

Appendix H-1: Offshore Historic Properties Assessment

Coastal Virginia Offshore Wind Commercial Project



Submitted by:
Dominion Energy Services, Inc.
707 E. Main Street,
Richmond, VA 23219

Prepared by:
**R. Christopher Goodwin &
Associates, Inc.**
241 East Fourth Street, Suite 100
Frederick, MD 21701

Submitted to:
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, VA 20166

CONSTRUCTION AND OPERATIONS PLAN

Coastal Virginia Offshore Wind Commercial Project

Attachment H-1 Offshore Project Components Historic Properties Effects Analysis

Prepared for:



707 East Main Street
Richmond, Virginia 23219

Prepared by:



R. Christopher Goodwin & Associates, Inc.
241 East Fourth Street, Suite 100
Frederick, MD 21701



Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

www.tetrattech.com

Submitted June 2021, Revised October 2021

TABLE OF CONTENTS

H-1.1 Introduction	1
H-1.2 Project Description	2
H-1.3 Defining the Area of Potential Effects (APE)	7
H-1.3.1 Introduction	7
H-1.3.2 Study Area	7
H-1.3.3 Proposed Area of Potential Effects (APE).....	7
H-1.4 Methodology	10
H-1.4.1 Introduction	10
H-1.4.2 BOEM Consultation	10
H-1.4.3 Archival Research	11
H-1.4.4 Outreach and Engagement	14
H-1.4.5 Windshield Survey	14
H-1.4.6 Field Survey	14
H-1.4.7 Data Analysis	15
H-1.5 Identification and Analysis of Previously identified Historic Properties	17
H-1.5.1 Previously Identified Historic Properties within the APE	17
H-1.5.2 Historic Property Types	21
H-1.6 Identification and Analysis of Previously identified Unevaluated Properties within the APE	47
H-1.6.1 Previously Identified Properties within the APE	47
H-1.6.2 Historic Property Types	55
H-1.7 Analysis	58
H-1.7.1 Identification of Offshore Project Components that May Affect Historic Properties.....	58
H-1.7.2 Summary of Visual Effects to Historic Properties.....	60
H-1.7.3 Summary of Visual Effects to Effects Previously Identified Unevaluated Properties.....	65
H-1.7.4 Visibility Analysis.....	75
H-1.8 Summary and Conclusion	79
H-1.8.1 Summary of Potential Effects.....	79
H-1.8.2 Summary of Results.....	80
H-1.9 Recommendations	87
H-1.9.1 Mitigation Recommendations	87
H-1.10 Sources Cited	88

TABLES

Table H.5-1. Previously Identified Properties within the Proposed Area of Potential Effect (APE)	17
Table H.5-2. Previously Identified Historic Properties within the Proposed Area of Potential Effect.....	18
Table H.5-3. Bureau of Ocean Energy Management Study Identified Properties.....	18

Table H.7-1.	Summary of Results of Historic Properties Potentially Affected by the Offshore Project Components.....	60
Table H.7-2.	Summary of Results of Unevaluated Properties Potentially Affected by the Offshore Project Components.....	66
Table H.7-3.	Applying <i>Offshore Wind Turbine Visibility and Visual Impact Threshold Distances</i> (Sullivan et al.).....	78
Table H.8-1.	List of Properties with Maritime Settings and/or Ocean Views.....	81

FIGURES

Figure H.1-1.	Locational Map and Project Design Envelope.....	4
Figure H.2-1.	Map of the Wind Turbine Generator Array	6
Figure H.3-1.	Map of the Study Area	8
Figure H.3-2.	Map of the Proposed Area of Potential Effect	9
Figure H.4-1.	Map of Half-Mile Windshield Survey Grid Points.....	16
Figure H.6-1.	Field-Verified Viewshed Model, Virginia's Eastern Shore	49
Figure H.7-1:	27-Mile Visibility Radius Overlay	77

ATTACHMENTS

Attachment H-1	Engagement Groups Invited to Engagement Meeting
Attachment H-2	Tribes Invited to Tribal Engagement Meeting
Attachment H-3	Historic Properties Field Survey Photographs
Attachment H-4	Historic Properties Survey Location and Photograph Mapping
Attachment H-5	Unevaluated Properties Field Survey Photos
Attachment H-6	Unevaluated Properties Survey Location Mapping

LIST OF ACRONYMS

ac	acre
APE	Area of Potential Effect
BOEM	Bureau of Ocean Energy Management
ca.	circa
CFR	Code of Federal Regulations
CLG	Certified Local Government
CVOW	Coastal Virginia Offshore Wind
dBA	A-weighted decibel
Dominion Energy	Virginia Electric and Power Company, d/b/a Dominion Energy Virginia
ft	foot
GIS	Geographic Information System
ha	hectare
HDD	horizontal directional drilling
HP KOP	Historic Properties Key Observation Point
HPOWeb	The North Carolina State Historic Preservation Office GIS Web Service
km	kilometer
KOP	Key Observation Point
Lease Area	the OCS-A 0483 Lease, located approximately 27 mi (23.75 nautical miles, 43.99 kilometers) off the coast of Virginia and includes approximately 112,799 acres (45,658 hectares) of submerged lands
Lessee	Dominion Energy
m	meter
mi	mile
MPDF	Multiple Property Documentation Form
MW	megawatt
NCHPO	North Carolina State Historic Preservation Office
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
nm	nautical mile
NPS	National Park Service
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
APE	Proposed Area of Potential Effects
PDE Project	Project Design Envelope Dominion Coastal Virginia Offshore Wind Commercial Project
RCG&A	R. Christopher Goodwin & Associates, Inc.
SHPO	State Historic Preservation Office
SMR	State Military Reservation
TCP	Traditional Cultural Property
VCRIS	Virginia Cultural Resource Information System
VDHR	Virginia Department of Historic Resources
VLR	Virginia Landmark Register
WEA	Wind Energy Area
WTG	Wind Turbine Generator

H-1.1 INTRODUCTION

R. Christopher Goodwin & Associates, Inc. (RCG&A) was retained by Tetra Tech, Inc. (Tetra Tech) on behalf of the Virginia Electric and Power Company, doing business as Dominion Energy Virginia (Dominion Energy), to undertake the Offshore Project Components Historic Properties Effects Analysis for the Coastal Virginia Offshore Wind (CVOW) Commercial Project (Project). The Offshore Project Components will principally be located approximately 27 miles (mi; 23.75 nautical miles [nm], 43.99 kilometers [km]) off the coast of Virginia Beach, Virginia (see Figure H.1-1).

This study was completed to identify and to assess the Project's potential effects to historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) and previously identified properties that have not been evaluated for NRHP eligibility. This investigation includes the architectural investigations related to the impact of the Offshore Project Components of the Project as required under the Bureau of Ocean Energy Management (BOEM) *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM, 2020), and it is anticipated to support the integration of the Section 106 process (36 CFR Part 800) of the National Historic Preservation Act (NHPA) of 1966, as amended, with analyses required under the National Environmental Policy Act (NEPA). Coordination of the Section 106 process and NEPA reflects longstanding agency practice and was most recently endorsed by BOEM in December 2020 as the federal agency's preferred approach.

The Offshore Project Components are not anticipated to physically alter the onshore above-ground properties. However, certain Offshore Project Components above the ocean surface, namely the proposed wind turbine generators (WTGs), will have the potential to introduce new visual and auditory elements that may affect the integrity of setting of onshore above-ground properties. Integrity is defined as a property's qualities of location, design, setting, materials, workmanship, feeling, and association. Historic properties possess both the qualities of significance and integrity defined in the National Register Criteria for Evaluation (36 CFR § 60 [a-d]). The integrity of historic and potentially historic properties, those listed in or eligible for listing in the NRHP, can be affected by the introduction of new elements within the landscape that may diminish their significant historic features through loss of integrity. Adverse effects to these properties may include the physical destruction or alteration of a property and the alteration of the important aspects of integrity that qualify it for National Register consideration. The NRHP Criteria of Adverse Effect states:

Adverse effects on historic properties include, but are not limited to:...(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 significance historic features (Code of Federal Regulations 2004).

The Offshore Project Components have the potential to affect the integrity of setting of historic and previously identified unevaluated properties. Setting is defined as "the physical environment of the historic property" (National Park Service 1990). Adverse effects to historic or potentially historic properties alter the characteristics that qualify the property for listing in the National Register through diminished integrity.

The current study investigated, evaluated, and developed recommendations for measures to avoid, limit or mitigate potential adverse effects to historic and previously identified unevaluated properties from the Offshore Project Components. The Historic Properties Effects Analysis investigation completed for the Onshore Project Components is documented in a separate report included with this Appendix. The descriptions of properties common to both reports are consistent and focus on effects from the respectively studied Project components.

H-1.2 PROJECT DESCRIPTION

The Project will be located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483, Lease Area), which was awarded to Dominion Energy (Lessee) through the BOEM competitive renewable energy lease auction of the Wind Energy Area (WEA) offshore of Virginia in 2013. The Lease Area covers approximately 112,799 acres (ac; 45,658 hectares [ha]) and is approximately 27 statute mi (mi; 23.75 nm, 43.99 km) off the Virginia Beach coastline.

Dominion Energy has adopted a Project Design Envelope (PDE) approach to describe Project facilities and activities. A PDE is defined as “a reasonable range of project designs” associated with various components of the project (e.g., foundation and wind turbine generator [WTG] options, BOEM 2018). The PDE is then used to assess the potential impacts on key environmental and human use resources (e.g., marine mammals, fish, benthic habitats, commercial fisheries, navigation, etc.) focusing on the design parameter (within the defined range) that represents the greatest potential impact (i.e., the “maximum design scenario”) for each unique resource (Rowe et al. 2017). The primary goal of applying a design envelope is to allow for meaningful assessments by the jurisdictional agencies of the proposed project elements and activities while concurrently providing the Lessee reasonable flexibility to make prudent development and design decisions prior to construction. This conservative approach likely overstates the actual impact to environmental and human use resources from the ultimate Project following alternatives refinement and implementation of any selected avoidance, minimization, and mitigation measures.

Offshore components of the Project will comprise of:

- 176 to 205 WTGs and associated WTG Foundations;
- Between two and three Offshore Substations and associated Offshore Substation Foundations;
- Up to 300 mi (484 km) total length of Inter-Array Cables (average Inter-Array Cable length of 6,922.6 feet (ft; 2,110 meters [m]) between turbines; and
- Up to nine buried submarine high-voltage alternating-current Offshore Export Cables.

The PDE maximum design scenario under consideration for the WTGs is a 14-16MW WTG with a maximum tip height of 869.4 ft (265 m), maximum rotor diameter of 761.2 ft (232 m), and a corresponding maximum hub height of 488.8 ft (149 m).

The PDE maximum design scenario under consideration for the Offshore Substations is three substations, each with a capacity of up to 1,000 MW and a height no greater than 219.8 ft (67 m). The Offshore Substations will be lower in height as compared to the WTGs, therefore visual modeling to support the

historic properties assessment is based on the height of the WTGs. A depiction of the wind turbine array is featured in Figure 0-2.

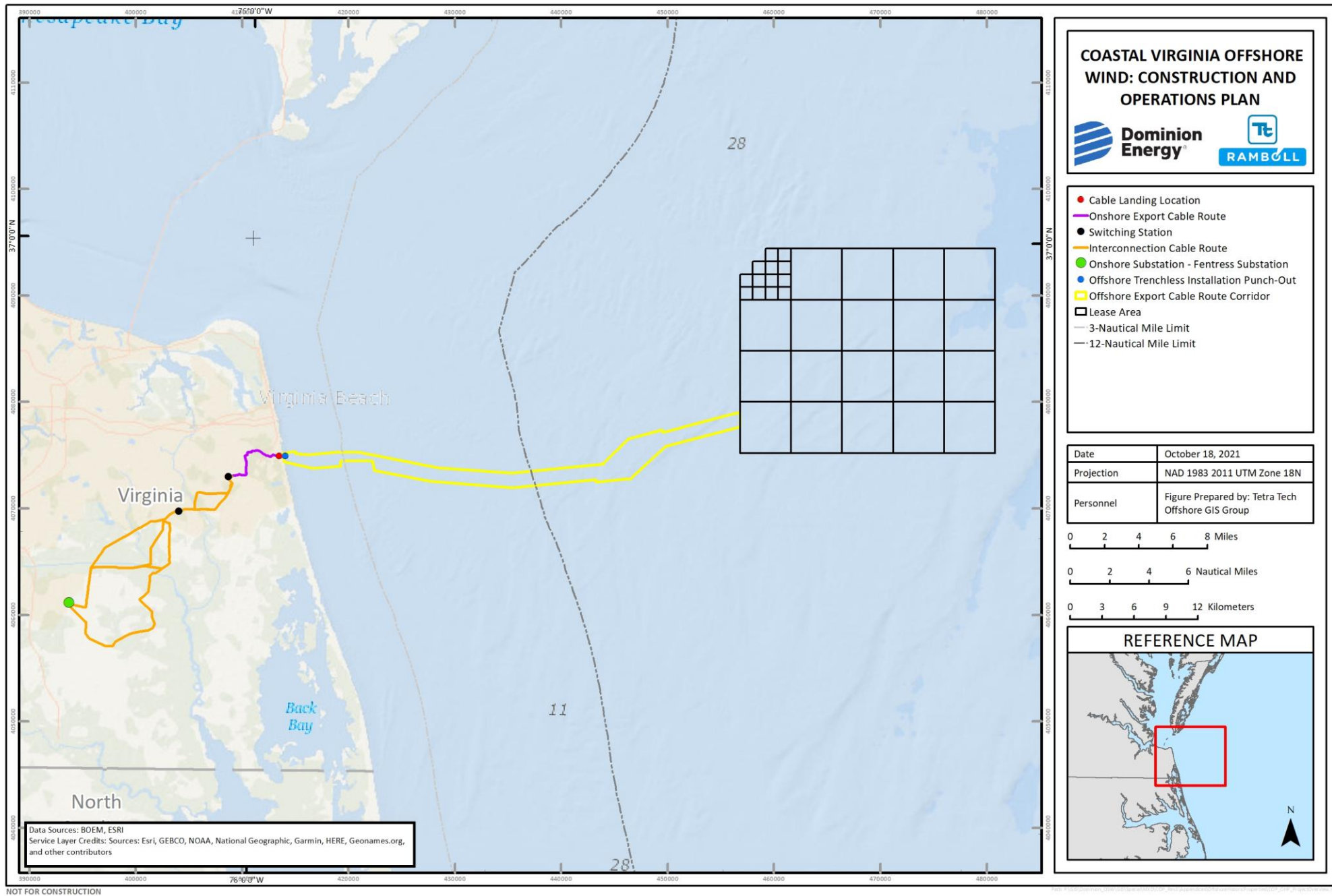


Figure H.1-1. Locational Map and Project Design Envelope

The Project will be located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483, Lease Area), which was awarded to Dominion Energy (Lessee) through the BOEM competitive renewable energy lease auction of the Wind Energy Area (WEA) offshore of Virginia in 2013. The Lease Area covers approximately 112,799 acres (ac; 45,658 hectares [ha]) and is approximately 27 statute mi (mi; 23.75 nm, 43.99 km) off the Virginia Beach coastline.

Dominion Energy has adopted a Project Design Envelope (PDE) approach to describe Project facilities and activities. A PDE is defined as “a reasonable range of project designs” associated with various components of the project (e.g., foundation and wind turbine generator [WTG] options, BOEM 2018). The PDE is then used to assess the potential impacts on key environmental and human use resources (e.g., marine mammals, fish, benthic habitats, commercial fisheries, navigation, etc.) focusing on the design parameter (within the defined range) that represents the greatest potential impact (i.e., the “maximum design scenario”) for each unique resource (Rowe et al. 2017). The primary goal of applying a design envelope is to allow for meaningful assessments by the jurisdictional agencies of the proposed project elements and activities while concurrently providing the Lessee reasonable flexibility to make prudent development and design decisions prior to construction. This conservative approach likely overstates the actual impact to environmental and human use resources from the ultimate Project following alternatives refinement and implementation of any selected avoidance, minimization, and mitigation measures.

Offshore components of the Project will comprise:

- 176 to 205 WTGs and associated WTG Foundations;
- Between two and three Offshore Substations and associated Offshore Substation Foundations;
- Up to 300 mi (484 km) total length of Inter-Array Cables (average Inter-Array Cable length of 6,922.6 feet (ft; 2,110 meters [m]) between turbines; and
- Up to nine buried submarine high-voltage alternating-current Offshore Export Cables.

The PDE maximum design scenario under consideration for the WTGs is a 14-16MW WTG with a maximum tip height of 869.4 ft (265 m), maximum rotor diameter of 761.2 ft (232 m), and a corresponding maximum hub height of 488.8 ft (149 m).

The PDE maximum design scenario under consideration for the Offshore Substations is three substations each with a capacity of up to 1,000 MW and a height no greater than 219.8 ft (67 m). The Offshore Substations will be lower in height as compared to the WTGs, therefore visual modeling to support the historic properties assessment is based on the height of the WTGs. A depiction of the wind turbine array is featured in Figure 0-2.

