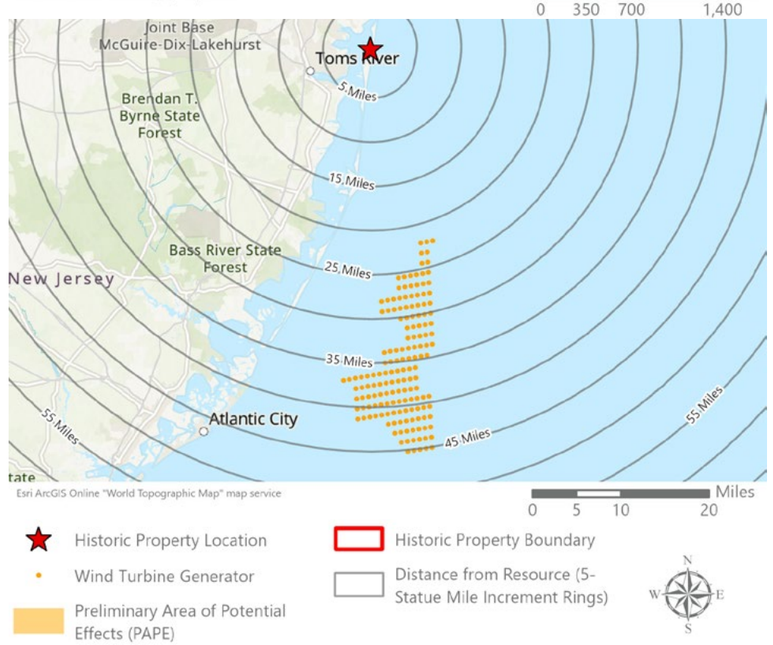
Significance

The Ocean Beach Historic District (Units 1, 2, and 3) was determined to be eligible for inclusion in the NRHP by NJHPO in 2019. The district was developed as a vacation community for working-class families and developed in three stages (Units 1, 2, and 3) between 1946 and 1955. The district is eligible under Criteria A and C as a planned vacation community on the New Jersey shore and for its architecture.

Maritime Setting

The eastern boundary of the Ocean Beach Historic District (Units 1, 2, and 3) comprises the beaches at Dover Beaches North, Chadwick Beach, and Island Beach in Lavallette Borough. Dwellings situated on the east side of Sea View Road within each unit have full and unobstructed views of the beaches and the Atlantic Ocean.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the portions of the Ocean Beach Historic District (Units 1, 2, and 3) along the Atlantic Ocean.



Tuckerton Historic District

U.S. Route 9 and County Route 539, roughly between Parkers Landing and Pohatcong Lake.
Tuckerton Borough, NJ

Photograph representative of district

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 14.83 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 18.76

Percentage of Property with Potential Visibility 3.31

Visible Light Units

Nacelle Aviation 157
Mid Tower Aviation 93
Coast Guard 0

KOP Reference N/A

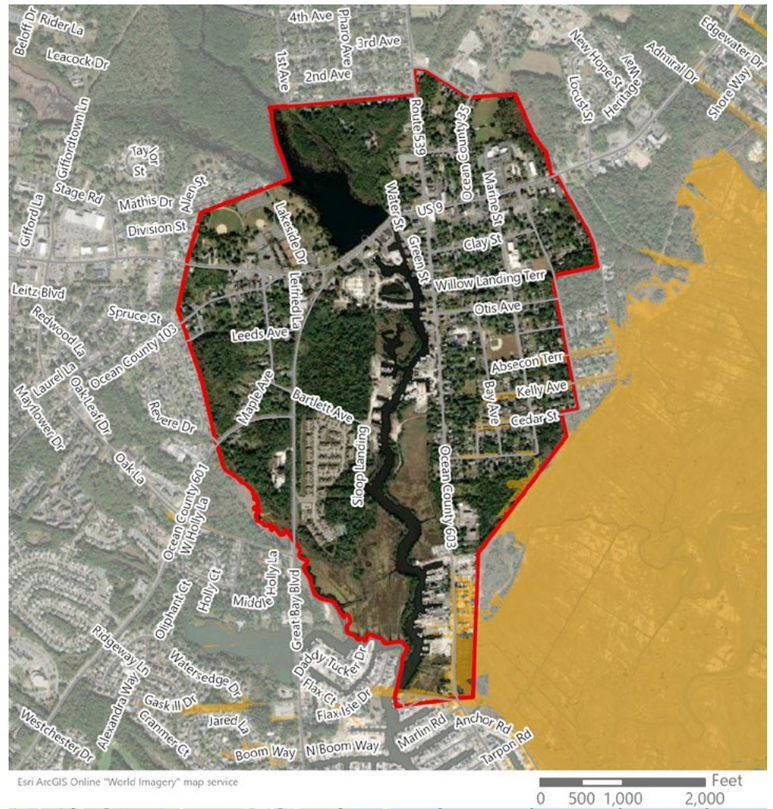
Significance

The Tuckerton Historic District was determined to be eligible for inclusion on the NRHP by NJHPO in 1991. The district is eligible for listing under NRHP Criterion A for its association with the maritime history and early economy of Tuckerton. The district is also eligible under NRHP Criterion C.

Maritime Setting

Although not the Atlantic Ocean, the Tuckerton Historic District has a distinct maritime setting being located inland between Pohatcong Lake, Tuckerton Creek, and Little Egg Harbor.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated from the southern portion of the historic district; however, it will be limited to approximately 3.3% of the total district area due to the historic district's location on the mainland, as well as the intervening wildlife management areas and the structures located on the barrier islands.



North and South Tuckahoe Historic District

Main Street and NJ 50 from 303 NJ 50 to 2057 NJ 50
Upper Township, NJ

Photograph representative of district

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 34.78 miles

Number of Blade Tips Visible 4

Property Acreage within PAPE 0.03

Percentage of Property with Potential Visibility 0.03

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

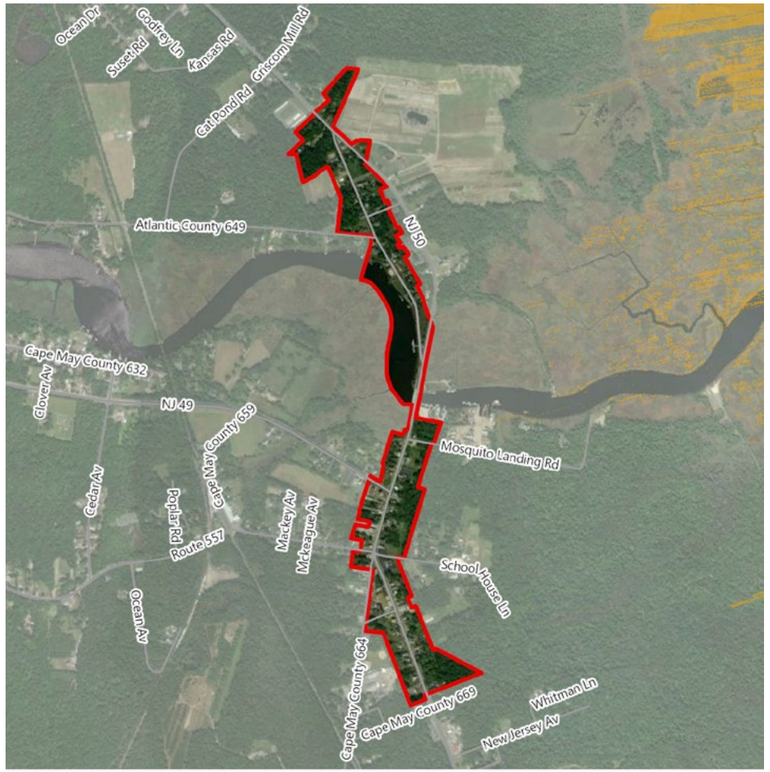
Significance

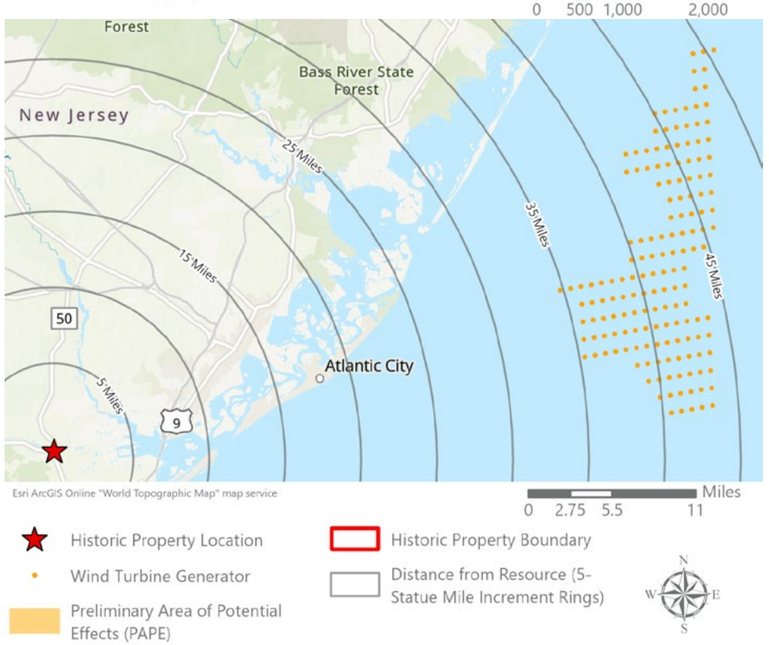
The North and South Tuckahoe Historic District encompasses the villages of Corbin City to the north and Tuckahoe to the south. The latter area is separately listed on the NRHP as the South Tuckahoe Historic District. The Tuckahoe River divides the two district zones. The northern portion of this district follows Main Street from NJ 50 to the river, and encompasses the mixed commercial and residential center of Corbin City. The architecture north of the river includes Federal, Gothic, and vernacular nineteenth century forms. Despite some infill of non-contributing resources, especially in the north, the North and South Tuckahoe Historic District has sufficient integrity to convey its eligibility to the NRHP under Criterion C.

Maritime Setting

The North and South Tuckahoe Historic District is located inland, approximately 8 mi from the Atlantic Coast. The Tuckahoe River and estuary to the east of the district form the most prominent water and wetland elements of the district's historic setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to .03% of the North and South Tuckahoe Historic District due to the district's inland location and the intervening vegetation and built environment.





Atlantic City Railroad Cape May Division Historic District

Winslow Township, Folsom, Richland, Dorothy, Estell Manor, Corbin City, Woodbine, Dennis Township, Ocean City, and Cape May, 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 29.02 miles

Number of Blade Tips Visible 40

Property Acreage within PAPE 7.3

Percentage of Property with Potential Visibility 1.11

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

Significance

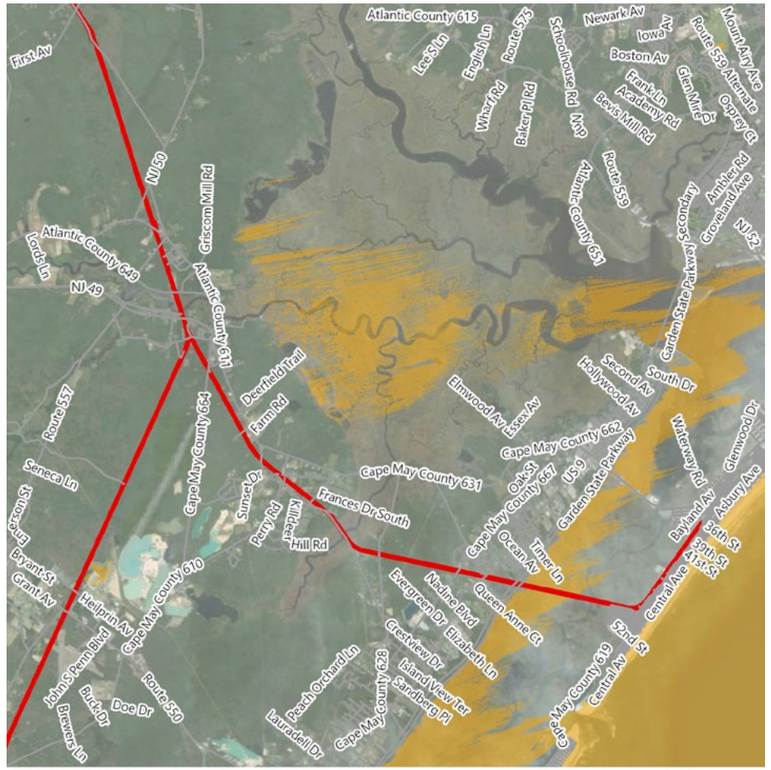
The Atlantic City Railroad Cape May Division Historic District was determined to be eligible for listing in the NRHP by NJHPO in 2005. The period of significance spans from 1893 to 1942. Contributing resources within the district include timber trestles, metal bridges, semaphore signals, as well as four extant stations and two interlocking towers. The railroad is significant under NRHP Criterion A for its association with the history of Transportation in Atlantic, Camden, and Cape May counties. The railroad is also significant under Criterion C.

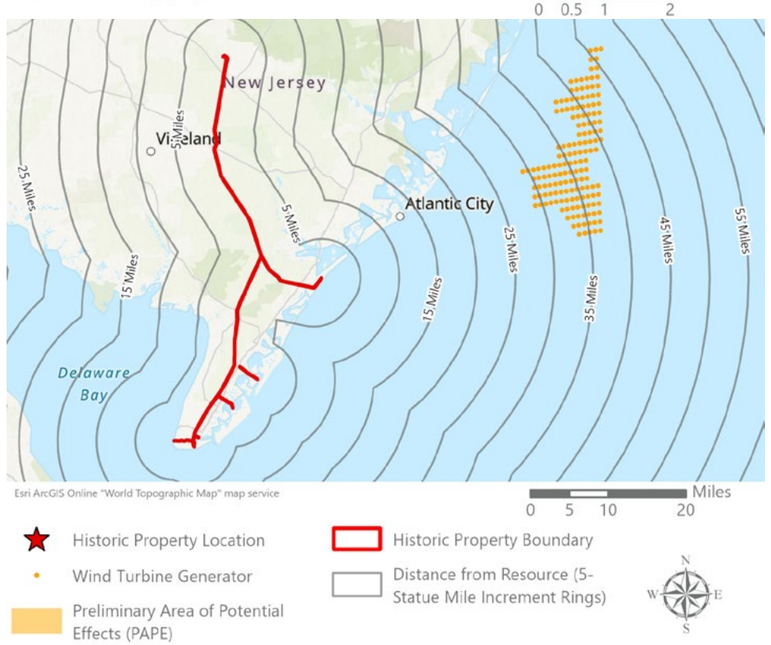
Maritime Setting

Although the rail line crosses bodies of water, due to its linear nature as a transpiration corridor, the historic district does not have a maritime setting.

Effect Recommendation
No Adverse Effect

Due to the linear nature of the Atlantic City Railroad Cape May Division Historic District, the Project is anticipated to be visible from 1.1% of the historic rail line. In addition, the significance of the property due to its association with transportation history and design would not be diminished by the partial views of the Project.





Garden State Parkway Historic District

Garden State Parkway
Bergen, Passaic, Essex, Union, Middlesex, Monmouth, Ocean, Atlantic and Cape May, NJ

Photograph representative of district

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 15.41 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 163.99

Percentage of Property with Potential Visibility 1.31

Visible Light Units

Nacelle Aviation 149
Mid Tower Aviation 74
Coast Guard 0

KOP Reference N/A

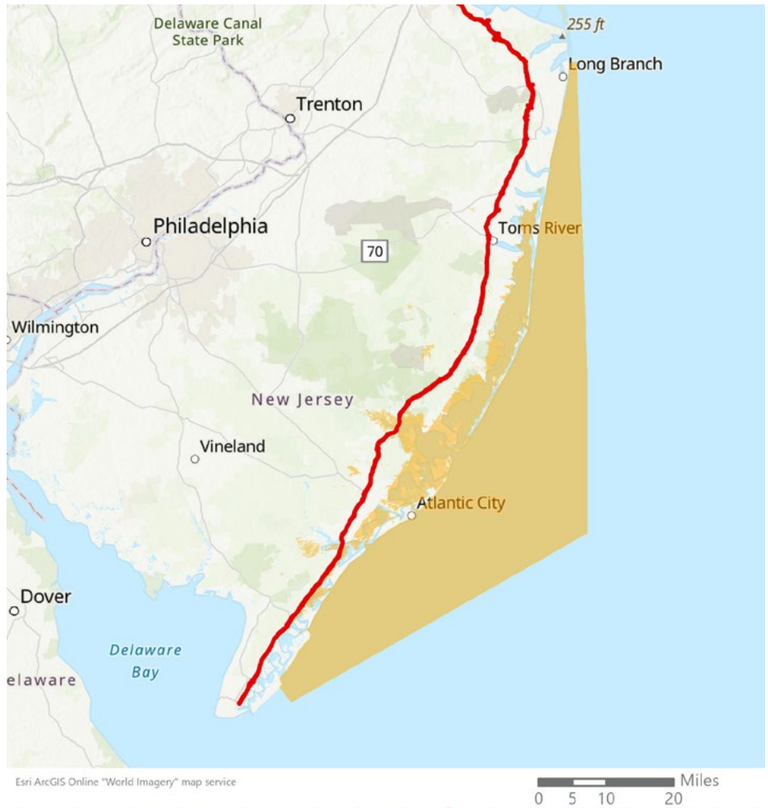
Significance

The Garden State Parkway Historic District is a transportation corridor which runs 173 miles from Cape May in southern New Jersey north to the New York border. The Parkway was constructed between 1946 and 1957. The Garden State Parkway Historic District was determined eligible for the NRHP by NJHPO and is significant under Criterion A.

Maritime Setting

The Garden State Parkway Historic District is an inland transportation corridor and does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Due to the nature of the historic district as a linear transportation corridor, it is anticipated that the Project will be visible from only 1.3% of the Garden State Parkway. In addition, the Parkway's significance is not associated with the distant ocean views that would be altered by the Project..



Atlantic Shores Offshore Wind Project

Historic Resources Visual Effects Assessment

ATTACHMENT C

Individual Historic Properties – Property Information and Visual Effects Assessment

Attachment C: Individual Historic Properties INDEX

John Doughty House

40 North Shore Road
Absecon City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 19.58 miles

Number of Blade Tips Visible 71

Property Acreage within PAPE 8

Percentage of Property with Potential Visibility 64.38

Visible Light Units

Nacelle Aviation 66
Mid Tower Aviation 37
Coast Guard 0

KOP Reference N/A

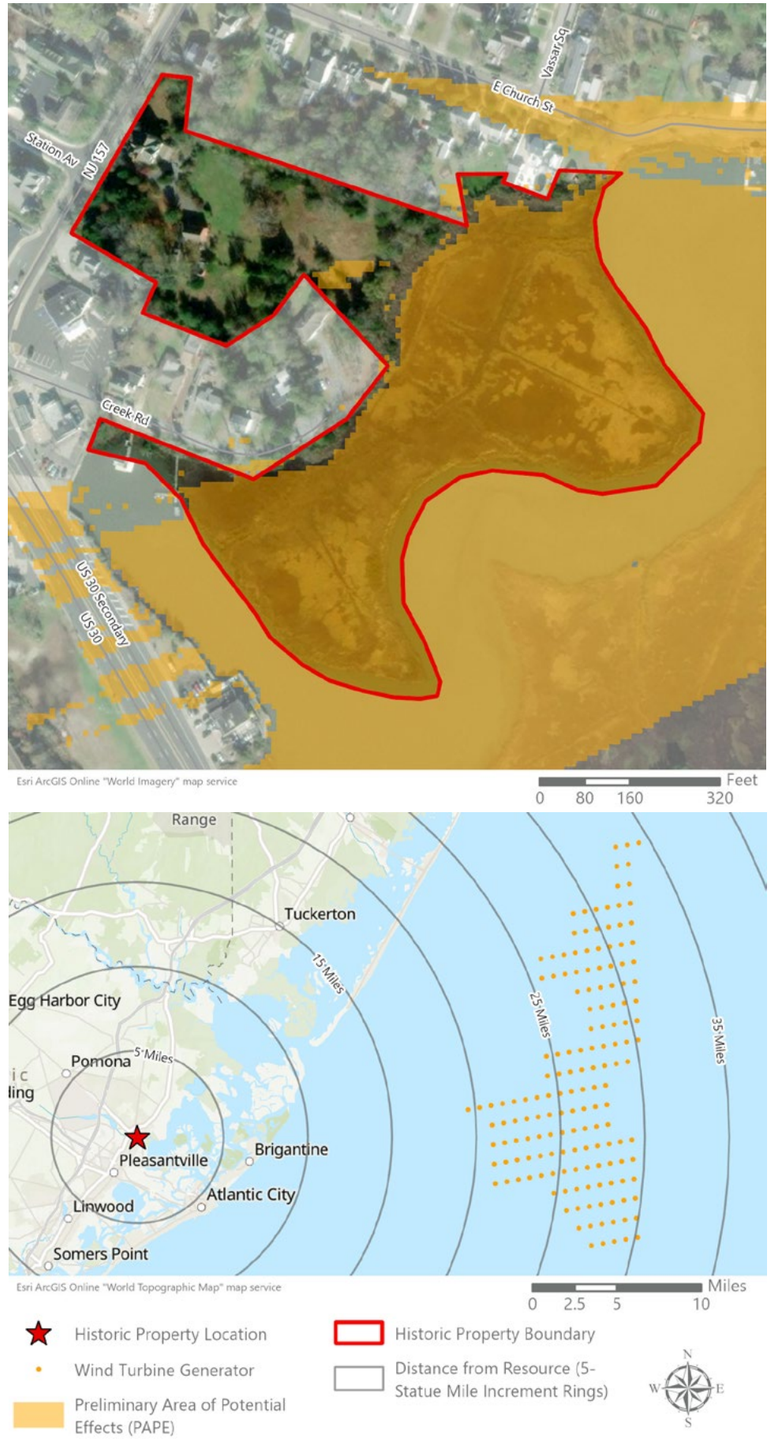
Significance

The John Doughty House is a ca. 1770 dwelling expanded in 1831 and again ca. 1863 to a two-and-one-half-story dwelling with Greek Revival and Gothic Revival elements. The John Doughty House, including a mid-nineteenth-century barn and ca. 1925 root cellar, are listed in the NRHP under Criterion C as notable examples of their type and style.

Maritime Setting

The John Doughty House is oriented facing northwest towards N. Shore Road while the rear of the property extends to Absecon Creek at the southeast. The property is approximately 0.8 miles from Absecon Bay and six miles from the Atlantic Ocean.

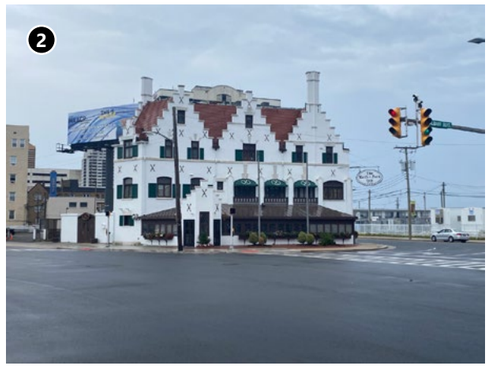
Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited to small portions of the John Doughty House and the easternmost portions of the property in the marshland. The primary elements of the maritime setting are associated with the nearby Absecon Creek, which would not be altered by the Project.



The Knife and Fork Inn

3600 Atlantic Avenue
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 18.48 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0.02

Percentage of Property with Potential Visibility 12.99

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

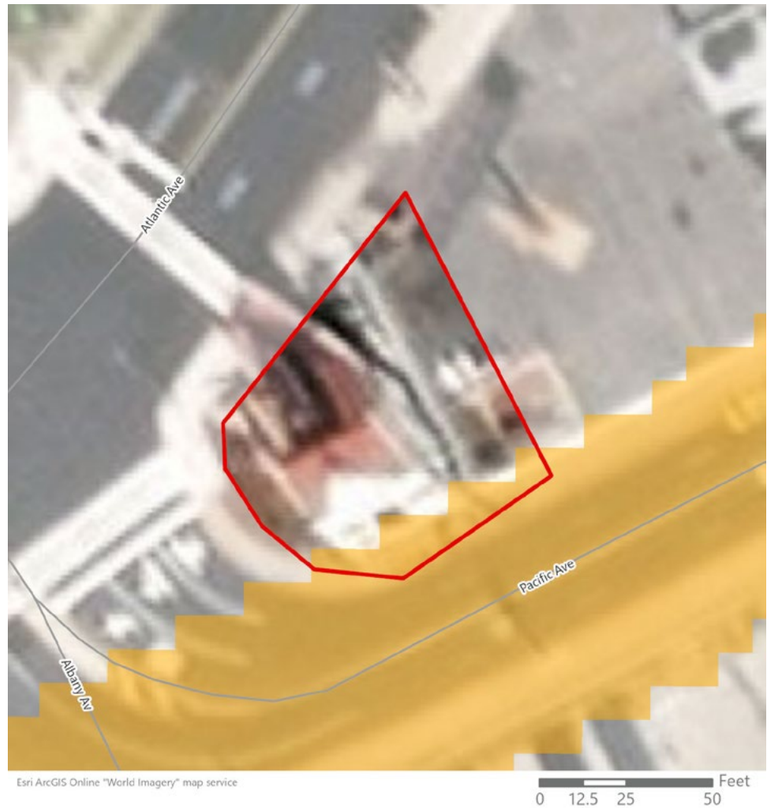
Significance

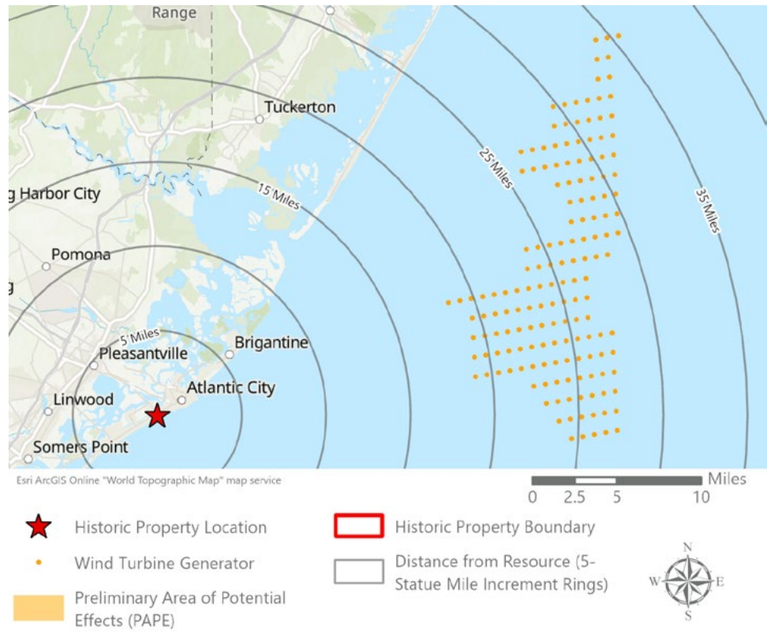
The Knife and Fork Inn is a four story restaurant situated at the busy intersection of Atlantic, Albany, and Pacific Avenues. It was built in 1912 in an exuberant Flemish Revival style and features three stepped parapets on the façade with more on the sides, red tile roof, white stucco walls, and numerous "knife and fork" ornaments mounted on the walls. The restaurant began its existence as a bar of the same name that closed for good during prohibition. It is an Atlantic City icon with a colorful history, and retains sufficient integrity to convey eligibility for the NRHP under Criterion A (Commerce) and Criterion C (Architecture).

Maritime Setting

The Knife and Fork Inn is located one block from the Atlantic City boardwalk and beach and was constructed as a inn in the resort community.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the aboveground historic property's location a block from the shoreline as well as the surrounding high-rise buildings. The limited views of the Project would not diminish the Knife and Fork's historical associations with local history or diminish appreciation of the building's architecture.





Administration Building for the Board of Education

1809 Pacific Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 17.25 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 5.8

Visible Light Units

Nacelle Aviation 2
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

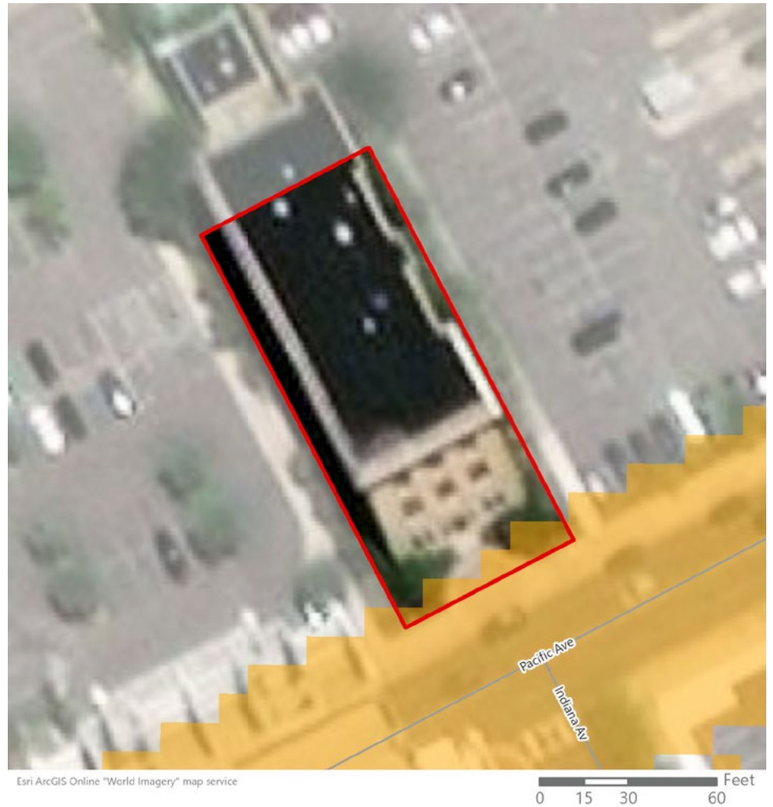
Significance

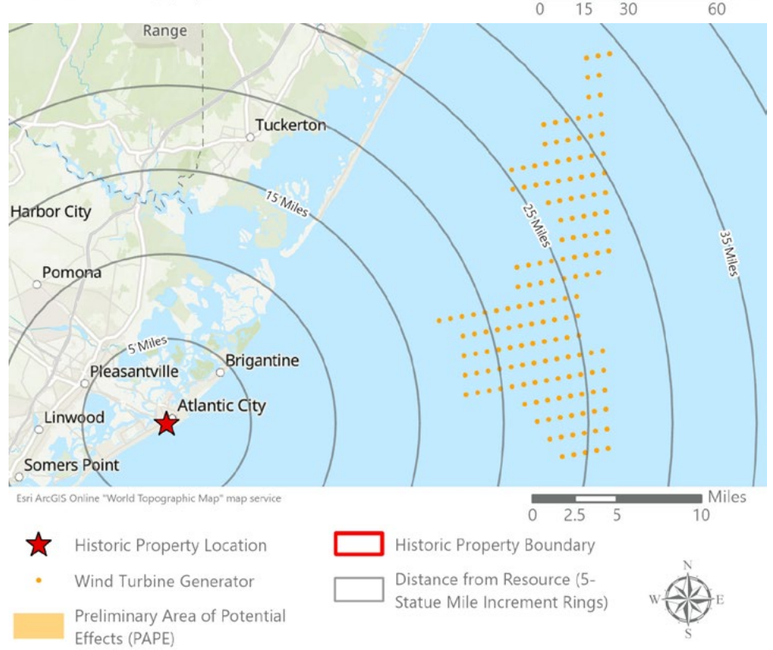
The brick Administration Building for the Board of Education is a good example of an Italian Renaissance office building. Its defining characteristics include the rusticated concrete detailing that wraps around the façade, the classical door surround, the bracketed cornice, and the roofline balustrade. The building retains its original windows and appears to have high integrity, thus conveying its eligibility for the NRHP under Criterion C (Architecture).

Maritime Setting

The Administration Building for the Board of Education is located one large block from the ocean in an built-up urban area with little maritime setting. Though the building is oriented to face the water, its views from street level are obstructed by other buildings.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the intervening development between the Administration Building for the Board of Education and the Project. In addition, the setting of the aboveground historic property has been greatly altered; therefore, the potential visibility of the Project would not change the integrity of setting.