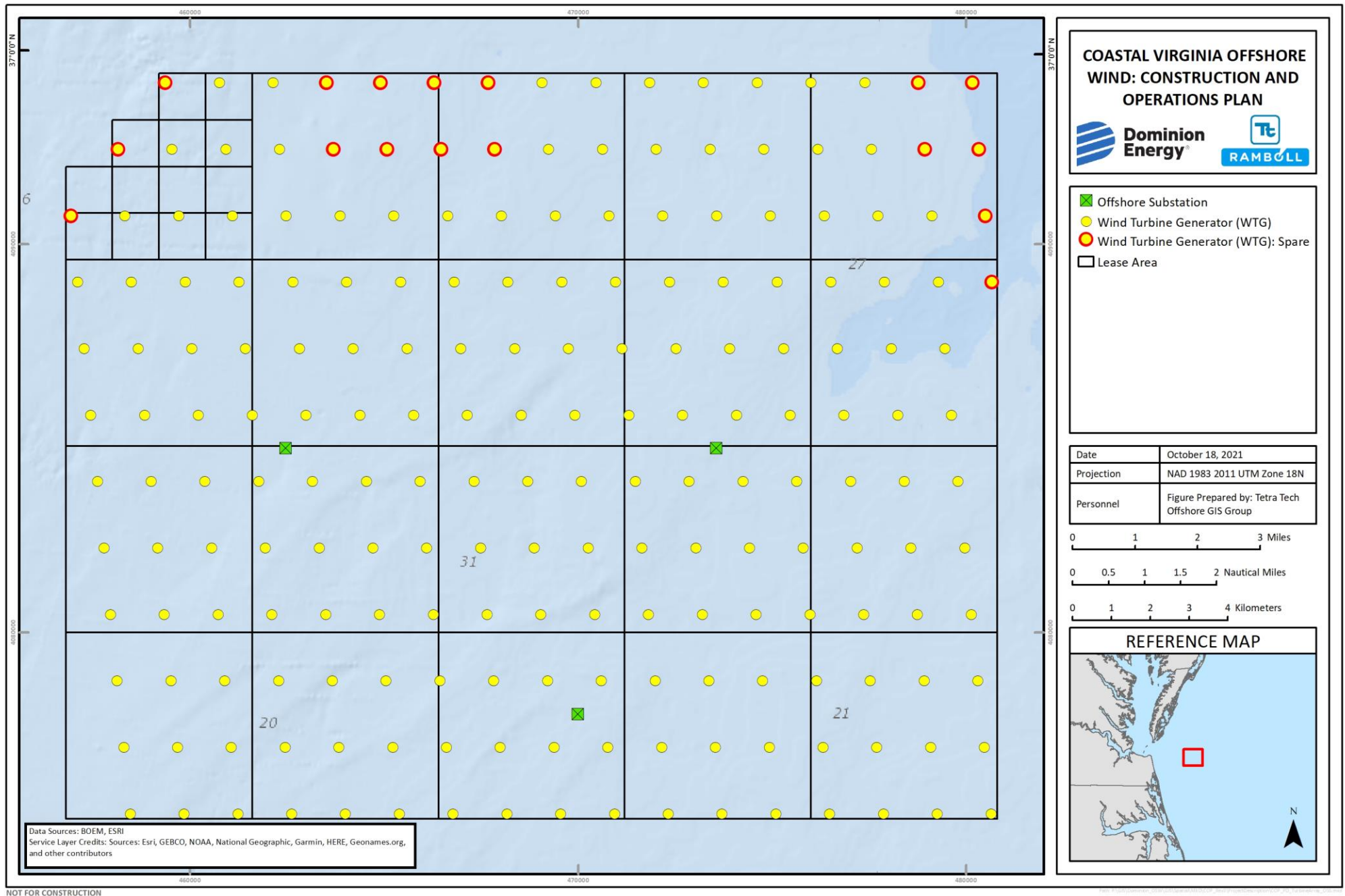


Figure 0-2. Map of the Wind Turbine Generator Array

H-1.3 DEFINING THE AREA OF POTENTIAL EFFECTS (APE)

H-1.3.1 Introduction

Viewshed modeling was undertaken to define the Study Area and proposed Area of Potential Effect (APE) for the current investigation. The Study Area was determined by the maximum potential visibility of the WTGs. This Study Area then was refined through progressive computer modeling to identify the APE. The Study Area and APE defined the limits of investigation for a systematic reconnaissance windshield survey to characterize existing development in the areas, to characterize the types and distribution of potential historic properties, and to anticipate the limits of onshore visibility of the Offshore Project Components (Derry et al. 1977). Auditory impacts are unlikely to constitute an adverse effect due to the distance of the Offshore Project Components from the shore. The following discussion provides an overview of this progressive refinement.

H-1.3.2 Study Area

The Study Area extends 40 mi (64 km) from the WTGs. The Study Area was defined using a bare earth method based on a visibility analysis that evaluated the location of WTGs, curvature of the earth, and topography to identify where, and at what distance, the WTGs would be visible, in whole or in part. The Study Area was used to assess the potential visibility of the Offshore Project Components and evaluate potential effects to visual resources. Mapping illustrates that visibility of the turbines includes limited areas with visibility of the WTG hub and above within 30 miles of the WTGs. The majority of the Study Area contains visibility (weather permitting) of the max blade tip of the WTGs located between 30 and 40 miles of the WTGs. There is no visibility of the rotor or entire WTG from land within the Study Area (see Figure 0-1).

H-1.3.3 Proposed Area of Potential Effects (APE)

The Study Area further was refined through additional computer modeling which added a land cover vegetation layer to account for large areas of tall vegetation that limit projected visibility to the Project. Data layers for building footprints and building heights then were added to account for existing development projected to screen views to the Project. The Survey Area significantly was refined by the integration and analysis of these data sets. The result of this refined modeling is the APE (see Figure 0-2).

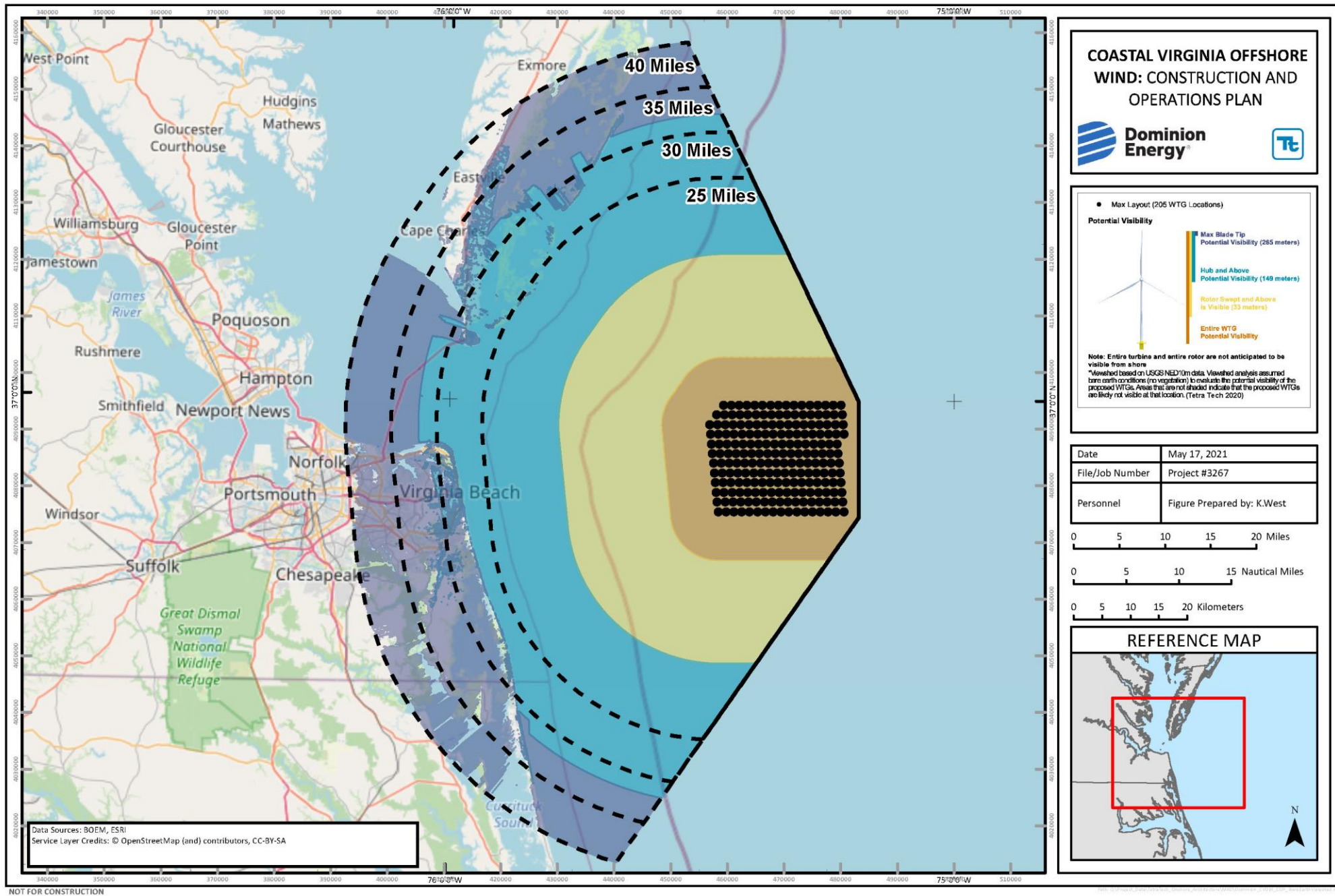


Figure 0-1. Map of the Study Area

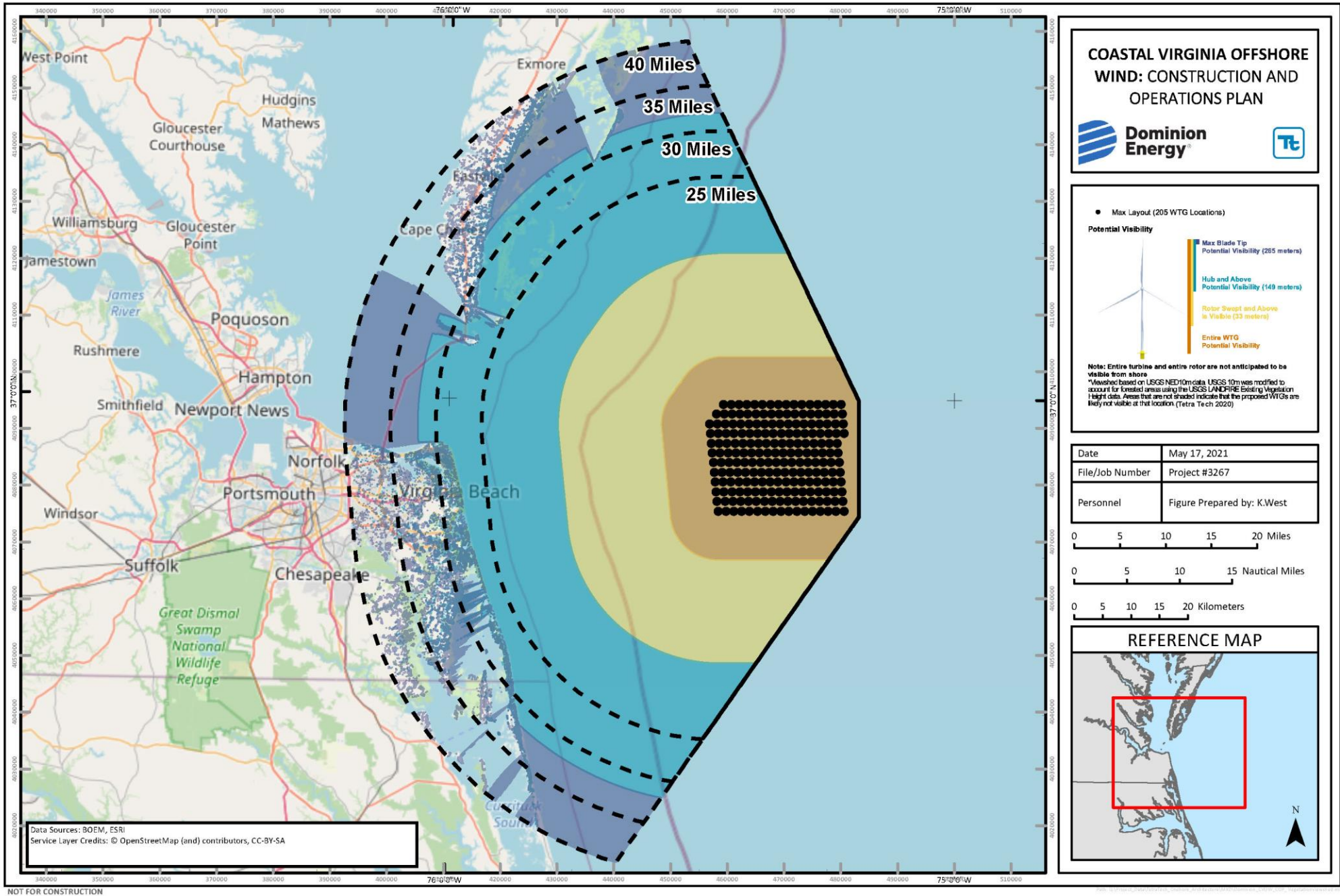


Figure 0-2. Map of the Proposed Area of Potential Effect

H-1.4 METHODOLOGY

H-1.4.1 Introduction

Identification and analysis of historic and previously identified unevaluated properties was completed through a progressive program of consultation, archival research, outreach and engagement, windshield survey, field survey, and data analysis within the Study Area and APE. These progressive stages of investigation are summarized below. All work was completed in strict accordance with COVID-19 safety protocols and RCG&A and Dominion Energy safety requirements. The research design for the investigation took into account current COVID-19 restrictions, which were monitored and revised during the course of the investigation, as appropriate.

All work was undertaken in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (National Park Service [NPS] 1983), BOEM's Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2020), the Secretary of the Interior's Standards for Historic Documentation (NPS n.d.a.), and the Secretary of the Interior's Standards for Evaluation (NPS n.d.b.). All work was completed by historians and architectural historians whose professional qualifications meet or exceed those established by the Secretary of the Interior in their respective fields (36 CFR Part 61).

H-1.4.2 BOEM Consultation

The Project was first introduced to the Virginia Department of Historic Resources (VDHR) on July 7, 2020, through a phone conversation between Roger Kirchen, VDHR Director, Division of Review and Compliance, and Sarah Haugh, Tetra Tech Cultural Resources Coordinator and Archaeologist. The conversation included discussion of the consultation process, coordination with the State Military Reservation (SMR), consulting parties, tribal consultation, and assessing visual impacts.

The Project was submitted to VDHR's Electronic Project Information Exchange system on November 16, 2020. The Project was assigned DHR File No. 2020-4849.

An introductory meeting was held among BOEM, the VDHR, North Carolina State Historic Preservation Office (NCHPO), and Dominion Energy in December 2020 to discuss the proposed Project, to consult on preliminary approaches to the consideration of historic properties in the planning process, and to identify areas of interest to the state and federal agencies. This discussion informed the development of the survey plan and methodology for the current investigation.

BOEM was consulted further in the development of the survey plan and methodology for this investigation. A meeting was held on February 17, 2021, to present the survey plan, progressive refinement of computer models, analytical approach to the Study Area and APE, and to present the results of reconnaissance windshield survey of the Study Area and APE. During this meeting BOEM cultural resources staff concurred with the Study Area, APE and general proposed survey approach. BOEM also provided additional guidance on outreach and engagement with cultural groups and Native American tribes. The survey plan formally was submitted to BOEM for review. BOEM staff provided expanded guidance on the

identification of historic properties for the purposes of this Project in written comments on the survey plan. This guidance addressed the methodology for previously documented above-ground resources (buildings, structures, landscapes) that formally have not been evaluated for National Register listing to assure a good faith effort to identify historic properties within the APE. A meeting was held on May 13, 2021 with Dominion Energy and BOEM to discuss refinements to the survey plan and methodology. This refined approach was submitted to BOEM in Dominion Energy's response to the agency's review comments.

H-1.4.3 Archival Research

Archival research was undertaken to identify and to develop a comprehensive inventory of previously identified historic properties and previously identified unevaluated properties within the Study Area. Research was conducted using the State Historic Preservation Office (SHPO) databases, the VDHR Virginia Cultural Resource Information System (VCRIS), NCHPO HPOWEB, and BOEM's *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straights Volumes I and II* (Klein et al. 2012a, 2012b). Additionally, the NRHP and National Historic Landmark (NHL) registers were consulted. These resources were utilized to identify historic properties eligible or listed through state and federal historic property registers, or designated or considered for designation as NHL, or inventoried on V-CRIS or HPOWEB. The Virginia state register also is known as the Virginia Landmark Register (VLR). The NCHPO maintains the North Carolina State Register.

The data used in this investigation reflects information available as of February 10, 2021. Forms corresponding to resources were downloaded for reference and logged in Excel databases. The locations of previously identified built resources were incorporated into the Project Geographic Information System (GIS) model, created to manage data for the investigation by geographic location and classification.

Historic Contexts

Archival research resulted in the development of brief historic contexts for the areas within the Study Area.

City of Virginia Beach, Virginia

Virginia Beach emerged as a resort town during the second half of the nineteenth century. Travelers came to visit what was called "Virginia Beach" during the late nineteenth and early twentieth centuries by rail and car. A rail line connecting Virginia Beach and Norfolk was opened in 1883 by Colonel Marshall Parks, a developer, who constructed beachside amenities to attract Norfolk residents. The area was incorporated in 1906.

Military activity in Virginia Beach increased during World War I to protect Cape Henry (Purvis and McClane 2018). SMR, formerly known as Camp Pendleton, was established as a summer training camp for the Virginia National Guard; it subsequently became an Army rifle range (The Beacon 1988; Moffett 2003; Watts 2007). Development accelerated during and after World War II, a conflict that permanently changed the character of the region. Early twentieth century military installations were enlarged, and the region's population soared as military personnel were transferred into the area. Three of the region's present military installations originated during World War II: Oceana Naval Air Station (1940), the Fleet Combat Training Center at Dam Neck (1941), and Little Creek Amphibious Base (1945) (Watts 2007).

The resort function of Virginia Beach also continued to expand through the twentieth century. In 1963, Princess Anne County merged with the resort town of Virginia Beach to form the city of Virginia Beach. This merger signaled a burst of rapid urban growth and industrial development that continues to encroach upon the open farmlands and barrier beaches south of Virginia Beach. Development remained concentrated along the beachfront until the 1960s, when inland suburban communities began to form. In 1977, Virginia Beach was ranked as the fourth fastest growing city in the country (The Beacon 1988).

City of Norfolk, Virginia

Norfolk's development began in the late seventeenth century; however, the initial town, which included 1,300 houses by the time of the Revolution, was burned in 1776 (Parrington and Meyer 1987). Norfolk was slowly rebuilt; by 1806 the town contained approximately 1,200 houses (Parrington and Meyer 1987). The economy of Norfolk was dependent upon trade and shipbuilding during the nineteenth century. Following Union occupation during the Civil War, the city expanded and emerged as a seaport. The city began annexing land to expand, and land improvement companies were organized to construct new housing (Traceries 1994). The Jamestown Tercentennial Exposition of 1907 continued expansion of the city. The population grew 45 percent between 1900 and 1910. Suburbs to the north and east expanded with the creation of the automobile and streetcar (Parrington and Meyer 1987). Congress purchased the grounds of the Jamestown Exposition to construct a naval yard in preparation for World War I. This development became the Norfolk Naval Operating Base (Traceries 1994). The population of the area grew 60 percent between 1910 and 1920, largely due to military personnel. Infill subdivision development was common in the area and continued through the 1960s. Both working-class and wealthier developments were present. For example, Oakdale Farms was developed with mass-produced, prefabricated homes during World War II by Levitt & Sons. In contrast, North Shore attracted wealthier individuals with a park-like setting and architect-designed residences (Traceries 1994).

City of Chesapeake, Virginia

The present-day City of Chesapeake originally was part of New Norfolk County, formed from Elizabeth City County in 1636 and subdivided into Upper and Lower Norfolk counties in 1637. Lower Norfolk County is contained in the modern-day City of Chesapeake, Virginia. In 1691, Lower Norfolk County was further divided into Princess Anne and Norfolk counties. Norfolk County is currently contained in the city of Chesapeake (Culhane 1999). The county largely was rural and agricultural throughout the seventeenth and early eighteenth centuries (Culhane 1999). The community of Chesapeake developed as a suburb of the City of Norfolk, known as South Norfolk, and became an independent town in 1919 and later a city in 1950 (Hanbury Evans Newill Vlattas & Co. 1996). The City of Chesapeake was created in 1963 from the merger of Norfolk County and South Norfolk (Hanbury Evans Newill Vlattas & Co. 1996).

Eastern Shore, Virginia

The Eastern Shore of Virginia comprises Accomack and Northampton counties. The first permanent European settlements in Northampton County were established in the 1620s, including Towne Fields, Accomack, Old Plantation Creek, and Magothy Bay (Dames & Moore 1996). Initially called Accomack County, Northampton County officially became the county name in 1643. The extant Accomack County located to the north was established in 1663 on the upper two-thirds of Virginia's Eastern Shore peninsula.

A road, now U.S. 13, was constructed down the center of the peninsula in the seventeenth century; however, the bayside waterways were significant for the trade they supported (Dames & Moore 1996). In the first half of the eighteenth-century, brick buildings began to be constructed in the Eastern Shore, marking the permanence of the settlement (Dames & Moore 1996). Following the Revolutionary War, small communities formed around service centers with buildings such as ferry landings, tobacco warehouses, and stores. Examples of such towns include Franktown, Nassawadox Creek, and Hadlock (Dames & Moore 1996). Northampton County's population reached 6,763 in 1800. Small communities with populations less than 500 were the primary development pattern on the Eastern Shore through the Antebellum period (Dames & Moore 1996). The New York, Philadelphia, and Norfolk Railroad was constructed in Cape Charles in 1884. New towns were established along the route of the railroad including Exmore, Machipongo, and Cheriton (Dames & Moore 1996). Similar to Virginia Beach, beach recreation facilities were constructed in Northampton County during the late nineteenth century, including hotels (Dames & Moore 1996). The population of the Eastern Shore was 46,340 by 1900 (Reynolds 2017). Agriculture was the primary industry in the county and construction connected to the automobile followed booms in the market. During the 1920s potato boom, the State Highway Commission considered the construction of a highway through the peninsula. By 1931, U.S. 13, was constructed and paved, following the route of a seventeenth-century road that stretched down the peninsula (Dames & Moore 1996). During the Great Depression and World War II, canning became a popular industry on the Eastern Shore, providing an additional means to market the product from local farms. Development remained in and around the small towns along the peninsula during this period. Plans to construct the Chesapeake Bay Bridge and Tunnel were established in 1960 to connect the Eastern Shore to Virginia Beach (Dames & Moore 1996).

Currituck County, North Carolina

Currituck County initially was a precinct of Albemarle County in early colonial North Carolina. The first European settlers to the county arrived circa 1650 and settled in areas facing the Currituck Sound. The town of Currituck was established in 1672 (Malvasi 2010). Small towns were established throughout the county during the early eighteenth century, including Indian Town, Coinjock, and Moyock. The economy included agriculture and shipbuilding (Malvasi 2010). By 1790, 5,392 individuals lived in Currituck County, and by 1830, 8,098 individuals were recorded as living in the county (Malvasi 2010). However, the population shrunk to 6,703 in 1840. The Albemarle & Chesapeake Canal was constructed in 1859 and provided increased water travel in the region between Virginia and North Carolina (Malvasi 2010). Following the Civil War, tenant farming emerged in the region, subdividing larger plantations into smaller individual farms; by 1890, 958 farms were located within the county (Malvasi 2010). The county became known for its outdoor pursuits, including hunting and fishing. During the late nineteenth and early twentieth centuries, hunting clubs were constructed along the coast to accommodate sportsmen (Martin n.d.). The 1920s witnessed the rise in popularity of the automobile and less reliance on waterways for transportation. Small unincorporated towns included amenities like stores, restaurants, and gas stations (Malvasi 2010). During the 1930s, roadways were constructed to connect the small communities to each other and neighboring Camden County (Malvasi 2010).

H-1.4.4 Outreach and Engagement

Outreach and engagement were undertaken to identify properties, including buildings, structures and landscapes, Traditional Cultural Properties (TCPs), or features of concern to Native American tribes, specific cultural groups with an interest in heritage, local and state preservation groups, and local government. Input from these engagement groups was accounted for in the assessment of impacts to historic properties. Two separate outreach sessions were held via Microsoft Teams Meetings. Federally- and state-recognized Native American tribes were engaged on April 15, 2021, to identify potential TCPs within the APE. Other parties were engaged on April 16, 2021, to identify any historic properties that may be significant to organizations. Engagement sessions included an overview of the Project, detailed description of the survey plan, and a request to identify any significant properties within the APE that should be assessed during the survey. All parties were provided a two-week period to provide information on any properties they would like to have considered in the survey. The City of Virginia Beach Historic Preservation Planner specifically was engaged based on a request from VDHR made during the December BOEM consultation meeting.

H-1.4.5 Windshield Survey

A systematic windshield survey of the APE was undertaken to characterize the types of properties present and to further identify potential viewsheds to the Project. This windshield survey was performed from public rights-of-way. Access to private lands such as military installations was not available. The windshield survey compiled data on the overall physical character of the area including topography, general sequence and type of development, type and orientation of land plans and road networks, building density, and vista points. The windshield survey acted as a reconnaissance survey for previously identified unevaluated properties. The reconnaissance survey served two purposes. First, the survey aided in characterizing the APE including major roadways, development patterns, and types of resources present. Second, the reconnaissance was utilized to define potential views to the ocean for previously identified unevaluated properties in order to further refine the APE.

A systematic field methodology was employed to document the APE. The APE encompasses an area extending approximately 75 miles along the shore and extending approximately 12 miles inland in portions of Virginia and North Carolina due to adopting a conservative modeling approach. A half-mile grid was superimposed on the APE (see Figure 0-1). Each vertex point was labeled by longitude and latitude and assigned a number. Points then were entered into a mobile surveying platform, Fulcrum, which allowed global positioning of all points. Photographs documenting views towards the Project were executed from the public rights-of-way and geo-referenced for future reference. The reconnaissance survey was completed between January 4 and 7, 2021. Surveyors documented visibility from 144 vertex points. Of these, 107 points were in Virginia, and 37 points were in North Carolina.

H-1.4.6 Field Survey

Field survey was undertaken in May 2021 to verify and to document maritime setting and views to the ocean of previously identified historic properties within the APE. Maritime setting is related to resource

integrity and is defined as deriving all or some importance from proximity to the ocean or being intentionally sited near the water. Data was preloaded into Fulcrum, a digital survey platform, to record the locations of all historic properties within the APE and to document and assess the maritime setting and views to ocean. Surveyors noted the presence or absence of a maritime setting through views to the ocean from the property. Surveyors then photographed the property for reference and the properties' view towards the ocean utilizing National Park Service Photographic Standards. All survey was conducted from the public right-of-way. Photographs were not taken where properties were inaccessible due to road conditions from the public right-of-way. Instead, the maritime setting and views to the ocean were noted in Fulcrum without a photograph. Properties that were inaccessible due to their location within military installations or on isolated beaches were noted and views to the ocean often were ascertained through the analysis of aerial photographs and Google Maps. Historic districts were photographed from the eastern edge of the property to log the closest views to the ocean within the district.

Field survey was undertaken in July 2021 to verify and document maritime setting and views to the ocean of previously identified unevaluated properties within the area of potential visibility, informed by the windshield survey. This phase of the investigation followed the survey methodology utilized for previously identified historic properties.

H-1.4.7 Data Analysis

The study list was refined to identify properties within the APE. Data analysis was undertaken to analyze all previously identified properties within the APE. Attribute tables were created for each property based on building attributes, NRHP criteria, and aspects of integrity. The identified properties within the APE were analyzed to identify common property types. These properties were analyzed to determine if character defining ocean views and a maritime setting are present. The potential for the Offshore Project Components to diminish the integrity of a property's historic features applying 36 CFR § 800.5 (2) (v) was then assessed and defined in detail.

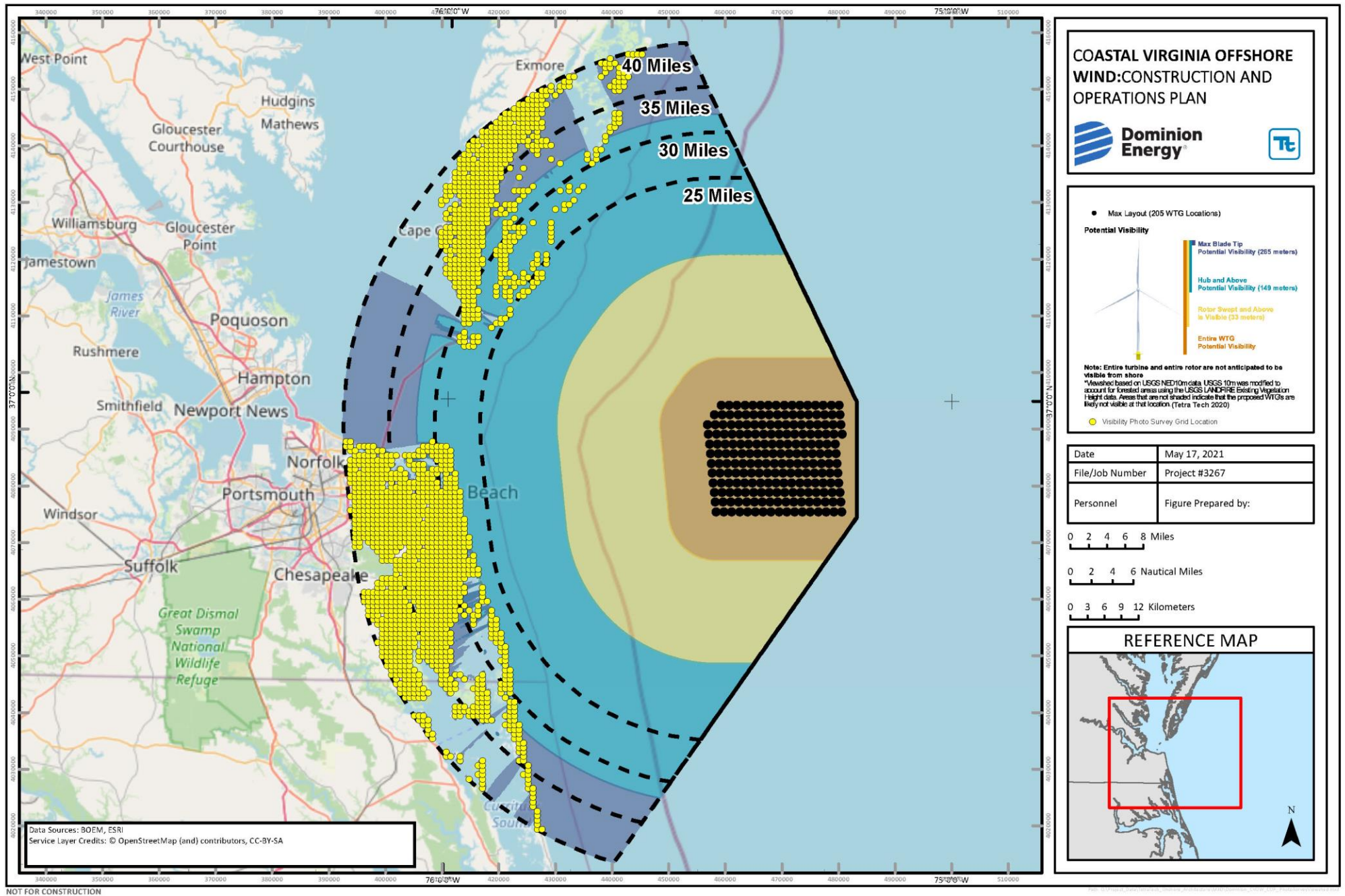


Figure 0-1. Map of Half-Mile Windshield Survey Grid Points

H-1.5 IDENTIFICATION AND ANALYSIS OF PREVIOUSLY IDENTIFIED HISTORIC PROPERTIES

H-1.5.1 Previously Identified Historic Properties within the APE

Historic properties were identified via a progressive analysis of data drawn from multiple sources to develop a study list of historic properties within the APE. First, the VDHR VCRIS and NCHPO HPOWeb system were utilized. Next, *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straights Volumes I and II* (Klein et al. 2012a, 2012b) was incorporated to identify resources previously recorded to possess a maritime setting and views to the ocean. NRHP and NHL databases were consulted as well as properties considered historic by the City of Virginia Beach. No additional properties were identified through engagement with Native American tribes or other groups.

SHPO Databases

The VDHR system VCRIS, and NCHPO system HPOWeb, were utilized to access data on previously identified historic properties within the Study Area. First, GIS shapefile layers were downloaded from both systems detailing the location of all previously identified historic properties in either SHPO database. Next, the shapefile was overlaid with the Study Area. Previously identified historic properties within or intersecting the Study Area were distilled into an Excel database. Each property recorded in the Excel database included a SHPO identification number. North Carolina contains 75 previously identified historic properties within the Study Area. Virginia contains 2,577 previously identified properties within the Study Area.

The previously identified historic properties then were refined to identify properties solely within the APE by overlaying the APE and SHPO Shapefiles. The following table identifies the eligibility status of properties within the APE (**Error! Reference source not found.**).

Table 0-1. Previously Identified Properties within the Proposed Area of Potential Effect (APE)

	Demolished	Unevaluated	Ineligible	Eligible	State Listed	NRHP Listed	NHL Listed	Total
VCRIS	58	919	178	40	1	24	2	1,222
HPOWeb	0	6	0	3	0	4	0	13
Total	58	925	178	43	1	28	2	1,235

Properties were classified based on the highest level of designation. For example, all NHL are also listed in the National Register. These properties were categorized as NHLs under this investigation to avoid redundancy in accounting for individual properties. There are 1,235 previously identified properties including contributing resources to historic districts located in the APE in Virginia and North Carolina. VCRIS and HPOWeb data were downloaded for the previously identified properties within the APE. Non-

digitized files were requested from the NCHPO. Data then was collected on the resources within the APE from SHPO database forms. Ineligible properties include 178 resources due to lack of integrity or significance. Demolished properties include 58 resources. The 236 ineligible and demolished properties were eliminated from further research.

This property list further was refined to eliminate unevaluated properties, those that are not evaluated as historic. Seventy-four previously documented historic properties are located within the APE as shown in **Error! Reference source not found.**

Table 0-2. Previously Identified Historic Properties within the Proposed Area of Potential Effect

	Eligible	State Listed	NRHP Listed	NHL Listed	Total
VCRIS	40	1	24	2	67
HPOWeb	3	0	4	0	7
Total	43	1	28	2	74

The predominant property type is single dwelling; 54 are located within the APE. Other property types represented include one bridge, four churches, three clubhouses/hunting clubs, four Coast Guard stations, one train depot, two hotels, three lighthouses, and two schools. Construction dates for individual resources range from 1670 to 1964. The dominant architectural styles represented include Colonial, Federal/Adamesque, Colonial Revival, and Vernacular. However, there are selected examples of Tudor Revival-, Scottish Baronial-, Shingle-, International-, Gothic Revival-, Georgian-, Craftsman-, and Classical Revival-style buildings. Primary exterior cladding typically is brick, concrete, or wood weatherboard. Historic resources range between one and seven stories in height with an average height of two stories. Thirty-six individual resources have associated outbuildings. The number of outbuildings associated with individual resources ranges from one to 19. The average number of outbuildings is five. Examples of outbuildings include secondary dwellings, sheds, garages, and barns and other agricultural buildings.