World War I Memorial (Soldiers and Sailors Monument)

South Albany Avenue, Ventnor Avenue and O'Donnell Parkway
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 18.52 miles

Number of Blade Tips Visible 1

Property Acreage within PAPE 0.05

Percentage of Property with Potential Visibility 32.19

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

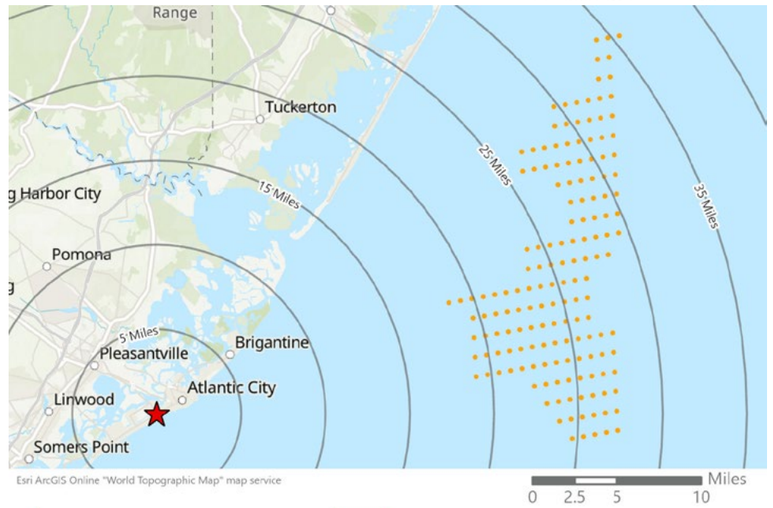
Significance

The World War I Memorial (Soldiers and Sailors Monument) is located in O'Donnel Park (formerly Chelsea Park) in Atlantic City and consists of a circular limestone building constructed in the Neo-classical style representing a Greek temple by designs created by Carrere and Hastings, famed City Beautiful architects. The building exhibits 16 fluted Doric columns. There is no roof, and four open entrances provide access to the interior where a large bronze statue rests on a marble pedestal, executed by one of the most notable sculptors of the period, Frederick A. MacMonnies. The exterior frieze is carved with names of major World War I battles, and decorative limestone plaques are placed above the inscriptions. The monument was listed on the NRHP in 1981 for its significance in architecture and as the only component of the "City Beautiful" Atlantic City Improvement Plan initiated in 1907, but not implemented until after World War I.

Maritime Setting

The stone rotunda memorial is located in a prominent setting at the northwest corner of O'Donnell Memorial Park. The memorial is an important element of the surrounding park and streetscape with very limited visual connection to the Atlantic Ocean. Ornamental trees screen direct views of the shoreline and ocean to the south and east of the rotunda.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the World War I Memorial (Soldiers and Sailors Monument) is anticipated to be limited due to the memorial's location in the center of the barrier island as well as the intervening buildings and vegetation. The limited views of the Project that could be available will be limited to the northern section of the rotunda along Captain John A. O'Donnell Memorial Parkway and would be minimized by the curvature of the road and ornamental plantings surrounding the memorial.



Ritz Carlton Hotel

2715 Boardwalk
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 17.93 miles

Number of Blade Tips Visible 31

Property Acreage within PAPE 0.07

Percentage of Property with Potential Visibility 5.85

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

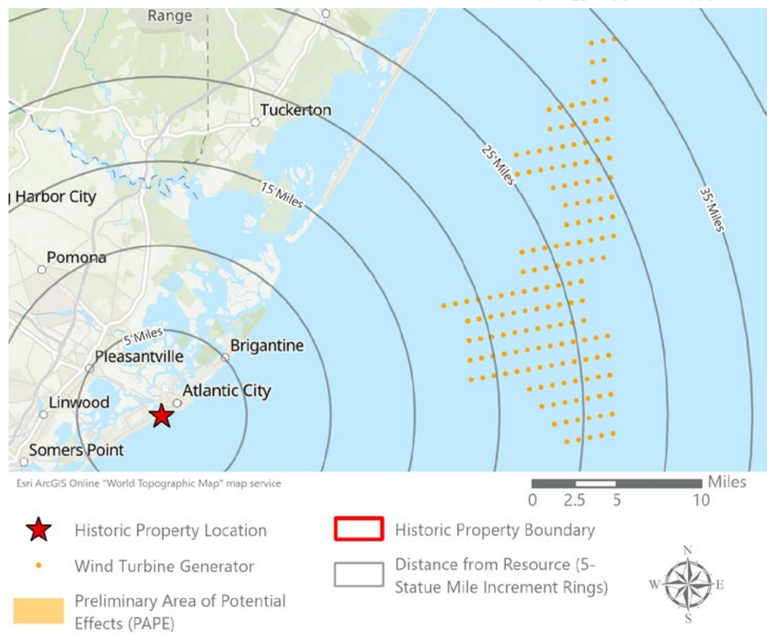
Significance

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.

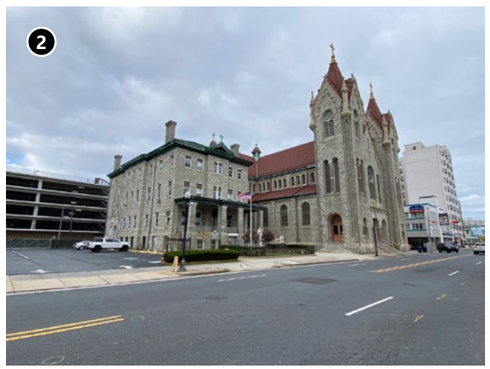
Effect Recommendation
Adverse Effect
Although this aboveground historic has a low integrity of setting, due to the surrounding modern structures and infrastructure, the aboveground historic will have unobstructed views of the Project due to its location on the boardwalk. The Project will affect the most intact surviving elements of the property's historic setting.



St. Nicholas of Tolentine Church

1409-1421 Pacific Avenue
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 16.92 miles

Number of Blade Tips Visible 3

Property Acreage within PAPE 0.07

Percentage of Property with Potential Visibility 7.58

Visible Light Units

Nacelle Aviation 2
Mid Tower Aviation 1
Coast Guard 0

KOP Reference N/A

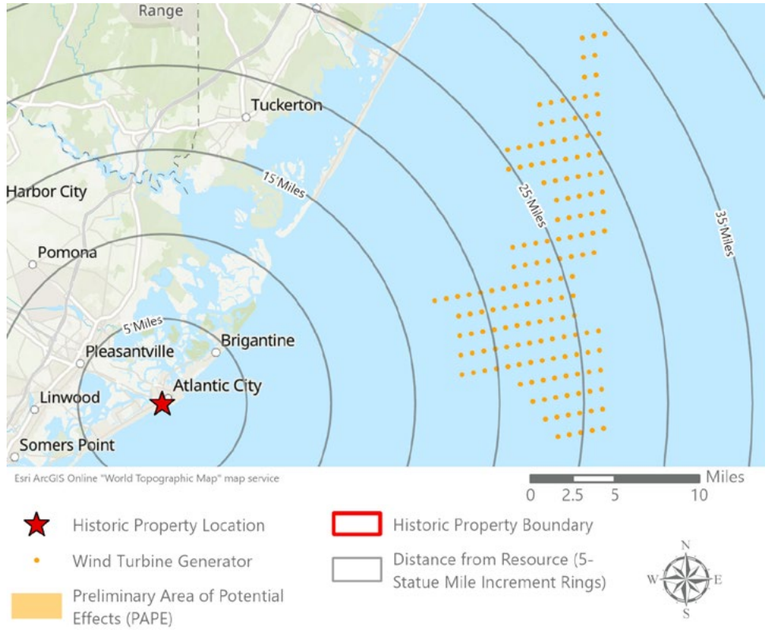
Significance

The St. Nicholas of Tolentine Church was listed on the NRHP in 2001. The church is significant under Criterion C for Architecture as an excellent example of ecclesiastical architecture in the Romanesque Revival style. The church is also significant for its association with prominent Philadelphia architect Edwin Durang (1829-1911) who built a reputation as one of the foremost ecclesiastical architects in Philadelphia during the late nineteenth and early twentieth century. The church is the only extant Romanesque Revival church in Atlantic City and significant architectural details include light-colored stone exterior, red terracotta roof tile, dual towers, and ornamental stained-glass windows, most of which was added in 1935. The period of significance is defined as 1905 to 1935 which encompasses its date of construction and addition of additional ornamentation.

Maritime Setting

Although located on the barrier island, the St. Nicholas of Tolentine Church is located within the dense urban core of Atlantic City and does not have a maritime setting.

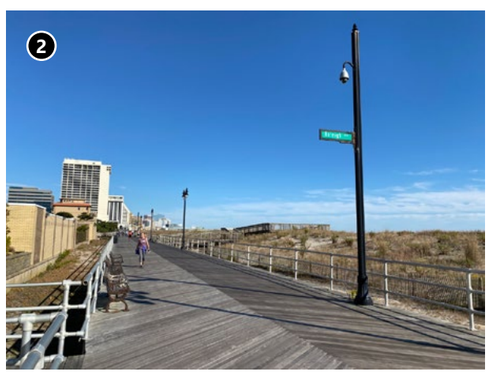
Effect Recommendation
No Adverse Effect
Visibility of the Project from the St. Nicholas of Tolentine Church is anticipated to be limited due to its location within the dense urban core of Atlantic City and the intervening built environment.



Riviera Apartments

116 South Raleigh Avenue
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 18.89 miles

Number of Blade Tips Visible 29

Property Acreage within PAPE 0.08

Percentage of Property with Potential Visibility 40.89

Visible Light Units

Nacelle Aviation 5
Mid Tower Aviation 2
Coast Guard 0

KOP Reference N/A

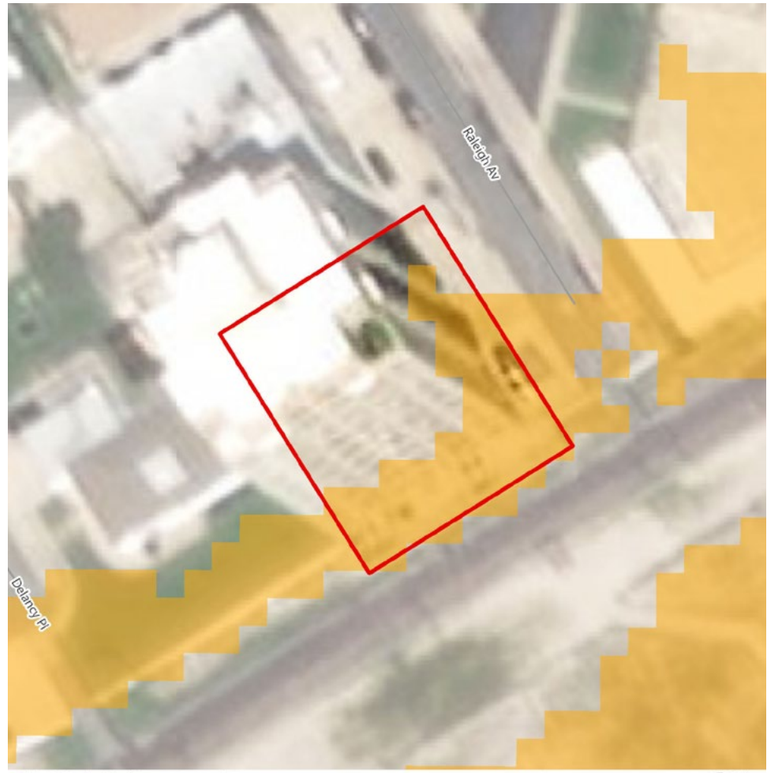
Significance

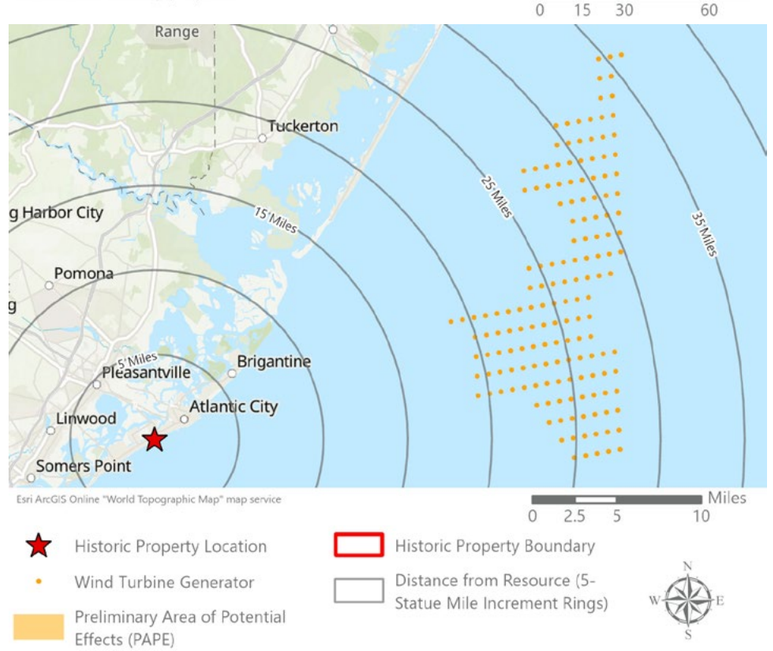
The Riviera Apartments building was designed by architect Henry Sternfeld and was constructed between 1929-30. The building has been determined eligible for the NRHP by the NJHPO under Criterion C for its Spanish and Art Deco-style architecture.

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
The Project will introduce discordant modern visual elements to the ocean horizon as viewed from the Riviera Apartments.





USCG Station Atlantic City

900 Beach Thorofare
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 16.3 miles

Number of Blade Tips Visible 79

Property Acreage within PAPE 3.06

Percentage of Property with Potential Visibility 41.53

Visible Light Units

Nacelle Aviation 12
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

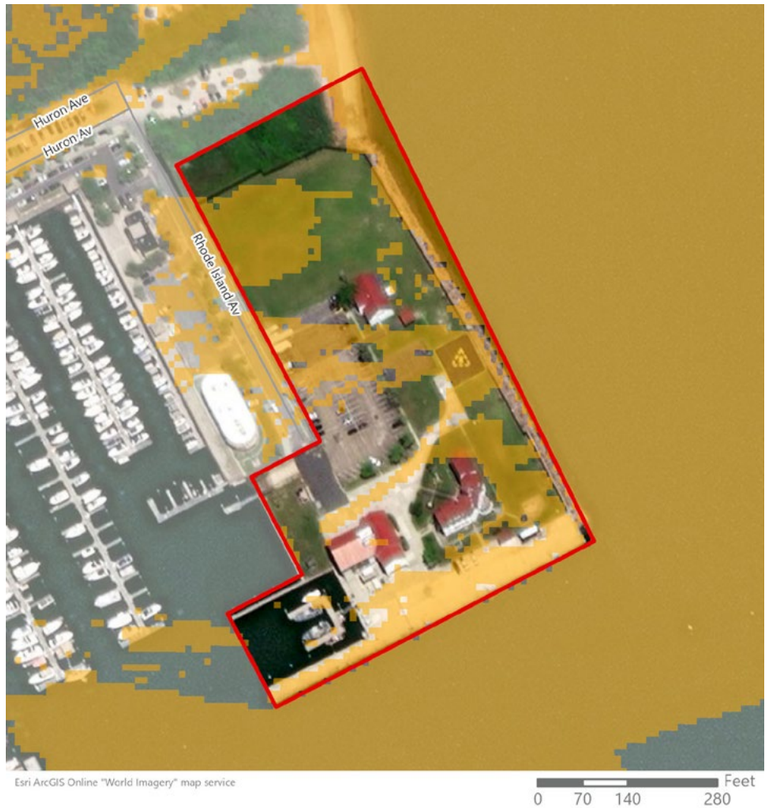
Significance

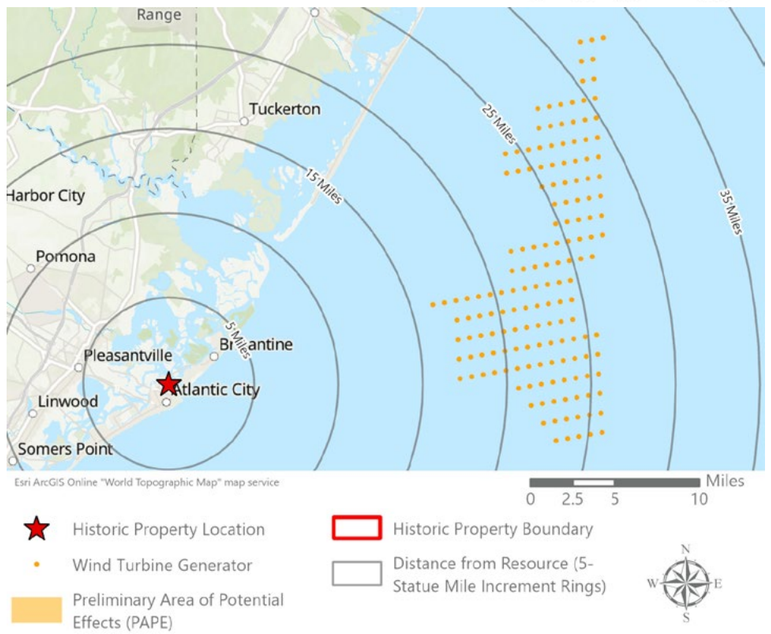
The U. S. Coast Guard Station at Atlantic City was constructed in 1939 and was at that time the largest life boat station in the guard. It replaced a series of earlier stations that had served the area. Though renovated in 1988, it appears to retain sufficient integrity to convey its eligibility to the 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
Due to its location on the Absecon Inlet, it is anticipated that the Project will be visible from the U. S. Coast Guard Station at Atlantic City across the Absecon Channel and Brigantine Beach. The majority of proposed WTGs would be visible from the U. S. Coast Guard Station at Atlantic City and could be a significant focus of viewer attention based on the proximity to the Project.





Warner Theatre (façade)

Atlantic City Boardwalk between Michigan and Arkansas Avenues
Atlantic City, NJ

1

Photograph of property

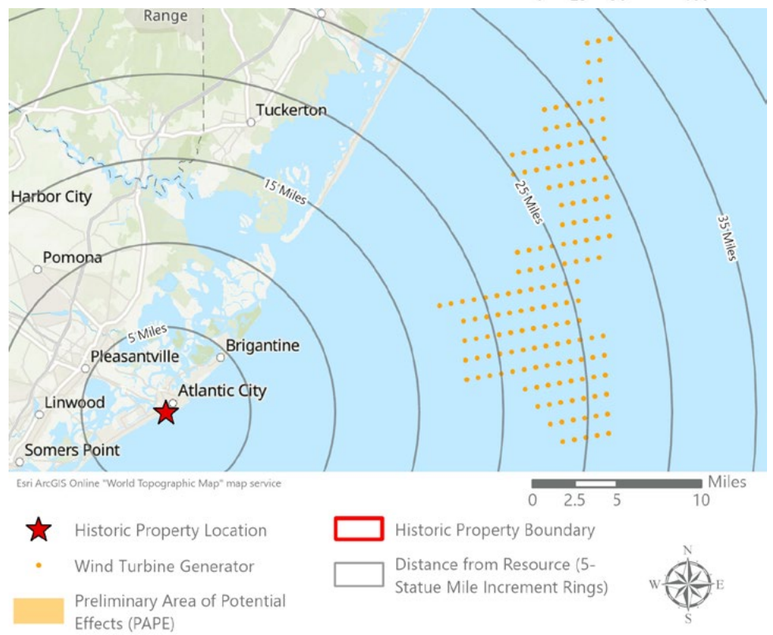
Historic Designation NRHP-Eligible (NJHPO-Determined)
Distance to Nearest Turbine 17.38 miles
Number of Blade Tips Visible 6
Property Acreage within PAPE 0.02
Percentage of Property with Potential Visibility 3.87
Visible Light Units
Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0
KOP Reference N/A

Significance

The Warner Theatre was constructed on the Atlantic City Boardwalk in 1929 as a movie theatre and showroom. Constructed by the prominent Philadelphia architectural firm Hoffman-Henon Company, known for their theatre designs, the building exhibits Spanish Revival and Moorish elements. In later years, the building was converted to a bowling alley before having the auditorium and main lobby demolished in the late 1970s to make room for casino expansion. Today, the original facade is all that remains of the building. The building has previously been determined eligible for NRHP listing by the NJHPO, and the building's facade retains its architectural significance.

Maritime Setting

The Warner Theatre (façade) is located on the Atlantic City Boardwalk with the building's primary orientation toward the ocean. Historically, the location of the building's setting on the Atlantic City Boardwalk and beachfront was integral to its significance as a recreational landmark.



2

Photograph of property context

3

Photograph from property looking toward wind farm

Effect Recommendation
No Adverse Effect
The Warner Theatre façade is a portion of a historic theatre with a low integrity of setting due to the surrounding modern structures and infrastructure. The Project will not adversely affect the integrity or character-defining features of this aboveground historic, which are rooted in the facade's specific design and ornamentation and its physical relationship to the boardwalk.

Absecon Lighthouse

31 S. Rhode Island Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 16.1 miles

Number of Blade Tips Visible 60

Property Acreage within PAPE 1.54

Percentage of Property with Potential Visibility 75.63

Visible Light Units

Nacelle Aviation 50
Mid Tower Aviation 39
Coast Guard 0

KOP Reference AC01N, AC01, AC05

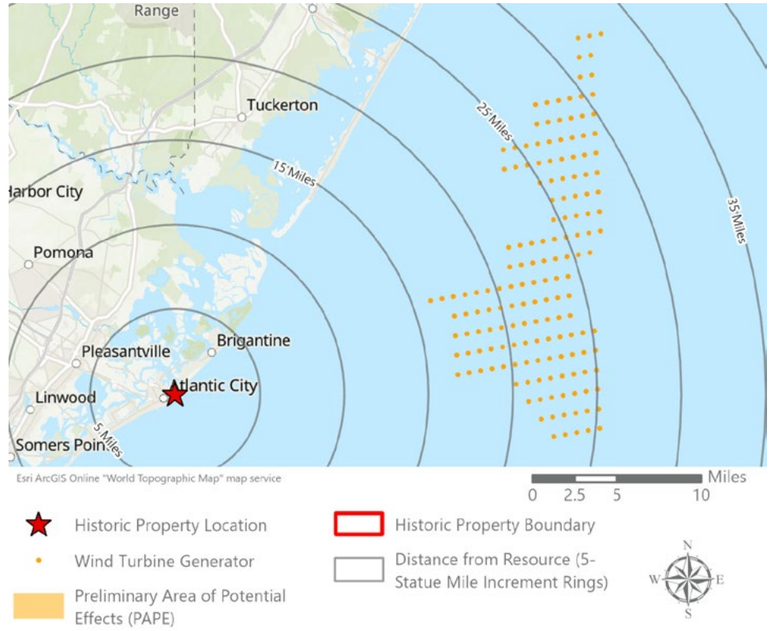
Significance

The Absecon Lighthouse was constructed in 1856 under the direction of Lt. George Meade, who later commanded Union forces at the Battle of Gettysburg. Constructed of iron and brick, it rises 171 feet tall, is 27 feet in diameter at the base and 13 feet, seven-and-a-half inches at the lens chamber. The roof is pyramidal and caps rectangular glass panes with iron frames. The lighthouse was decommissioned in 1933, and was moved to its current location from its original site closer to the inlet. The current keeper's house serves as a museum and is not original to the lighthouse, being constructed after the lighthouse was moved to its current location. The lighthouse is listed in the NRHP and is significant for its architecture and association with navigational history.

Maritime Setting

The Absecon Lighthouse is currently located approximately 0.2 miles west of the Absecon Inlet, and approximately 0.3 miles north of the Atlantic Ocean. The lighthouse was sited at its original location to guide vessels to and around the Absecon Inlet.

Effect Recommendation
Adverse Effect
Visibility of the Project is anticipated to be limited from ground level vantages within the Absecon Lighthouse property due to the surrounding high-rise buildings. The integrity of setting for the lighthouse has been diminished due to unsympathetic development in the immediate surroundings; however, views of the Project are anticipated from the lighthouse lantern. Consistent with BOEM's Findings of Effect for Ocean Wind I, Atlantic Shores anticipates BOEM will determine Absecon Lighthouse is adversely affected by the Project.



Segal Building

1200 Atlantic Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 16.78 miles

Number of Blade Tips Visible 3

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 2.2

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

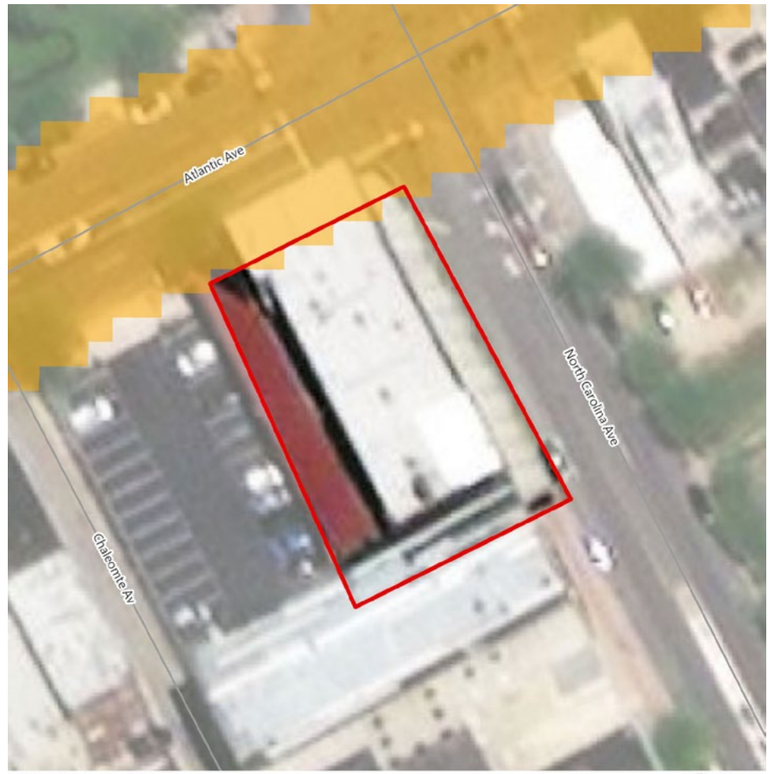
Significance

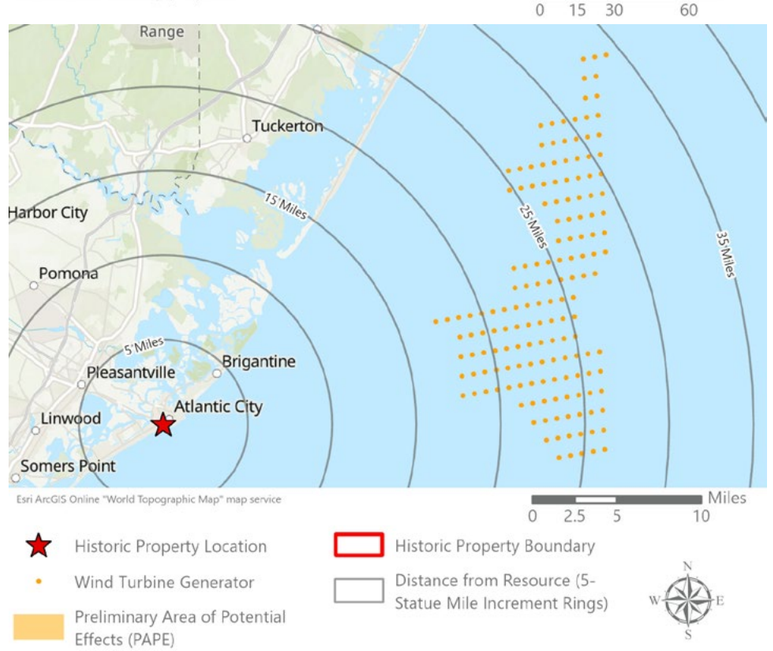
The Segal Building was listed on the NRHP in 1984 with significance under Criterion A for Commerce and Criterion C for Architecture. The building is associated with the iconic produce company founded by William T. Segal in the 1920s. It became a local landmark due to its distinctive copper marquee that wraps around the building. The Segal Company was one of the foremost suppliers of fruits and vegetables to Atlantic City and the surrounding resort area in the early twentieth century. The building is also an excellent extant example of the Classical Revival style in Atlantic City. Designed by local architect Vivian B. Smith, the building retains integrity and includes the quintessential Classical Revival detailing and prominent copper marquee.

Maritime Setting

Although located on the barrier island, the Segal Building is located within the dense urban core of Atlantic City and does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the Segal Building is anticipated to be limited due to its location within the dense urban core of Atlantic City and the intervening built environment.





419 Carson Avenue

419 Carson Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 16.34 miles

Number of Blade Tips Visible 6

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 6.21

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

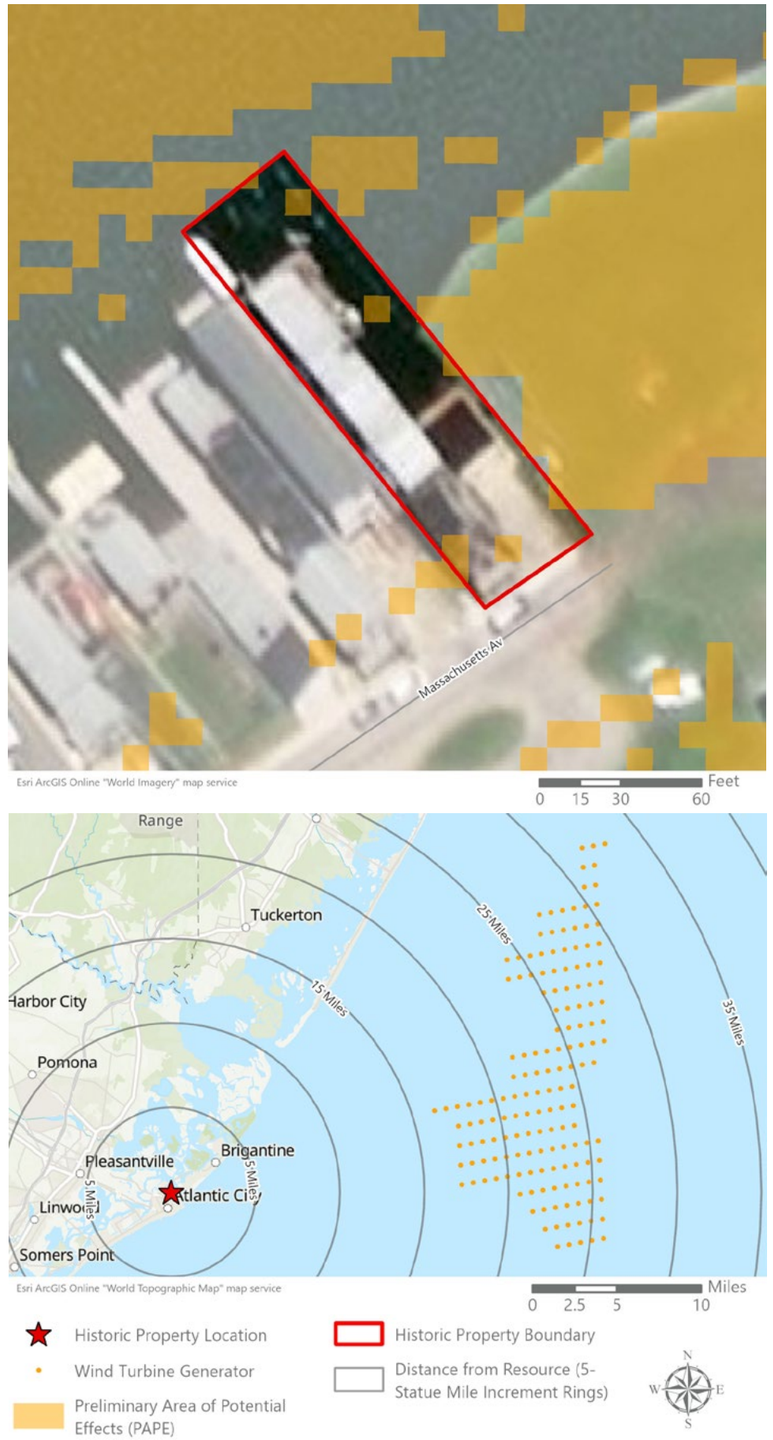
Significance

The resource at 419 Carson Avenue was previously determined to be individually eligible for the NRHP by NJHPO in 2017 with significance under Criterion C as an good example of an American Foursquare dwelling.