BOEM Database

BOEM undertook a study in 2012 to identify properties possessing significant maritime setting and significant views to the ocean. The resulting documents include *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume I: Technical Report of Findings* (Klein et al. 2012a) and *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* (Klein et al. 2012b). Ninety-eight properties within the APE, located in Virginia Beach, Virginia, and Currituck County, North Carolina, are identified in the study. The following table provides a summary of the eligibility status of the identified properties within the APE (**Error! Reference source not found.**).

Table 0-3. Bureau of Ocean Energy Management Study Identified Properties

	Unevaluated	NRHP Eligible	NRHP Listed	Total
BOEM Study Properties	80	10	8	98

Eighteen historic properties identified by the study are located in the APE: 10 NRHP-eligible properties and eight NRHP-listed properties. The location of the 18 historic properties was cross-referenced with previously identified properties in SHPO databases. SHPO files document that two resources, the New Casino/Peppermint Beach Club located in Virginia Beach, Virginia, and the Currituck Shooting Club located in Currituck County, North Carolina, are no longer extant. These properties were removed from consideration. Sixteen historic properties remain extant: 14 in Virginia Beach and two in Currituck County, North Carolina. The identified properties are detailed in the descriptions provided in Section 5.2, Historic Property Types, including whether the properties possess a significant maritime setting and views to the ocean. All of the 16 extant identified properties also are identified in the SHPO datasets.

Engagement Group-Identified Properties

An engagement meeting was held April 16, 2021, with groups identified to have an interest in cultural and ethnic heritage within the APE. Additionally, local preservation commissions, historical societies, and military installations were invited to engage. The engagement meeting sought to receive input on the survey plan, summarized in the methodology above, and to identify any properties of particular cultural importance to the invited groups. The City of Norfolk, Virginia, was the sole group to attend the engagement session and did not identify any properties of concern related to the Project. A full list of invited groups can be found in Attachment H-1, Engagement Groups Invited to Engagement Meeting.

Traditional Cultural Properties (TCPs)

TCPs are properties associated with “cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community” and are eligible for listing in the NRHP. These tangible properties can include districts, sites, buildings, structures, or objects. Oftentimes, the beliefs or practices associated with a TCP still are observed. TCPs are associated with traditional communities defined as “one that has beliefs, customs, and practices that have continued over time, been passed down through the generations, are shared, and help to define the traditions of the community.” These properties typically are identified through coordination with identified traditional communities (NPS 2012). A tribal engagement meeting was held on April 15, 2021. The meeting sought to receive input on the survey plan, summarized in the methodology above, and to identify any TCPs or other properties of cultural importance to the invited tribes. No TCPs or other properties were identified in the APE through consultation with Native American tribes.

The following Native American tribes attended the engagement meeting:

- Chickahominy Indians Eastern Division,
- Chickahominy Indian Tribe,
- Upper Mattaponi Indian Tribe,
- Rappahannock Indian Tribe, and
- Nansemond Tribe.

A full list of invited tribes can be found in Attachment H-2, Tribes Invited to Engagement Meeting. During the tribal engagement meeting attendees expressed thanks for the early and thorough inclusion of tribes in Project planning.

City of Virginia Beach, Virginia

During the December 3, 2020, meeting introducing the Project and the cultural resource planning process, VDHR recommended outreach to the City of Virginia Beach Historic Preservation Planner. Virginia Beach oversees an active and robust preservation program. The City's prominence within the APE required additional research into its preservation program. In *It's Our Future: A Choice City: City of Virginia Beach Comprehensive Plan* (City of Virginia Beach 2020), the City of Virginia Beach states its mission to preserve historic resources:

It is the policy of the City to use all available resources including those provided by the City's Historical Review Board, Historic Preservation Commission, and the Princess Anne County/Virginia Beach Historical Society to preserve designated historic resources. Efforts to retain these historic resources should be accomplished in a responsible and innovative manner. The efforts include providing land use planning guidance and tax credit assistance to owners of historic properties in order to help protect and preserve the City's limited number of valuable historic resources and surrounding open space areas. Owners of qualified properties should be encouraged to participate in the Virginia Beach Historical Register program and receive recognition for their contributions to our City's heritage.

The City of Virginia Beach is a certified local government (CLG). CLGs are participants in the NPS-led Federal Historic Preservation Program. CLG programs are eligible to compete for dedicated historic preservation grants and have access to specialized technical assistance through the respective SHPO offices. Municipalities must meet minimum goals to receive CLG standing. CLGs must establish a historic preservation commission, establish a local ordinance to designate and protect historic properties, survey and inventory local properties, engage the public in preservation planning, and abide by state-specific requirements for CLGs (NPS, n.d.c.). Virginia Beach meets the CLG requirement through its local historic district ordinance, established review boards, on-going survey of local historic resources, promotion of public participation in stewardship, and annual reporting (City of Virginia Beach n.d.a.).

Virginia Beach possesses both a Historic Preservation Commission and Historical Review Board. The Historic Preservation Commission acts as an advisory committee for issues involving historic buildings, structures, and sites. The Commission is tasked with pursuing a program of "advocacy, public awareness and increased public involvement" (City of Virginia Beach n.d.b.). The Commission is comprised of nine to 15 members, including two high school representatives with interest and expertise in archaeology, architecture, and history. The Commission sponsors NRHP nominations including the listed Oceana Neighborhood Historic District, Virginia Beach Courthouse Village and Municipal Center Historic District, and the Cavalier Shores Historic District. The NRHP nomination process currently is underway for the L & J Gardens Historic District and the Seatack Historic District. The Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970) Multiple Property Documentation Form (MPDF) and accompanying Jefferson Manor Motel Apartments nomination recently were listed in the NRHP. Resources associated with the Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970) MPDF are located within the APE. The Commission also maintains the Virginia Beach Historical Register. Established in 1999, the Historical Register serves to recognize the "buildings, structures, and sites that are important to and/or illustrative of the historical development of the city and its predecessor jurisdictions" (City of Virginia Beach n.d.a). Listing on the Historic Register is voluntary, must receive owner consent, and is honorific

(City of Virginia Beach, n.d.a.). The Historical Review Board is tasked with reviewing “requests for new development and exterior building changes within the Historic and Cultural District of the City of Virginia Beach.” The Historic Review Board issues Certificates of Appropriateness, a document required before building permits are issued (City of Virginia Beach n.d.b.). Forty-three properties listed in the VDHR are located within the APE; 24 of these properties are not evaluated in VDHR datasets but are considered eligible for the purposes of this report.

Virginia Beach also established the Old Beach Design Review Committee. The Committee oversees the Old Beach Overlay District and Design Guidelines. Old Beach was established in 1915 and is one of the oldest residential areas in Virginia Beach. The majority of the remaining resources within the neighborhood date from the 1950s through present day. Notably, many residential lots include an ancillary dwelling. The Old Beach Overlay District was created in 1995 to “preserve and enhance the character of the Old Beach neighborhood, by providing opportunities for both new and redeveloped resort residential development” (City of Virginia Beach n.d.c.). The Old Beach Design Guidelines were established to guide development to be compatible with the existing neighborhood. Compliance with the Design Guidelines is incentivized by allowing deviations of the requirements of the Overlay District. The Old Beach Design Review Committee is a five member body created to “preserve, enhance and promote the character of the residential neighborhood in accordance with the Old Beach Design Guidelines and provisions of the Old Beach Overlay District by offering recommendations on development project” (City of Virginia Beach n.d.c.). Properties within the Old Beach Overlay District are located within the APE. The Old Beach Overlay District is considered eligible for the purposes of this report.

Summary

In summary, 74 eligible or listed previously identified historic properties were considered from SHPO databases. Virginia Beach’s Oceana Neighborhood Historic District, Virginia Beach Courthouse Village and Municipal Center Historic District, Cavalier Shores Historic District, L & J Gardens Historic District, and the Seatack Historic District are included in this number. The 16 properties identified by BOEM overlap with the 74 properties. Forty-three properties listed on the VDHR also are located within the APE. Twenty-four of these properties are not included among the 74 previously identified historic properties recorded in SHPO databases. These 24 properties are considered eligible for the purposes of this Project. Finally, the Old Beach Overlay District also is considered eligible for the purposes of this report. Thus, a total of 99 previously identified resources were considered historic properties for this report.

H-1.5.2 Historic Property Types

Historic properties within the APE were identified through sequential analysis of the above sources. These data were integrated to determine where each dataset overlapped. Ninety-nine historic properties were identified via the previously identified properties search discussed above.

This section identifies and describes the common property types represented in the previously identified historic properties located within the APE. Common property types include:

- Recreational,
- Maritime,

- Residential,
- Defense facilities,
- Educational,
- Religious,
- Mixed use,
- Transportation, and
- Commercial.

Common features associated with each of the property types were analyzed to identify the character defining features important to significance and to the integrity aspect of the setting of each class of resources. The objective of this analysis was to evaluate the importance of the presence or absence of a maritime setting and views to the ocean to properties of significance. Typically, a discussion of the importance of the maritime setting and ocean views for the properties was not included in documentation. Field verification was undertaken to identify the maritime setting and ocean views of each historic resource where previous documentation was lacking. During field investigation, three properties contained in the datasets were found to be demolished: the Nathaniel Nicholas House, Cottage Place, and the United States Coast Guard Barracks. Therefore, 96 properties in total were evaluated during field investigations.

Recreational

Six recreational facilities and one historic context are located within the APE in Virginia Beach, Virginia, and Currituck County, North Carolina. These resources include beach hotels and associated facilities, hunting clubs, and a park. Typically, these properties are adjacent to the ocean and beaches to interact with the shore.

- Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970) MPDF (DHR ID: 134-5721) provides a historic context for mid-century motel and hotel development along Virginia Beach's coast. The MPDF provides a historic context documenting the history of development along the coastline, associated property types, and guidelines for identification and evaluation of these resources. Individual resources within this category fall within the APE but have not undergone a formal evaluation by VDHR. The NRHP MPDF was completed in 2020 (McClane and Kirchen 2020).
- The Cavalier Beach Club (DHR ID: 134-0536) is located in an urban setting on a flat lot surrounded by parking lots in Virginia Beach, Virginia. The property originally was part of the Cavalier Hotel. The one-story building was constructed in 1928 and exhibits the Classical Revival style. VDHR staff recommended the property potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994i). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and no significant views to the ocean (Klein et al. 2012b).
- The Cavalier Hotel (DHR ID: 134-0503) is located in an urban setting on a 5.41-acre hilly lot overlooking the Atlantic Ocean in Virginia Beach, Virginia. The lot is defined by historic serpentine walls and a rectangular driveway. Constructed in 1927, the property was associated with

the Cavalier Beach Club and Cavalier Golf and Yacht Club. The historic hotel hosted multiple presidents and celebrities. During World War II, the United States Navy utilized the hotel as a Radar Training School. The seven-story brick hotel exhibits the Classical Revival style and is constructed in a Y form. The property also contains a tennis court and garage. The hotel was listed in the VLR and NRHP in 2014 under Criterion C (Virginia Department of Historic Resources 2014c). The hotel was listed in the VLR and NRHP in 2014 under Criterion C and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 2014c; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and views to the ocean (Klein et al. 2012b).

- The Golden Griddle/Pinewood Hotel (DHR ID: 134-0449) is located on an oceanfront site in Virginia Beach, Virginia. The hotel originally was constructed in 1927 by the Laskin Brothers in the Commercial style. The three-story building is believed to be one of the oldest hotels on Virginia Beach's oceanfront. DHR staff recommended the property as potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994k). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).
- The Seashore State Park Historic District (DHR ID: 134-0099/134-5088) is a 2,889-acre park located at the north end of Virginia Beach at Cape Henry. Divided by State Road 60, the park contains campgrounds north of the road and swamplands and a trail system south of the park. The park was the first planned park in the Virginia State Park system and was constructed by the Civilian Conservation Corps between 1934 and 1942. The Seashore State Park Historic District is listed in the NRHP under Criterion A for its association with the Civilian Conservation Corps and as the first planned park in Virginia and for its design. The property was listed in the VLR and NRHP in 2005 (Virginia Department of Historic Resources 2005d).
- The Whalehead Club (SITE ID: CK0005) was constructed by Mr. and Mrs. Edward Colling Knight between 1922 and 1925 as a private hunting retreat in Corolla, North Carolina. The 35-acre parcel contains the primary dwelling, several storage buildings, four one-story houses, a stucco garage, a swimming pool, a boathouse, and a landing strip. The house includes a man-made harbor connected to the Currituck Sound by two channels. Originally, the house was surrounded by a moat with two bridges. The moat was filled in the 1940s. The house is located on a hill created by the earth removed to create the moat. The primary dwelling includes Arts and Crafts and Art Nouveau ornamentation. The Whalehead Club has functioned as a private club, Coast Guard facility, summer school, and rocket engine test site. The property was listed in the NRHP in 1979 under Criteria A, B, and C (Roberts 1979). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and no significant views to the ocean (Klein et al. 2012b).

- Located in a rural setting on Knotts Island, North Carolina, the 26-acre lot of the Flyway Club (SITE ID: CK0300) is defined by a quarter mile-long driveway, mature trees, and a large lawn overlooking the Currituck Sound. The property contains a Colonial Revival-style farm building (1928-1930), a wood weatherboard-clad lodge (1960) designed by Peter Kinnear Ogden, a shed (circa [ca.] 1930), tennis courts (ca. 1930), a dock (ca. 1960), and a seawall (ca. 1920). The extant lodge replaced the original 1920 building that burned in 1958. The property is an example of a waterfowl hunting lodge, which were common along the Currituck Sound; however, few remain. The property was listed in the NRHP in 2015 under Criteria A and C (de Miranda and Martin 2015).

Common Attributes of the Property Type

Recreation also became a significant component of the region's economy. Beginning in the 1870s and 1880s, areas of Virginia's outer coastal plain, particularly its barrier islands and marshes, became a center for sport hunting of waterfowl and other game birds. Wealthy Northern and Norfolk area businessmen comprised the bulk of the membership of several hunting clubs that flourished between the 1890s and the 1920s. However, the economic reversals of the Depression contributed to their eventual demise. The expansion of rail service also stimulated the growth of Virginia Beach as a resort. During the 1890s, Virginia Beach emerged as an exclusive retreat for wealthy and socially prominent citizens of the day. The resources were constructed during the late 1920s and 1930s (The Beacon 1988). Notably, both hunting clubs are located in Currituck County, North Carolina. Typically, the resources derive their significance from their relationship to a body of water. Recreational facilities within the APE were created to enhance the enjoyment of the natural landscape including the Atlantic Ocean, the Currituck Sound, and surrounding natural landscapes. Resources include beachfront hotels constructed with views and access to the beaches of the Atlantic Ocean; unobscured ocean views are essential to the integrity of these resources. Hunting clubs utilize the inland bay of the Currituck Sound rather than the Atlantic Ocean. Seashore State Park takes advantage of the natural vegetation of northern Virginia Beach. Common attributes include:

- Functionality associated with human use and enjoyment;
- Natural setting along the Atlantic Ocean, Currituck Sound, or vegetative areas;
- Presence of temporary lodging facilities; and
- Maritime setting.

Maritime

Maritime resources within the APE are located in Virginia Beach, Virginia, and Currituck County, North Carolina. These resources include lighthouses and coast guard/life-saving facilities. Three lighthouses, which served as navigational aids, and five coast guard/lifesaving facilities are located within the APE with construction dates ranging from the late eighteenth century to the late nineteenth century.

- The Cobb Island Coast Guard Station (DHR ID: 065-0128) originally was constructed on Cobb Island, Northampton County in 1934 replacing an earlier 1880 station. In 1998, the Station and accompanying boathouse was relocated to Oyster, Northampton County, Virginia. The two-and-one-half-story Colonial Revival-style building includes red cedar shakes and cypress beams. The property was determined eligible for listing in the NRHP by DHR staff in 1996 under Criteria A and C (Virginia Department of Historic Resources 1996b).

- The Cape Henry Lighthouse (DHR ID: 134-0007/134-0660) is located on a steep sand dune within Fort Story in Virginia Beach, Virginia. The octagonal, sandstone lighthouse was constructed in 1792 and is the first commissioned public works building in the United States and the first lighthouse authorized, completed, and lit by the federal government. It is the third-oldest lighthouse in the United States. The tower is 72 feet in height, and the diameter ranges from 26 feet at the base to 16.5 feet at the top. The base walls are 6 feet thick. A glass observation tower is located at the top of the tower. The tower later was lined with brick, and a metal staircase was added to the interior (Virginia Department of Historic Resources 2013a). The lighthouse was replaced by a more modern lighthouse in 1881. The lighthouse was listed as an NHL in 1964, in the NRHP in 1966 and in the VLR in 1969 under Criteria A and C; and, it was listed in the Virginia Beach Historic Register in 2016 (Virginia Department of Historic Resources 2013a; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).
- The Little Island Coast Guard Station (DHR ID: 134-0596) is located on a 5-acre lot. Constructed in 1925, the building is an example of a Chatham-type coast guard station, exhibits the Colonial Revival style, is sheathed in vinyl, and terminates in an asphalt-shingle roof. A boathouse (1925) resting on wooden piers and a garage (1938) are also present. The coast guard station is recorded to have a view of the ocean. The property was listed in the Virginia Beach Historic Register in 2001 (City of Virginia Beach n.d.e).
- The second Cape Henry Light Station (DHR ID: 134-0079/114-5250/134-0660) is located on a five-acre parcel within Fort Story on Cape Henry in Virginia Beach, Virginia. Constructed in 1881, the lighthouse replaced the earlier Cape Henry Lighthouse, which was considered beyond repair. The old lighthouse is located approximately 100 yards away. The new lighthouse was constructed with cast iron panels backed with masonry. The lighthouse features a granite base supporting a 163-foot tall tower featuring a Fresnel lens. The property also contains three dwellings (ca. 1881), a coal house (ca. 1905), an oil house (ca. 1892), a fog signaling building (ca. 1881), and a fog signal testing laboratory (ca. 1935). The lighthouse is located within the Fort Story Historic District and is associated with the Light Stations of the United States MPDF. The property was listed in the NRHP in 2002 and VLR in 2003 under Criteria A and C and was listed in the Virginia Beach Historic Register in 2016 (Virginia Department of Historic Resources 2013e; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and views to the ocean (Klein et al. 2012b).
- The United States Coast Guard Station/Seatack Life Saving Station (DHR ID: 134-0047) is located in an urban setting on a half-acre lot in Virginia Beach, Virginia. The two and one-half-story wood frame building was moved to its current location during the late twentieth century and turned so that the original east elevation now faces north. Constructed in 1903, the wood weatherboard building is one of the few remaining examples of United States Lifesaving Service buildings. The property was listed in the VLR and NRHP in 1979 under Criteria A and C and was listed in the

Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 2013c; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and views to the ocean (Klein et al. 2012b). The Seatack Life Saving Station is part of the Historic Seatack Life Saving Station and Virginia Beach Coast Guard Station District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.b.).