Maritime Setting

The property has a clear maritime setting defined by Clam Creek to the north, Gardiner's Basin to the south, and Absecon Inlet to the southeast. Views towards the ocean are limited by intervening headlands, vegetation, and buildings.

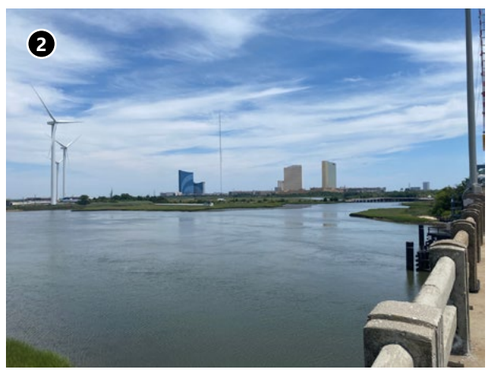
Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from 419 Carson Avenue due to location along an interior cove/ creek. Primary historic setting is clearly associated with adjacent waterways with limited direct visual connection to the open ocean.



U.S. Route 30 Bridge (SI&A # 0103-152)

U.S. Route 30 (Absecon Boulevard) over Beach Thorofare
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 17.81 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 0.92

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

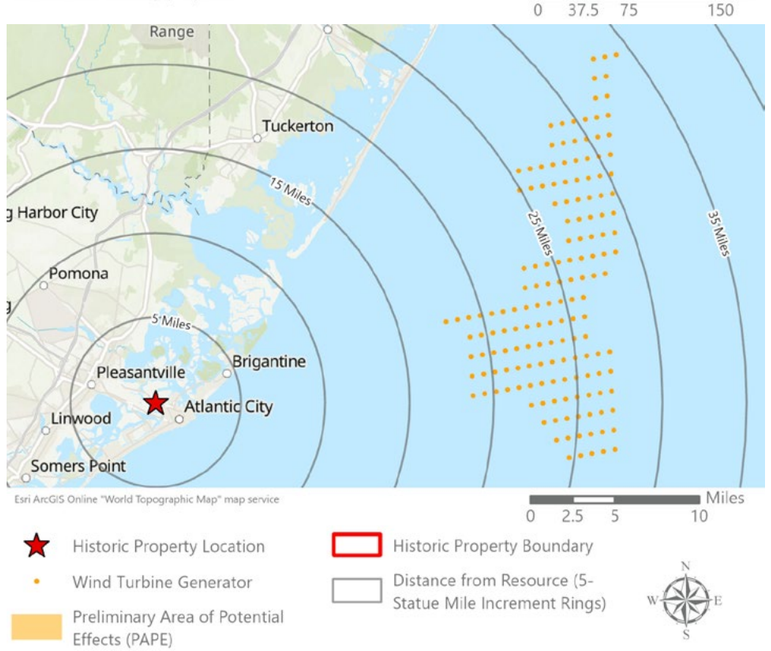
Significance

The U.S. Route 30 Bridge (SI&A # 0103-152) was originally constructed between 1942 and 1946 as a single-leaf bascule bridge. The bridge was recommended eligible in 2020 under Criterion C as an intact example of the rare single-leaf bascule design.

Maritime Setting

The U.S. Route 30 Bridge (SI&A # 0103-152) also known as the Absecon Boulevard Bridge carries U.S. 30 over Beach Thorofare with views of the Thorofare to the north and south.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the U.S. Route 30 Bridge (SI&A # 0103-152) is anticipated to be limited due to the intervening land, structures and vegetation of Atlantic City. This historic bridge is significant for its engineering; therefore visibility of the Project will not adversely affect its significance or character-defining features. The relevant setting for the bridge is defined by the bayside Thorofare waterway and adjacent barrier island sections, not the distant Atlantic Ocean.

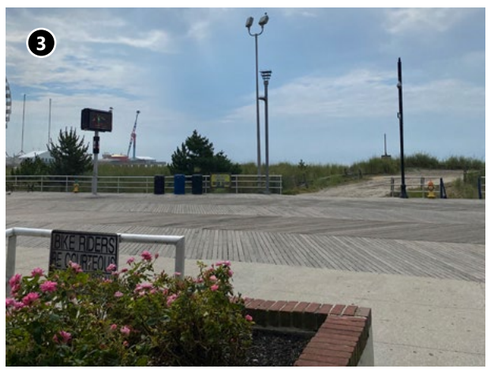


Resorts Casino (Haddon Hall)

1121 Boardwalk
Atlantic City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation ### NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 16.69 miles

Number of Blade Tips Visible 3

Property Acreage within PAPE 0.57

Percentage of Property with Potential Visibility 2.88

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

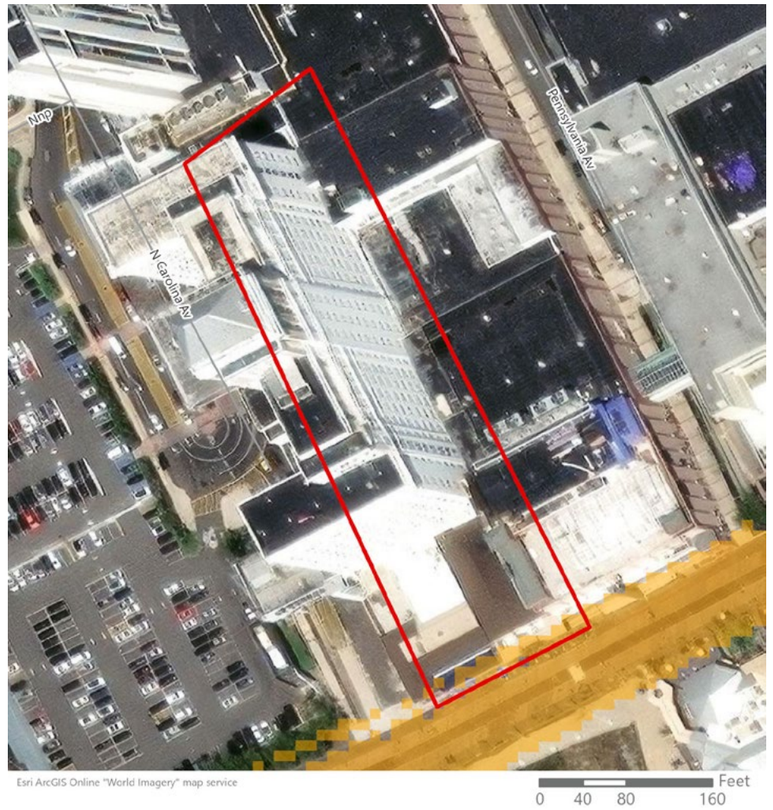
Significance

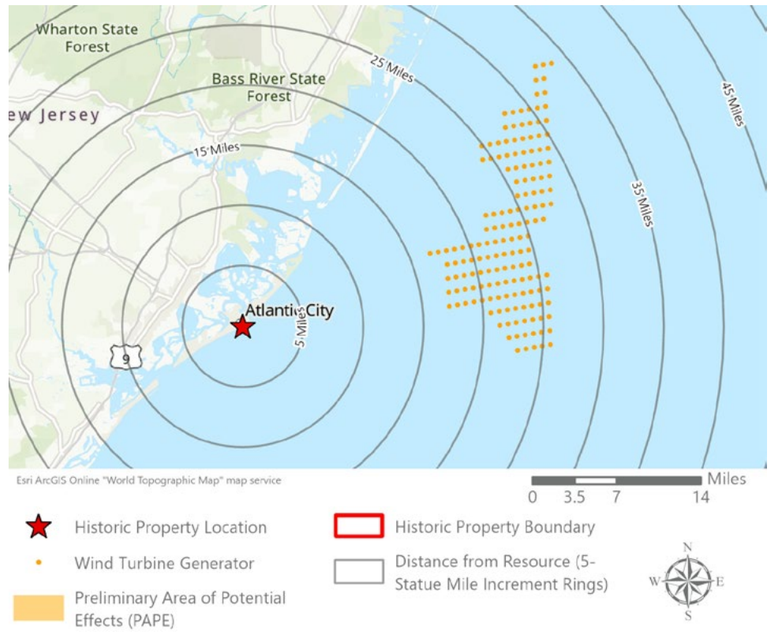
The Resorts Casino Hotel encompasses two hotel towers set back from the Atlantic City boardwalk and a two-story arcade fronting the boardwalk. The Ocean Tower, originally Haddon Hall, is a 15-story E-plan hotel building completed in 1929 and designed by the firm of Rankin and Kellogg in the Italian Renaissance style. The 27-story Rendezvous Tower, built in 2004, exhibits a Post-Modern form. The ca. 1921 arcade was built in a Mediterranean style. The complex has undergone many iterations since the late nineteenth century when it merged with the neighboring Chalfonte to form the Chalfonte-Haddon Hall Hotel. From 1942 to 1946, the complex was in use as a military hospital. Resorts International purchased the complex in 1976 and reopened it as the Resorts Casino Hotel in 1978, becoming the first casino in Atlantic City. While the Chalfonte was demolished in 1980, Haddon Hall appears to retain sufficient integrity under Criterion C as an example of an early twenty-century resort hotel in Atlantic City and as a restrained example of the Italian Renaissance style. Potential significance under Criterion A for its early association with gambling in Atlantic City requires further research. The Resorts Casino Hotel is also contributing to the Atlantic City Boardwalk Historic District.

Maritime Setting

The Resorts Casino is located along the Atlantic City Boardwalk and is set back from the boardwalk with the primary elevation facing away from the boardwalk and ocean. Despite the building's location and large scale, intervening large-scale construction has boxed in the Resorts Casino on nearly all sides obscuring it from view along the boardwalk and diminishing its maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the density of the surrounding built environment including the large, multi-story hotels, condominiums, and apartment buildings located between the Resorts Casino and the Project.

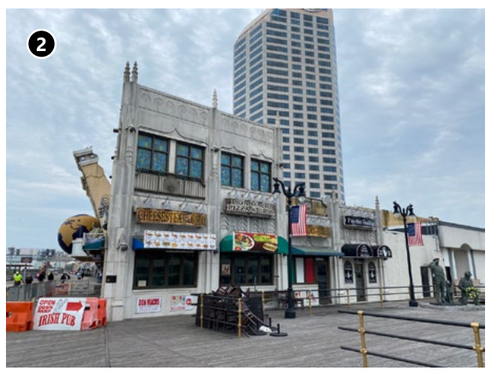




1425 Boardwalk

1425 Boardwalk
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph of property

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 16.93 miles

Number of Blade Tips Visible 4

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 2.88

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

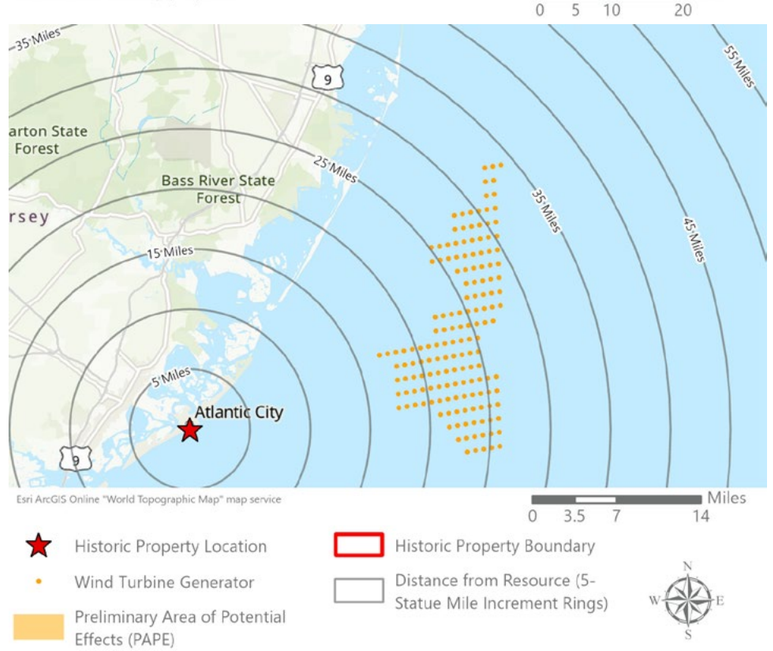
Significance

The commercial building at 1425 Boardwalk is a ca. 1920 commercial building built in the Art Deco and Exotic Revival styles. The two-story building has a square footprint and a flat roof. Ornamentation includes decorative spires on the roof, a frieze band decorated with shells, pointed arches above the windows, arrow shaped pilasters, and railing decorated with shells. The resource stands as a rare example of Art Deco/Exotic Revival commercial architecture in Atlantic City and retains sufficient integrity to express its eligibility for listing in the National Register under Criterion C.

Maritime Setting

The commercial building at 1425 Boardwalk fronts the Atlantic City Boardwalk and is located 100 feet from the beach. The southeast (front) elevation of the building has full and unobstructed views of the ocean, although views to the northeast, in the direction of the Projects, are screened by the Central Pier.

Effect Recommendation
No Adverse Effect
Visibility of the Project will be limited to 1425 Boardwalk due to the intervening buildings located along the Atlantic City Boardwalk.



Central Pier

1400 Boardwalk
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 16.88 miles

Number of Blade Tips Visible 124

Property Acreage within PAPE 0.75

Percentage of Property with Potential Visibility 42.73

Visible Light Units

Nacelle Aviation 124
Mid Tower Aviation 103
Coast Guard 0

KOP Reference N/A

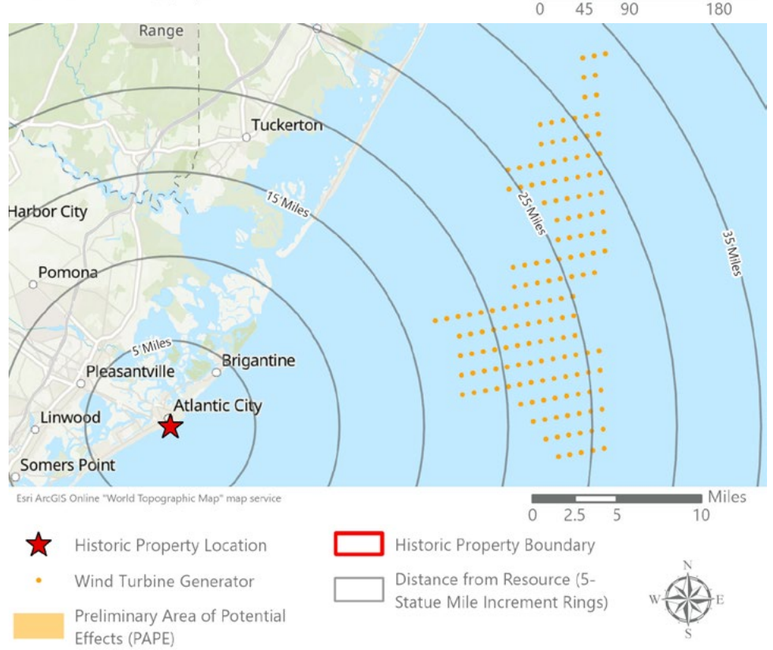
Significance

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 Project due to the aboveground historic property's location on the Atlantic Ocean.

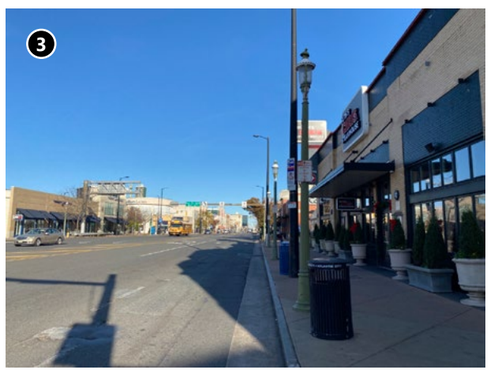


Equitable Trust Bank Building

2030 Atlantic Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (BOEM-Determined)

Distance to Nearest Turbine 17.39 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.05

Percentage of Property with Potential Visibility 28.64

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

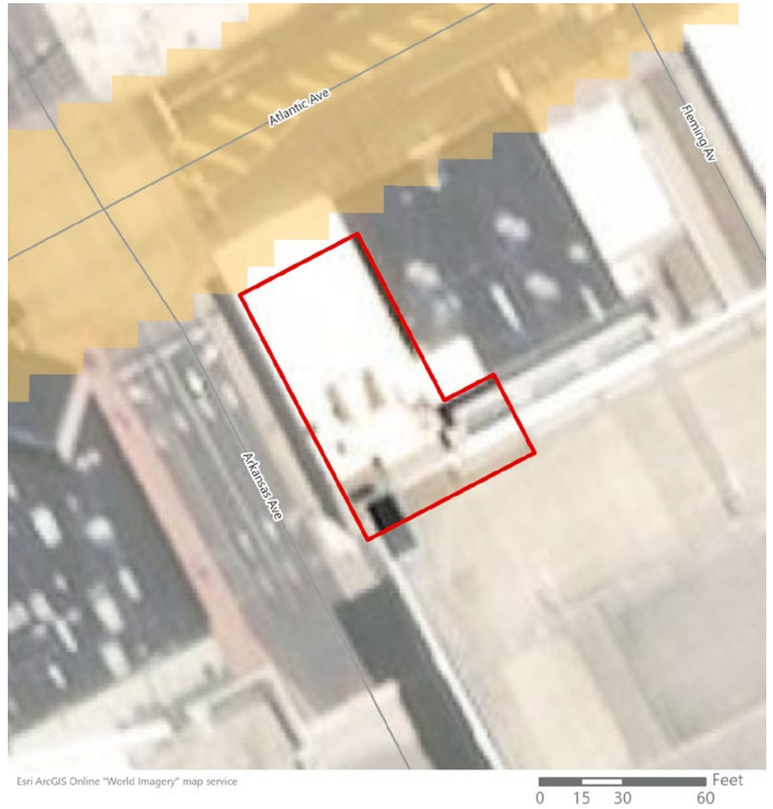
Significance

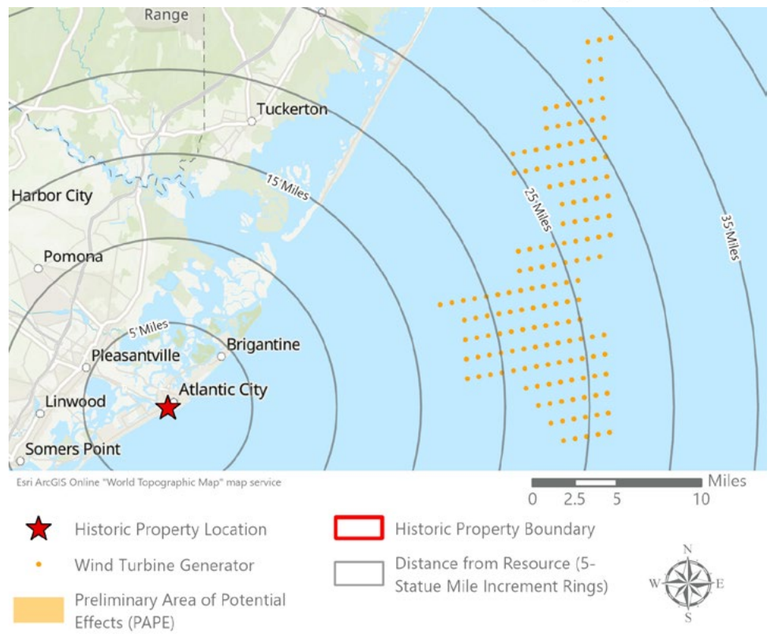
The Equitable Trust Bank Building was previously determined to be eligible for the NRHP by NJHPO in 2014 and is significant under Criterion C for Architecture. The resource was constructed in 1922 in the Egyptian Revival style, a slight contrast from the adjacent and more traditional Classical Revival and Beaux Arts financial buildings located along Atlantic Avenue. Additional ornamental details include exaggerated columns with saucer-shaped capitals and ornamental tiles decorating the recessed front entry.

Maritime Setting

Although located on the barrier island, due to its location inland within the dense commercial core of Atlantic City, the Equitable Trust Bank Building does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the Equitable Trust Bank Building's location two blocks from the Atlantic Ocean as well as the intervening development. In addition, the setting of the aboveground historic property has been greatly altered; therefore, the potential visibility of the Project would not change the integrity of setting.





Missouri Avenue Beach (Chicken Bone Beach)

N/A
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 17.45 miles

Number of Blade Tips Visible 99

Property Acreage within PAPE 6.51

Percentage of Property with Potential Visibility 74.81

Visible Light Units

Nacelle Aviation 99
Mid Tower Aviation 94
Coast Guard 0

KOP Reference N/A

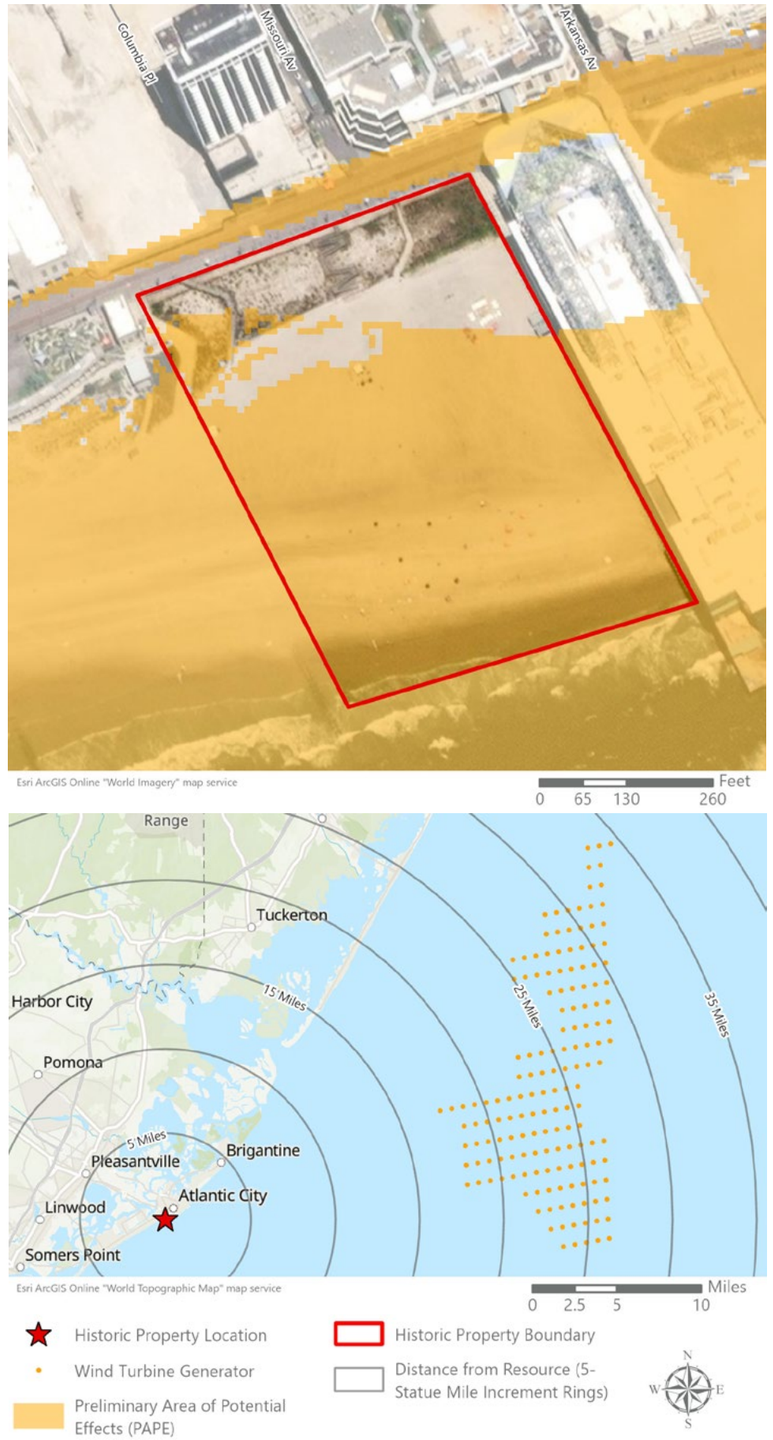
Significance

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.

Maritime Setting

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.

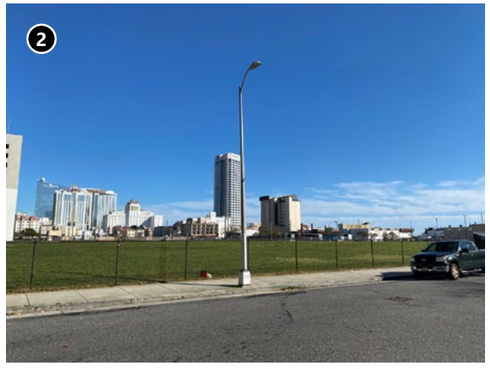
Effect Recommendation
Adverse Effect
The Project would introduce discordant, modern visual elements to a largely unobstructed ocean viewshed from this property.



Claridge Hotel

120 South Indiana Avenue
Atlantic City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 17.21 miles

Number of Blade Tips Visible 3

Property Acreage within PAPE 0.08

Percentage of Property with Potential Visibility 5.39

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

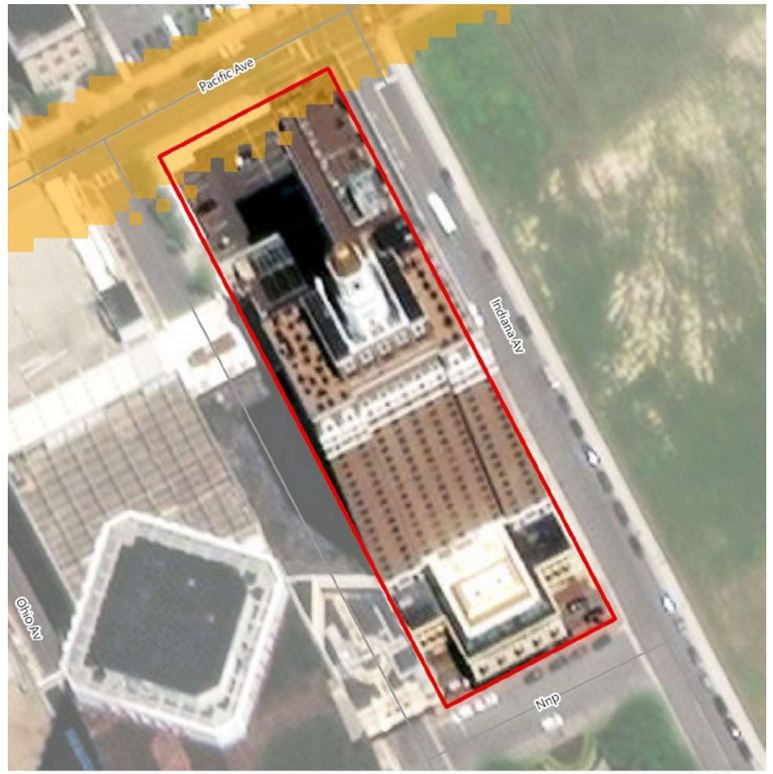
Significance

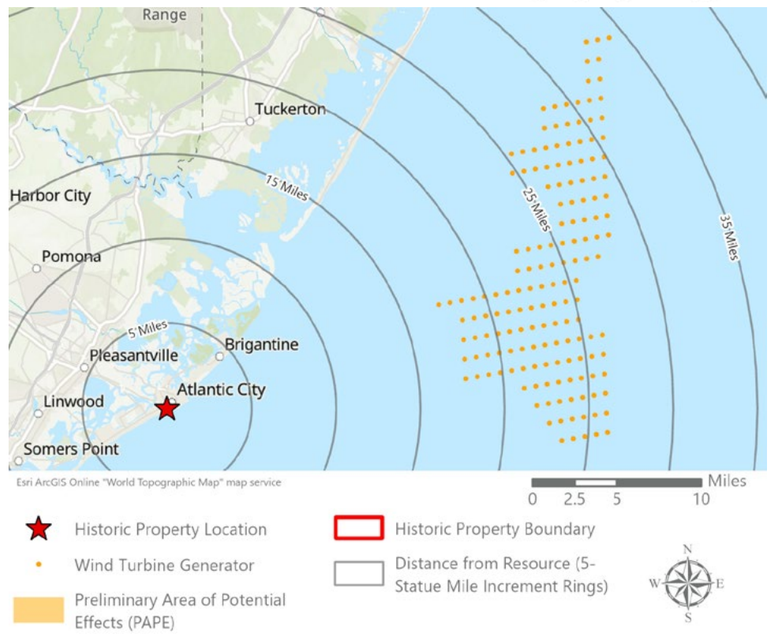
The Claridge Hotel is a 24-story hotel constructed in 1930 and is significant under Criterion C as an excellent example of a Georgian Revival-style high-rise hotel on the New Jersey shore.

Maritime Setting

The Claridge Hotel was constructed as a high-rise beach hotel. Though set back from the immediate shoreline and beach, the hotel has a maritime setting defined by views over Brighton Park and the Atlantic City Boardwalk, beyond. The ocean forms an important element of background views from elevated portions of the hotel and roots the property to its location near the shoreline.

Effect Recommendation
No Adverse Effect
Ground-level views from the Claridge Hotel are anticipated to be substantially screened by the existing intervening vegetation and structures, including the memorial sculptures and other elements of Brighton Park.





Brigantine Hotel

1400 Ocean Avenue
Brigantine City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 13.25 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 0.38

Percentage of Property with Potential Visibility 31.96

Visible Light Units

Nacelle Aviation 133
Mid Tower Aviation 127
Coast Guard 17

KOP Reference N/A

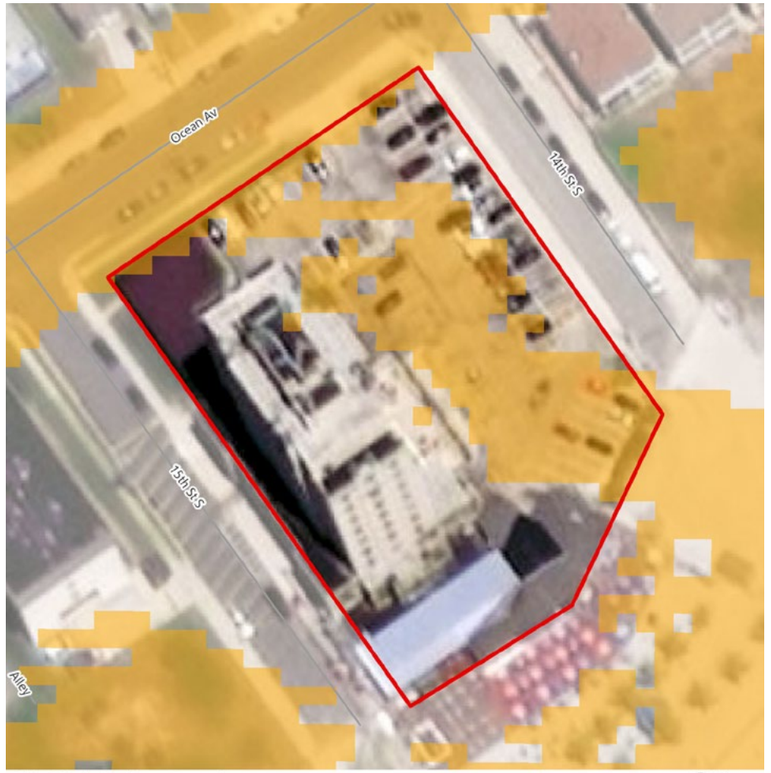
Significance

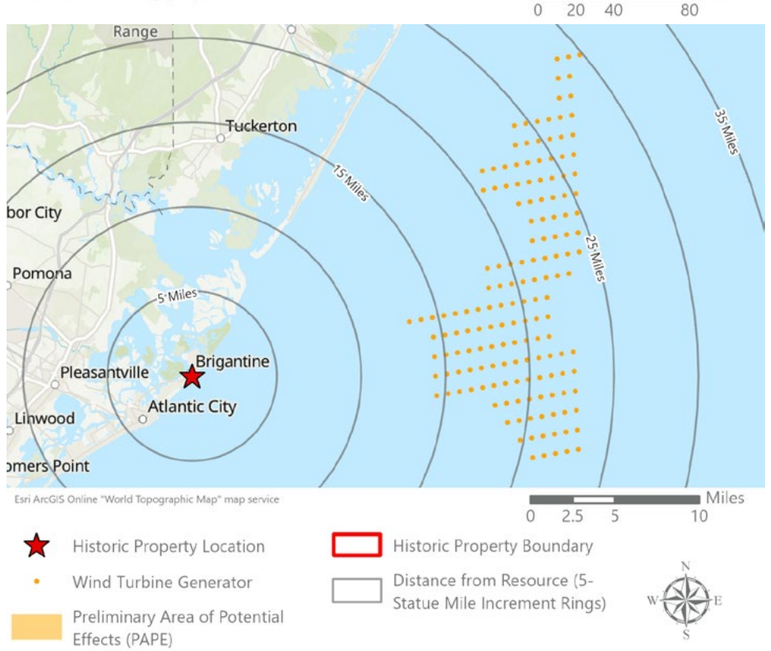
The Brigantine Hotel was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Art Deco style hotel was built in 1927. It is considered the first desegregated hotel of its type in New Jersey starting with the purchase of the hotel by the International Peace Mission Movement 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 Project due to the aboveground historic property's location on the shoreline. The Project 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.