- The Currituck Beach Lighthouse and Lighthouse Complex (SITE ID: CK0001, CK0106) is a historic district located on a 30.58-acre property defined by maintained grounds and natural vegetation in Corolla, North Carolina. Completed in 1875, it is the northernmost lighthouse in North Carolina. The 158 feet tall lighthouse is constructed with red bricks, rests on a hexagonal foundation, and features a glass lantern with metal roof and finial. Windows are present on the lighthouse as well as metal brackets with pendants. A one-story brick office building is connected to the base of the lighthouse and provides access to the structure. A two-story Keeper's House was constructed in 1876 is located west of the lighthouse occupying a Greek cross plan and clad in wood weatherboard. The Keeper's House includes two rainwater cisterns and a storehouse as outbuildings. A second dwelling, the Small Keeper's House, was constructed in 1870 for the Long Point Lighthouse Station and was relocated to the site in the 1920s. The Small Keeper's House includes a privy and cistern as outbuildings. Additionally, a modern storehouse dating to ca. 1990 is located on site. The lighthouse, office building, Keeper's House, and a cistern were listed in the NRHP in 1973 as the Currituck Beach Lighthouse. The historic district was expanded in 1999 to include additional buildings and structures (Smith 1999). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).
- The Currituck Beach Life-Saving Station (SITE ID: CK0025) originally was located in Currituck County, North Carolina, one mile north of the Currituck beach Lighthouse; however, it has been moved six miles north. Constructed in 1903, the station replaced the earlier Jones Hill Life-Saving Station/Whales Head Life-Saving Station. The wood shingle-clad building is an example of a Quonochontaug-type lifesaving station with a hipped roof, side gable, and lookout tower. The property was evaluated eligible for listing in the NRHP by the North Carolina National Register Advisory Committee in 2003 (Sandbeck 2003a). The property possesses a maritime setting and significant views to the ocean.
- The Wash Woods U.S. Coast Guard Station (SITE ID: CK0088) was constructed between 1917 and 1919 eight miles north of Corolla, North Carolina. The two-story, Chatham-type lifesavings station is sheathed in wood weatherboard and terminates in a gable-on-hip roof. The property also contains a detached kitchen, chicken house, observation tower, and two cisterns. Decommissioned in 1951, the station later served as a hunting club and summer home. The Wash Woods U.S. Coast Guard Station was placed on the North Carolina National Register Study List in 1988 (Sandbeck 2003b). The property possesses a maritime setting and significant views to the ocean.

Common Attributes of the Property Type

The United States Life Saving Service (LSS) was established in 1871, and the number of life-saving stations along the North Atlantic coastline slowly increased thereafter. Five stations were constructed along the coast of southeastern Virginia during the 1870s: Cape Henry LSS, Dam Neck Mills LSS and False Cape LSS between 1874 and 1875; and Seatack LSS and Little Island LSS in 1878. In 1915, the Life Saving Service merged with the Lighthouse Service and the U.S. Revenue Service to form the United States Coast Guard (Seatack Life Saving Station Museum display text 1989; Penberthy 2016). Lighthouses and Lifesaving/Coast Guard Stations served to increase the navigational and shoreline safety of the United States. These resources derive their significance from associations with and direct views to the ocean due to their functional roles. The integrity of these resources is related to the relationship between the ocean and the resource. A Multiple Property Documentation Form (MPDF) for Light Stations in the United States was developed in 2002. A MPDF was developed for U.S. Lifesaving Stations and U.S. Coast Guard Lifeboat Stations in 2013. Maritime facilities within the APE were constructed to enhance the safety of those utilizing the Atlantic Ocean. Ocean views are essential to the integrity of these resources due to their location along the seashore and purpose. Common attributes include:

- Functionality to provide safety along the coastline,
- Location along the water,
- Maritime setting, and
- Direct views of the Atlantic Ocean.

Residential

Fifty-nine historic dwellings and five residential historic districts are located within the APE in the City of Virginia Beach, the City of Norfolk, and Accomack and Northampton counties, Virginia.

- Old Beach was established in 1915 and is one of the oldest residential areas in Virginia Beach. The majority of the remaining resources within the neighborhood date from the 1950s through present day. Notably, many residential lots include an ancillary dwelling. The Old Beach Overlay District was created in 1995 to “preserve and enhance the character of the Old Beach neighborhood, by providing opportunities for both new and redeveloped resort residential development” (City of Virginia Beach n.d.f.). The Old Beach Design Guidelines were established to guide development to be compatible with the existing neighborhood. Compliance with the Design Guidelines is incentivized by allowing exempted deviations of the requirements of the Overlay District. The Old Beach Design Review Committee is a five member body created to “preserve, enhance and promote the character of the residential neighborhood in accordance with the Old Beach Design Guidelines and provisions of the Old Beach Overlay District by offering recommendations on development projects” (City of Virginia Beach n.d.c.).
- Penrose Lodge (DHR ID 001-5030), also known as the Fentress Farm and Pencathols, is a 7-acre rural property located on Upshur’s Neck, Accomack County, Virginia. The property features an open field overlooking the Eastern Shore’s barrier islands and includes a primary dwelling, barn, pumphouse, and tool shed. All buildings were constructed in 1904. The primary dwelling is a two and one-half story, wood weatherboard building featuring an ell. The DHR Board determined the

property eligible for listing in the NRHP in 2001 under Criteria A and C (Virginia Department of Historic Resources 2001).

- Sealand (DHR ID 065-0083) is located on Route 600, Northampton County, Virginia. The complex features a primary dwelling (ca. 1800), smokehouse (ca. 1790-1829), single dwelling (ca. 1790-1829), slave/servants corridors (ca. 1790-1829), a ruinous kitchen (ca. 1800), doctor's office (ca. 1800), garden (ca. 1790-1829), and cemetery (ca. 1790-1829). The primary dwelling includes a central passage plan and is clad in wood weatherboard and rests on a brick foundation. The DHR Board determined the property eligible for listing in the NRHP in 1972 (Virginia Department of Historic Resources 1972).
- Jacobus (DHR ID 065-0084) is a 240-acre rural property located in an open field and surrounded by forested areas and the bay shore in Johnstontown, Northampton County, Virginia. The two and one-half story dwelling exhibits the Federal/Adamesque style, is clad in wood weatherboard, and contains a central passage, double pile plan. The dwelling was constructed ca. 1835 and is an example of an Eastern Shore plantation house. A modern outbuilding was constructed ca. 1995. The DHR Board determined the property eligible for listing in the NRHP under Criterion C for architecture in 1995 (Virginia Department of Historic Resources 1995).
- The Seatack Historic District (DHR ID 134-0969) is a suburban historic district located on 151 acres primarily along South Birdneck Road in Virginia Beach, Virginia. The historic district comprises single- and multi-family residences and businesses on non-uniform lots with lawns and mature deciduous trees. The historically African-American community began developing during the early twentieth century with boundaries initially extending to the ocean; however, development of further neighborhoods has obscured that association over time. Resources within the district primarily date between 1920 and 1960 and typically are one to one-and-one-half-story wood frame Bungalows, Ranches, and Minimal Traditional dwellings. The DHR Board determined the historic district eligible for listing in the NRHP under Criterion A for its associations with African American history in 2019 (Virginia Department of Historic Resources 2019a).
- The L & J Gardens Neighborhood Historic District (DHR ID 134-5608) is a suburban historic district located on 76.7 acres in Norfolk and Virginia Beach, Virginia. The historic district is defined by intersecting streets and residential parcels with lawns less than an acre in size. The neighborhood originally was developed by brother and sister Walter L. and Lillian Riddick to attract African American professionals. L & J Gardens is significant as an example of an African American housing development under Criterion A. Residences constructed in the historic district date primarily from the 1950s to the 1970s, and the period of significance is 1954 to 1975. The neighborhood constitutes the sole example of an upper-middle class African American neighborhood in the area. Dwellings typically are Minimal Traditional or Ranches. The DHR Board determined the property eligible for listing in the NRHP under Criteria A and C in 2019 (Virginia Department of Historic Resources 2019b).
- Broad Bay Manor (DHR ID: 134-0004) is a 10-acre property located in a suburban setting in Virginia Beach, Virginia. The property is defined by a lawn with mature trees. The ca. 1800 brick dwelling features a side passage plan and occupies a rectangular footprint. The original block was likely a one-story brick section that has been enlarged to two stories constructed as early as ca.

1770. It is unclear which section was constructed first, but they definitively were different building campaigns. A wing was added to the building in 1980 and a further wing to the 1980 wing was added with a garage ca. 2000. The property features a ruinous secondary dwelling (ca. 1780), barn (1930), cemetery, two sheds (ca. 1930, ca. 1980), secondary dwelling (ca. 1984), pool (ca. 1984), perimeter wall (ca. 1980), and pump house (ca. 1930). DHR's Evaluation Committee recommended the property eligible for listing in the NRHP under Criterion C for architecture for a period of significance of 1770 to 1928 (Virginia Department of Historic Resources 2020).

- Holly Brook (DHR ID: 065-0011) is a two-story ca. 1750 dwelling constructed with a hall-parlor plan located in Northampton County, Virginia. The property contains a smokehouse, two gardens, an unknown ruinous outbuilding, a school, a secondary dwelling, and a cemetery. DHR staff determined the property eligible for listing in the NRHP under Criterion C for architecture in 1991 (Virginia Department of Historic Resources 1991).
- Locust Lawn (DHR ID: 065-0368) is located on 200 acres in a village setting in Northampton County, Virginia. The house is surrounded by a collection of mature trees, and outbuildings are located to the west. The two-story dwelling was constructed ca. 1789, exhibits the Federal/Adamesque style, and features a hall-parlor plan. The house is sheathed aluminum siding and Flemish bond brick and rests on a brick foundation. The property contains a silo (ca. 1980), three sheds (mid-twentieth century, ca. 1950, ca. 1960) two barns (ca. 1950, ca. 1980), and a horse track (ca. 1996). DHR staff recommended the property eligible for listing in the NRHP under Criterion C for architecture in 1996 (Virginia Department of Historic Resources 1996c).
- Cottage Place (DHR ID: 122-0912) is located in an urban setting in Norfolk, Virginia, and initially was constructed to address the critical housing shortage during World War II. The property includes nine one-story cottages constructed in 1942 with no architectural detailing. The cottages are wood-frame and rest on concrete foundations. DHR staff recommended the property eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994a).
- The James Bell House/Cedar Grove/Building R36 (DHR ID: 134-0003/134-5027-004) is located within the Oceana Naval Air Station Historic District in Virginia Beach, Virginia, on a lawn with a gated driveway once lined with cedar trees. The two-story brick dwelling was constructed ca. 1820 in the Federal/Adamesque style and features a central passage plan. DHR staff recommended the property eligible for listing in the NRHP in 2011 (Virginia Department of Historic Resources 2011a).
- The Carraway House (DHR ID: 134-0084) is located on a 0.79-acre suburban lot defined by a collection of mature deciduous trees in Virginia Beach, Virginia. A small creek is located to the east; a formal garden is planted on the west side of the property, and the rear of the property contains a small cemetery. The one and one-half-story, wood weatherboard dwelling rests on a brick foundation and was constructed ca. 1734 in the Georgian style. The dwelling features multiple nineteenth century additions including a kitchen wing. Records show that the dwelling has been moved. DHR staff recommended the property eligible for listing in the NRHP in 2003 under Criterion C (Virginia Department of Historic Resources 2004). The Carraway House is part of the Historic Carraway House District and is subject to the Virginia Beach Historical Review

Commission for exterior changes and development related to the building (City of Virginia Beach n.d.b.).

- The Pocahontas Hunt Club (DHR ID: 134-0171) is located at the end of a long gravel drive lined with boxwoods in Virginia Beach, Virginia. The two-story, H-shaped dwelling was constructed in 1926 as a hunt club but has been redeveloped as a single-family residence. The dwelling features wood siding and a slate roof. The property contains two garages. DHR staff recommended the property eligible for listing in the NRHP under Criteria A and C for a period of significance from 1926 to 1931 (Virginia Department of Historic Resources 2019e).
- Frost Farm/Baxter Farm (DHR ID: 134-0351) is a rural property with a long drive located in a field with mature deciduous trees in Virginia Beach, Virginia. The two and one-half-story dwelling was constructed ca. 1790 in the Federal/Adamesque style and features a central passage plan. An addition was constructed ca. 1880. Two barns are located on the property. DHR staff recommended the property eligible for listing in the NRHP under Criterion C in 1994 (Virginia Department of Historic Resources 1994c).
- The John Burroughs House/Cedar Grove/Burningwood Farms (DHR ID: 134-0598) is a 100-acre rural property recessed from the roadway and accessed via a cedar-lined drive in Virginia Beach, Virginia. The two and one-half-story primary dwelling was constructed ca. 1822 in the Federal/Adamesque style. The property contains a frame outbuilding (ca. 1933), two barns (ca. 1880, ca. 1935), stable (ca. 1933), smokehouse (ca. 1880), garage (ca. 1933), kennel (ca. 1966), pea house (ca. 1880), cemetery, pool (ca. 1985), and two sheds (ca. 1985). DHR staff recommended the property eligible for listing in the NRHP in 2000 under Criterion C (Virginia Department of Historic Resources 2019f).
- The Winford White House (DHR: 134-0917) is located on a suburban lot with a lawn and woods at the rear in Virginia Beach, Virginia. The one and one-half story dwelling was constructed ca. 1950. The dwelling is sheathed in vinyl and asbestos siding and rests on a concrete foundation. The property contains a shed (ca. 1970) and a garage (ca. 1950). DHR staff recommended the property eligible for listing in the NRHP in 2011 (Virginia Department of Historic Resources 2011b).
- This house (DHR ID: 134-5068) at 1408 Virginia Beach Boulevard is located on a suburban lot with a short, paved driveway and a collection of trees on the west end of the property in Virginia Beach, Virginia. The property is a contributing resource to the Oceana Historic District. The one and one-half story dwelling was constructed in 1950 in the Colonial Revival and Cape Cod styles and features a concrete block foundation and asbestos shingle siding. The property contains a carport (ca. 1970). DHR staff recommended the property eligible for listing in the NRHP in 2011 (Virginia Department of Historic Resources 2011c).
- Church Point Manor/Church Point (DHR ID: 134-0606) is located on a flat lot with mature trees and shrubs and contains a private dock on the Lynnhaven River in Virginia Beach, Virginia. The two-story dwelling was constructed ca. 1860 in the Folk Victorian style and includes a t-plan with a side passage interior. The dwelling features brick construction with a wrap-around porch on three sides. The dwelling was converted into a bed and breakfast, event space, and restaurant in the twenty-first century. DHR staff recommended the property eligible for listing in the NRHP under

Criterion C in 1994, and it was listed in the Virginia Beach Historic Register in 2020 (Virginia Department of Historic Resources 2017; City of Virginia Beach n.d.d). Church Point Manor is part of the Historic Church Point Manor District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.b.).

- Sandswept (DHR ID: 134-5089) is located on three lots at the north end of Shore Drive and includes ocean dunes to the east, mature deciduous trees, and sand walkways in Virginia Beach, Virginia. The dwelling was designed by local architect Herbert Smith who was influenced by Frank Lloyd Wright. The two-story, International-style dwelling was constructed in 1955 in concrete and features two blocks connected by a stair connector. The property includes a garage (1955). DHR staff recommended the property eligible for listing in the NRHP under Criterion C in 2005, and it was listed in the Virginia Beach Historic Register in 2007 (Virginia Department of Historic Resources 2005a; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).
- Bayview (DHR ID: 065-0138) is a two-story dwelling constructed ca. 1800 in the Colonial Revival style with a symmetrical façade in Northampton County, Virginia. The five bay dwelling features wood weatherboard siding, a central passage plan, and a gable roof. DHR staff recommended the property potentially eligible for listing in the NRHP in 1988 (Virginia Department of Historic Resources 1988).
- The Jonathan Fentress House (DHR ID: 134-0043) is located in a rural setting with agricultural fields and mature trees surrounding the property in Virginia Beach, Virginia. The dwelling was constructed ca. 1794 and is an example of Vernacular-style architecture with Federal-style influences. The two and one-half story dwelling features a central passage plan, a side gable roof, and two additions. The property contains one outbuilding. DHR staff recommended the property potentially eligible for listing with additional information required in 2015 (Virginia Department of Historic Resources 2015).
- Oak Hill Farm (DHR ID: 134-0100) is a ca. 1860 dwelling featuring a side passage plan in Virginia Beach, Virginia. The two-and-one-half-story dwelling exhibits the Federal/Adamesque style. DHR staff recommended the property potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994d).
- Little Quail (DHR ID: 134-0242) is a rural agricultural property surrounded by fields and forest in Virginia Beach, Virginia. The two-story dwelling was constructed ca. 1858 in the Vernacular style and occupies an I-shape. The dwelling is clad in wood weatherboard and contains an addition. DHR staff recommended the property potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994e).
- Whitehurst Farm (DHR ID: 134-0248) is a dwelling located in Virginia Beach, Virginia. DHR staff recommended the property potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994f).

- This house (DHR ID: 134-0669) in Virginia Beach, Virginia, is located in an open area defined by the presence of pine and oak trees. The two-story dwelling was constructed ca. 1860 with wood weatherboard siding. The property contains three outbuildings, one of which is a barn. DHR staff recommended the property potentially eligible listing in the NRHP in 2005 (Virginia Department of Historic Resources 2005b).
- The Cooke-Royster House (DHR ID: 134-0535) is located on an oceanfront lot in Virginia Beach, Virginia. The two-and-one-half-story dwelling contains two story wrap-around porch. A garage is located on the property. DHR staff recommended the property potentially eligible for listing in the NRHP under Criterion C in 1994 (Virginia Department of Historic Resources 1994h). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b). The Cooke-Royster House was listed in the Virginia Beach Historic Register in 2019 (City of Virginia Beach n.d.a).
- Brownsville/Nature Conservancy Headquarters (DHR ID: 065-0003) is located on a rural property located in the Brownsville Preserve, which contains thousands of acres of protected shorelines, land, and marshes that are part of the Virginia Coast Reserve in Northampton County, Virginia. The house is located on a lawn with mature trees and faces east towards marshland and the barrier islands of the Eastern Shore of Virginia. John Upshur, a prominent merchant, constructed the house in 1806. An addition was constructed in 1809, and a kitchen wing later was added. The two-story brick dwelling is exhibits the Federal/Adamesque style, features an interior side passage plan, and is noted for its interior woodwork. The property also contains a dovecote, slave/servants quarters, barn, cemetery, three sheds (ca. 1950, ca. 1950, ca. 1900), a workshop (ca. 1910), dairy (ca. 1806), and dock (ca. 1980). The property was listed in the VLR in 1969 and the NRHP in 1970 under Criterion C for architecture (Virginia Department of Historic Resources 2017b).
- Eyre Hall (DHR 065-0008) is located on a 467.3-acre rural lot north of Cheriton in Northampton County, Virginia. The property is defined by a mile-long drive that divides the property and provides access to the different buildings of the complex. The original one-and-one-half-story portion of Eyre Hall was constructed in 1759 by Littleton Eyre. Littleton Eyre's son, Severn, inherited the property in 1773; Severn Eyre was a member of the Virginia House of Burgesses between 1766 and 1773. The house was enlarged to two stories and converted into a wing of the present gambrel roof primary block between 1796 and 1800 by Severn's son John Eyre. Eyre Hall is notable for utilizing a vocabulary typical of less affluent properties including wood weatherboard, gambrel roof, and three-room side-hall plan. However, its scale and interior finishes signify the wealth and status of its historic owners. The primary dwelling is a Vernacular-style example of a Colonial-period house in the Chesapeake. Eyre Hall is listed as a NHL under Criterion 4 for its exceptional visual character and preservation of its historic architecture landscape. The property also contains two stables (ca. 1940, ca. 1900), a wood shed (ca. 1985), six single dwellings (ca. 1980, ca. 2000, ca. 1999, ca. 1938, ca. 1920, ca. 1798), a smokehouse (ca. 1807), a dairy (ca. 1759), an office (ca. 2003), a barn (ca. 1900), a shed (ca. 1985), a garden (ca. 1755), ruins of an orangerie (ca. 1818), a cemetery, a garage (ca. 1940), and a designed landscape (ca. 1755). The

property was listed in the NRHP and VLR in 1969 and was listed as an NHL under Criteria A and C in 2012 (Virginia Department of Historic Resources 2016).

- Oak Grove (DHR ID: 065-0019) is a rural property located on a peninsula on the bay side of Northampton County, Virginia. Oak Grove is a two-story dwelling constructed ca. 1750. The wood weatherboard building was constructed in four periods including a Colonial-era core with gambrel roof, north Federal-style wing dating ca. 1811 with a gable roof, ca. 1840 Greek Revival-style south wing, and ca. 1941 one-and-one-half-story Colonial Revival-style kitchen wing with attached garage. The period of significance is from 1750 to 1942 (Loth 1992). A ca. 1941 eighteenth-century-style garden designed by Charles Gillette is located on the property. The property contains several outbuildings: a single dwelling, two corncribs, four sheds, and a barn. Oak Grove was listed in the VLR in 1992 and NRHP under Criterion C in 1993 (Virginia Department of Historic Resources 1993a).
- Stratton Manor (DHR ID: 065-0024) is a rural property located on the east side of Old Plantation Creek in Northampton County, Virginia. The primary dwelling, constructed ca. 1764, is an example of eighteenth-century Vernacular architecture on Virginia's Eastern Shore. Common features of the type include frame construction, brick ends laid in Flemish bond, chevron gables, and exterior chimneys with steep shouldering. The dwelling was constructed by Benjamin Stratton, a chairmaker and member of an old Northampton County family. Stratton created the balusters found on the interior staircase. The one-and-one-half-story building features an interior central passage plan. An ell was added to the gable-roof building in the early twentieth century and historic weatherboard siding has been replaced with aluminum. The property contains an office (ca. 1800), workshop, kitchen (ca. 1800), and smokehouse (ca. 1800). The property was listed in the VLR and NRHP in 1980 (Virginia Department of Historic Resources 1983).
- Kendall Grove (DHR ID: 065-0060) is located two-and-one-half miles northwest of Eastville on Mattawoman Creek in Northampton County, Virginia (Virginia Department of Historic Resources 1982). The dwelling was constructed by George Parker; Parker was a member of the Virginia Convention of 1788 and later was a judge. Parker's son, General Severn E. Parker was a delegate to the Virginia General Assembly and later a member of U.S. Congress. The ca. 1813 Federal-style dwelling is clad in wood weatherboard and rests on a brick foundation (Virginia Historic Landmarks Commission 1980). The property contains a shed, two privies, dairy, and smokehouse. The two-story dwelling features a cruciform plan. The property was listed in the VLR in 1980 and the NRHP under Criterion C in 1982 (Virginia Department of Historic Resources 1982).
- The Oceana Neighborhood Historic District/Oceana Historic District (DHR ID: 134-0968) is a suburban historic district located on 70 acres two miles west of the Virginia Beach coast. The district is defined by narrow grassy lots with houses setback from the street and a rectilinear street grid. Mature trees are adjacent to most dwellings. The interior historic district lacks sidewalks and curbs; however, these elements are present on major streets on the exterior of the development. The historic district contains 139 contributing resources and 103 non-contributing resources dating from the late nineteenth century until 1963 when Princess Anne County merged with the City of Virginia Beach. Architectural styles present in the district include late-nineteenth century Vernacular, Tudor Revival, Colonial Revival, American Foursquare, and Craftsman. Mid-twentieth century house

types present include Cape Cod, Minimal Traditional, and Ranch. The Oceana Neighborhood Historic District was listed in the VLR and NRHP in 2017 under Criterion A for community planning and Criterion C for architecture (Virginia Department of Historic Resources 2017c).

- The Cavalier Shores Historic District (DHR ID: 134-5379) is a suburban historic district occupying 31.5 acres at the north end of Virginia Beach along the oceanfront immediately north of the Cavalier Hotel to which the neighborhood is connected via walkway. The historic district comprises seven blocks of a rectilinear street grid platted in 1927. Lots generally are uniform in size, and houses have consistent setbacks. The period of significance dates from 1927 to 1968. There are 93 contributing resources in the historic district and 27 non-contributing resources. The historic district was listed in the VLR in 2018 and in the NRHP in 2019 under Criteria A and C (Virginia Department of Historic Resources 2019g).
- Green Hill (DHR ID: 134-0015) is a 1.333-acre suburban property located in Virginia Beach, Virginia. The property contains two mature live oak trees and a lawn with shrubs. Constructed by John Lovett in 1791, the dwelling underwent a restoration and expansion in 1954 by architect Finlay Forbes Ferguson, Jr. The two-story brick dwelling exhibits the Federal/Adamesque style and a slate side gable roof. The property contains a barn (ca. 1974) and kitchen (ca. 1937). The period of significance is from 1791 to 1962. The property was listed in the VLR and NRHP under Criterion C in 2012 and was listed in the Virginia Beach Historic Register in 2018 (Virginia Department of Historic Resources 2013b; City of Virginia Beach n.d.d).
- The Hermitage (DHR ID: 134-0016) is located in an urban setting at the center of the Thoroughgood development on a 1.6-acre lot in Virginia Beach, Virginia. The one-and-one-half-story dwelling was constructed ca. 1700 in the Colonial style and features a central passage plan and wood weatherboard siding. The dwelling has been modified over time including an addition ca. 1820, a screened porch added ca. 1930, and a rear ell added ca. 1940. The period of significance is from ca. 1700 to 1940, the period during which the house developed. The property contains a smokehouse (ca. 1700), spring house (ca. 1800), and garage (ca. 1700). The property was listed in the VLR in 2007 and NRHP under Criterion C in 2008 and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 2010; City of Virginia Beach n.d.d).
- The Francis Land House/Rose Hall (DHR ID: 134-0031) is located in an urban setting on a two-acre lot in Virginia Beach, Virginia. The two-story dwelling was constructed in 1732 by Captain Francis Land, III, and features a wood-shingle gambrel roof and brick foundation. During the 1950s, the property was enlarged and operated as a dress shop. The property currently is operated by the City of Virginia Beach and was listed in the VLR and NRHP under Criterion C in 1975 and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 1975a; City of Virginia Beach n.d.d). The Francis Land House is part of the Historic Francis Land House District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.b.).
- The Weblin House (DHR ID: 134-0035/44VB0066) is located in a suburban setting on a flat field in northwestern Virginia Beach, Virginia. The dwelling is an example of a Virginia Style house characterized by a hall-and-parlor plan and end chimneys. Constructed ca. 1670, the one-and-one-half-story dwelling features brick cladding and foundation and a gambrel roof. The period of

construction makes the dwelling one of the oldest in Virginia Beach. The property contains two tenant houses (ca. 1900), a garage (ca. 1900), a vehicle shed (ca. 1900), a barn (ca. 1900), and three ruinous concrete silos (ca. 1900). The property was listed in the VLR and NRHP under Criterion C in 1974 and was listed in the Virginia Beach Historic Register in 2016 (Virginia Department of Historic Resources 2019j; City of Virginia Beach n.d.d).

- Greystone Manor/Masury House/Crystal Club (DHR ID: 134-0532) is located in a town setting on a one-acre lot in Virginia Beach Virginia. The property was designed by architect Arnold Eberhard and constructed by Dr. John Miller-Masury in 1906. It was the first full-time residence north of the Cavalier Hotel. The dwelling later was converted into a nightclub, the Crystal Club. Later, the house was purchased by William Wilder who dubbed the property “Greystone” (Spriggs 1996). The two-and-one-half story, 12,000-square-foot dwelling features the Scottish Baronial style and is constructed of limestone, granite, and slate. The property was listed in the VLR and NRHP under Criteria A and C in 1997 and was listed in the Virginia Beach Historic Register in 2003 (Virginia Department of Historic Resources 2003; City of Virginia Beach n.d.d).
- The Bingham House/Briarwood (DHR ID: 134-0600) is located in a town setting on a 4-acre lot in Virginia Beach, Virginia. The lot is defined by a circular drive and mature deciduous trees sloping towards Linkhorn Bay. Constructed in 1932 by James and Frances Bingham, the dwelling was designed by Wickham C. Taylor and is a prominent example of the Tudor Revival style, a rarity in Virginia Beach. The two-story dwelling features brick cladding and a slate roof. The property also contains a swimming pool (ca. 1960) and garage (ca. 1938). The property was listed in the VLR and NRHP in 2012 under Criterion C and was listed in the Virginia Beach Historic Register in 2016 (Virginia Department of Historic Resources 2012; City of Virginia Beach, n.d.d).
- Shirley Hall (DHR ID: 134-5002) is located in a suburban setting overlooking Linkhorn Bay in Virginia Beach, Virginia. The lot is defined by a semi-circular drive. The dwelling was constructed in 1940 by Mr. and Mrs. James H. Deveraux, Jr. and was designed by Perry Shaw & Hepburn. The brick building features the Eighteenth-Century Revival style (Hanbury 1998). The property was listed in the VLR in 1998 and NRHP in 1999 under Criterion C and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 1999; City of Virginia Beach, n.d.d).
- The deWitt Cottage/Atlantic Wildfowl Heritage Museum (DHR ID: 134-0066) is located in an urban setting on the waterfront on a 0.36-acre lot in Virginia Beach, Virginia. The property fronts the boardwalk and contains a seaside garden. Constructed in 1895, the dwelling is the sole remaining beachfront cottage constructed between Virginia Beach’s founding in 1883 and its incorporation in 1906. The two-and-one-half-story dwelling features a Vernacular style and is constructed in brick. The property was listed in the VLR and NRHP in 1988 under Criteria A and C and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 2013g; City of Virginia Beach n.d.d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and views to the ocean (Klein et al. 2012b). The deWitt Cottage is part of the Historic deWitt Cottage District

and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.b..).

- Upper Wolfsnare/Brick House (DHR ID: 134-0034) is located on a flat, open area in Virginia Beach, Virginia. It was constructed by Thomas Walke III in 1759 and bequeathed to his son 2 years later. The two-story Colonial house is constructed in brick with a shingle side-gable roof. The property was listed in the VLR in 1974 and NRHP in 1975 and was listed in the Virginia Beach Historic Register in 1999 (Virginia Department of Historic Resources 1975b; City of Virginia Beach n.d.d). Upper Wolfsnare is part of the Historic Upper Wolfsnare Manor District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.).
- The Enoch Capps House (DHR ID: 134-0213) is located on 24.3-acre suburban lot in Virginia Beach, Virginia. The lot is defined by its lawn surrounded by agricultural fields, trees, a fence, and a creek. A gravel drive lined with trees provides access to the site. Constructed in 1831, this two-story dwelling features a Vernacular style and is noted for the diamond motifs in its chimneys. The dwelling is sheathed in vinyl siding. The property also contains a machine shed (ca. 2012), two outbuildings (ca. 1960), a workshop (ca. 2010), and swimming pool (ca. 2012) (Virginia Department of Historic Resources 2019i). The property was listed in the Virginia Beach Historic Register in 2002 (City of Virginia Beach, n.d.).
- The Ford Home (DHR ID: 134-0471) is located in a town setting on a 0.1-acre lot in Virginia Beach, Virginia (Virginia Department of Historic Resources 1992b). Constructed in 1926, this two-story dwelling features the Cape Cod style and is defined by side sheds on either side of a steep gable center block and wood shingles sheathing (City of Virginia Beach n.d.). The property was listed in the Virginia Beach Historic Register in 2002 (City of Virginia Beach n.d.).
- The dwelling (DHR ID: 134-0513) at 318 27th Street, Virginia Beach, Virginia, is located in a town setting on a lot defined by plantings. Constructed ca. 1910, the dwelling features the Craftsman style with decorative details such as a deep roof overhang, rafter ends, and decorative porch brackets (Virginia Department of Historic Resources 1992c). The property was listed in the Virginia Beach Historic Register in 2018 (City of Virginia Beach n.d.).
- The Chaplain House (DHR ID: 134-0682) is located in a rural setting on a 2.67-acre lot defined by mature vegetation in Virginia Beach, Virginia. Constructed ca. 1890, the two-story dwelling features a side-passage plan and hipped roof. The property also contains two chicken houses, two sheds, and two outbuildings (Virginia Department of Historic Resources 1993c). The property was listed in the Virginia Beach Historic Register in 2002 (City of Virginia Beach, n.d.).
- The Elaine Moore House (DHR ID: 134-5104) is located in an urban setting on a one-acre lot defined by mature trees in Virginia Beach, Virginia. The dwelling is an example of “The Winthrop” house model kit by the Aladdin Company. Constructed in 1908, the one-story Craftsman-style dwelling features overhanging eaves, brackets, exposed rafter tails, and a parged concrete foundation. The property contains a ca. 1925 barn (Virginia Department of Historic Resources 2006). The property was listed in the Virginia Beach Historic Register in 2007 (City of Virginia Beach n.d.).