Seaview Golf Club (historic), Clarence Geist Pavilion

401 South New York Road
Galloway Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 17.82 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 56.95

Percentage of Property with Potential Visibility 21.24

Visible Light Units

Nacelle Aviation 157
Mid Tower Aviation 75
Coast Guard 2

KOP Reference N/A

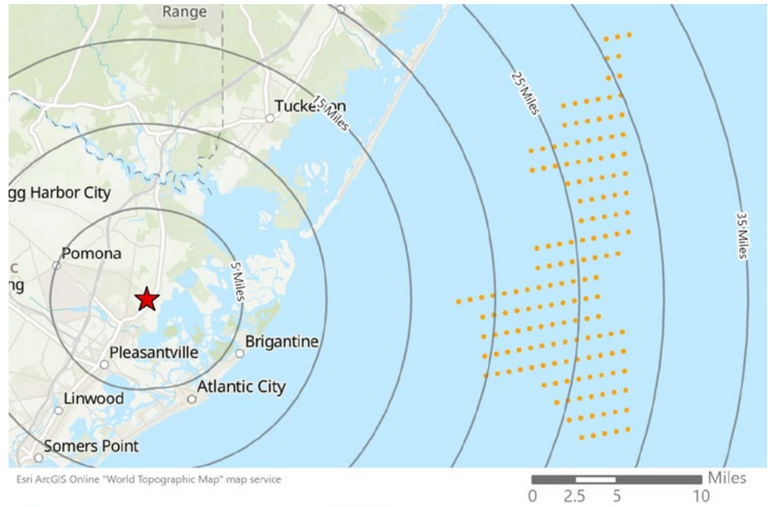
Significance

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 Project will be visible from the Bay Course on the eastern portion of the aboveground historic, as well as in small areas of the property to the west of S. New York Road including the hotel and clubhouse.



Great Egg Coast Guard Station

2301 Atlantic Avenue
Longport Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 23.17 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

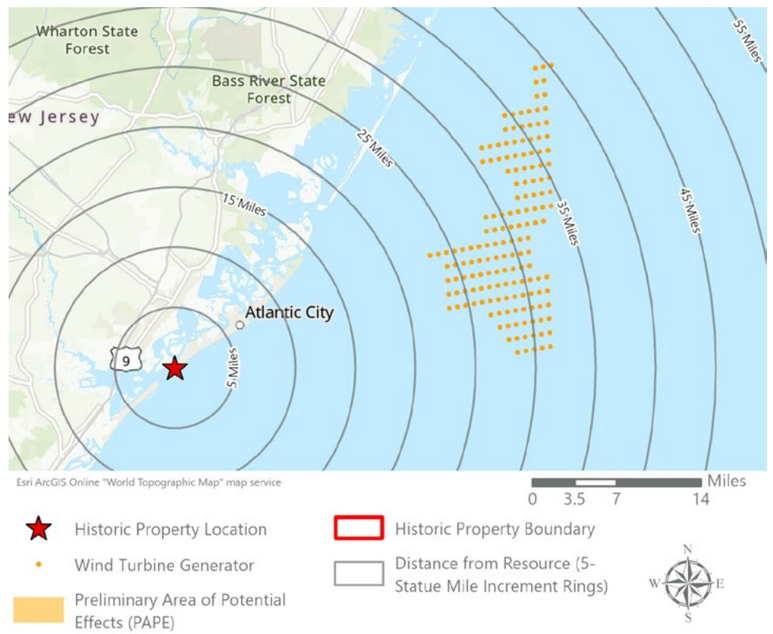
Significance

The Great Egg Coast Guard Station was constructed in 1939 and is a two-and-a-half-story building with a central lookout tower and one-story wings on either side of the main block. The Colonial Revival-style building was an active Coast Guard station from 1939 to 1948 and was the Borough Hall from 1948-1990. The Great Egg Coast Guard Station is eligible under Criterion C for its architecture as an extant example of a Roosevelt-era Coast Guard station.

Maritime Setting

The Great Egg Coast Guard Station has a maritime function as a former U.S. Coast Guard station with views of the Atlantic Ocean from its tower.

Effect Recommendation
No Adverse Effect
It is not anticipated that the Project will be visible from the Great Egg Coast Guard Station from viewer height level. The WTGs may be partially visible from within the tower; however, views will be partially screened from the multi-story residences located between the historic property and the Project.



Margate Fishing Pier

121 S. Exeter Avenue
Margate City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 21.13 miles

Number of Blade Tips Visible 116

Property Acreage within PAPE 0.3

Percentage of Property with Potential Visibility 66.58

Visible Light Units

Nacelle Aviation 115
Mid Tower Aviation 54
Coast Guard 0

KOP Reference N/A

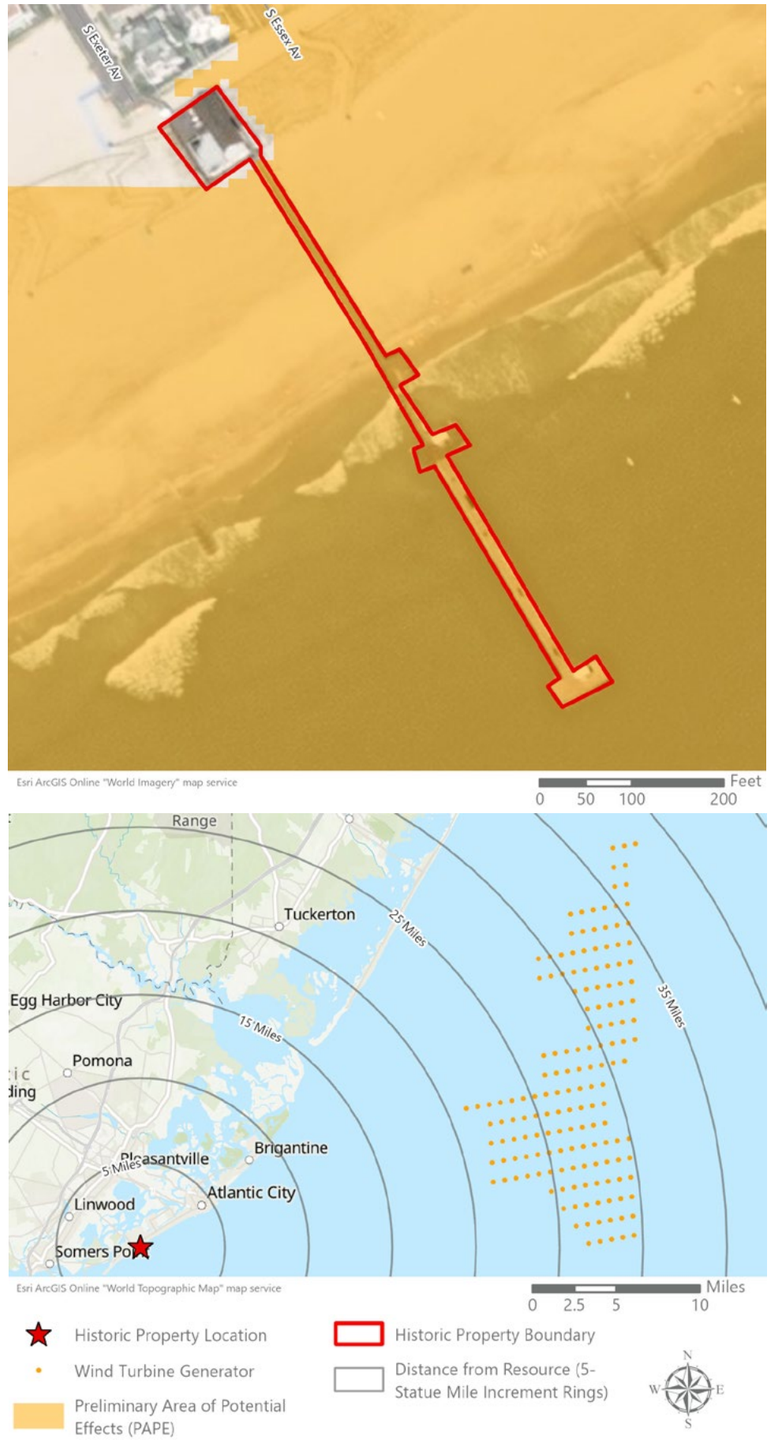
Significance

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 Project from the Margate Fishing Pier 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.



Chestnut Neck Boat Yard

758 Old New York Road
Port Republic City, NJ

Photograph of property

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 19.02 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 1

Percentage of Property with Potential Visibility 66.49

Visible Light Units

Nacelle Aviation 140
Mid Tower Aviation 49
Coast Guard 0

KOP Reference N/A

Significance

The Chestnut Neck Boat Yard was determined to be eligible for listing in the NRHP by NJHPO in 2004. It is an approximately 1.4-acre boat yard complex begun as early as the 1930s and eventually growing to include an array of services geared towards recreational boaters, including boat lifting, docking, storage, repair, and fueling; marine supply, bait, and tackle sales; boat sales and rentals; and a snack bar/cafe. The property includes three early-twentieth-century wood frame buildings, docks, a boat ramp, and a ca. 2015 building. The boat yard retains sufficient architectural integrity from its development in the early to mid-twentieth century to be significant under Criterion A for its association with the history of recreational boating in coastal New Jersey.

Maritime Setting

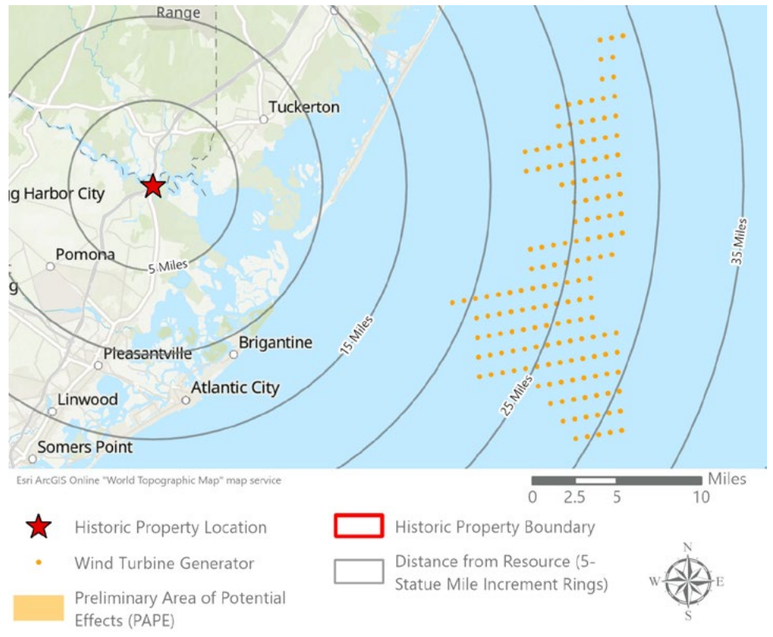
The Chestnut Neck Boat Yard is located on the south bank of the Mullica River and is surrounded by undeveloped land and limited residential development. Due to the boat yard's inland location, it does not have direct views to the ocean.

Photograph of property context

Photograph from property looking toward wind farm

Effect Recommendation
No Adverse Effect

Due to its location on the Mullica River, there is little intervening development to obstruct the visibility of the Project from the Chestnut Neck Boat Yard. Visibility of the Project will be partially obscured from the intervening marshlands and islands.



Vassar Square Condominiums

4800 Boardwalk
Ventnor City, NJ

Photograph of property

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 19.22 miles

Number of Blade Tips Visible 99

Property Acreage within PAPE 0.12

Percentage of Property with Potential Visibility 11.1

Visible Light Units

Nacelle Aviation 86
Mid Tower Aviation 73
Coast Guard 0

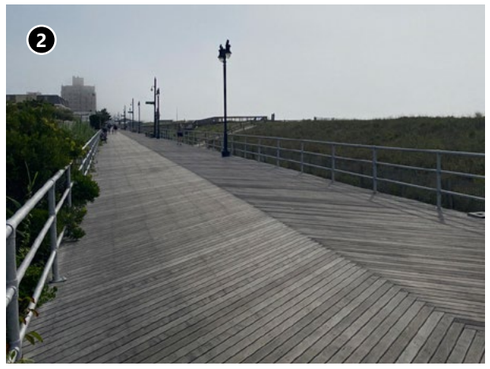
KOP Reference VC02

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

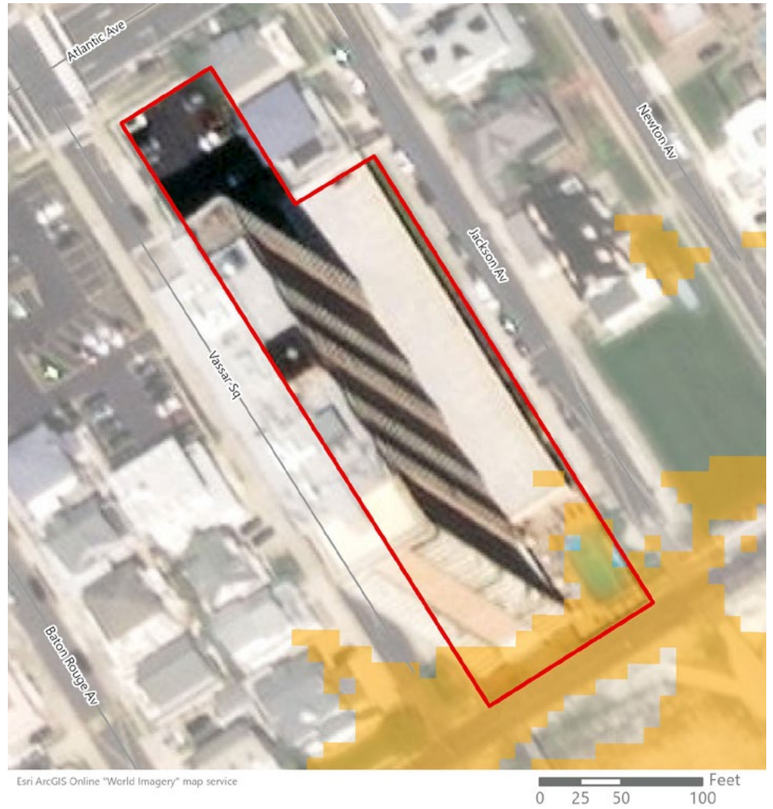
The Vassar Square Condominiums are located on the Boardwalk and the building was designed for views toward the ocean.

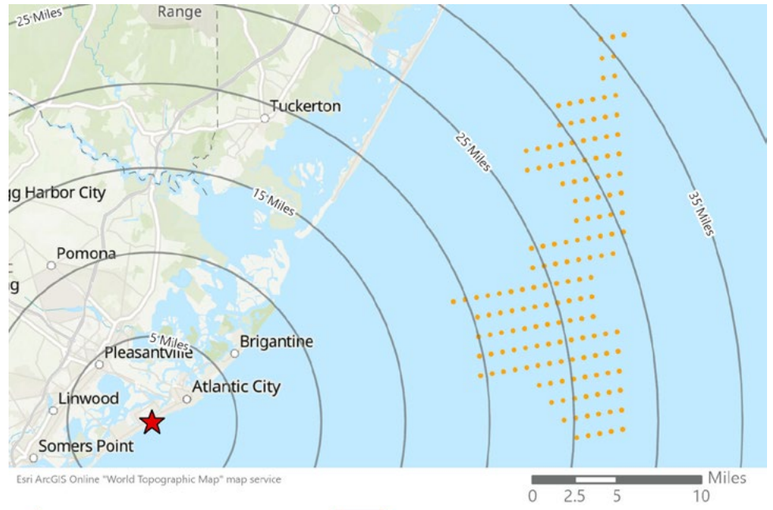


Photograph of property context

Photograph from property looking toward wind farm

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the Vassar Square Condominiums due to its location on the Atlantic City Boardwalk.





Ventnor City Fishing Pier

Cambridge Avenue at the Ventnor City Boardwalk
Ventnor City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 20.02 miles

Number of Blade Tips Visible 115

Property Acreage within PAPE 0.07

Percentage of Property with Potential Visibility 100

Visible Light Units

Nacelle Aviation 114
Mid Tower Aviation 66
Coast Guard 0

KOP Reference N/A

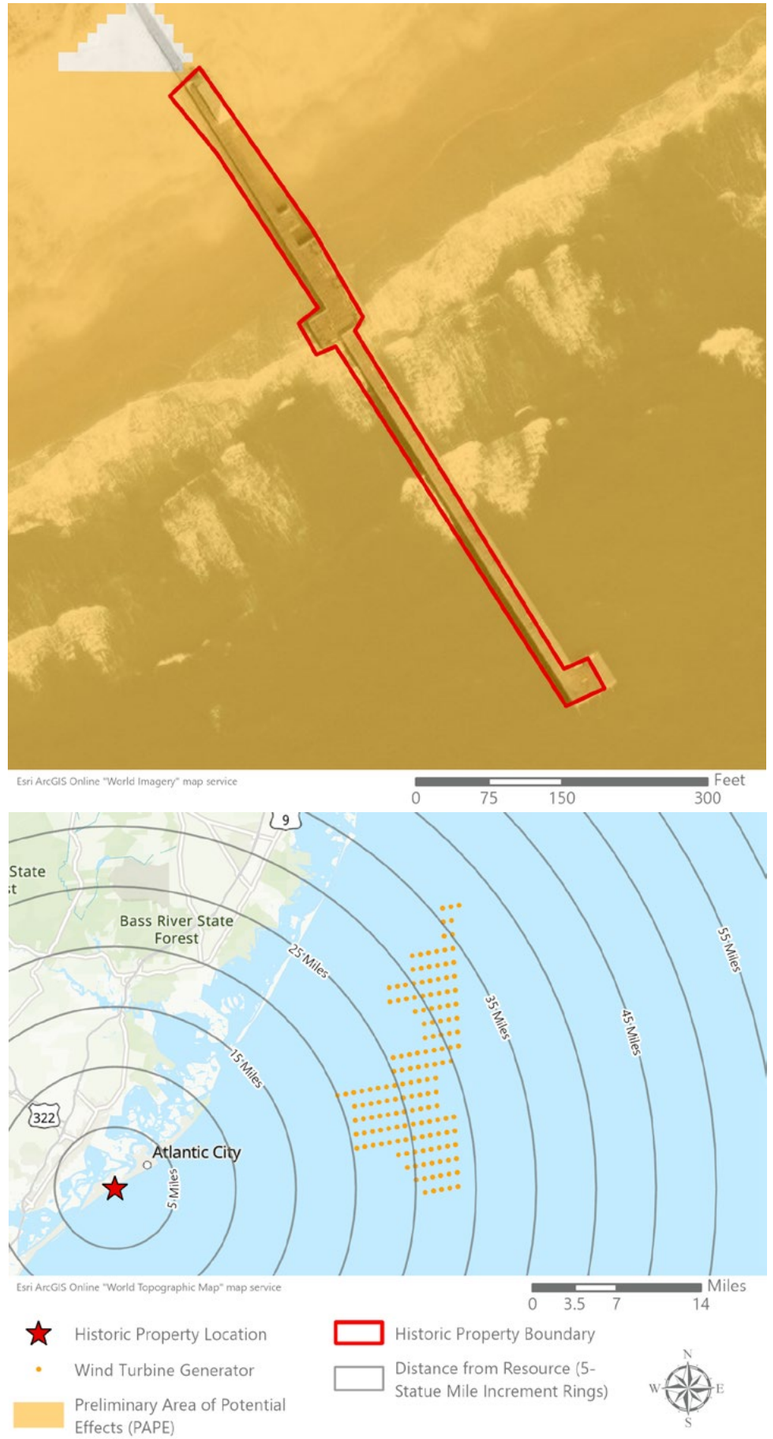
Significance

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 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.



Hereford Lighthouse

111 North Central Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 45.13 miles

Number of Blade Tips Visible 30

Property Acreage within PAPE 0.23

Percentage of Property with Potential Visibility 20.21

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference NWC01

Significance

The Hereford Lighthouse was designed by Paul Pelz and completed in 1874. His use of the Stick Style is unique on the East Coast, though he designed five similar lighthouses on the West Coast. The structure was residential, with living quarters for the keeper and the tower itself, which is 57 ft tall. The lighthouse was moved 150 ft to its current location after a 1913 storm damaged its foundation. The lighthouse continued to function until 1964 when an automated light nearby rendered it obsolete. In the 1980s, an automated light was installed in the tower to bring it into service again. The Hereford Lighthouse has sufficient integrity to retain its listing on the NRHP under Criterion C.

Maritime Setting

The Hereford Lighthouse has a clear maritime setting as it was built to guide boat traffic navigating Hereford Inlet. Though situated further from the shore than most lighthouses, the structure retains a maritime setting with views of the Hereford Inlet and Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the Hereford Lighthouse and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 45 miles.

North Wildwood Life Saving Station

113 North Central Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 45.1 miles

Number of Blade Tips Visible 30

Property Acreage within PAPE 0.09

Percentage of Property with Potential Visibility 9.88

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference NWC01

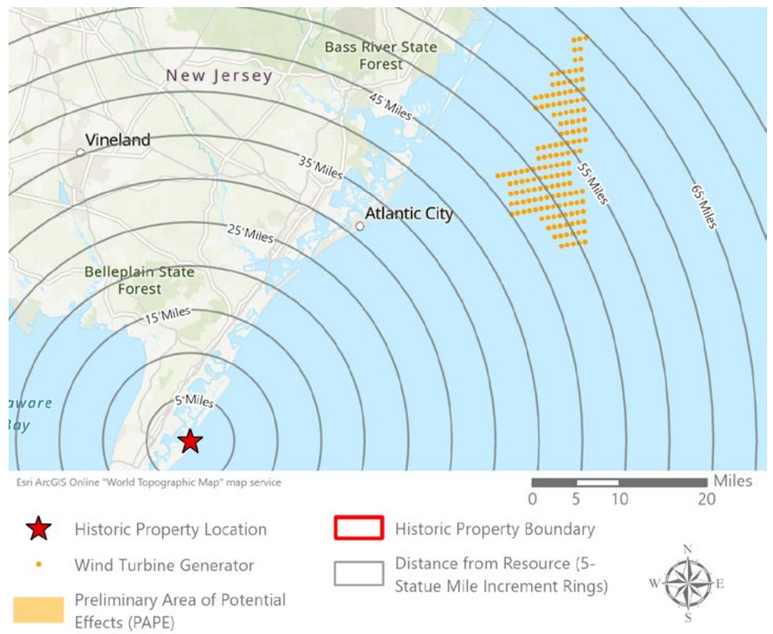
Significance

The North Wildwood Life Saving Station was built in 1938 by the U.S. Coast Guard. The two-story Colonial Revival building has a columned porch with roof balustrade, single story flanking wings, gabled dormers, and a large look-out cupola. The station operated the adjacent Hereford Lighthouse until 1964 when both facilities were closed. The station was turned over to the State of New Jersey and became a marine police station. The North Wildwood Life Saving Station retains sufficient integrity to convey its eligibility to the NRHP under Criterion A for its association with maritime history and Criterion C.

Maritime Setting

The North Wildwood Life Saving Station has a maritime function as a former Coast Guard station and has a maritime setting overlooking the confluence of the Hereford Inlet and Atlantic Ocean. Views of the water are unobstructed from street level and the "crow's nest" cupola has wide ocean views.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the North Wildwood Life Saving Station and the Project. The minimal visibility of blade tips rising above the ocean horizon will not diminish the integrity of setting for the historic life saving station, even under the clearest atmospheric conditions.



Sahara Motel

510 East 18th Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)*

Distance to Nearest Turbine 45.98 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

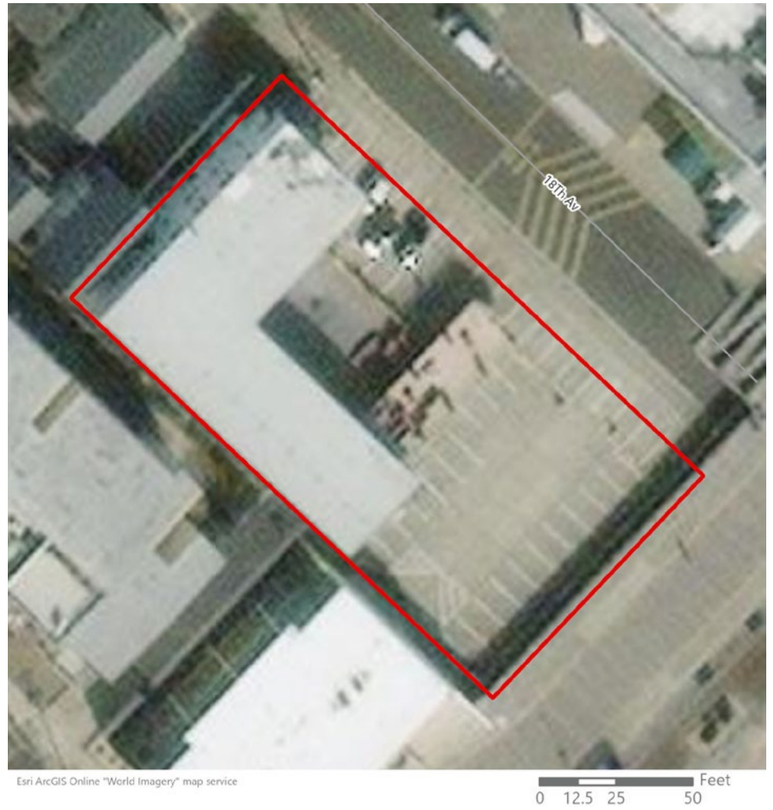
Significance

The Sahara Motel is a good example of the Doo Wop motels built in Wildwood, New Jersey in the 1950s and 1960s. It has many of the defining characteristics of the type, including three stories, continuous porches with wide, overhanging eaves supported by exposed steel beams, and a second story sundeck positioned at a right angle to the building. The Sahara also has a sky sign and complementary kitschy decor consisting of artificial palm trees. The Sahara Motel has sufficient integrity to convey its eligibility to the NRHP either as an individual listing under Criterion C or as part of a multiple properties nomination with other Doo Wop motels in Wildwood.

Maritime Setting

The Sahara Motel is typical of the resort architecture in this ocean-side community. It is located adjacent to the raised boardwalk and its ocean views at street level are obstructed.

Effect Recommendation
No Adverse Effect
No adverse effects are anticipated due to the distance between the Project and the historic property and the adjacent buildings, as well as the fact that the primary views from the historic property are to the southeast, away from the Project. There is minimal visibility of the Project from this historic property.



Aloha Motel

210 John F Kennedy Beach Drive
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 45.19 miles

Number of Blade Tips Visible 3

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0.94

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

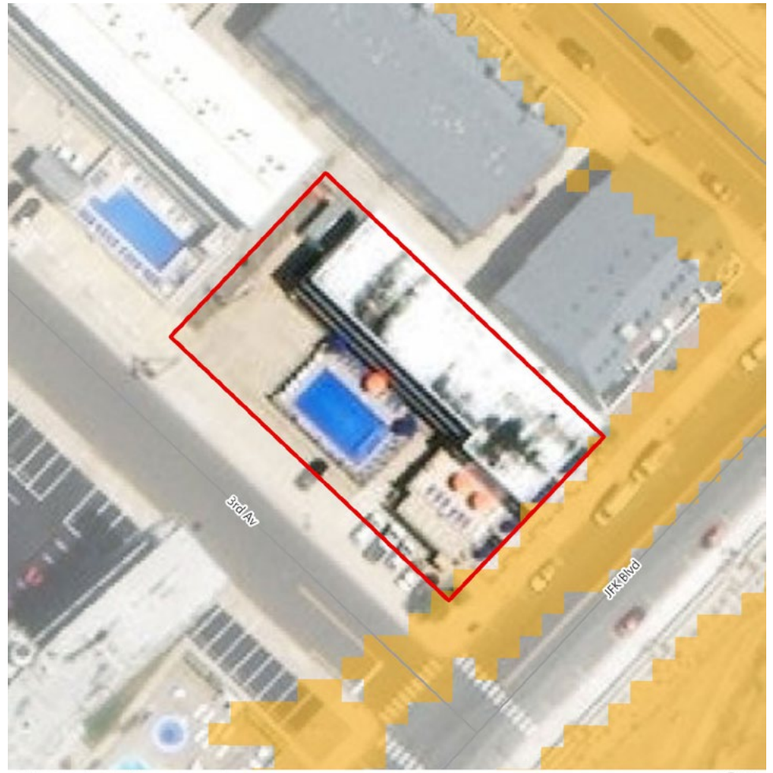
Significance

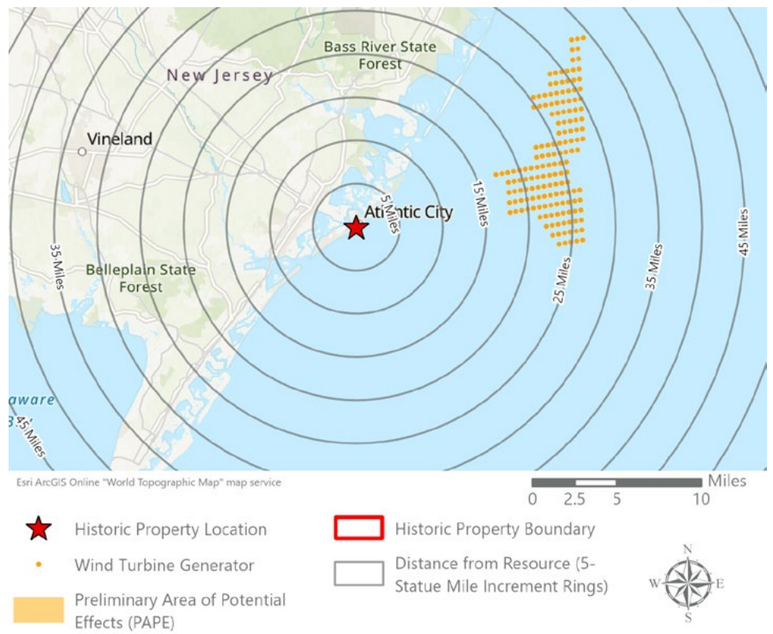
The Aloha is a late example of the Doo Wop motels built in Wildwood, New Jersey during the 1950s and 1960s. It has several of the defining characteristics of the type, including three stories, continuous porches with wide, overhanging eaves supported by exposed steel beams and metal railings, and a second story sundeck positioned at a right angle to the building. The-themed branding is more restrained than in motels built during the height of the Doo Wop movement. The Aloha has sufficient integrity to convey its eligibility to the NRHP either as an individual listing under Criterion C or as part of a multiple properties nomination with other Doo Wop motels in Wildwood.

Maritime Setting

The Aloha is typical of the resort architecture of this ocean-side community. It is located adjacent to the boardwalk and the Wildwood beach, though the constraints of its narrow lot required that it be oriented perpendicular to the waterfront. There are unobstructed views from the front of the building including its characteristic sun deck.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the significant distance between the Project and the Aloha Motel and the orientation of the building, away from the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 45 miles.





Lou Booth II Motel/Le Boot Motel

510 East 14th Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 45.73 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

Significance

The Alante Motel is a two-story, L-shaped motel constructed in 1967. The building has a flat roof and a continuous balcony on the second floor. The building meets the criteria set forth in the Motels of the Wildwoods MPDF and is eligible for listing under Criteria A and C.

Maritime Setting

The Alante Motel is typical of the resort architecture in this ocean-side community, located adjacent to the boardwalk with views of the Atlantic Ocean from the second floor balcony and windows; however, its ocean views at street level are obstructed.