- Selden Hall (DHR ID: 134-5286) is located in a suburban setting on a 2.5-acre lot overlooking the Atlantic Ocean in Virginia Beach, Virginia. The lot is defined by a circular drive, terraces, and a sunken garden. The dwelling was constructed for William Boswell Selden Grandy and designed by Clarence Meakin of Wickham C. Taylor. Completed in 1932, the two-and-one-half-story, Georgian Revival-style dwelling features an asymmetrical façade and brick construction (Virginia Department of Historic Resources 2011e). The property was listed in the Virginia Beach Historic Register in 2015 (City of Virginia Beach n.d.).
- The dwelling (DHR ID: 134-5379-0013) at 216 Cavalier Drive is located in a suburban setting on a lot defined by hedges and a brick sidewalk in Virginia Beach, Virginia. Constructed in 1929, this one-and-one-half-story dwelling exhibits the Dutch Revival style. The house is sheathed in wood shingles and rests on a brick foundation. The property is a contributing resource to the Cavalier Shores Historic District and was listed in the Virginia Beach Historic Register in 2017 (Virginia Department of Historic Resources 2018e; City of Virginia Beach n.d.).
- The dwelling (DHR ID: 134-5379-0037) at 213 43rd Street is located in a suburban setting and occupies a double lot. The lot is defined by plantings and a paved parking area in Virginia Beach, Virginia. Constructed in 1940, the two-story dwelling exhibits the Colonial Revival style. The dwelling is sheathed in brick, and a shed (ca. 2010) is present on the property. The property is a contributing resource to the Cavalier Shores Historic District and was listed in the Virginia Beach Historic Register in 2015 (Virginia Department of Historic Resources 2018f; City of Virginia Beach n.d.).
- The dwelling (DHR ID: 134-5379-0048) at 214 44th Street is located in a suburban setting and occupies a double lot defined by a brick walkway and hedgerow in Virginia Beach, Virginia. Constructed in 1927, the one-and-one-half-story dwelling exhibits the Dutch Revival style, is sheathed in brick, and terminates in a slate roof. The property contains a secondary dwelling (ca. 1927). The property is a contributing resource to the Cavalier Shores Historic District and was listed in the Virginia Beach Historic Register in 2014 (Virginia Department of Historic Resources 2018g; City of Virginia Beach n.d.).
- The Sessoms House (DHR ID: 134-5379-0094) is located in a suburban setting on a lot defined by a parking area and yard enclosed by a white picket fence in Virginia Beach, Virginia. Constructed in 1935, the two-and-one-half-story dwelling exhibits the Colonial Revival style, rests on a brick foundation, is sheathed in clapboard, and terminated in a slate roof. The property contains a shed (ca. 1990). The property is a contributing resource to the Cavalier Shores Historic District and was listed in the Virginia Beach Historic Register in 2008 (Virginia Department of Historic Resources 2018h; City of Virginia Beach n.d.).
- The Darden House (DHR ID: 134-5379-0097) is located in a suburban setting on a lot defined by a low brick wall enclosure in Virginia Beach, Virginia. Constructed in 1928, the two-story dwelling exhibits the Colonial Revival style and rests on a continuous masonry foundation. The property contains a garage (ca. 1928). The property is a contributing resource to the Cavalier Shores Historic District and was listed in the Virginia Beach Historic Register in 2015 (Virginia Department of Historic Resources 2018i; City of Virginia Beach n.d.).

- The house (DHR ID: 134-5444) at 207 53rd Street is located in a suburban setting on a 0.2-acre lot defined by a sloped lawn with plantings and a gravel driveway in the Ubermeer subdivision in Virginia Beach, Virginia. Constructed in 1920, the one-and-one-half-story dwelling exhibits the Craftsman style, is sheathed in weatherboard, and rests on a brick foundation. The property contains a garage (ca. 1920, Virginia Department of Historic Resources 2018j). The property was listed in the Virginia Beach Historic Register in 2015 (City of Virginia Beach n.d.).
- The house (DHR ID: 134-5445) at 304 53rd Street is located in a suburban setting on a 0.1-acre lot defined by dense foliage and a short gravel driveway in the Ubermeer subdivision in Virginia Beach, Virginia. Constructed in 1920, the two-and-one-half-story dwelling exhibits the Vernacular style and a rectangular plan. The building is sheathed in wood shingles. A garage (ca. 1950) is present (Virginia Department of Historic Resources 2018k). The property was listed in the Virginia Beach Historic Register in 2016 (City of Virginia Beach n.d.).
- The Howell House (DHR ID: 134-5446) is located in a suburban setting on a 0.2-acre lot defined by a flat lawn with brick walkways in Virginia Beach, Virginia. The dwelling was the summer house of Virginia Governor Henry Howell. Constructed in 1925, the one-and-one-half-story dwelling exhibits the Craftsman style, is clad in wood weatherboard and shingles, rests on a brick foundation, and features overhanging eaves and exposed rafter tails (Virginia Department of Historic Resources 2018l). The property was listed in the Virginia Beach Historic Register in 2015 (City of Virginia Beach n.d.).
- Spruance Cottage (DHR ID: 134-5447) is located in a suburban setting on a 0.2-acre lot defined by a brick walk, gravel driveway, and dense vegetation in Virginia Beach, Virginia. Constructed ca. 1930 by the Saunders Corp., the two-story dwelling is an example of the American Four-Square form, rests on a brick foundation, terminates in a hipped roof, and is sheathed in vinyl siding (City of Virginia Beach n.d.). The property was listed in the Virginia Beach Historic Register in 2003 (City of Virginia Beach n.d.).
- The Holly House (DHR ID: 134-5456) is located in a suburban setting on a 0.14-acre lot defined by a paved driveway, brick walkway, and lawn with mature trees and landscaping in Virginia Beach, Virginia. Constructed ca. 1930 in the Hollies development, the two-story dwelling exhibits the Colonial Revival style, rests on a brick foundation, is sheathed in wood shingles, and terminates in a hipped roof. The property also contains a garage (ca. 1930) (Virginia Department of Historic Resources 2018m). The property was listed in the Virginia Beach Historic Register in 2003 (City of Virginia Beach n.d.).
- The house (DHR ID: 134-5491) located at 805 Cavalier Drive is located in a suburban setting on a flat lot defined by mature trees, a circular driveway, and a waterfront location on Linkhorn Bay in Virginia Beach, Virginia. Constructed in 1930, the two-and-one-half-story dwelling exhibits the Colonial Revival style, is sheathed in wood shingles, and terminated in an asphalt shingle roof. The property also contains a garage (ca. 1980) (Virginia Department of Historic Resources 2018n). The property was listed in the Virginia Beach Historic Register in 2004 (City of Virginia Beach n.d.).
- The Faulkner House (DHR ID: 134-5493) is located in a suburban setting on a flat lot defined by its lawn, concrete drive, and oceanfront location in Virginia Beach, Virginia. Constructed ca. 1934,

the two-story duplex dwelling rests on a brick foundation, is sheathed in wood shingles, and terminated in an asphalt shingle roof (Virginia Department of Historic Resources 2018o). The property was listed in the Virginia Beach Historic Register in 2003 (City of Virginia Beach n.d.).

- The house (DHR ID: 134-5524) located at 1909 Indian River Road occupies a 0.87-acre lot in a rural setting defined by cultivated fields outside of Pungo in Virginia Beach, Virginia. The lot contains a gravel driveway to access the recessed house on a heavily landscaped property. Constructed ca. 1930, the one-and-one-half-story dwelling exhibits a Bungalow form and Vernacular style, rests on a brick foundation, is sheathed in vinyl siding, and terminated in a gable roof with dormer. Multiple additions have been constructed. The property also contains two garages (ca. 1930, ca. 1990), secondary dwelling (ca. 1930), swimming pool (1984), and pool house (1984) (Virginia Department of Historic Resources 2018p). The property was listed in the Virginia Beach Historic Register in 2004 (City of Virginia Beach n.d.).
- The Woodhouse House/Simmons House/Fountain House (DHR ID: 134-0058) is located on a 50-acre lot defined by mature trees, and cultivated fields. The primary dwelling's ca. 1810 construction coincides with Captain Thomas Woodhouse's purchase of the property. The two-story dwelling exhibits the Federal/Adamesque style, rests on a brick foundation, is sheathed in wood weatherboard, and terminates in a side-gable roof. The property also contains a smokehouse (ca. 1904), kitchen (ca. 1904), and two cemeteries. The property was listed in the VLR in 2006 under Criterion C for a period of significance from 1810 to 1904 (Virginia Department of Historic Resources 2007).
- The Edgar Cayce Home was constructed in 1925 and features a side-gable roof with a large dormer. The dwelling is sheathed in vinyl and was Edgar Cayce's, founder of the Association for Research and Enlightenment, first house in Virginia Beach. The property was listed in the Virginia Beach Historic Register in 2003 (City of Virginia Beach n.d.).

Common Attributes of the Property Type

Fifty-nine historic dwellings are located within the APE in City of Virginia Beach, the City of Norfolk, and Accomack and Northampton counties, Virginia. Construction dates range from 1670 to 1955. One resource was constructed during the seventeenth century; 12 during the eighteenth century; 18 during the nineteenth century; 28 during the twentieth century. The dwellings exhibit Colonial/Colonial Revival/Dutch Colonial Revival, Craftsman, Federal/Adamesque, Folk Victorian, Georgian/Georgian Revival, International, Scottish Baronial, Stick, Tudor Revival, and Vernacular/Other/No styles. Resources are sheathed in brick, wood siding (weatherboard or shingles), vinyl, concrete, stucco, aluminum, or stone. There is an average of two stories present and four outbuildings. Examples of outbuildings include sheds, garages, barns, smokehouses, kitchens, and secondary dwellings. Frequently, dwellings include agricultural outbuildings. Residential buildings within the APE typically are located within rural, suburban, and urban settings on lots with lawns and vegetation. Typically, these buildings do not derive their significance from views to the ocean. Residential properties trace the development of the region from the rural agricultural seventeenth through the urbanized twentieth centuries. Common attributes include:

- Rural, urban, and suburban setting;
- Landscaped lawns and vegetation;

- Commonly do not emphasize maritime settings and ocean views;
- Driveways; and
- Secondary buildings such as sheds, garages, and secondary dwellings.

Defense Facilities

Three historic defense facilities are located within the APE in Chesapeake and Virginia Beach, Virginia. Two facilities are operated by the Navy and one by the Virginia Army National Guard.

- The Fentress Auxiliary Landing Field Historic District (DHR ID: 131-5324) shares boundaries with Naval Auxiliary Landing Field Fentress in Chesapeake, Virginia. The property is defined by runways and taxi strips as well as a small administrative area and contains open fields and wooded areas. The property has been evaluated for its associations with World War II and the Cold War. Research found that the airfield is a highly modified, typical example of an airfield and is not eligible for listing in the NRHP. However, the property is considered eligible for environmental review purposes as of 2018 (Virginia Department of Historic Resources 2018a).
- The Fort Story Historic District (DHR ID: 134-0660) is a naval military installation located in a hamlet setting on 1,458 acres in Virginia Beach, Virginia. The historic district is located on Cape Henry at the mouth of the Chesapeake Bay and Atlantic Ocean and contains approximately four miles of shoreline. The historic district is eligible under Criterion A for its association with military history and government, especially for its purpose defending the tidewater of Virginia during the Cold War. Nike Missile-associated buildings constructed until 1974 are eligible under Criteria Consideration G for their exceptional significance. Fifty-seven resources potentially contribute to the historic district. There are different resource types in the historic district: the administrative core, housing area, coastal defense, amphibious vehicle/transportation training, Nike Missile site, and former private cottages. DHR staff recommended the historic district eligible for listing in the NRHP under Criterion A and C in 2000. A Federal Determination of Eligibility was completed in 2003 (Virginia Department of Historic Resources 2011d). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).
- The Camp Pendleton/SMR Historic District (DHR ID: 134-0413) is a suburban historic district bound by the Atlantic Ocean to the east located on 343.01 acres in Virginia Beach, Virginia. Construction on the Virginia Army National Guard facility began in 1912. The landscape generally is grassy and features wooded areas and a lake, Lake Christine. The property includes the SMR, an area leased for use by the Virginia Air National Guard civil engineer unit, the Virginia Army National Guard Virginia Beach Readiness Center, and an area owned by the U.S. Navy. Buildings in the historic district generally are utilitarian and reflect military design; however, there are examples of American building styles. The historic district contains 114 contributing resources and initially was listed in the VLR in 2004 and NRHP in 2005 under Criteria A and C (Virginia Department of Historic Resources 2014b). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and*

Florida Straits: Volume II: Appendices as possessing a significant maritime setting and unknown views to the ocean (Klein et al. 2012b).

Common Attributes of the Property Type

Just before World War I, the relatively undeveloped landscape in southeastern Virginia changed significantly. In part, this was due to military activity. Fort Story, located at Cape Henry, was built in 1914; as a part of the Coast Defenses of the Chesapeake Bay, it later became "the most strategic heavy artillery fortification on the Atlantic Coast" (*The Beacon* 1988). Similarly, Camp Pendleton was established as a summer training camp for the Virginia National Guard; it subsequently became an Army rifle range (*The Beacon* 1988, Watts 2007, Moffett 2003). The oceanfront resort area also continued to grow in population. These trends accelerated during and after World War II, a conflict that permanently changed the character of the region. Early twentieth century military installations were enlarged, and the region's population soared as military personnel were transferred into the area. Three of the region's present installations originated during World War II: Oceana Naval Air Station (1940); the Little Creek Amphibious Base (1945); and the Fleet Combat Training Center at Dam Neck (1941). The establishment of these military installations impacted the near-shore waters in the area by creating hazard zones within which civilian maritime activity was restricted (Watts 2007). Common attributes include:

- Location along the water,
- Views of the ocean,
- Encompassing hundreds of acres, and
- Historic districts containing multiple buildings.

Educational

Two schools are present within the APE located in Northampton County and Virginia Beach, Virginia. Both served an educational purpose, and the schools were constructed with the purpose of educating African Americans.

- This Cape Charles Colored School (DHR ID: 182-0003) is located on two acres in Cape Charles, Northampton County, Virginia. The property includes a lawn, circular drive, and the rear of the property is forested. The Cape Charles Colored School is an example of a Rosenwald school and is the only Rosenwald school in Northampton County. The one-story, red brick school opened in 1928 with four teachers with funding from the local government, the African American community, and the Julius Rosenwald Fund. The building was converted into the Geo. Robberecht Seafood Company and has been altered with a concrete loading dock. As of survey in 2019, the property retains its single roof, six-over-six light windows, and original front and interior doors, light fixtures, wainscoting, plaster walls, coffered ceilings, and auditorium stage. The property is eligible under Criterion A as an example of a Rosenwald school in Virginia and Criterion C for schoolhouse design as part of the Rosenwald School Multiple Property documentation. The DHR Board determined the property eligible for listing in the NRHP under Criteria A and C in 2019 (Virginia Department of Historic Resources 2019c).
- The wood weatherboard Pleasant Ridge School for Blacks/Pleasant Ridge Elementary School (DHR ID: 134-0399) (1886) is located next to the brick Asbury United Methodist Church (1949)

and is flanked by agricultural fields and trees in Virginia Beach, Virginia. Originally located at Charity Neck, the one-room school was relocated to its current location in 1918. The property contains a cemetery and two signs (1950, 1960). The DHR Board determined the property eligible for listing in the NRHP under Criterion A in 1990, and it was listed in the Virginia Beach Historic Register in 2004 (Virginia Department of Historic Resources 2019d; City of Virginia Beach n.d.).

Common Attributes of the Property Type

Both educational resources within the APE were constructed with the intention of educating African Americans. These properties include a Rosenwald school (one of the schools constructed by the Julius Rosenwald Fund specifically for the education of African American students) and a church school. Neither of these resources has a maritime setting or possesses views to the ocean, and neither attribute is essential or related to the historic integrity of these resources. Common attributes of the property type include:

- Small size and massing,
- Rural setting,
- Lack of maritime setting, and
- Lack of ocean views.

Religious/Spiritual

Six religious or spiritual properties are located within the APE in Northampton County and Virginia Beach, Virginia. The properties were constructed between 1736 and 1927.

- Holmes Presbyterian Church (DHR ID: 065-0091) was constructed in 1846 and is a wood weatherboard, Gothic Revival-style church located in a village setting with a gravel drive and coniferous trees in Northampton County, Virginia. The building rests on a brick pier foundation with infill. The property contains a school building (ca. 1906) and cemetery. The church initially consisted of primarily female members. A slave entrance was present to allow house servants to worship at the back of the sanctuary, and field servants worshipped from the gallery. The school building was opened as a Presbyterian school on site. The property was determined eligible for listing in the NRHP in 1996 under Criterion A for its association with the practice of religion in Virginia and Criterion C for architecture (Virginia Department of Historic Resources 1996a).
- Tabernacle United Methodist Church/Tabernacle Methodist Church (DHR ID: 134-0080) is located in a rural setting on a 15.84-acre parcel with a circular gravel drive in Virginia Beach, Virginia. A creek is located to the west and a cemetery is located to the east. The one-story church was constructed ca. 1830 and features a steeple. The rectangular building includes an octagonal nave. A fellowship hall also is located on the property. DHR staff recommended the property potentially eligible for listing in the NRHP in 2005, and it was listed in the Virginia Beach Historic Register in 2002 (Virginia Department of Historic Resources 2005c; City of Virginia Beach n.d.).
- The Cayce Hospital for Research and Enlightenment/Association for Research and Enlightenment (DHR ID: 134-0427) is located on a city-block-large property with modern buildings associated with the Association for Research and Enlightenment in Virginia Beach, Virginia. The large, two-and-one-half-story cottage was constructed in 1927 and originally was a hospital and school. Later

the building served as a hotel, club, and military headquarters during World War II. The Craftsman-style building features hipped dormers, a veranda, and shingled siding. The property also contains a garage and an office building. DHR staff recommended the property potentially eligible for listing in the NRHP under Criteria B for its association with Edgar Cayce and Criteria C as one of the few surviving early twentieth century resources on the north end of the ocean front in Virginia Beach in 1994, and it was listed in the Virginia Beach Historic Register in 2003 (Virginia Department of Historic Resources 1994j; City of Virginia Beach, n.d.). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting and significant views to the ocean (Klein et al. 2012b).

- Old Donation Episcopal Church/Lynnhaven Parish Church (DHR ID: 134-0025) is located in an urban setting on an eight-acre lot in Virginia Beach, Virginia. The church was erected in 1736 and is the third constructed for the Lynnhaven Parish, a parish dating to the 1640s. The name Old Donation is derived from the bequest of money by the former rector upon his death. The one-story, gable-roof, brick church stood in ruin following a fire and was restored in 1916. Two additions, a vestibule and an ell, are present. The property includes a cemetery. The property was listed in the VLR in 1971 and NRHP in 1972 and was listed in the Virginia Beach Historic Register in 2002 (Virginia Department of Historic Resources 2019h; City of Virginia Beach, n.d.). Old Donation Episcopal Church is part of the Historic Old Donation Episcopal Church District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the building (City of Virginia Beach n.d.).
- St. John's Baptist Church (DHR ID: 134-0702) is located on a lot with a parking lot to the south of the church and a cemetery in Virginia Beach, Virginia. Constructed in 1880, the one-story church features a basilica plan with a central steeple. Side wings were added to the church and the church expanded in 1968 (Virginia Department of Historic Resources 1993b). The property was listed in the Virginia Beach Historic Register in 2002 (City of Virginia Beach n.d.).
- Lynnhaven United Methodist Church (DHR ID: 134-5407) is located in a suburban setting on a grassy 3.44-acre lot in Virginia Beach, Virginia. A cemetery is located southwest of the church. Constructed in 1918, the one-story church exhibits a Vernacular style, is sheathed in vinyl siding, and rests on a concrete foundation. A center steeple and modern additions are present. The property contains two cemeteries, a playground (ca. 1990), two sheds (ca. 2000), and a shelter (ca. 1990) (Virginia Department of Historic Resources 2018d). The property was listed in the Virginia Beach Historic Register in 2009 (City of Virginia Beach n.d.).