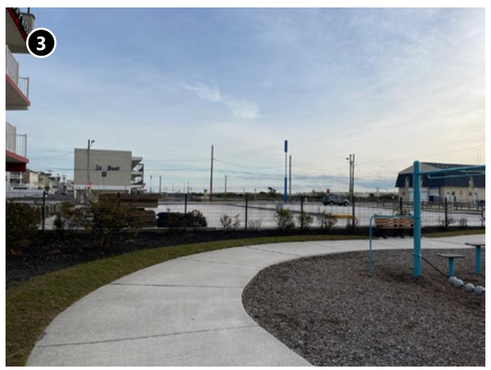
Effect Recommendation
No Adverse Effect
Visibility of the Project from the Alante Motel is anticipated to be limited due to its location over 45 miles from the Project. The orientation of the L-shaped building is to the southwest, while the Project is located to the northeast; however, the Project is anticipated to be visible from the southeastern elevation, but will occupy only a small portion of the ocean views.

Matador Motel

511 East 16th Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 45.83 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

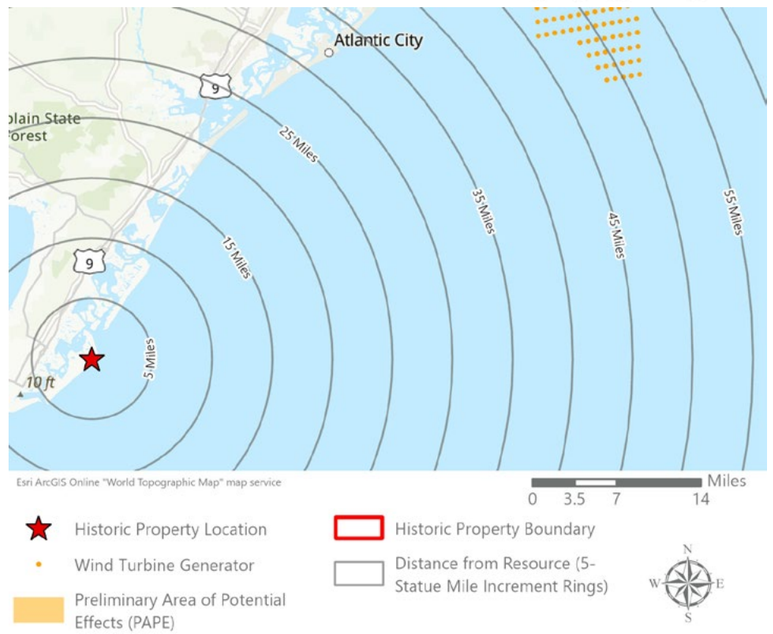
Significance

The Matador Motel is a four-story T-shaped motel which was originally constructed in 1970 as a three-story L-shaped building. In 1975 an addition was added to the north and a fourth-story was added in the late twentieth century according to NJHPO's determination of eligibility. The motel has continuous balconies allowing for unobstructed views of the Atlantic Ocean, like many of the other motels in the area and identified in the Motels of the Wildwoods MPDF. The Matador Motel meets the MPDF listing criteria and is eligible for the NRHP under Criteria A and C.

Maritime Setting

The Matador Motel is typical of the resort architecture in this ocean-side community, located adjacent to the raised boardwalk with views of the Atlantic Ocean from the upper floor balconies and windows; however, its ocean views at street level are obstructed.

Effect Recommendation
No Adverse Effect
The Lou Booth II Motel/Le Boot Motel is located over 45 miles from the Project. It is anticipated that the Project will not be visible from ground level; however, the Project may be visible from the upper story windows and balconies. Visibility of the Project will be limited due to the orientation of the Lou Booth II Motel/Le Boot Motel with its ocean-facing facade oriented to the south-southeast, while the Project will be located to the northeast, as well as the distance between the historic property and the Project.



Alante Motel

515 East 8th Avenue
North Wildwood City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 45.44 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

Significance

The Alante Motel is a two-story, L-shaped motel constructed in 1967. The building has a flat roof and a continuous balcony on the second floor. The building meets the criteria set forth in the Motels of the Wildwoods MPDF and is eligible for listing under Criteria A and C.

Maritime Setting

The Alante Motel is typical of the resort architecture in this ocean-side community, located adjacent to the boardwalk with views of the Atlantic Ocean from the second floor balcony and windows; however, its ocean views at street level are obstructed.

Effect Recommendation
No Adverse Effect
Visibility of the Project from the Alante Motel is anticipated to be limited due to its location over 45 miles from the Project. The orientation of the L-shaped building is to the southwest, while the Project is located to the northeast; however, the Project is anticipated to be visible from the southeastern elevation, but will occupy only a small portion of the ocean views.

Gillian's Wonderland Pier

600 Boardwalk
Ocean City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 25.91 miles

Number of Blade Tips Visible 62

Property Acreage within PAPE 0.38

Percentage of Property with Potential Visibility 14.94

Visible Light Units

Nacelle Aviation 24
Mid Tower Aviation 0
Coast Guard 0

KOP Reference OC04

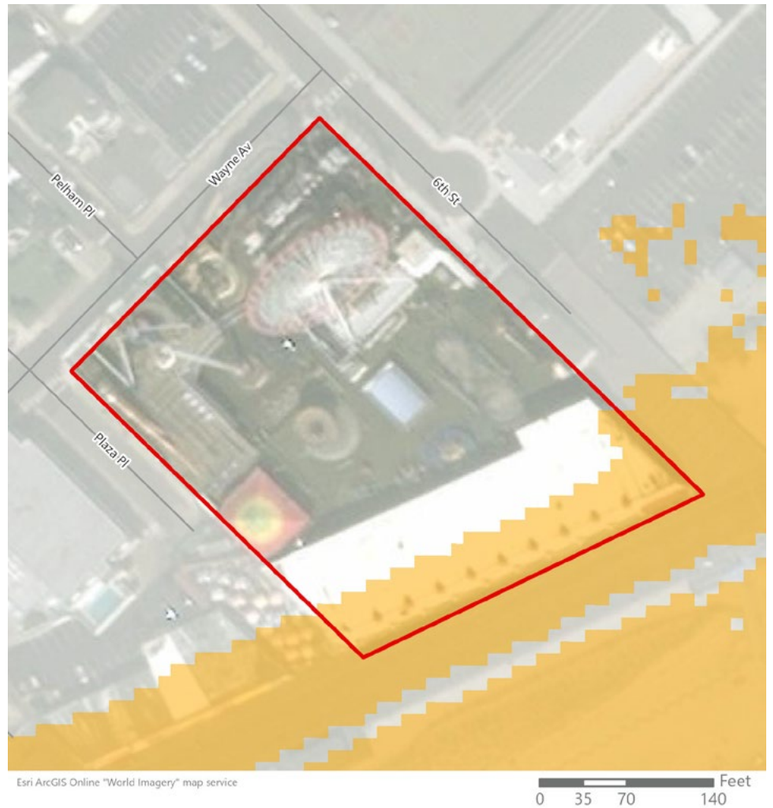
Significance

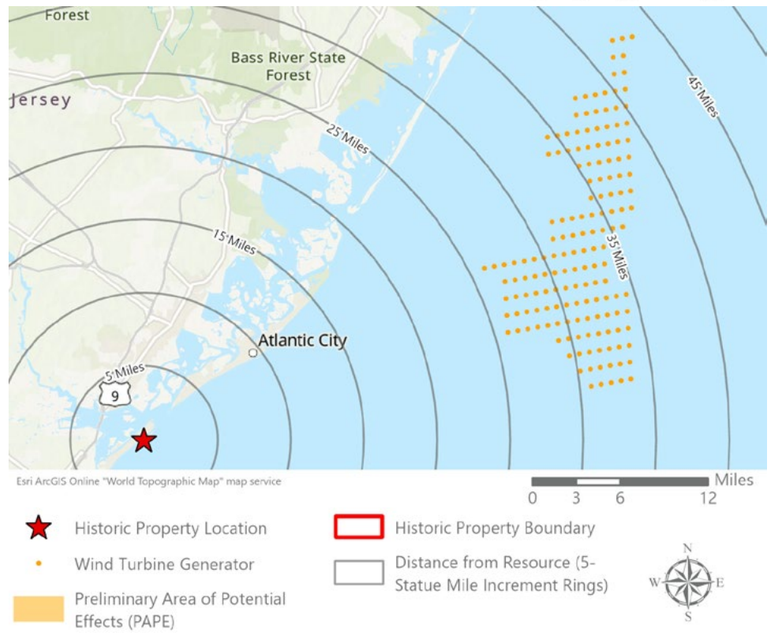
Gillian's Wonderland Pier was previously identified by NJHPO but was not evaluated for listing in the NRHP. The entertainment pier was opened in 1930 by David Gillian and is currently operated by 3rd generation owner Jay Gillian. The pier retains sufficient integrity for eligibility in the NRHP under 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
No Adverse Effect
Gillian's Wonderland Pier is located on the landward side of the boardwalk with a two-story façade along the boardwalk enclosing the park and was built as an amusement park to serve patrons of the Ocean City beach and boardwalk. Although the Projects may be visible from taller rides within Gillian's Wonderland Pier and in front of the property along the boardwalk, the exterior walls will block the views of the Projects from the majority of the historic property.





Music Pier

825 Boardwalk
Ocean City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 26.13 miles

Number of Blade Tips Visible 115

Property Acreage within PAPE 0.06

Percentage of Property with Potential Visibility 7.73

Visible Light Units

Nacelle Aviation 110
Mid Tower Aviation 17
Coast Guard 0

KOP Reference N/A

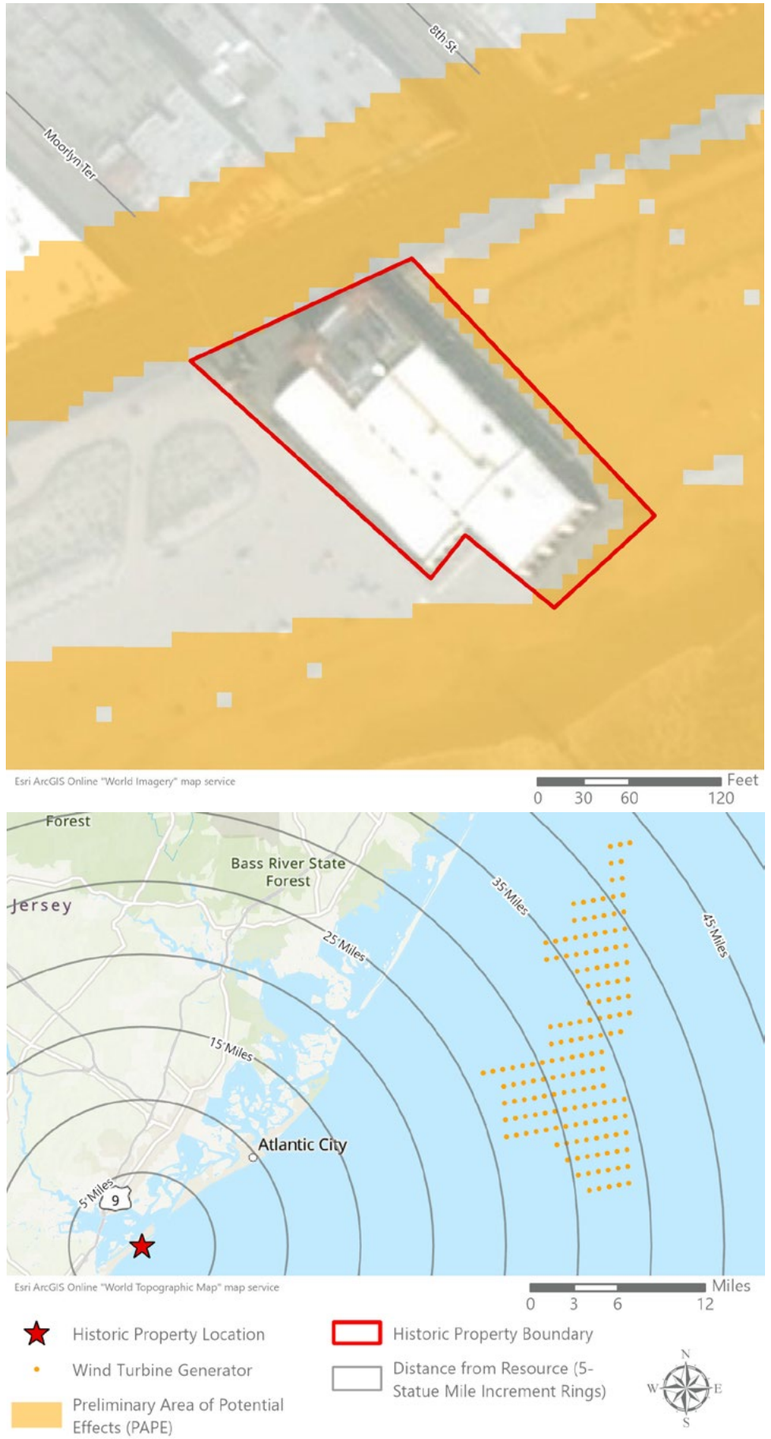
Significance

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
No Adverse Effect
Visibility of the Project from the Music Pier will be limited to the northern and eastern elevations. While there will be unobstructed views from those portions of the historic property, visibility of the WTGs will be limited due to the distance between the Ocean City Music Pier and the Project.



Flanders Hotel

719 East 11th Street
Ocean City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 26.46 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

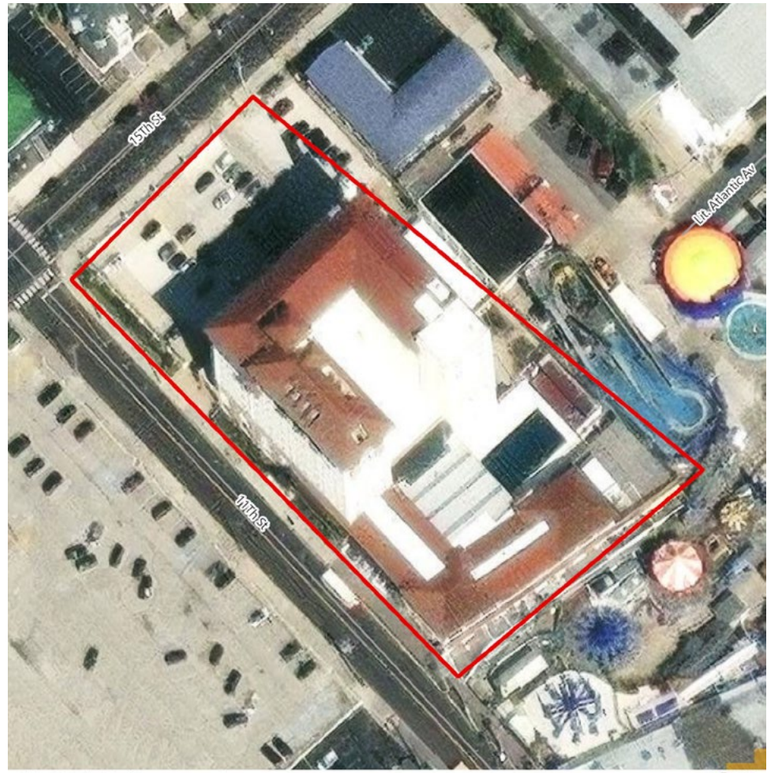
Significance

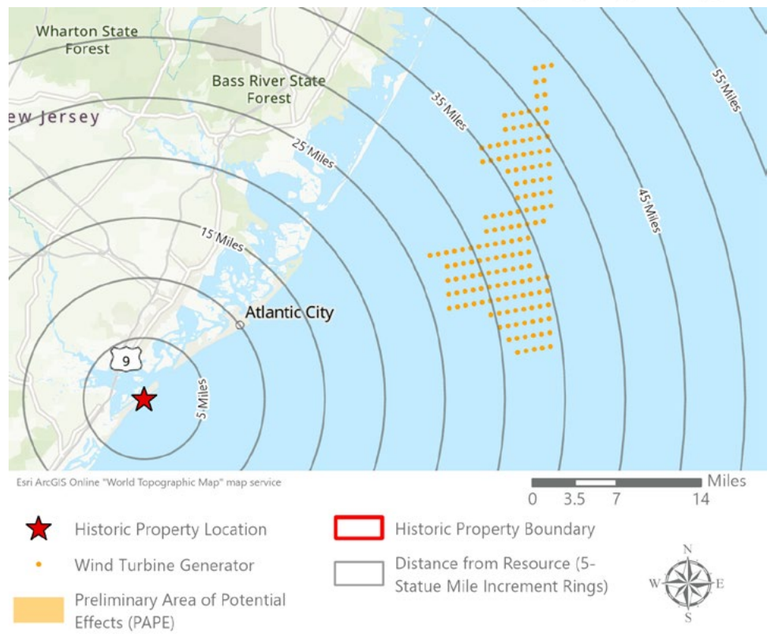
The Flanders Hotel was designed by Vivian B. Smith, a local architect who designed multiple hotels as well as the Ocean City City Hall (along with Earle M. Henderder) and was constructed 1922-23 in the Spanish Eclectic-style. The Flanders Hotel is comprised of the nine-story hotel tower and the connected two-story annex. The hotel is significant locally for its role in the development of Ocean City as a resort destination and its architecture and association with Vivian B. Smith.

Maritime Setting

The Flanders Hotel has a clear maritime setting as a resort hotel constructed adjacent to the boardwall with views of the Atlantic Ocean from the upper stories on three elevations.

Effect Recommendation
Adverse Effect
Due to the surrounding built environment, it is anticipated that the Project will not be visible from ground level; however, due to the close proximity of the Project, as well as the height of the Flanders Hotel in relation to the immediate surrounding buildings, it is anticipated that the Project will be visible from within the upper stories of the building on the southern and eastern elevations and will be a significant focus of viewer attention when looking to the Atlantic Ocean.





U.S. Lifesaving Station #35

11617 Second Avenue
Stone Harbor Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 42.88 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

Significance

The U.S. Lifesaving Station #35 was constructed in 1895 and designed by George R. Tolman. The building consist of a shingle-clad two-story residence to the southwest, a three-story look-out tower, and a one-story boat room to the northeast. When originally constructed, the building was located on the beachfront, but as the area developed, houses were constructed between the lifesaving station and the Atlantic Ocean. The building served as the lifesaving station and a U.S. Coast Guard Station after 1915. The U.S. Lifesaving Station #35 is eligible under Criterion A as an excellent extant example of a lifesaving station and Criterion C for its architecture.

Maritime Setting

The U.S. Lifesaving Station #35 has a maritime function as a former Lifesaving and U.S. Coast Guard station. The building was originally located on the waterfront with unobstructed views of the Atlantic Ocean; however, the building is no longer located at the beach due to the extension of Second Avenue and the construction of residences between the historic property and the Atlantic Ocean in the 1960s and 1970s.

Effect Recommendation
No Adverse Effect
It is not anticipated that the Project will be visible from the U.S. Lifesaving Station #35 from viewer height level. The Project may be partially visible from the upper stories of the building, including from within the tower; however, views will be partially screened from the multi-story houses that have been constructed between the historic property and the water. In addition, the Project will be located over 42 miles to the northeast of the U.S. Lifesaving Station #35 and will occupy a small portion of the views of the ocean from within the tower.

Liberty Hotel

1519 Baltic Avenue
Atlantic City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 17.08 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.01

Percentage of Property with Potential Visibility 4.26

Visible Light Units

Nacelle Aviation 1
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

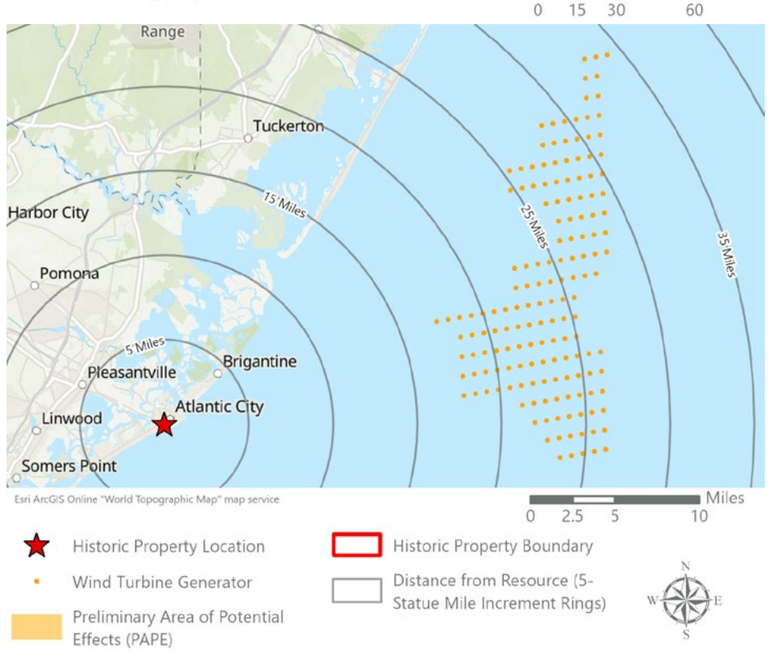
Significance

The Liberty Hotel was listed on the NRHP in 2020. The building is significant under Criterion A for its association with African American Ethnic Heritage and Entertainment Recreation in Atlantic City. After its construction in the African American Northside neighborhood of Atlantic City in 1928, the hotel was a beacon for African American tourists and visitors offering updated and modern accommodations as well as food and live entertainment. The hotel was featured in African American tourist and guidebooks and newspapers and frequently hosted local and national celebrities and performers. The period of significance is defined as 1928 to 1969.

Maritime Setting

Although located on the barrier island, due to its location inland within the Northside neighborhood of Atlantic City, the Liberty Hotel does not have a maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the Liberty Hotel's location four blocks from the Atlantic Ocean as well as the intervening development. In addition, the setting of the aboveground historic property has been greatly altered; therefore, the potential visibility of the Project would not change the integrity of setting.



Asbury Park Casino and Carousel

104-108 Asbury Avenue
Asbury Park City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 37.72 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 0.56

Percentage of Property with Potential Visibility 26.26

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

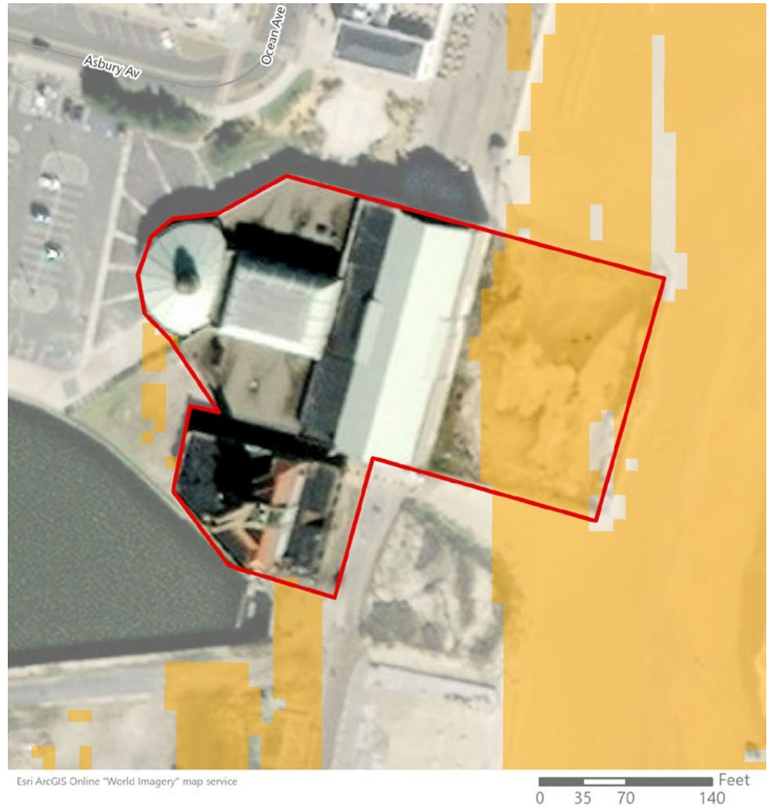
Significance

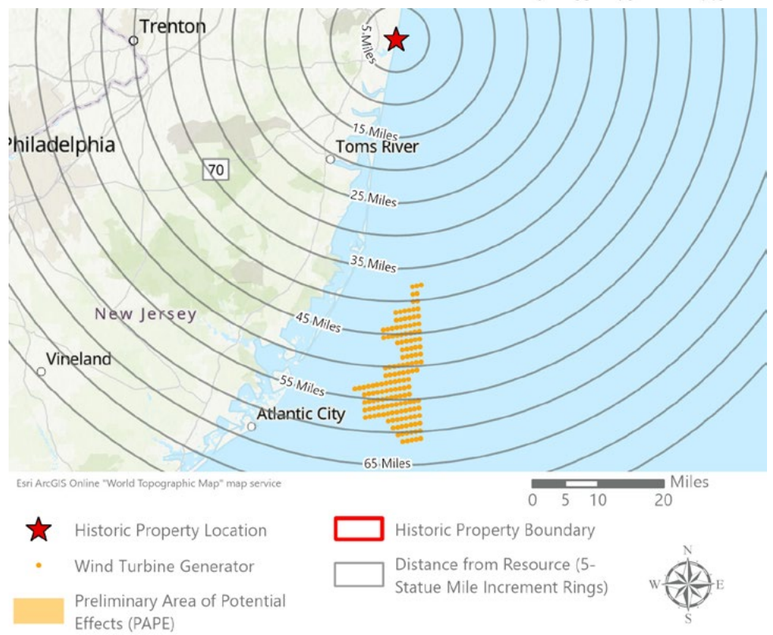
The Asbury Park Casino and Carousel was designed by New York architects Warren and Wetmore in 1929 in the Beaux Arts-style to replace an earlier casino that was destroyed by fire. The building is significant in the history and development of Asbury Park as a summer resort destination. The building meets Criterion A and C of the NRHP.

Maritime Setting

The Asbury Park Casino and Carousel is located on the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Asbury Park Casino and Carousel and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 37 miles.

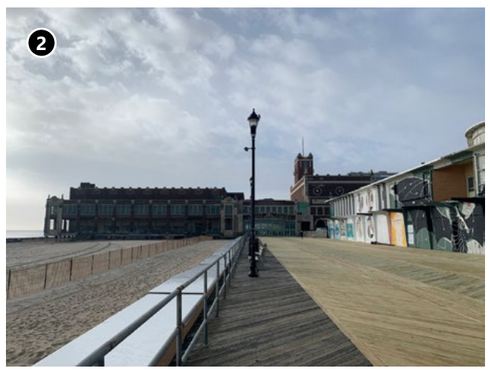




Asbury Park Convention Hall

1300 Ocean Avenue
Asbury Park City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 38.14 miles

Number of Blade Tips Visible 47

Property Acreage within PAPE 0.5

Percentage of Property with Potential Visibility 23.14

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

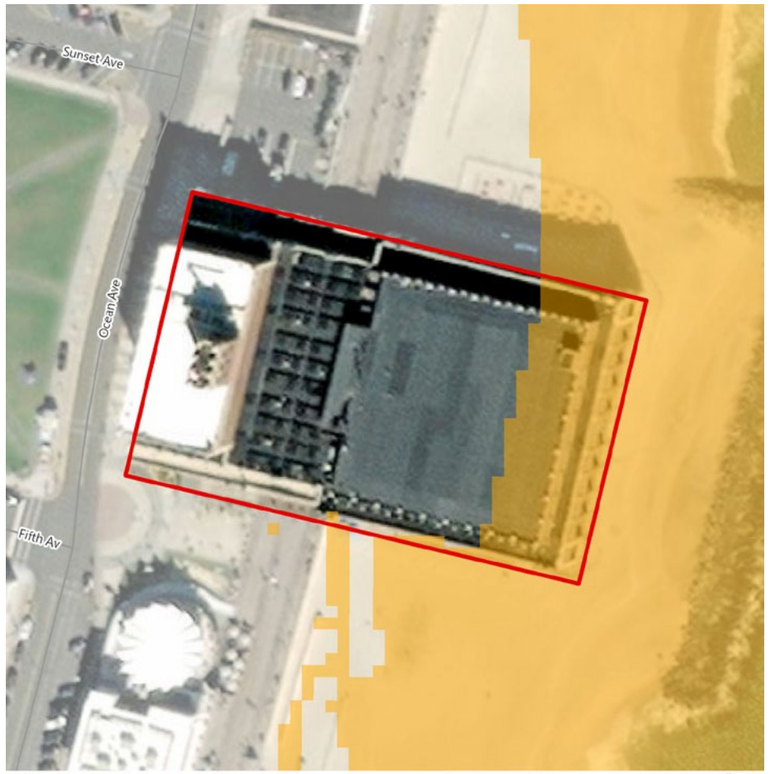
Significance

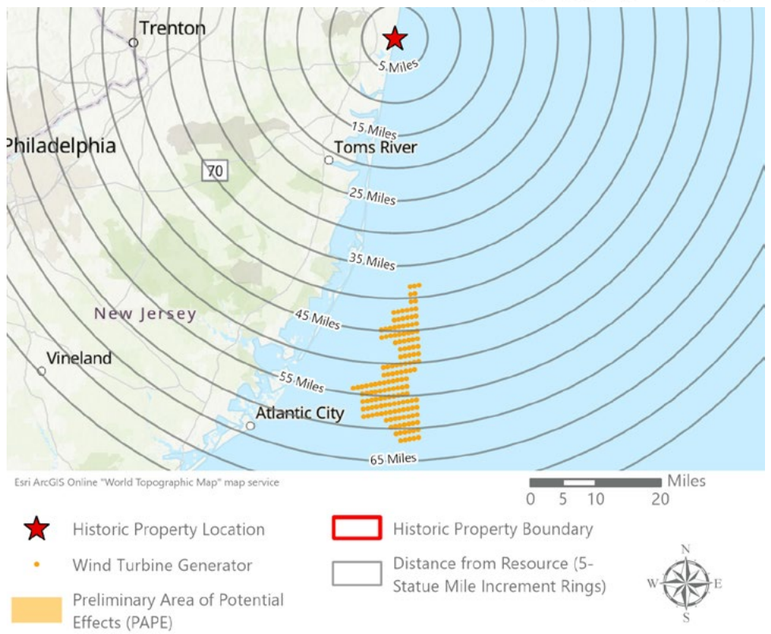
The Asbury Park Convention Hall consists of two structures, the convention hall and the Paramount Theatre. The buildings were designed by Warren and Wetmore of New York and constructed in 1928. The Asbury Park Convention Hall is listed on the NRHP under Criterion A and C as an important art and entertainment venue and the development of the New Jersey shore as a destination and as an unusually fine example of 1920's eclectic-style design.

Maritime Setting

The Asbury Park Convention Hall is located on the Atlantic Ocean and has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Asbury Park Convention Hall and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 38 miles.

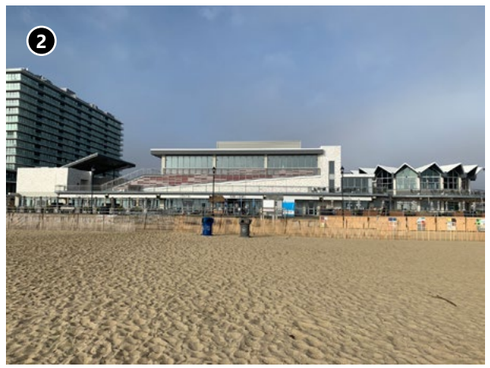




Howard Johnson's Pavilion

Ocean Avenue at Fifth Avenue
Asbury Park City, NJ

Photograph of property



Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 38.08 miles

Number of Blade Tips Visible 52

Property Acreage within PAPE 0.02

Percentage of Property with Potential Visibility 2.04

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

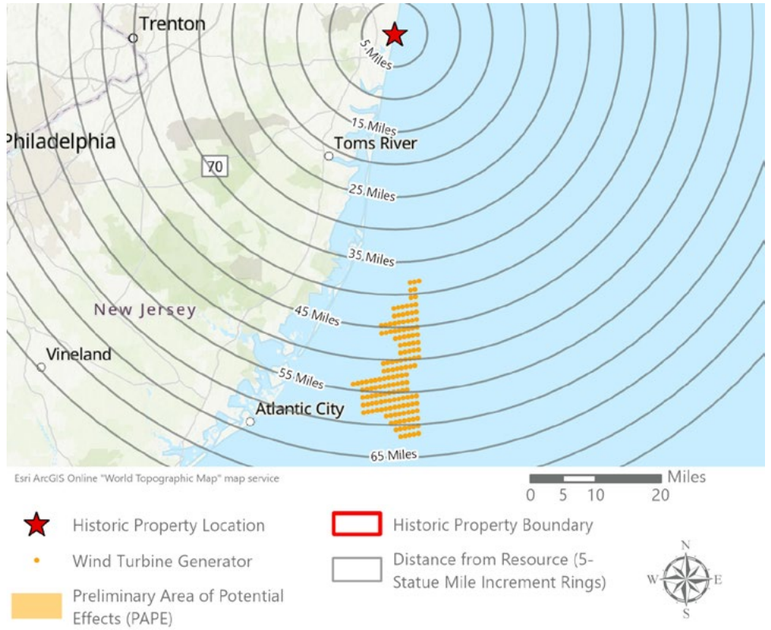
Significance

The Howard Johnson's Pavilion was determined to be individually eligible for the NRHP by NJHPO in 2003. The 1962 pavilion is eligible under Criterion C for Architecture. Built in the Googie or futuristic modern style by Philadelphia architect John Duhring Fridy, the circular building features a roof decorated with a crown of sculptural projecting gables and large multi-pane windows separated by pilasters. The repeated projecting gables are reminiscent of the iconic Howard Johnson roadside hotels with their high-pitched cross gable orange roofs. The building stands in stark contrast to the nearby traditional revival-style buildings on the Asbury Park boardwalk

Maritime Setting

The Howard Johnson's Pavilion is situated prominently along the boardwalk in Asbury Park and as a result it has full and unobstructed views to the sea.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Howard Johnson's Pavilion and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 38 miles.



Belmar Fishing Club

Ocean Avenue at First Avenue
Belmar Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)
Distance to Nearest Turbine 35.55 miles
Number of Blade Tips Visible 70
Property Acreage within PAPE 0.67
Percentage of Property with Potential Visibility 52.71
Visible Light Units
Nacelle Aviation 10
Mid Tower Aviation 0
Coast Guard 0
KOP Reference N/A

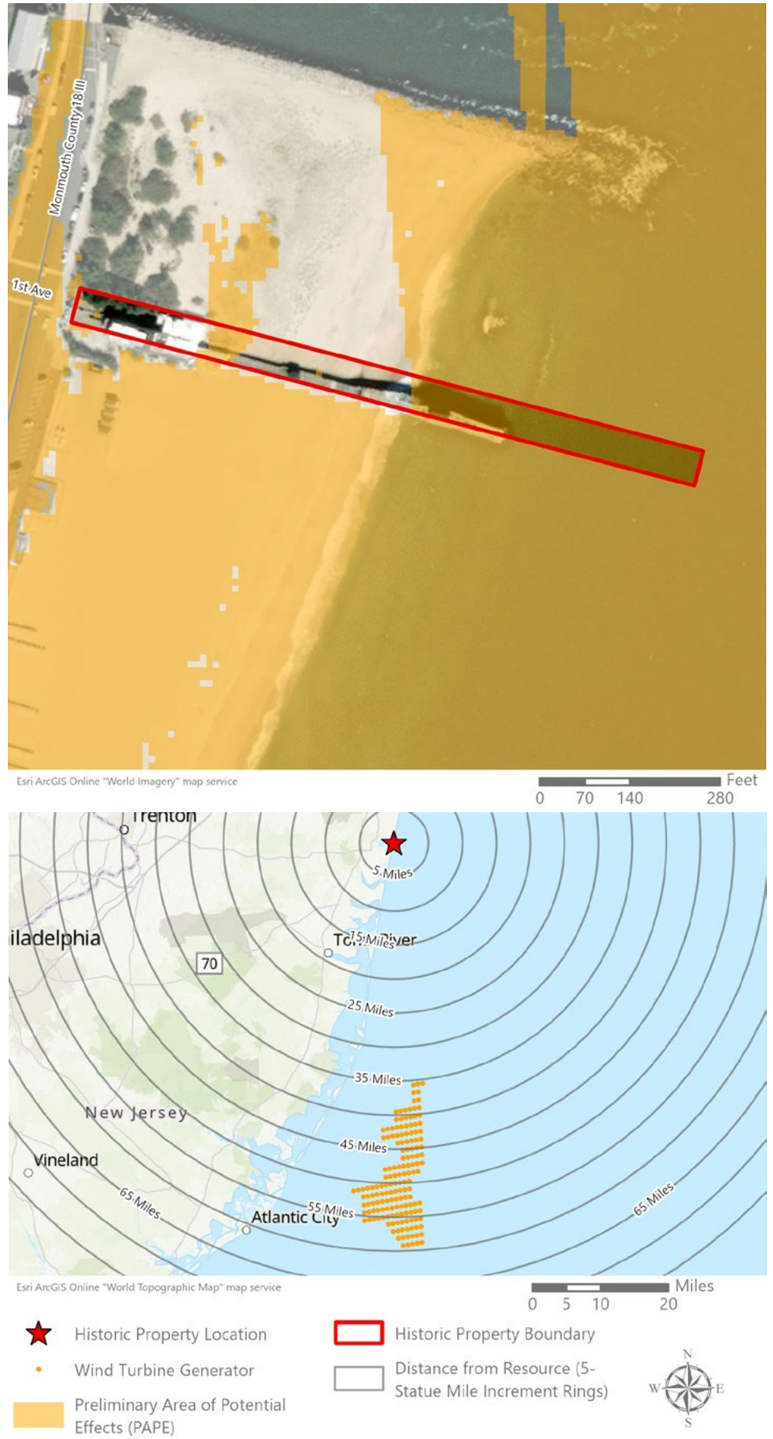
Significance

The Belmar Fishing Club is a Spanish Mission-style, 2-story building constructed in 1930. The building continues to act as the home of a private fishing club. The building is significant under Criterion A and C for its association with the development of private clubs on the New Jersey shore and its Mission-style architecture.

Maritime Setting

The Belmar Fishing Club is located on the Atlantic Ocean with unobstructed views of the water. The maritime setting of the property is intrinsic to the historic fishing club design and historic function.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Belmar Fishing Club and the Project. Common atmospheric conditions will render the WTGs difficult to discern at distances in excess of 35 miles.



7 Jerome Avenue

7 Jerome Avenue
Deal Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 40.56 miles

Number of Blade Tips Visible 41

Property Acreage within PAPE 0.54

Percentage of Property with Potential Visibility 42.33

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

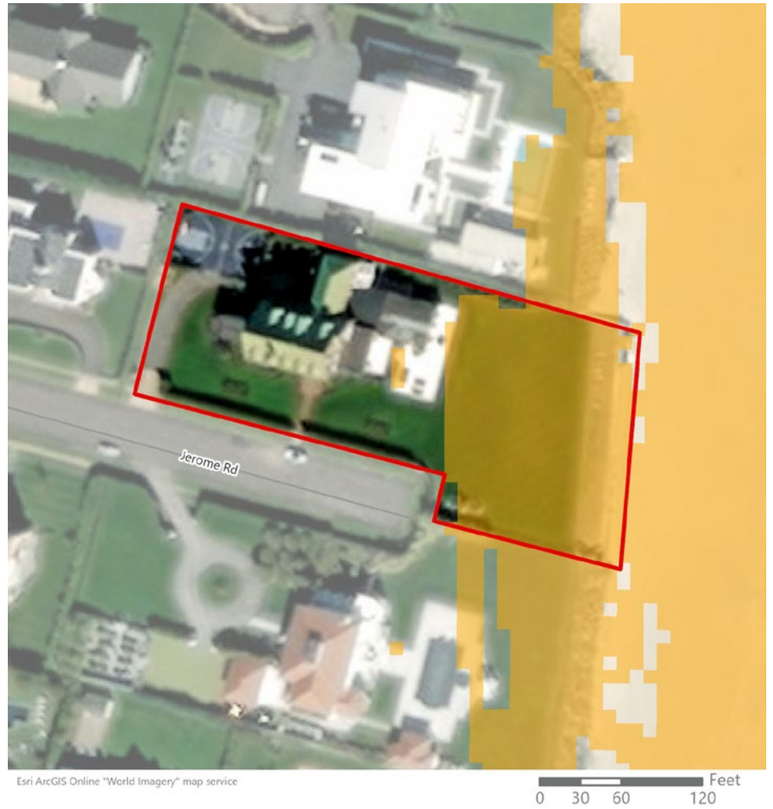
Significance

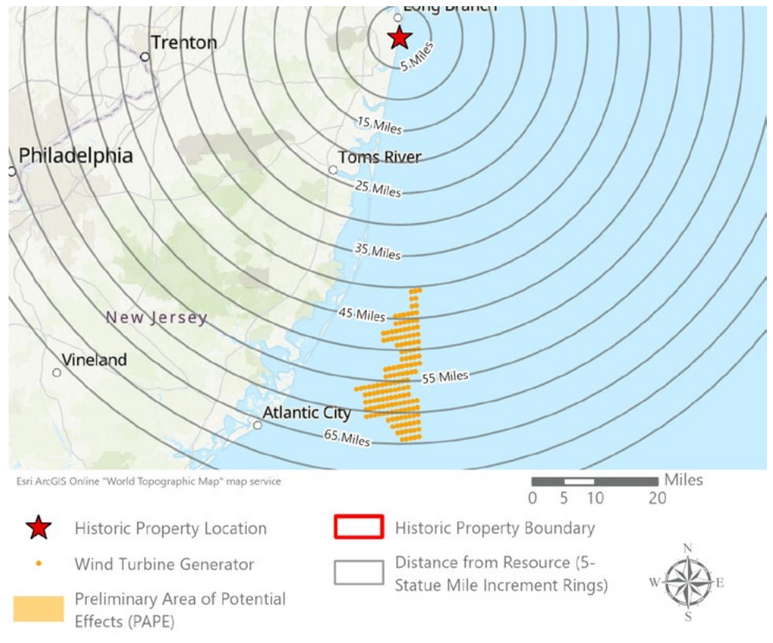
The residence at 7 Jerome Avenue was constructed c. 1925 and is a two-and-half-story Colonial Revival-style building. The resource retains historic integrity and is significant under Criterion C for its architecture as an excellent example of a Colonial Revival mansion constructed on the shore of New Jersey.

Maritime Setting

The residence at 7 Jerome Avenue is a beachside mansion and has a significant maritime setting with clear views to the ocean and beach.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between 7 Jerome Avenue and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 40 miles.





Deal Ocean Apartments

1 Roseld Avenue
Deal Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 39.65 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 0.8

Percentage of Property with Potential Visibility 29.97

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

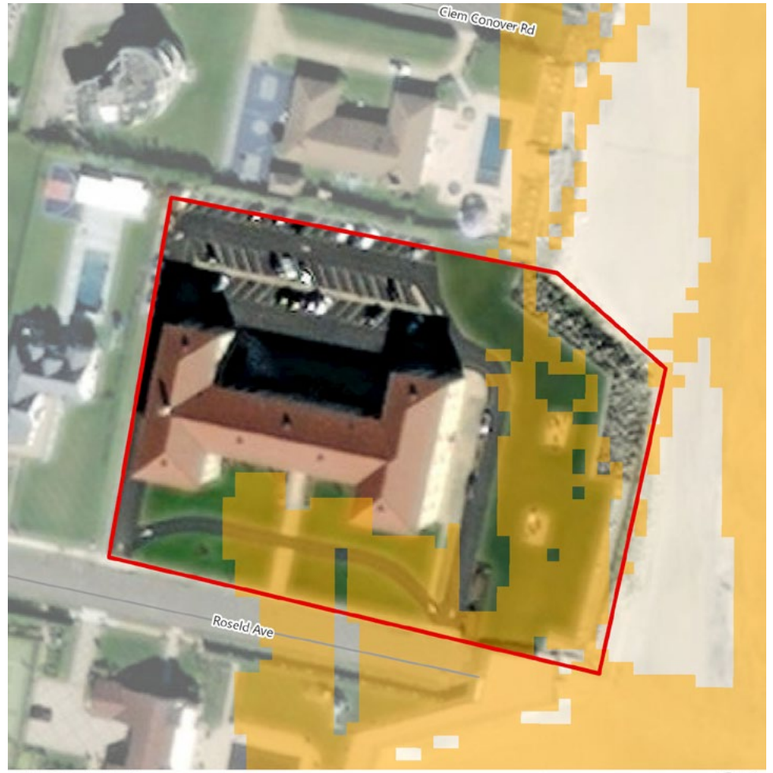
Significance

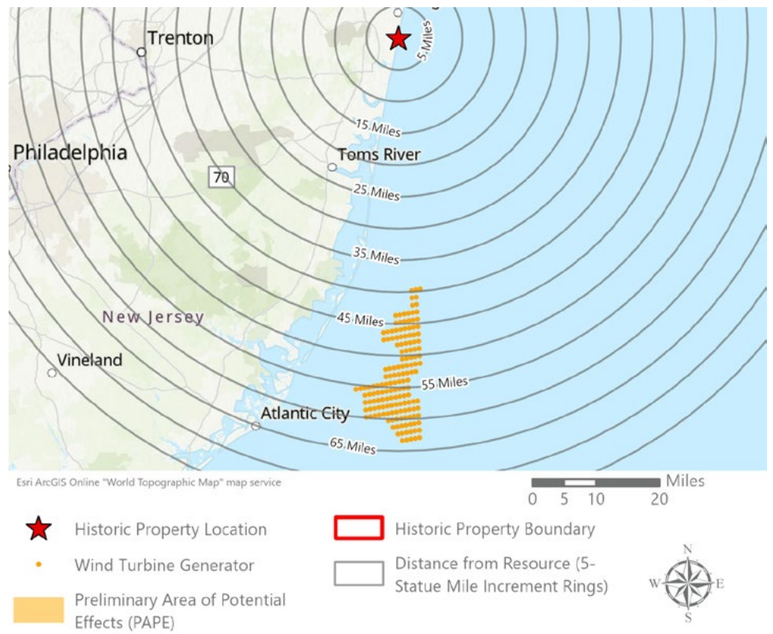
The Deal Ocean Apartments-Condos is a three-story circa-1930s Spanish Colonial Revival apartment building with an I-shaped plan and hipped roof. Character defining features include the terracotta tile roof, modillioned eaves, stucco cladding, and arched opening

Maritime Setting

The Deal Ocean Apartment-Condos is located on the Atlantic Ocean and has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Deal Ocean Apartments-Condos and the Project. WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of nearly 40 miles. The small portion of the ocean viewscape that could be affected by the Project is oriented at the extreme southern portion of the horizon, roughly 90 degrees away from the adjacent shoreline.



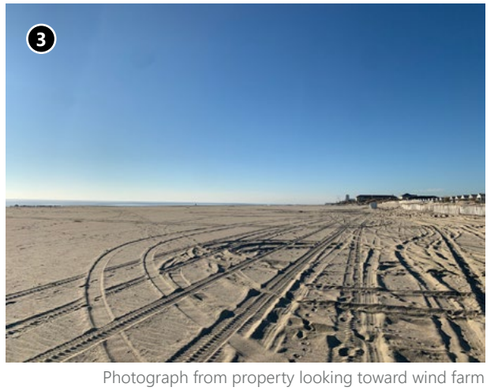


Deal Casino Beach Club

125 Ocean Avenue
Deal Borough, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 39.89 miles

Number of Blade Tips Visible 53

Property Acreage within PAPE 3.45

Percentage of Property with Potential Visibility 13.34

Visible Light Units

Nacelle Aviation 3
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

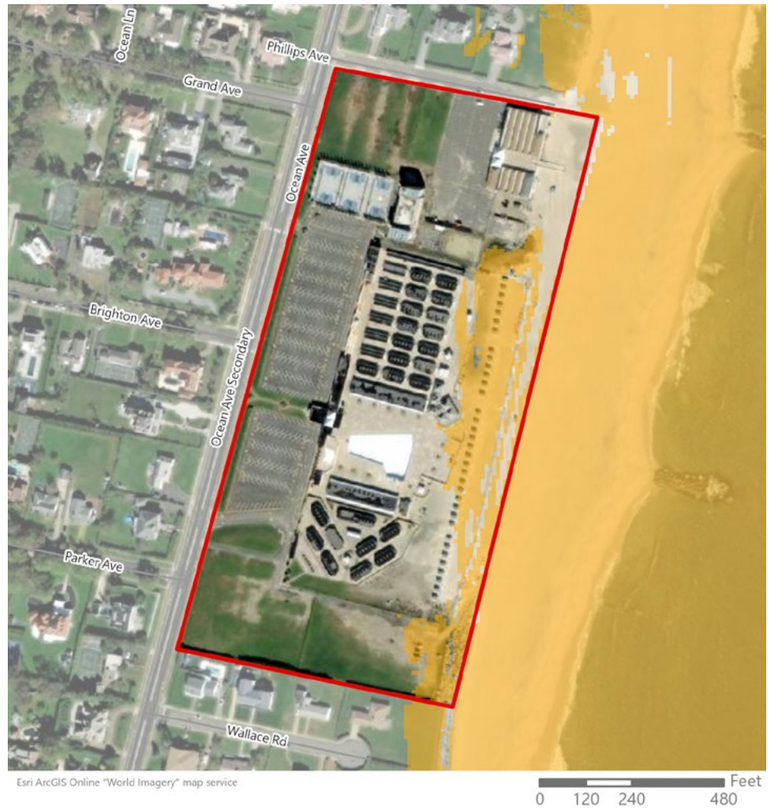
Significance

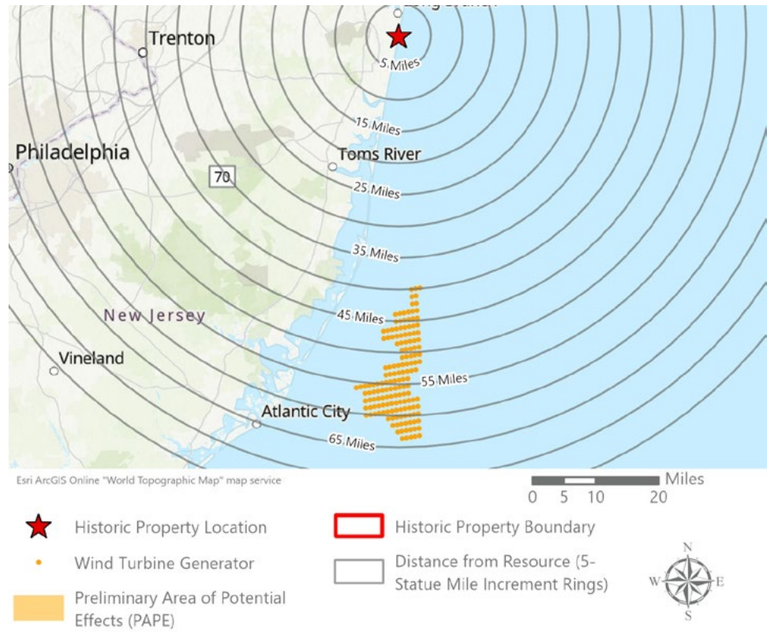
The Deal Casino Beach Club was constructed in 1957 , replacing an earlier casino constructed c. 1907. The beach club is significant under Criterion A and C as a midcentury beach club developed along the New Jersey shoreline.

Maritime Setting

The Deal Casino Beach Club is located on the Atlantic Ocean with a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited due to the distance between the Deal Casino Beach Club and the Project. Further, the orientation of the property and shoreline is towards the east, roughly 90 degrees from small portion of the ocean horizon that could be affected by the Project.





Ocean Beach Club of Elberon

1035 Ocean Avenue
Long Branch City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 41.19 miles

Number of Blade Tips Visible 43

Property Acreage within PAPE 0.29

Percentage of Property with Potential Visibility 4.1

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

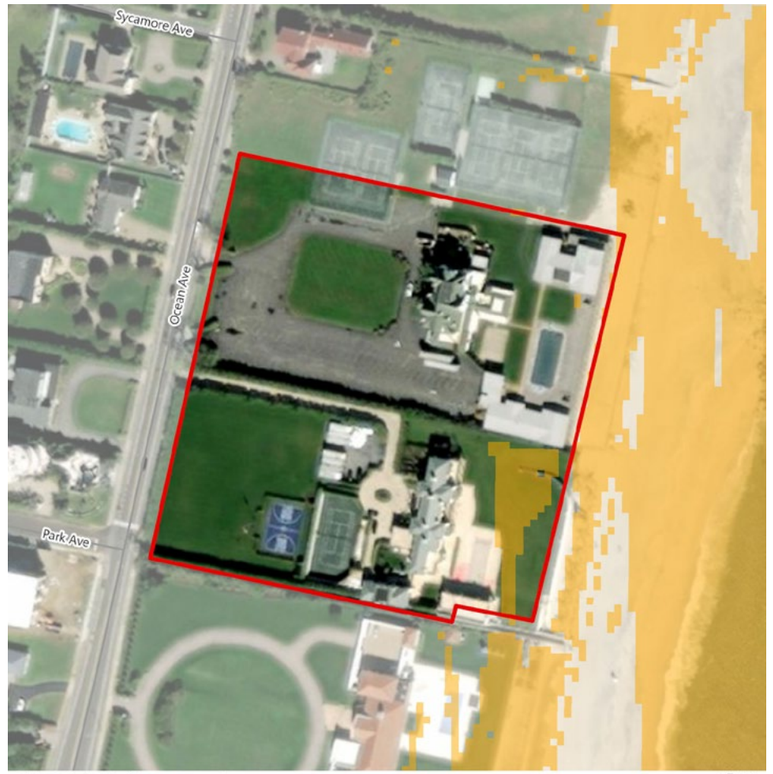
Significance

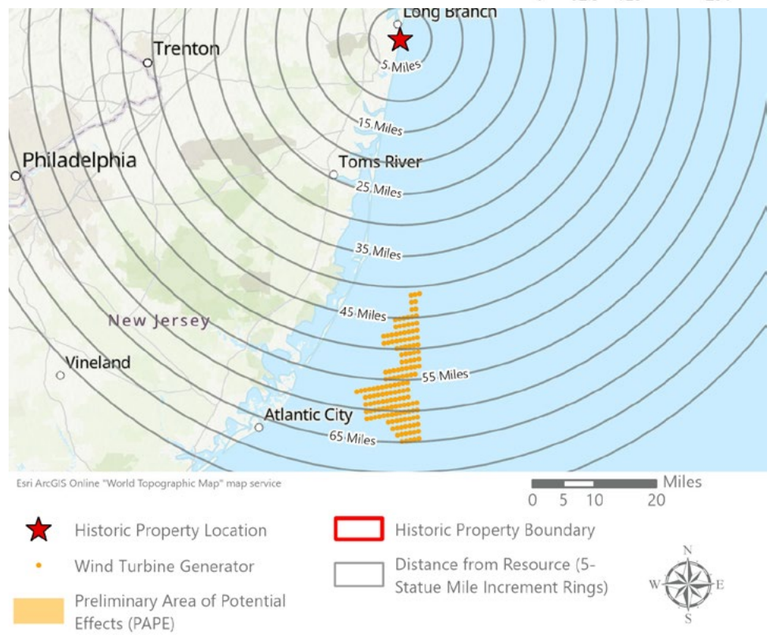
The Ocean Beach Club is the oldest beach club in Long Branch, originally constructed as a private residence c. 1880, the property was organized as a club in 1906. The resource is significant under Criterion A for its role as an early recreational beach club in Long Branch, renown for its beach clubs, and under Criterion C for its architecture.

Maritime Setting

The Ocean Beach Club is a recreational beachside club and has a significant maritime setting with clear views and access to the ocean and beach.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the Ocean Beach Club and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 41 miles.





Windmill Restaurant

586 Ocean Boulevard
Long Branch City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 42.36 miles

Number of Blade Tips Visible 36

Property Acreage within PAPE 0.16

Percentage of Property with Potential Visibility 21.92

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

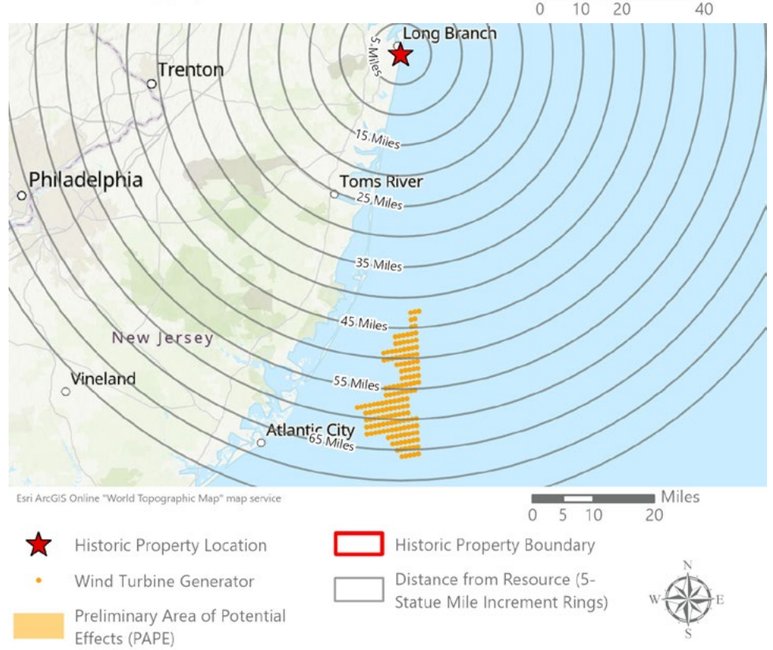
Significance

The Windmill Restaurant is a ca. 1963 roadside fast food restaurant consisting of an octagonal first-floor glass storefront surmounted by an open air deck and an octagonal shingle-clad windmill. The property appears to retain sufficient integrity to convey its eligibility to the NRHP under Criterion C.

Maritime Setting

The Windmill Restaurant is located one block from the Atlantic Ocean to take advantage of vehicle traffic in a seaside community.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the Windmill Restaurant and the Project as well as the intervening land and development. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 42 miles.



San Alfonso Retreat

755 Ocean Avenue N
Long Branch City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 41.85 miles

Number of Blade Tips Visible 39

Property Acreage within PAPE 2.34

Percentage of Property with Potential Visibility 25.68

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

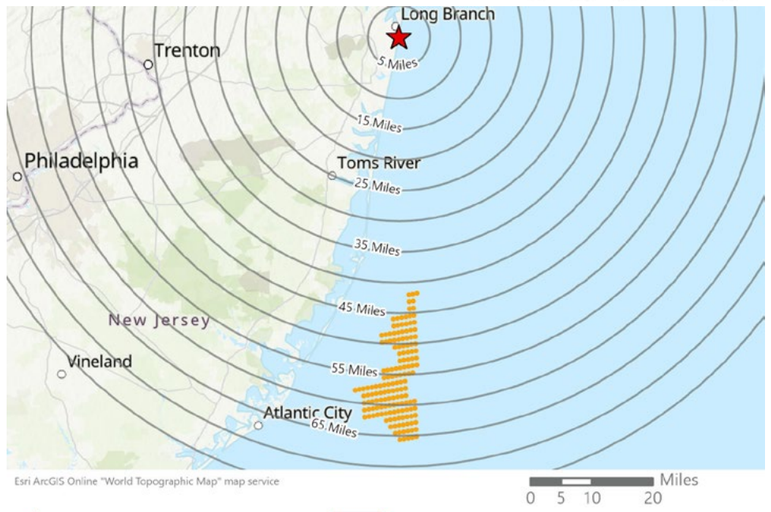
Significance

The San Alfonso Retreat House is a Catholic Redemptorist retreat center founded circa 1925. The center initially utilized an existing residence, which was demolished in the mid-twentieth century as the center expanded. Today, the retreat house is an approximately 9-acre complex of circa-1950s Modernist style two-story brick buildings including guest rooms and gathering spaces, along with a prayer garden and an expansive lawn overlooking the beach.

Maritime Setting

The San Alfonso Retreat House is located on the Atlantic Ocean and has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the San Alfonso Retreat House and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 41 miles.

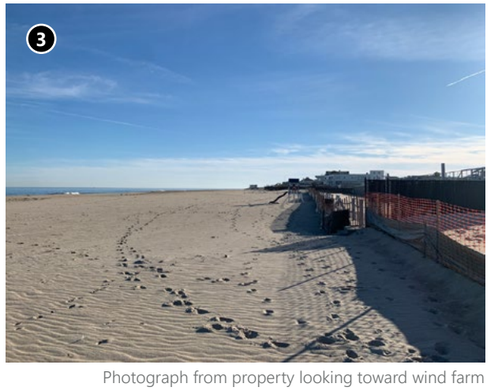


Sur Mer

1245 Ocean Avenue N
Long Branch City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 40.76 miles

Number of Blade Tips Visible 41

Property Acreage within PAPE 0.79

Percentage of Property with Potential Visibility 31.35

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

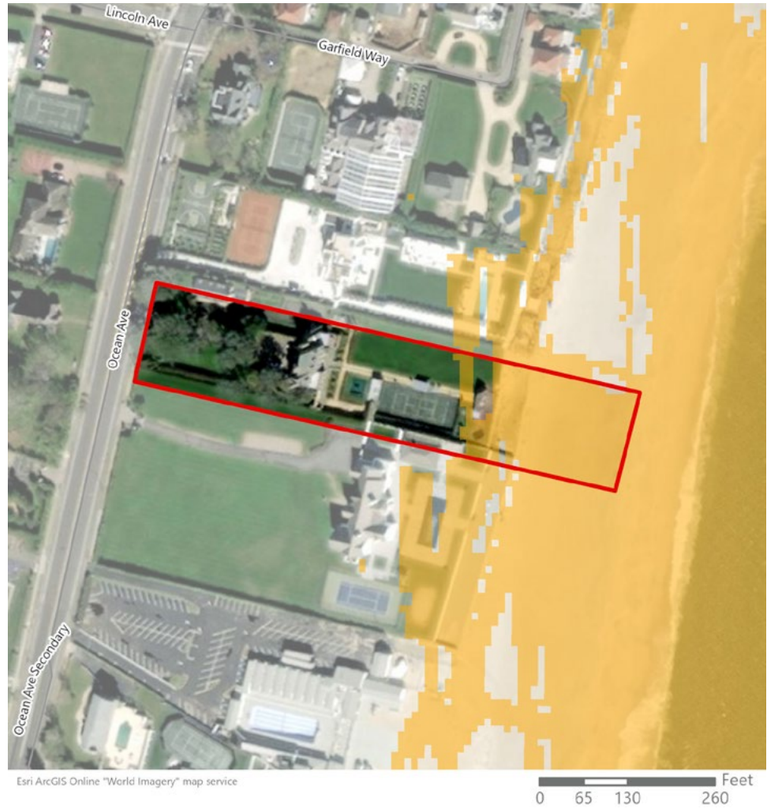
Significance

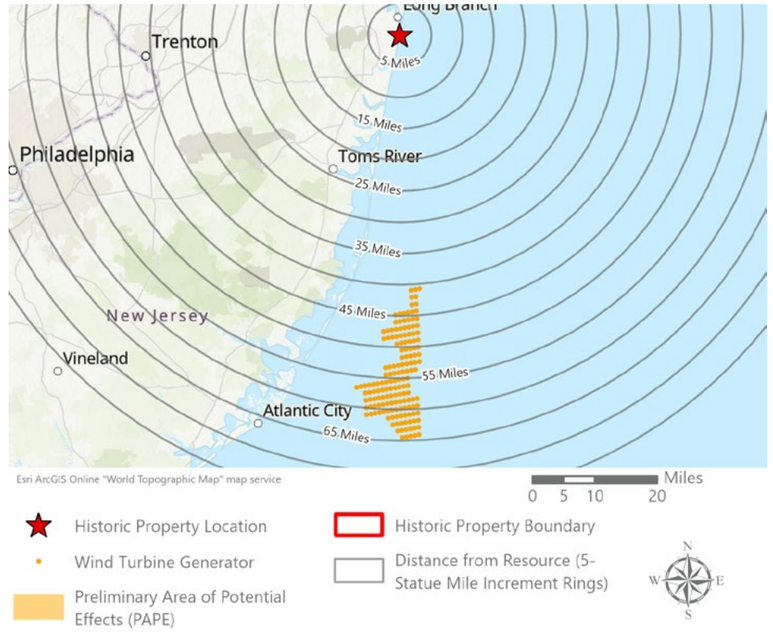
Sur Mer was constructed c. 1910 and is a beachside mansion constructed in the Chateauesque style. The resource retains historic integrity and is significant under Criterion C for its architecture as an excellent example of a Chateauesque-style mansion on the shore of New Jersey.

Maritime Setting

Sur Mer is a beachside mansion and has a significant maritime setting with clear views and access to the ocean and beach.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between Sur Mer and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 40 miles.



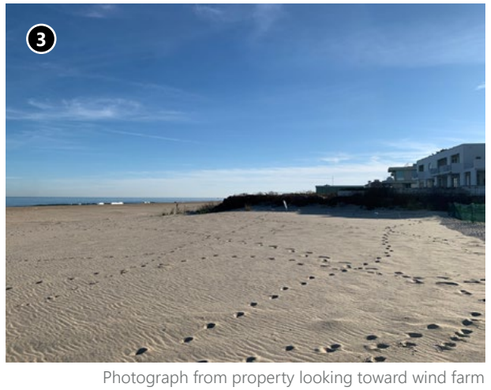


Elberon Bathing Club

1285 Ocean Avenue N
Long Branch City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 40.64 miles

Number of Blade Tips Visible 33

Property Acreage within PAPE 0.75

Percentage of Property with Potential Visibility 19.16

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

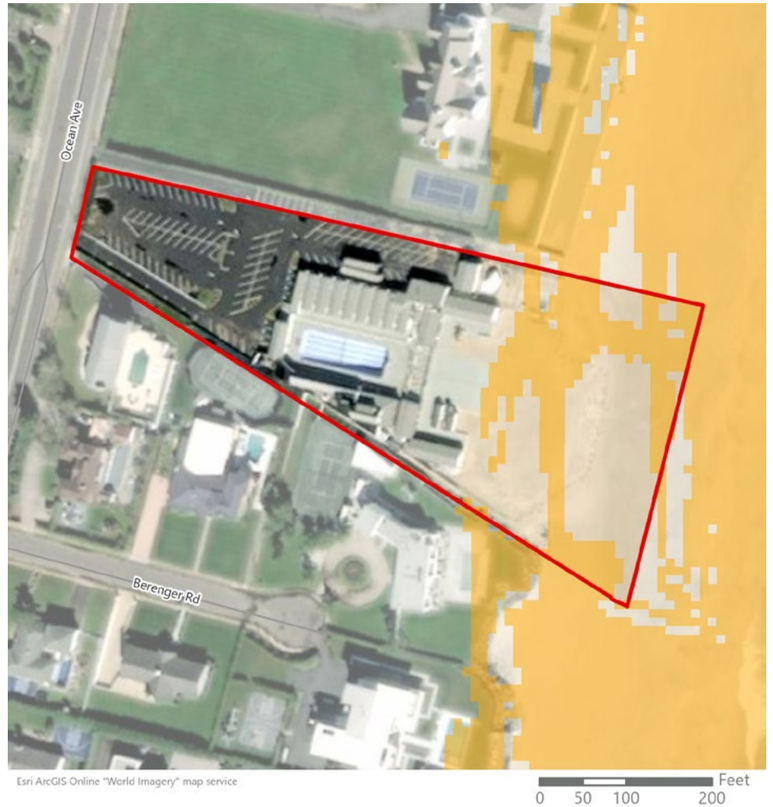
Significance

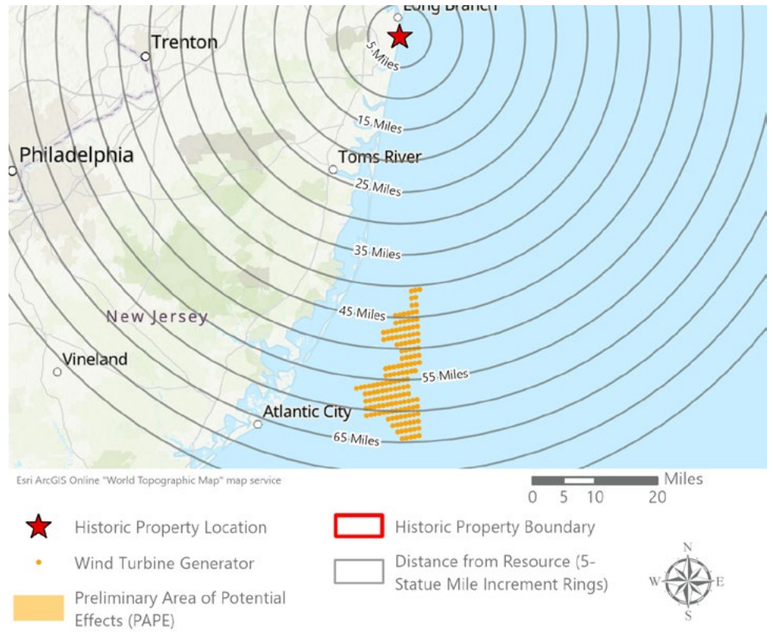
The Elberon Bathing Club was established din the late 1920s as a private, member-owned beach club founded by wealthy families looking for a private beach club. The club was constructed on Bloomingdale's Beach, on land owned by Gene Sperry, a New York lawyer. The club is significant under Criterion A and C as an extant example of an early twentieth century beach club.

Maritime Setting

The Elberon Bathing Club is located on the Atlantic Ocean and as a bathing club, has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished from the Elberon Bathing Club due to the distance between the club and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 40 miles.





Breakwater Beach Club

1141 Ocean Avenue N
Long Branch City, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 41.01 miles

Number of Blade Tips Visible 43

Property Acreage within PAPE 0.07

Percentage of Property with Potential Visibility 3.28

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

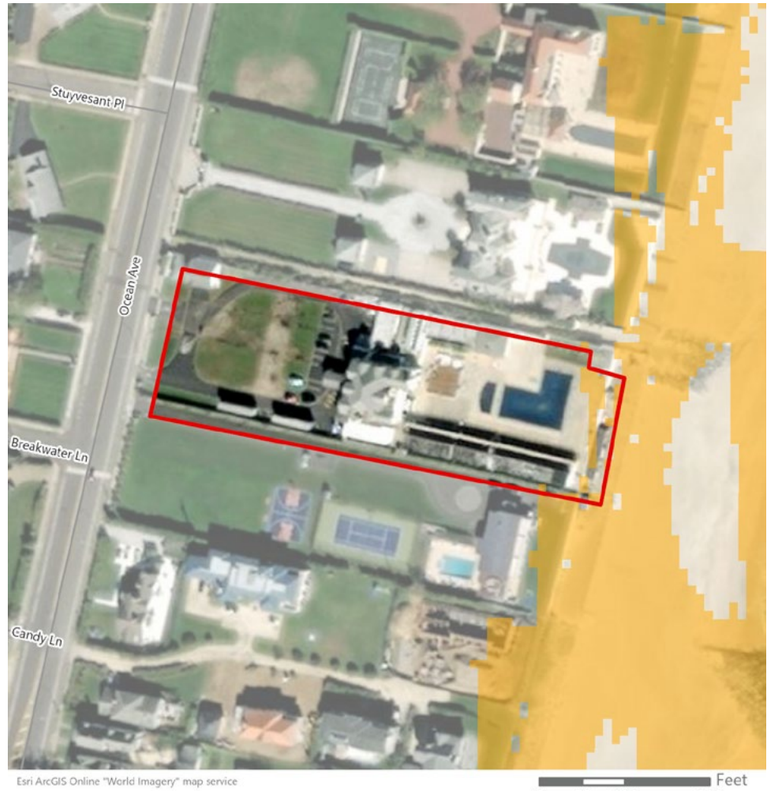
Significance

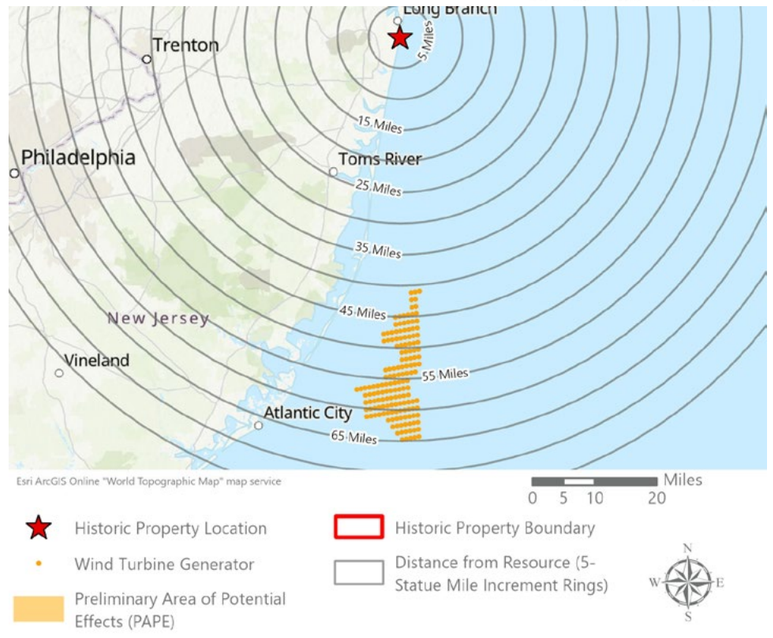
The Breakwater Beach Club, designed by H. Irving Braun, opened as a private club in 1957 by owners Abe Vogel, Leopold Hechter, Irving Kaye, Harry Glassberg, and Sol Tepper. The resource is significant under Criterion A for its role as a mid-twentieth century recreational beach club in Long Branch, a city renown for its beach clubs.

Maritime Setting

The Breakwater Beach Club is a recreational beachside club and has a significant maritime setting with clear views and access to the ocean and beach.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the Breakwater Beach Club and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 41 miles.



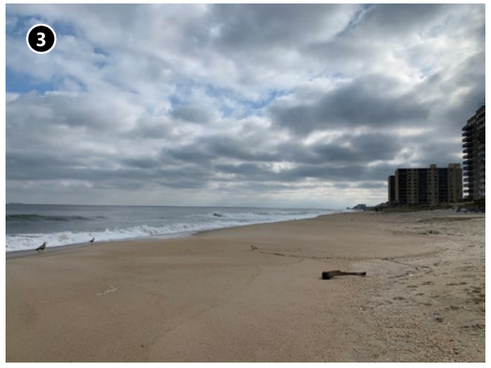


Monmouth Beach Bath and Tennis Club

65 Ocean Avenue
Monmouth Beach Borough, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 45.52 miles

Number of Blade Tips Visible 7

Property Acreage within PAPE 1.31

Percentage of Property with Potential Visibility 33.11

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

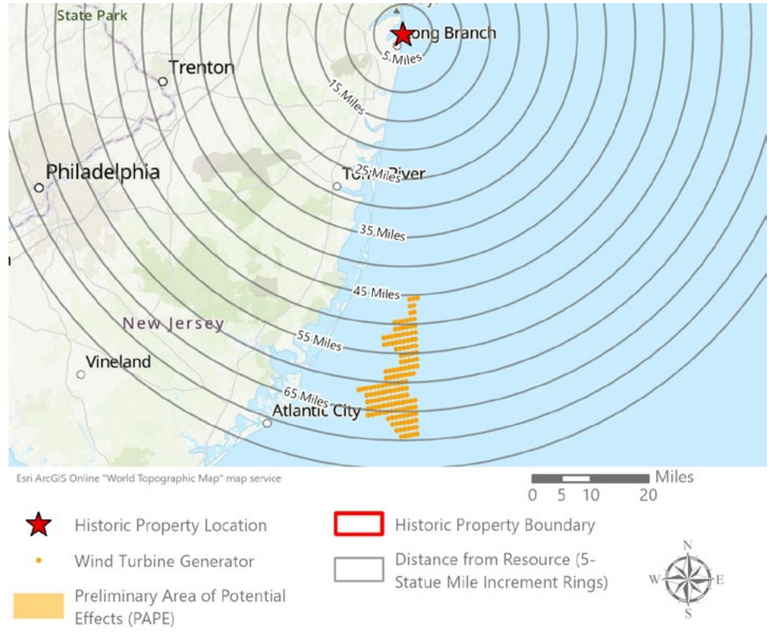
Significance

The Monmouth Beach Bath and Tennis Club was designed/developed by T.W. Butts and constructed in 1912 in a Mediterranean style with an Olympic-size pool in the center. The building is significant under Criterion A and C for its association with the development of the New Jersey shore and its architectural design as a beach club.

Maritime Setting

The Monmouth Beach Bath and Tennis Club is located on the Atlantic Ocean and as a bathing club, has a clear maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between the Monmouth Beach Bath and Tennis Club and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 45 miles.

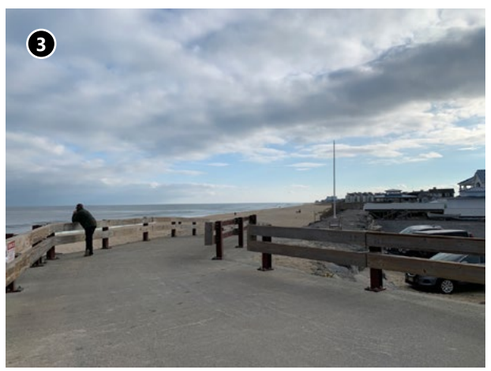


35 Ocean Avenue N

35 Ocean Avenue N
Monmouth Beach Borough, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 45.2 miles

Number of Blade Tips Visible 12

Property Acreage within PAPE 0.47

Percentage of Property with Potential Visibility 31.83

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

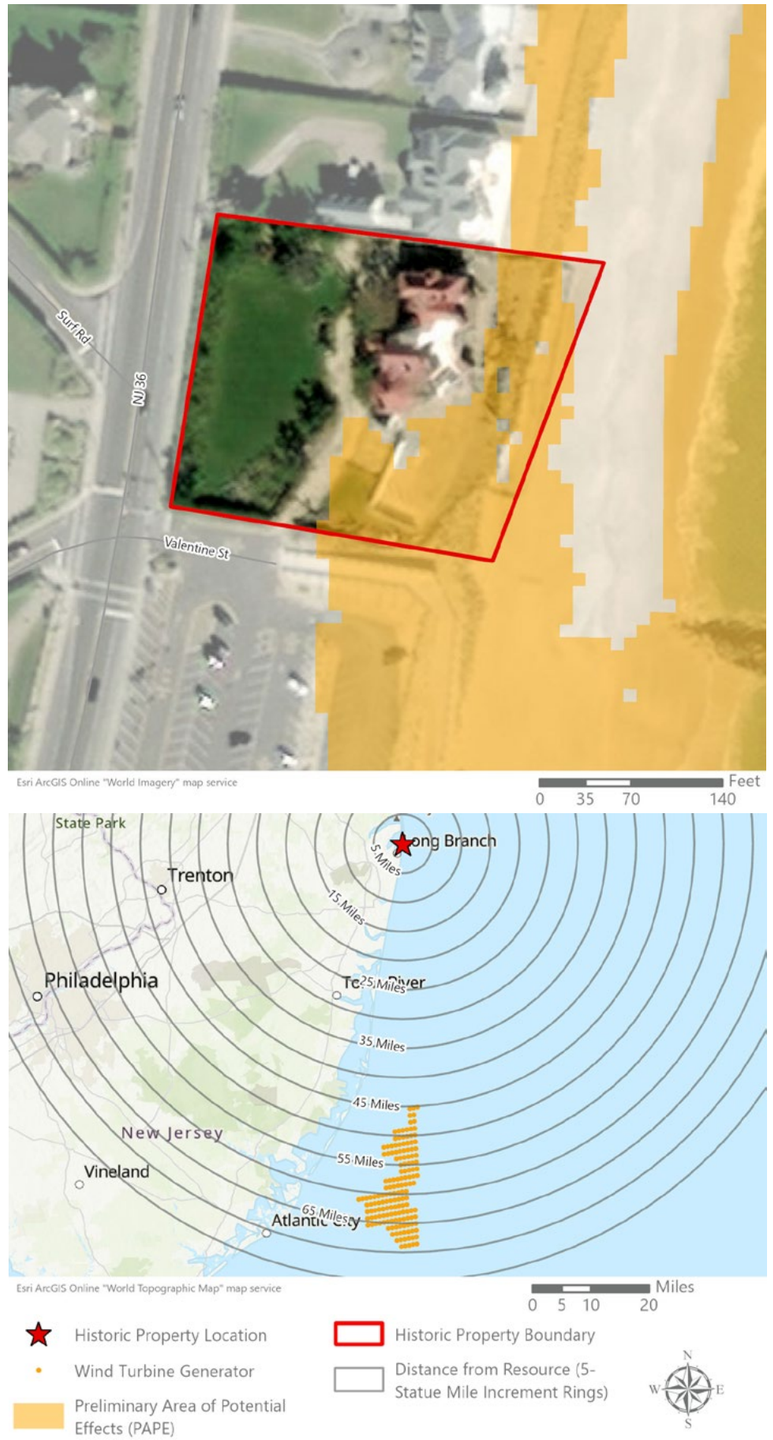
Significance

The Queen Anne style beachfront cottage at 35 Ocean Avenue N. was built in about 1905 and retains character defining exterior features including shingle siding, wood windows with colored glass, prominent chimneys, and conical turret roof. The property appears to retain sufficient integrity to convey its eligibility to the NRHP under Criterion C.

Maritime Setting

The resource has a beachfront setting and full and unobstructed views of the Atlantic Ocean.

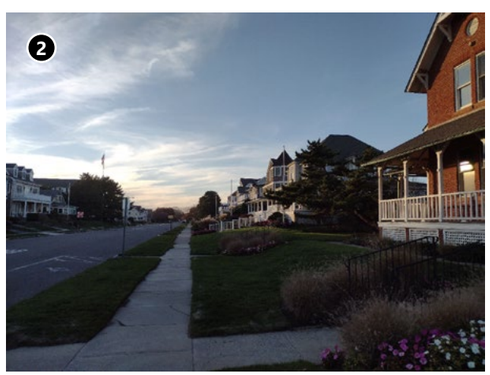
Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be substantially diminished due to the distance between 35 Ocean Avenue N. and the Project. In addition, WTGs will be very difficult to discern under even clear atmospheric conditions at a distance of over 45 miles.



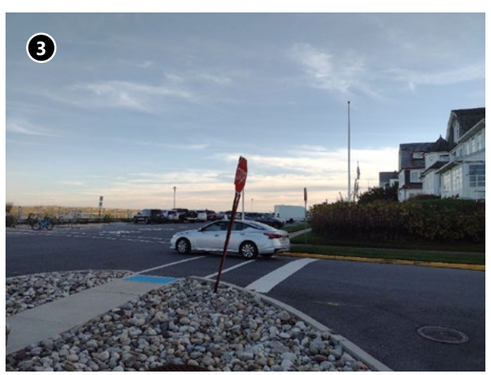
Sea Girt Lighthouse

9 Ocean Avenue N
Sea Girt, NJ

Photograph of property



Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 32.37 miles

Number of Blade Tips Visible 99

Property Acreage within PAPE 0.04

Percentage of Property with Potential Visibility

Visible Light Units 17.07

- Nacelle Aviation 30
- Mid Tower Aviation 0
- Coast Guard 0

KOP Reference N/A

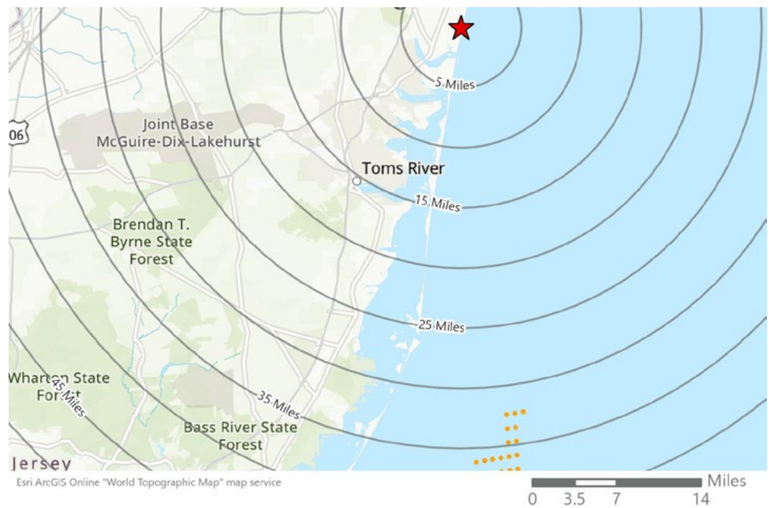
Significance

The Sea Girt Lighthouse meets Criterion A in the areas of Maritime History and Transportation for its association with coastal navigation in the first half of the twentieth century, notably including the novel use of radio navigational technology in 1921. The lighthouse is also NRHP-eligible under Criterion C as an example of a late-nineteenth-century lighthouse and as a late example of the integrated light and keeper's house type. The Sea Girt Lighthouse was constructed in 1896 to address the need for a guiding beacon in the 40-mile stretch between the Barnegat and Navesink Highlands light stations. The Sea Girt Light is a T-shaped brick keeper's house with integrated light, the last of its type constructed on the Atlantic coast. When constructed, the lighthouse was located on the beach of the Sea Girt Inlet, which was susceptible to shifting sands. By 1915, the beach had moved enough that the integrity of the lighthouse was being undermined requiring the construction of a bulkhead to stabilize the light station reservation grounds. By 1930, the inlet itself had become filled with silt to the point of being nearly impassable for larger vessels. In 1921, the Sea Girt Lighthouse was outfitted with a radio fog beacon. The Sea Girt station transmitted to incoming vessels which were then able to determine their proximity to the shore and New York Harbor by triangulating with the signals transmitted from lightships at Ambrose and Fire Island. Increasingly obsolete by the onset of the Second World War, the lighthouse was deactivated, and the keeper's house was converted to barracks for the U.S. Coast Guard which used the tower as an observation post for spotting U-boat activity. After the war, the federal government had no use for the building and sold the lighthouse in 1956 to the borough of Sea Girt which used it as a library and community space. The Sea Girt Lighthouse Citizens Committee was formed in 1981 to restore and manage the building as a museum.

Maritime Setting

The Sea Girt Lighthouse is located at the northwest corner of Ocean Avenue North and Beacon Boulevard. The building is flanked by residential development to the west and south. The ocean is to the east of Ocean Avenue North and there is some intervening construction between the lighthouse and the ocean. Based on historic photos from 1915, the Sea Girt Lighthouse appears to retain a high degree of historic integrity. While the beach was largely open when the building was constructed in 1896, the intervening development does not significantly disrupt the maritime setting of the lighthouse. The building is still located close to the shore and retains a sightline of the ocean.

Effect Recommendation
Adverse Effect
Due to the Sea Girt Lighthouse's location adjacent to the Atlantic Ocean beach, visibility of the Project is anticipated to be largely unobstructed from viewer height level and is anticipated to be a significant focus of viewer's attention from the lantern level.



2 Warren Avenue

2 Warren Avenue
Spring Lake Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 33.22 miles

Number of Blade Tips Visible 81

Property Acreage within PAPE 0.09

Percentage of Property with Potential Visibility 13.78

Visible Light Units

Nacelle Aviation 19
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

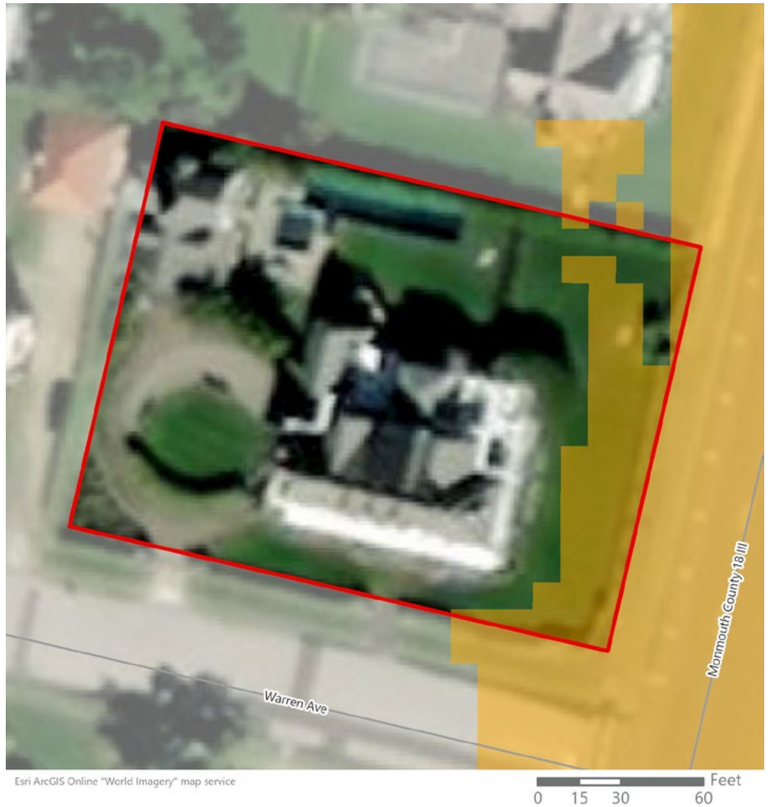
Significance

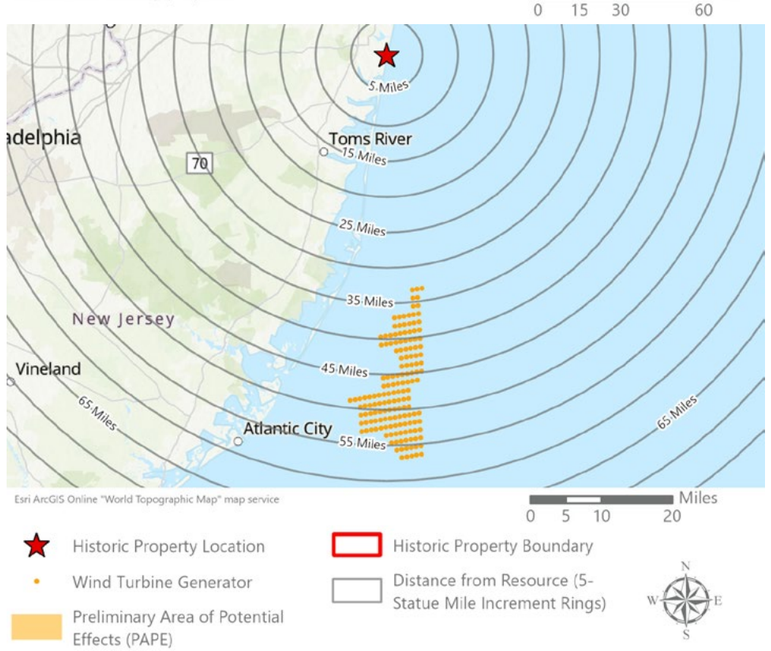
The building at 2 Warren Avenue is a two-story Colonial Revival mansion with a hipped roof and a rectangular plan. The roof system has a variety of dormers surmounted by finials. A center projecting bay on the second story features tripartite round arch windows and is surmounted by a balustrade. The projection is flanked by elliptical and oriel windows. The first story is defined by a substantial porch supported by Ionic and square columns. The residence is eligible under Criterion C for its architecture.

Maritime Setting

The Two-story Colonial Revival located at 2 Warren Avenue is located across Ocean Avenue from the Atlantic Ocean and has unobstructed views of the water.

Effect Recommendation
No Adverse Effect
Visibility of the Project from 2 Warren Avenue is anticipated to be restricted to the easternmost portions of the property due to the distance between the house and the Project.





2 Passaic Avenue

2 Passaic Avenue
Spring Lake Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 33.29 miles

Number of Blade Tips Visible 83

Property Acreage within PAPE 0.07

Percentage of Property with Potential Visibility 12.92

Visible Light Units

Nacelle Aviation 21
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

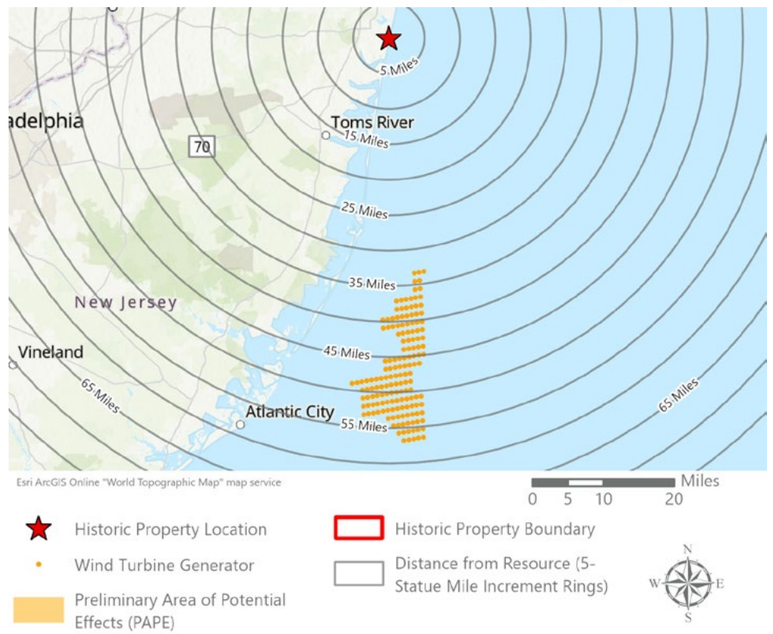
Significance

2 Passaic Avenue is an early example of Neoclassical architecture built ca. 1898 that is recommended as eligible under Criterion C. The two and a half story residence has a hipped roof with a single-story wraparound porch supported by paired columns, and a full-height porch with a flat roof supported by paired Corinthian columns at the entry on Passaic Avenue. The east elevation features an enclosed sunroom on the first floor and a second story porch with a flat roof supported by tripled columns. There are gabled dormers on all elevations including unusual double and triple gabled dormers on the two principal elevations. The siding is wood clapboard, the roof has wood shingles, and the foundation is concealed behind brickwork. Alterations include replacement windows, a non-historic porte-cochere, and replacement rails and balusters on the porches.

Maritime Setting

2 Passaic Avenue is an ocean-front property. Though its principal elevation faces Passaic Avenue, the wraparound porch, enclosed sunroom, second story porch, and triple dormer on the east elevation all face the sea. Though the low dunes block the ocean views from street level, the property is elevated above the street and has unobstructed views of the water.

Effect Recommendation
No Adverse Effect
Visibility of the Project from 2 Passaic Avenue is anticipated to be restricted to the easternmost portions of the property due to the distance between the house and the Project.



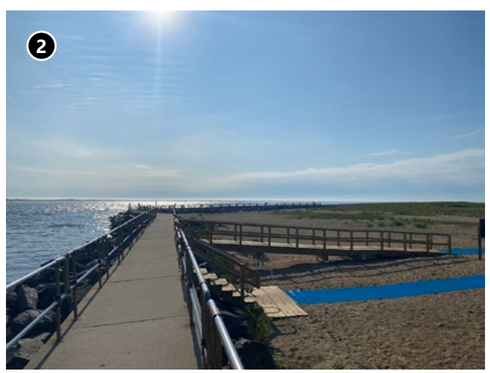
Barnegat Lighthouse

208 Broadway
Barnegat Light Borough, NJ

1

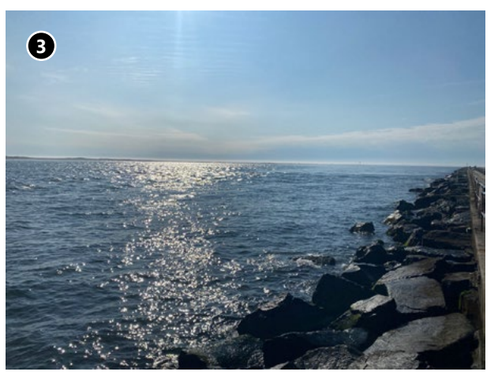
Photograph of property

2



Photograph of property context

3



Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 9.94 miles

Number of Blade Tips Visible 76

Property Acreage within PAPE 1.12

Percentage of Property with Potential Visibility 13.85

Visible Light Units

Nacelle Aviation 63
Mid Tower Aviation 55
Coast Guard 38

KOP Reference BLB02

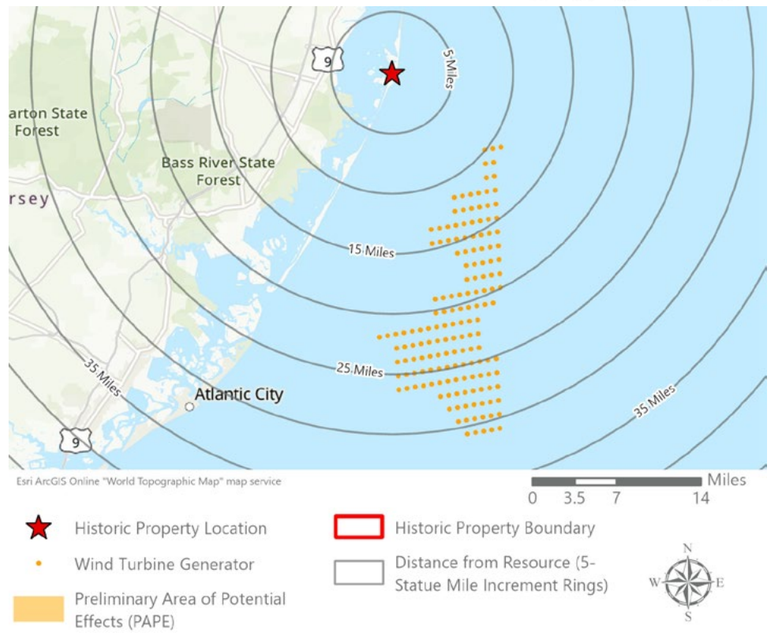
Significance

The Barnegat Lighthouse was built between 1855 and 1857 by Lt. George Meade, an Army engineer and future Civil War General. The lighthouse is 163 feet tall and was built to replace a much shorter structure that was destroyed by coastal erosion. The lighthouse operated with its original 12 foot tall Fresnel lens from 1959 to 1927, after which other lighting apparatus were used until the light was decommissioned in 1944. The property was given to the State of New Jersey and shortly thereafter the surrounding municipality changed its name to Barnegat Light. Though currently undergoing repairs, the Barnegat Lighthouse retains sufficient integrity to retain its listing on the NRHP of Historic Places.

Maritime Setting

The Barnegat Lighthouse has a definitively maritime setting as it was built on the northwestern tip of Long Beach Island to guide ships navigating Barnegat Inlet. Partial views of the ocean may be seen from the ground and broad ocean views may be seen from the top of the house where four cameras live stream the vistas for visitors to the Interpretive Center.

Effect Recommendation
Adverse Effect
The Barnegat Lighthouse was constructed between 1855 and 1857 to guide ships navigating Barnegat Inlet. Due to its location on the bay side of Long Beach Island at a distance of 9.93 miles from the Project, the WTGs will be visible from the lantern level and may be a significant focus of visitor attention when viewing the Atlantic Ocean.



Little Egg Harbor Yacht Club

401 Berkeley Avenue
Beach Haven Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 10.03 miles

Number of Blade Tips Visible 5

Property Acreage within PAPE 0.23

Percentage of Property with Potential Visibility 26.49

Visible Light Units

Nacelle Aviation 2
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

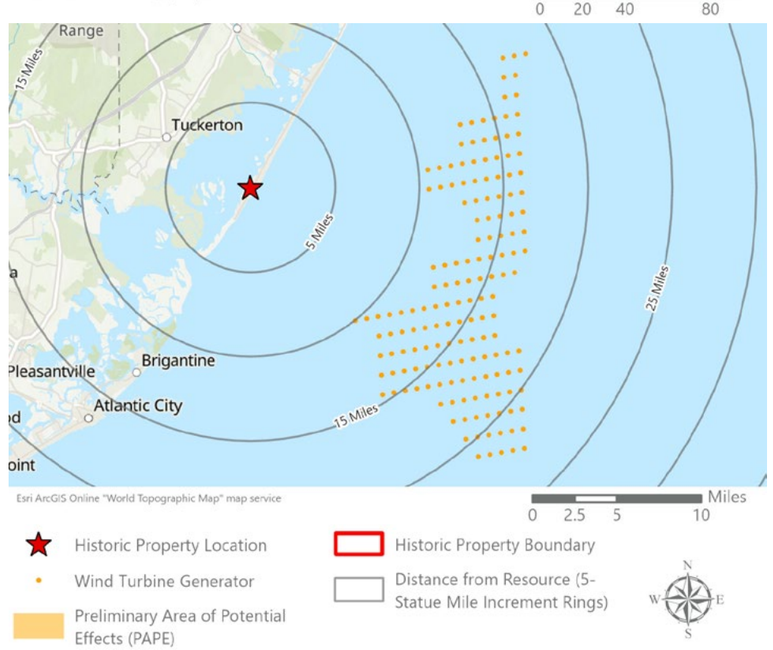
Significance

The Little Egg Harbor Yacht Club was founded in 1912 and the clubhouse was built in 1916. The present facility includes the clubhouse, docks, and athletic courts. The Craftsman style clubhouse retains integrity to its 1916 construction and appears to meet National Register Criterion C as an example of an early-twentieth-century social and athletic club.

Maritime Setting

The Little Egg Harbor Yacht Club is located on Little Egg Harbor on Long Beach Island. The clubhouse faces the harbor, away from the ocean, and the club's boating activities are primarily oriented to the protected waters of the harbor. The club is approximately 0.3 miles from the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Little Egg Harbor Yacht Club due to the intervening vegetation and built environment.



Sherbourne Farm

319 Liberty Avenue
Beach Haven Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 9.78 miles

Number of Blade Tips Visible 5

Property Acreage within PAPE 0.09

Percentage of Property with Potential Visibility 13.29

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

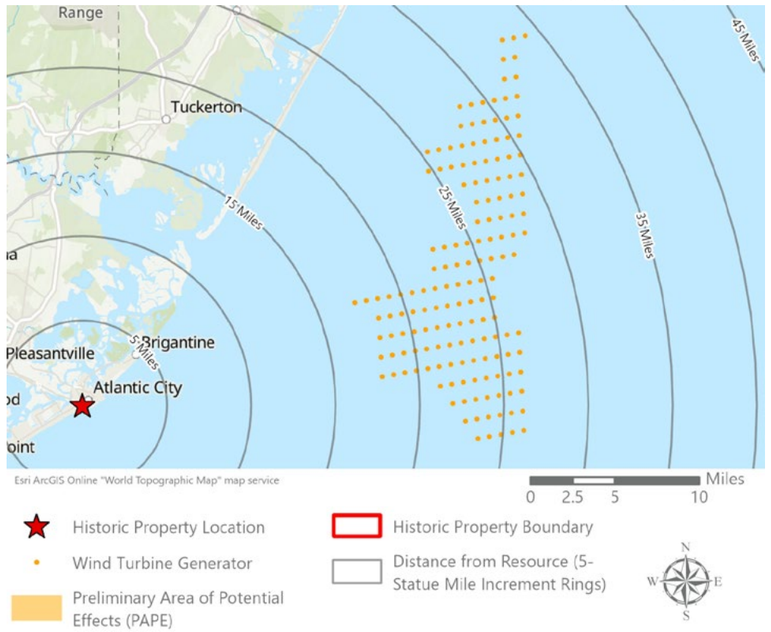
Significance

Sherbourne Farm was listed on the NRHP in 1983 with significance under Criterion B for its association with Thomas Sherbourne and Charles Beck. The farmhouse was built by Sherbourne in 1874 in the Italianate style. Around 1900, the property was purchased by Charles Beck who raised the house one-story and added a rear addition with a tower. During the time of Beck's ownership, the property became known as "The Whitehouse of New Jersey" due to the famous and wealthy visitors who stayed at the property during the high season in the summer. The resource is also significance under Criterion C for Architecture as an intact example of the Italianate style in the resort community of Beach Haven.

Maritime Setting

Sherbourne Farm had a significant maritime setting at the time of its construction and into the first decades of the twentieth century prior to the large-scale development of Beach Haven in the late 1970s and early 1980s. In aerial photographs from the 1920s, the property is visible set back from South Bay Avenue on its northwest side with very few nearby properties and open areas of land on all sides. The house likely had sweeping views of Little Egg Harbor to the west and the Atlantic Ocean to the east. However, large-scale residential development around the property beginning in the late 1970s has obstructed views to the bay and sea from the property. Presently, development has continued and on a larger scale with three-story new constructions dominating the built landscape of the community.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Sherbourne Farm due to the intervening vegetation and built environment.



AT&T Transmitter Building and Antenna Field

83 Bayview Avenue (Ocean County Route 617)
Berkeley Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 19.06 miles

Number of Blade Tips Visible 156

Property Acreage within PAPE 89.04

Percentage of Property with Potential Visibility 41.87

Visible Light Units

Nacelle Aviation 88
Mid Tower Aviation 2
Coast Guard 0

KOP Reference N/A

Significance

The AT&T Transmitter Building and Antenna Field was built in the 1930s as a high-frequency (shortwave) radio transmitting station that provided "ship to shore" telephone communications and to overseas locations. The resource is eligible for NRHP listing under Criterion A for its association with Engineering and Maritime History.

Maritime Setting

The resource is located at the mouth of the Toms River overlooking Barnegat Bay with views to the beach at Seaside Park and the Atlantic Ocean. The location of the building in proximity to the ocean was essential to its function in providing ship-to-shore radio transmission and as a result is has unobstructed views to Barnegat and Seaside Park.

Effect Recommendation
No Adverse Effect
The AT&T Transmitter Building and Antenna Field is significant for its association with engineering and maritime wireless communications. Visibility of the WTGs would not diminish the integrity of association or setting of this property.

U.S. Lifesaving Station Number 14

Central Avenue
Berkeley Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Listed

Distance to Nearest Turbine 16.84 miles

Number of Blade Tips Visible 0

Property Acreage within PAPE 0

Percentage of Property with Potential Visibility 0

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

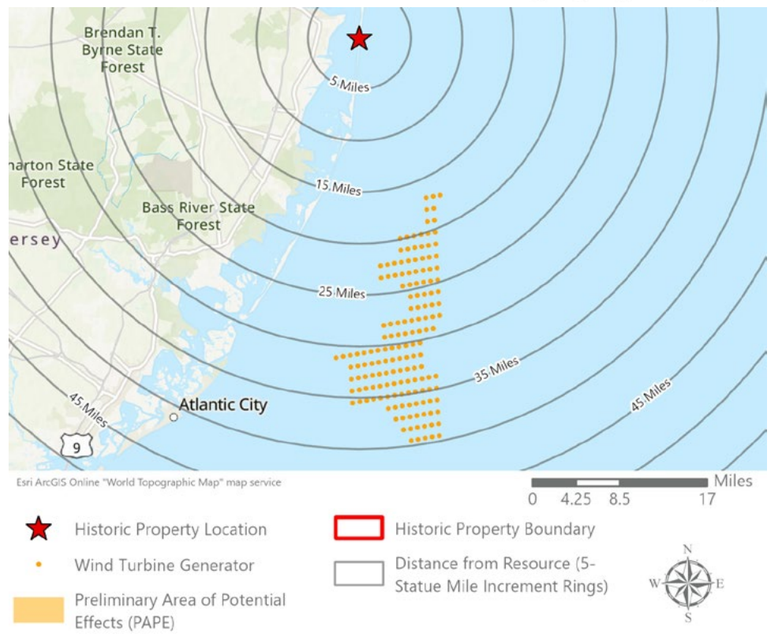
Significance

The U.S. Lifesaving Station No. 14 was constructed in 1894 as a rescue station by the United States Life Saving Service. The building is significant for its architecture under Criterion C and Under Criterion A its association as a life saving station for commerce and transportation.

Maritime Setting

The U.S. Lifesaving Station No. 14 has a maritime function as a lifesaving station and has a maritime setting overlooking the Atlantic Ocean with wide ocean views.

Effect Recommendation
Adverse Effect
Although ground level views may be restricted, interior views of the project, particularly from the tower, may be expansive. Views of the open ocean are integral to the historic function of the lifesaving station.



Forked River Coast Guard Station No. 112

Central Avenue, Island Beach State Park
Berkeley Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 11.51 miles

Number of Blade Tips Visible 2

Property Acreage within PAPE 0.06

Percentage of Property with Potential Visibility 3.11

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

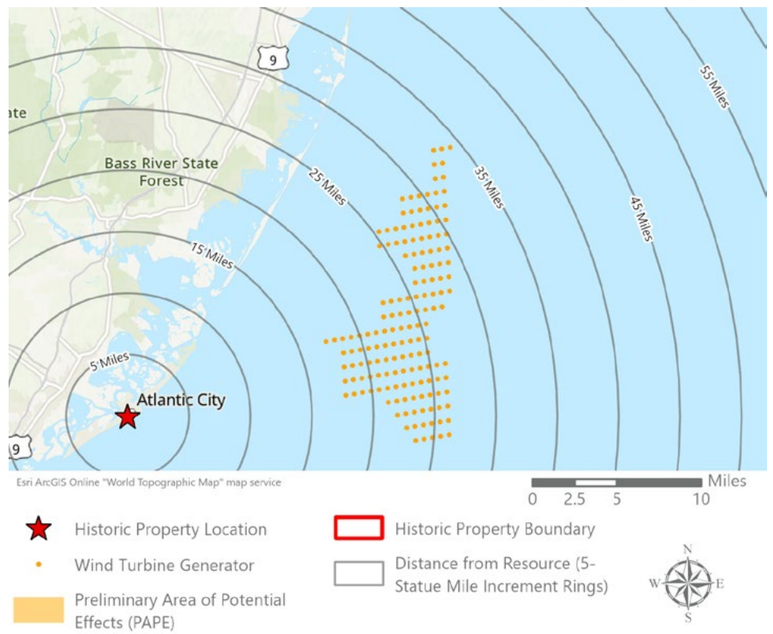
Significance

The Forked River Coast Guard Station No. 112 was determined to be eligible for the NRHP in 1996 by NJHPO. The station was built in 1855 and was decommissioned in 1948. The resource is significant under Criterion A for its association with the maritime history of Long Beach Island and Ocean County.

Maritime Setting

The Forked River Coast Guard Station No. 112 is located within Island Beach State Park and sits just to the west of the beach and Atlantic Ocean. As such, it has a significant maritime setting.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Forked River Coast Guard Station No. 112 due to the surrounding vegetation and dunes and topography of Island Beach State Park.

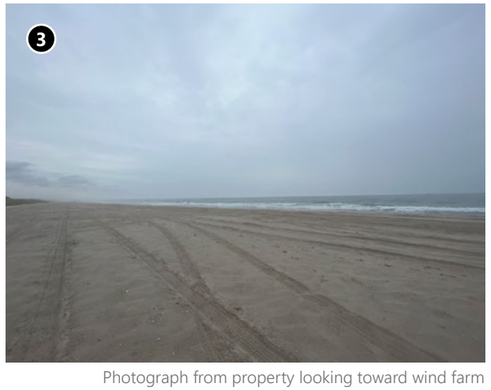


The Judge's Shack

Central Avenue
Berkeley Township, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 12.23 miles

Number of Blade Tips Visible 157

Property Acreage within PAPE 1.5

Percentage of Property with Potential Visibility 36.23

Visible Light Units

Nacelle Aviation 157
Mid Tower Aviation 139
Coast Guard 28

KOP Reference N/A

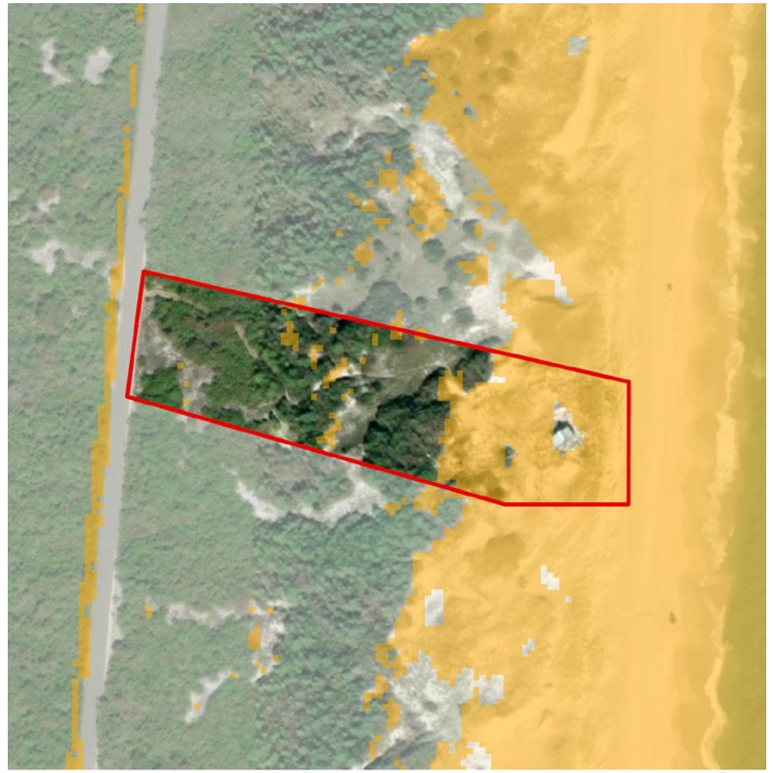
Significance

The Judge's Shack is a contributing resource to the Island Beach State Park Historic District and was previously determined to be individually eligible for listing on the HRLP by NJHPO. The building was constructed ca. 1911 and is the last known surviving example of its type. The resource retains sufficient integrity to convey its significance under NRHP Criteria A and C.

Maritime Setting

The Judge's Shack is situated approximately 700 feet to the east of Shore Road and is set atop a remote dune overlooking the Island Beach State Park beach with unobstructed views of the Atlantic Ocean. The shack's relationship to ocean waters is integral to its significance and feeling of quiet and relative isolation.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the Judge's Shack due to the property's location on the Atlantic Ocean.



Small Estate

7202 Long Beach Boulevard
Harvey Cedars Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 9.08 miles

Number of Blade Tips Visible 5

Property Acreage within PAPE 1.46

Percentage of Property with Potential Visibility 16.79

Visible Light Units

Nacelle Aviation 4
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

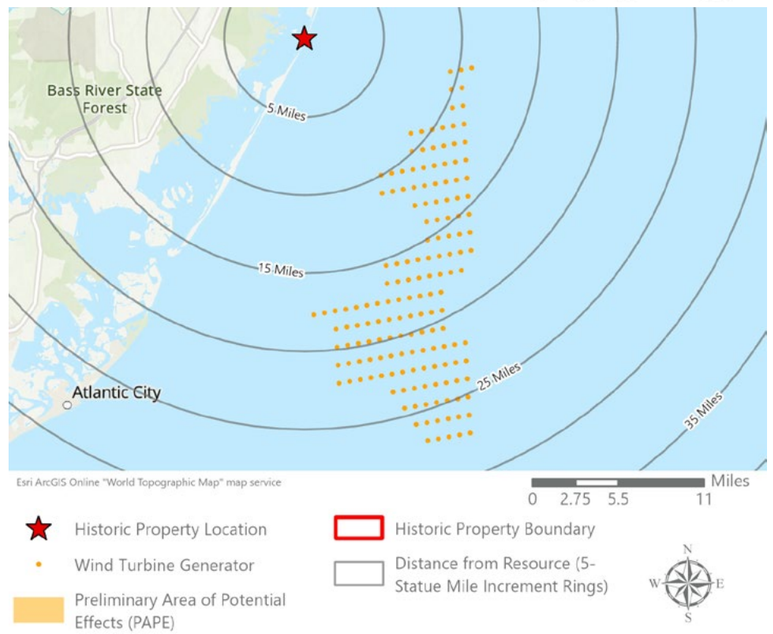
Significance

The Small Estate is an estate that originally stretched from the ocean to the bay and was established by Frederick Small of the American Railroad Express in the 1930s. The estate became a focal point of the region. Today the estate remaining historic fabric consists of a gardener's house, superintendent's house, garage, gazebo, and greenhouse foundation, the original residence having been demolished. The estate is recommended eligible for the NRHP under Criteria A and C, under Recreation and Architecture.

Maritime Setting

The Small Estate is currently located on the bay; however, originally the property stretched across the barrier island to the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Small Estate due to the intervening vegetation and built environment.



Harvey Cedars Hotel

12 Cedars Avenue
Harvey Cedars Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 9.09 miles

Number of Blade Tips Visible 9

Property Acreage within PAPE 0.49

Percentage of Property with Potential Visibility 4.45

Visible Light Units

Nacelle Aviation 2
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

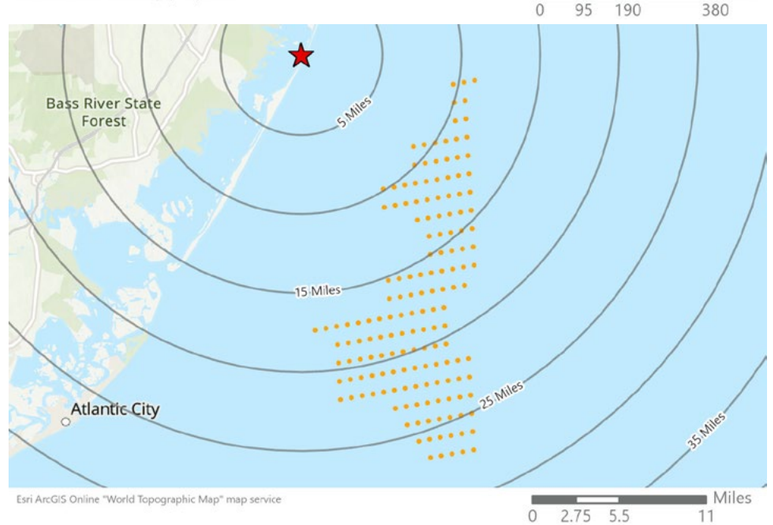
Significance

The Harvey Cedars Hotel is a three-and-a-half story wood-frame hotel that has been formally determined eligible by the NJHPO. Constructed circa 1885, the 17-bay hotel exhibits Colonial Revival with Gothic Revival style elements, and is the last remaining 19th century resort located on Long Beach Island. The hotel is recommended eligible for the NRHP under Criterion A and C as a rare remaining example of a 19th century resort on Long Beach Island.

Maritime Setting

The Harvey Cedars Hotel is located on the barrier island between the bay and Harvest Cove with views of the Atlantic Ocean.

Effect Recommendation
No Adverse Effect
Visibility of the Project is anticipated to be limited from the Harvey Cedars Hotel due to the intervening buildings and Harvest Cove.



Stevens House

1 Brown Avenue
Lavallette Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (EDR-Recommended)

Distance to Nearest Turbine 21.52 miles

Number of Blade Tips Visible 126

Property Acreage within PAPE 0.1

Percentage of Property with Potential Visibility 30.24

Visible Light Units

Nacelle Aviation 71
Mid Tower Aviation 28
Coast Guard 0

KOP Reference N/A

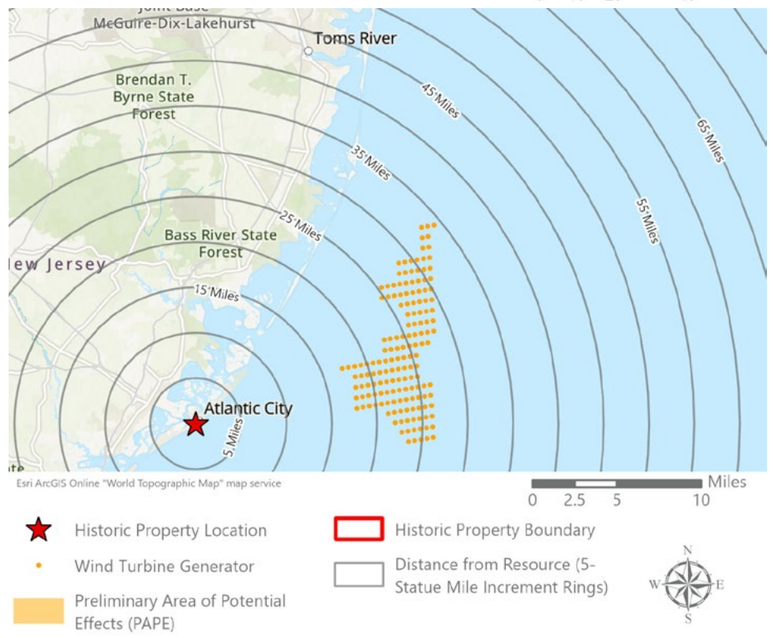
Significance

The Stevens House was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Dutch Colonial Revival house was constructed ca. 1900 and retains sufficient integrity to convey its significance under NRHP Criterion C.

Maritime Setting

The Stevens House is located on the west side of Ocean Avenue between Magee Avenue and Brown Avenue. The house is oriented with views directly to the Lavallette Boardwalk, Lavallette Beach, and the Atlantic Ocean. The views to the ocean are partially obstructed by sand dunes; however, the house was designed to have views of the ocean.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project from the Stevens House due to the location on the Atlantic Ocean.



Little Egg Harbor US Life Saving Station #23

800 Great Bay Boulevard
Little Egg Harbor Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 11.22 miles

Number of Blade Tips Visible 129

Property Acreage within PAPE 4.02

Percentage of Property with Potential Visibility 87.66

Visible Light Units

Nacelle Aviation 129
Mid Tower Aviation 117
Coast Guard 3

KOP Reference LEHT02, LEHT01

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
Although some screening of the Project will be provided by the barrier islands, expansive views of the WTGs will alter the historic viewshed of the Little Egg Harbor US Life Saving Station #23.

U.S. Life Saving Station No. 13

1701 North Ocean Avenue
Seaside Park Borough, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 19.24 miles

Number of Blade Tips Visible 126

Property Acreage within PAPE 0.04

Percentage of Property with Potential Visibility 12.1

Visible Light Units

Nacelle Aviation 99
Mid Tower Aviation 27
Coast Guard 0

KOP Reference SPB01

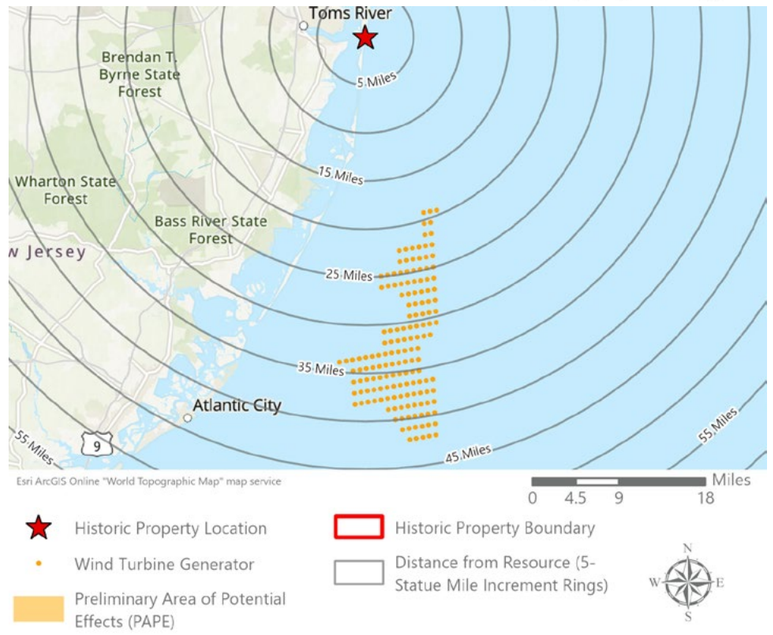
Significance

U.S. Life Saving Station No. 13 was previously determined to be eligible for NRHP listing by NJHPO. The former lifesaving station now functions as borough offices for Seaside Park and the historic-era garage is used as storage for lifeguard equipment. The resource retains sufficient integrity to convey its significance under Criterion A for its association with the Maritime History of Seaside Park.

Maritime Setting

U.S. Life Saving Station No. 13 was constructed in Seaside Park in 1900 on the west side of North Ocean Avenue approximately 560 feet from the beaches at Seaside Park and the Atlantic Ocean. Its proximity to the beach and ocean was an essential part of its function as a lifesaving station. As a result, the building has unobstructed views to the shore and ocean.

Effect Recommendation
Adverse Effect
Unobstructed views of the Project to the southeast. Views of the open ocean are integral to the historic function of the lifesaving station.

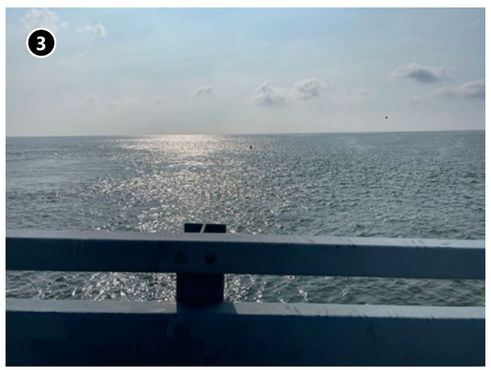


Townsend Inlet Bridge (SI&A # 3100003)

Ocean Highway (CR 619) over Townsend Inlet
Avalon Borough, Middle Township, Sea Isle City, NJ

Photograph of property

Photograph of property context



Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 37.59 miles

Number of Blade Tips Visible 67

Property Acreage within PAPE 0.18

Percentage of Property with Potential Visibility 100

Visible Light Units

Nacelle Aviation 0
Mid Tower Aviation 0
Coast Guard 0

KOP Reference N/A

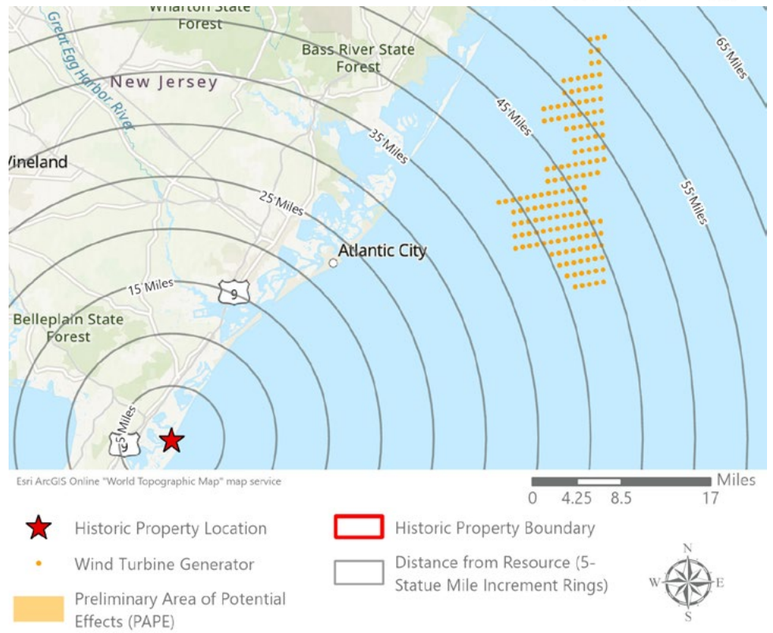
Significance

The Townsend Inlet Bridge was one of four trunnion bascule bridges designed by Ash Howard Needles & Tammen and erected in Cape May County between 1938 and 1940. Moveable bridges were necessary to facilitate vehicular traffic between the barrier island resorts while still allowing boat traffic to navigate the inlet's confluence with the Atlantic Ocean. The bridge retains sufficient integrity to convey its eligibility to the NRHP under Criterion A and Criterion C.

Maritime Setting

The Townsend Inlet Bridge has a definitively maritime setting due to its location on the edge of the Atlantic Ocean and contributes to the maritime setting of the area by linking one barrier island to another. It has unobstructed views of the ocean.

Effect Recommendation
No Adverse Effect
The Townsend Inlet Bridge is significant for its engineering and association with the New Deal Era; therefore visibility of the Project will not adversely affect its significance or character-defining features. Visibility of the Project would not diminish the capacity of the Bridge to convey its significance as a surviving movable bridge characteristic of its late pre-WWII era.



Corson's Inlet Bridge (SI&A # 3100002)

Ocean Drive, Bay Avenue (County Rte. 619) over Strathmere Bay.
Upper Township, NJ

Photograph of property

Photograph of property context

Photograph from property looking toward wind farm

Historic Designation NRHP-Eligible (NJHPO-Determined)

Distance to Nearest Turbine 32.17 miles

Number of Blade Tips Visible 139

Property Acreage within PAPE 2.47

Percentage of Property with Potential Visibility 84.73

Visible Light Units

Nacelle Aviation 27
Mid Tower Aviation 0
Coast Guard 0

KOP Reference UT01

Significance

Corson's Inlet Bridge was previously determined to be eligible for inclusion in the NRHP by NJHPO in 2008. The moveable-bascule bridge from 1948 retains sufficient integrity to convey its significance for eligibility in the NRHP.

Maritime Setting

Corson's Inlet Bridge connects the barrier islands of Sea Isle City, Strathmere, and Ocean City and is a vital link between the islands and to the large tourist population in the area. Additionally, the bridge functions as an evacuation route during weather events and has a significant maritime setting.

Effect Recommendation
No Adverse Effect

Although the Project will be visible from the Corson's Inlet Bridge, the bridge is significant for its engineering and the Project will not adversely affect the character-defining features or its maritime setting along the inlet.