Common Attributes of the Property Type

Typically, the religious and spiritual resources noted are associated with Protestant religions. With the exception of the Cayce Hospital for Research and Enlightenment, the religious properties lack a maritime association or views of the ocean. Common attributes include:

- Parcels with lawns;
- Typically, no maritime association; and
- Typically, no views to the ocean.

Mixed Use

Mixed use resources are historic districts that contain an array of types of properties. Property types included within mixed use properties include residential, commercial, agricultural, municipal, religious, educational, and maritime. Mixed use properties have periods of significance dating from 1731 to the 1960s. Typically, these properties encompass multiple acres.

- The Oyster Historic District (DHR 065-0541) has a town setting and comprises approximately 50 buildings along Route 639 in Northampton County, Virginia. Buildings primarily were constructed during the early twentieth century and represent common styles from the period including Craftsman Bungalows. The historic district contains single-family dwellings, churches, industrial resources, commercial buildings, and a post office. Three buildings have been relocated into the historic district: one from Cobb Island, one from Hogg Island, and Travis Chapel by the Sea. The waterfront is lined by seafood packing buildings, typically constructed between 1920 and 1940. DHR staff recommended the historic district eligible for listing in the NRHP under Criteria A and C in 1996 (Virginia Department of Historic Resources 1996d).
- The Northwest River Basin Rural Historic District (DHR ID: 131-5720) is a rural historic district encompassing 40,000 acres of forest, wetlands, and agricultural fields with limited built resources in Chesapeake and Virginia Beach, Virginia. The Northwest River bisects the historic district; two roads parallel the river. The historic district contains a collection of small late twentieth century neighborhoods. The North West River Canal also is located within the historic district. The historic district is eligible for listing in the NRHP under Criterion A in the areas of agriculture, African American social history, and transportation. Additionally, the historic district is eligible under Criterion C as it contains resources that trace the history of architecture in the area dating from the mid-eighteenth century to modern day. The period of significance dates from 1762 to the 1960s. DHR staff recommended the historic district eligible for listing under Criteria A and C in 2018 (Virginia Department of Historic Resources 2018b).
- The Eastville Historic District (DHR ID: 214-0040) is located in a town setting on 478.57 acres encompassing Eastville, Eastville Station, James Crossroads, and Stumptown, Northampton County, Virginia. The Northampton County Courthouse Square Historic District is located on the center of the Eastville Historic District. The historic district contains a collection of domestic, commercial, educational, religious, and governmental resources. Domestic architecture dating from the eighteenth century through the mid-twentieth century, both high-style and vernacular, is present. The period of significance is from 1731, the construction of the earliest building in the historic district, to 1958. The Eastville Historic District was listed in the VLR and the NRHP in 2009 under Criteria A and C (Virginia Department of Historic Resources 2009).
- The Corolla Historic District (SITE ID: 0097) is located in Corolla, North Carolina, on the Currituck Sound side of the town. The historic village is defined by mature trees and vegetation. The historic district is significant as an example of an early twentieth century Outer Banks community and includes 12 contributing resources: eight dwellings, the U.S. Life Saving Station, a school, a church, and a post office. The historic district was evaluated as eligible for listing in the NRHP under Criteria A and C in 1995 (Matson, Alexander and Associates, Inc. 1995).

- The Currituck Courthouse Historic District (SITE ID: CK0026) is located on the west side of the Currituck Sound in Currituck, North Carolina. The historic district is composed of twelve resources: the county jail (ca. 1820), county courthouse (1876), seven houses, and three stores. The significance of the district is derived from its status as the sole remaining grouping of historic buildings in Currituck County (Little-Stokes and Flowers n.d.). The Currituck Courthouse Historic District was listed in the NRHP in 1979.
- The Princess Anne Courthouse Village Historic District/ Virginia Beach Courthouse Village and Municipal Center Historic District (DHR ID: 134-5299) is located on 110 acres in a town setting at the intersection of N. Landing Road and Princess Anne Road in Virginia Beach, Virginia. The historic district consists of the historic courthouse green with surrounding village and the municipal complex and includes commercial, residential, and municipal buildings. The courthouse holds central prominence located on a sloped hill next to an open green and nearby village. The historic district has a period of significance from 1793, coinciding with the construction of the earliest contributing resource, to 1969, the construction of the municipal center following the merger of Princess Anne County and Virginia Beach. The property was listed in the VLR in 2017 and NRHP in 2018 under Criteria A and C (Virginia Department of Historic Resources 2018c). The Princess Anne Courthouse Village is part of the Historic Courthouse District and is subject to the Virginia Beach Historical Review Commission for exterior changes and development related to the buildings (City of Virginia Beach n.d.).

Common Attributes of the Property Type

Mixed-use resources generally are historic districts that encompass a collection of resources with varying purposes. Property types included within mixed use properties include residential, commercial, agricultural, municipal, religious, educational, and maritime. Mixed-use resources typically contain properties that exhibit the development of a historic district, dating from multiple periods. Multiple historic districts derive some significance from their relationship to the ocean. Common attributes of mixed-use properties include:

- Large acreage,
- Multiple property types,
- Importance of physical setting, and
- Limited maritime setting and views to the ocean.

Transportation

Two resources related to transportation are located within the APE: the Chesapeake Bay Bridge-Tunnel and the Old Fort Story Railroad Station. The Chesapeake Bay Bridge-Tunnel is a transportation corridor and provides access between Virginia Beach and Cape Charles. The Old Fort Story Railroad Station originally was constructed to service a rail line.

- The Chesapeake Bay Bridge-Tunnel (DHR ID: 065-0167) spans 17.6 miles from Cape Charles to Virginia Beach across the Chesapeake Bay. Prior to 1954, a ferry service operated over the crossing. Later, the Chesapeake Bay Ferry Commission oversaw the crossing. However, a permanent, fixed crossing was desired. Once determined feasible, the bridge was engineered by Sverdrup & Parcel,

and bonds were sold to fund the construction. The bridge opened in 1964 after three-and-one-half years of construction. A parallel crossing was constructed between 1995 and 1999 to expand service. The bridge includes 12 miles of low-level trestle, two tunnels, two bridges, causeways, and four manmade islands. DHR staff recommended the structure as eligible for listing in the NRHP under Criteria A and C for significance in the areas of transportation and engineering in 1992 (Virginia Department of Historic Resources 2014a). The Chesapeake Bay Bridge-Tunnel possesses a significant maritime setting and views to the ocean.

- The Old Fort Story Railroad Station/ United States Coast Guard Educational Building (DHR ID: 134-0082) is a former railroad station located on Fort Story, Virginia Beach, Virginia. The ca. 1900 station is a one-story, Shingle-style building with a hipped roof and overhanging eaves supported by wooden brackets. DHR staff recommended the building potentially eligible for listing in the NRHP in 1994 (Virginia Department of Historic Resources 1994g). The property is identified in *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits: Volume II: Appendices* as possessing a significant maritime setting, and it is unknown if the property has views to the ocean (Klein et al. 2012b).

Common Attributes of the Property Type

There are two types of resources in the Transportation property type. The Chesapeake Bay Bridge-Tunnel is a structure, a bridge constructed to cross the Chesapeake Bay. The Old Fort Story Railroad Station is a building constructed as an ancillary resource to a railroad. Both properties specifically were sited in relationship to the ocean and water. Common attributes include:

- Maritime setting and
- Views to the ocean.

Commercial

One individual commercial property is located within the APE. This store (DHR ID: 134-0440) is located in a town setting surrounded by other buildings and parking lots in Virginia Beach, Virginia. Constructed in 1920, this one-story building features the Mission Revival style including a stepped parapet with pan tile coping (Virginia Department of Historic Resources 1992a). The property was listed in the Virginia Beach Historic Register in 2014 (City of Virginia Beach n.d.d).

Common Attributes of the Property Type

Common attributes include:

- Lack of ocean views and maritime setting,
- Urban setting surrounded by other buildings and parking lots, and
- One-story massing.

H-1.6 IDENTIFICATION AND ANALYSIS OF PREVIOUSLY IDENTIFIED UNEVALUATED PROPERTIES WITHIN THE APE

H-1.6.1 Previously Identified Properties within the APE

An architectural reconnaissance survey was completed to identify previously identified unevaluated properties with maritime settings and ocean views to the Project. The reconnaissance survey had two objectives. First, the survey provided data to characterize the APE, including topography, road networks, development patterns, and types of resources present. Second, the reconnaissance survey supported the definition of areas with potential views to the ocean containing previously identified unevaluated properties through systematic field investigation of observation points within the APE projected through computer modeling. This systematic approach was developed following direction provided by BOEM during the May 13, 2021, conference call. A half-mile grid was superimposed on the APE. Each vertex point was labeled by longitude and latitude and assigned a number. Points then were entered into a mobile surveying platform, Fulcrum, which allowed global positioning of all points. Photographs documenting views towards the Project were executed from the public rights-of-way and geo-referenced for future reference. Vertex points were photographed on the horizontal axis until visibility no longer was present. The results of this systematic photography then were synthesized to define a refined study area where ocean visibility was present.

Virginia

A total of 107 vertex points were recorded in the City of Virginia Beach and in Northampton and Accomack Counties. Public access was not available for an additional 49 vertex points; these points typically were located within military installations. Virginia Beach is characterized by relatively flat topography. The central coastline of Virginia Beach contains multi-story hotels and commercial developments; select buildings rise ten or more stories. Immediately inland on the central coastline typically are one-to-two story commercial buildings. The remaining shoreline typically is lined by two-to-three-story multi-unit residential buildings north and south of the commercial area. Residential developments are present further inland.

The primary roadways along the northern seashore consist of the north-south Pacific Avenue/Route 60; Pacific Avenue becomes General Booth Boulevard at the Rudee Inlet to the south, and Shore Drive to the north. Primary east-west roadways include the Norfolk Virginia Beach Expressway (21st and 22nd Streets) and Route 58 (30th and 32nd Streets). Survey in Virginia identified nine vertex points with visibility to the ocean within the City of Virginia Beach.

Ninety-eight vertex points have no visibility of the ocean. A notable finding was a lack of visibility to the ocean from the west side of the inland bays (i.e., Shipp's, Sand, and Back) in southern Virginia Beach. Views toward the ocean from the west sides of the inland bays are blocked by foliage and land on the eastern side of the bays.

A similar finding was noted during the survey in Northampton and Accomack counties in Virginia's Eastern Shore. These counties also are characterized by flat topography. This rural area, which exhibits forest stands, is defined by its primary roadway, the north-south Lankford Highway/Route 13; small towns are

present along its length. Development primarily consists of one-to-two story buildings. Survey along Route 13 revealed no visibility to the ocean from Route 13 due to intervening dense foliage between the road and the ocean. Similar to the lack of visibility across Virginia Beach's inland bay, it is assumed visibility to the Project Area from Virginia's Eastern Shore is limited to the barrier islands to the east because the land mass blocks views to the ocean.

North Carolina

Survey in Currituck County, North Carolina, investigated 37 vertex points. Development in this area consists primarily of planned communities with less dense development on the rural peninsulas of the western shore of the Currituck Sound. Properties generally comprise multi-story houses and single-story commercial development. Public access was unavailable from 7 vertex points; these points typically were located on busy roadways without pull-off areas. No visibility to the ocean was documented at any vertex point of the grid. Similar to the findings noted in southern Virginia Beach, no visibility was present on the west side of the Currituck Sound. Visibility from the west side of Currituck Sound towards the ocean is blocked by land on the eastern side of the sound.

Reconnaissance Survey Results and Conclusions

The reconnaissance survey was used to characterize the APE and identified rural areas on Virginia's Eastern Shore, low-density urban areas in Virginia Beach, and planned communities and rural peninsulas in North Carolina that contain previously identified, unevaluated historic properties with views to the ocean.. Systematic field observations of visibility to the ocean were used to refine the APE. A systematic half-mile grid was superimposed over the APE and observations, including 35 mm digital photography, were recorded at each vertex point. Vertex points were photographed along the horizontal axis of the grid until visibility to the Project no longer was present. The results of this systematic survey then were synthesized to define a refined study area where ocean visibility was present.

Reconnaissance survey found no visibility to the ocean from Virginia's Eastern Shore due to the presence of barrier islands. This conclusion is supported by the findings of the investigation of previously identified historic properties. Visibility to the Project in Virginia Beach is limited to an area much closer to the shoreline than the 12-mile inland APE initially depicted. Visibility also is not present across Virginia Beach's inland bays.

Reconnaissance survey in North Carolina found that visibility to the ocean is limited to portions of the eastern side of the Currituck Sound. Visibility includes the Currituck Beach Lighthouse due to its height, although it is outside the computer modeled- study area of visibility. Land of the western side of the Currituck Sound has no ocean view due to the obstruction by the eastern side of the sound. A new, refined, field-verified visibility model was created (see Figure H.6-1, H.6-2, H.6-3).

The results of the reconnaissance survey provide a field-verified viewshed model for previously identified unevaluated properties (see Figure H.6-4, Figure H.6-5, H.6-6). Properties within the refined viewshed model of the APE were included in the analysis of previously identified unevaluated properties. This refined viewshed combining the APE and reconnaissance survey data is referred to as the field-verified viewshed model.

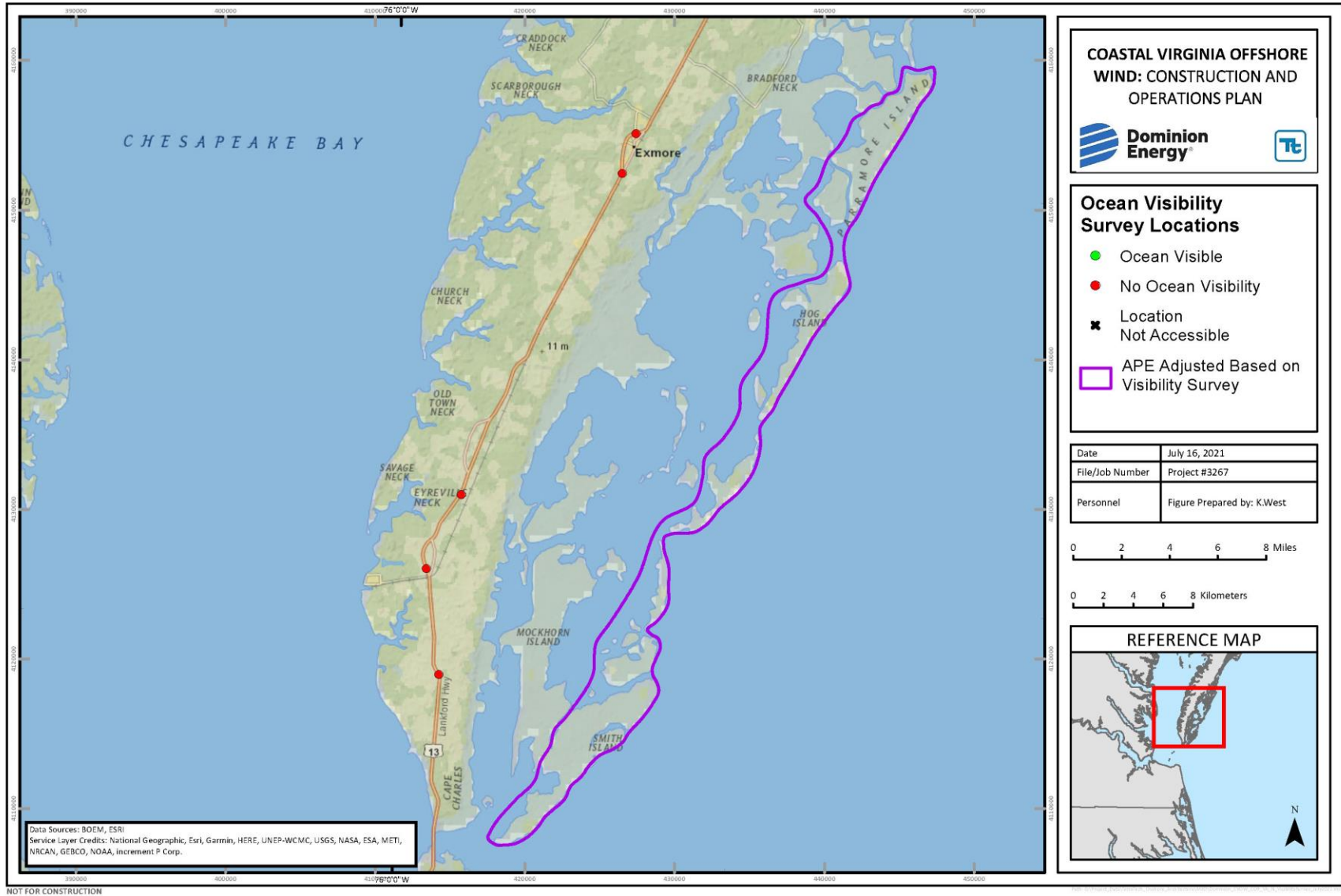


Figure H.6-1. Field-Verified Viewshed Model, Virginia's Eastern Shore

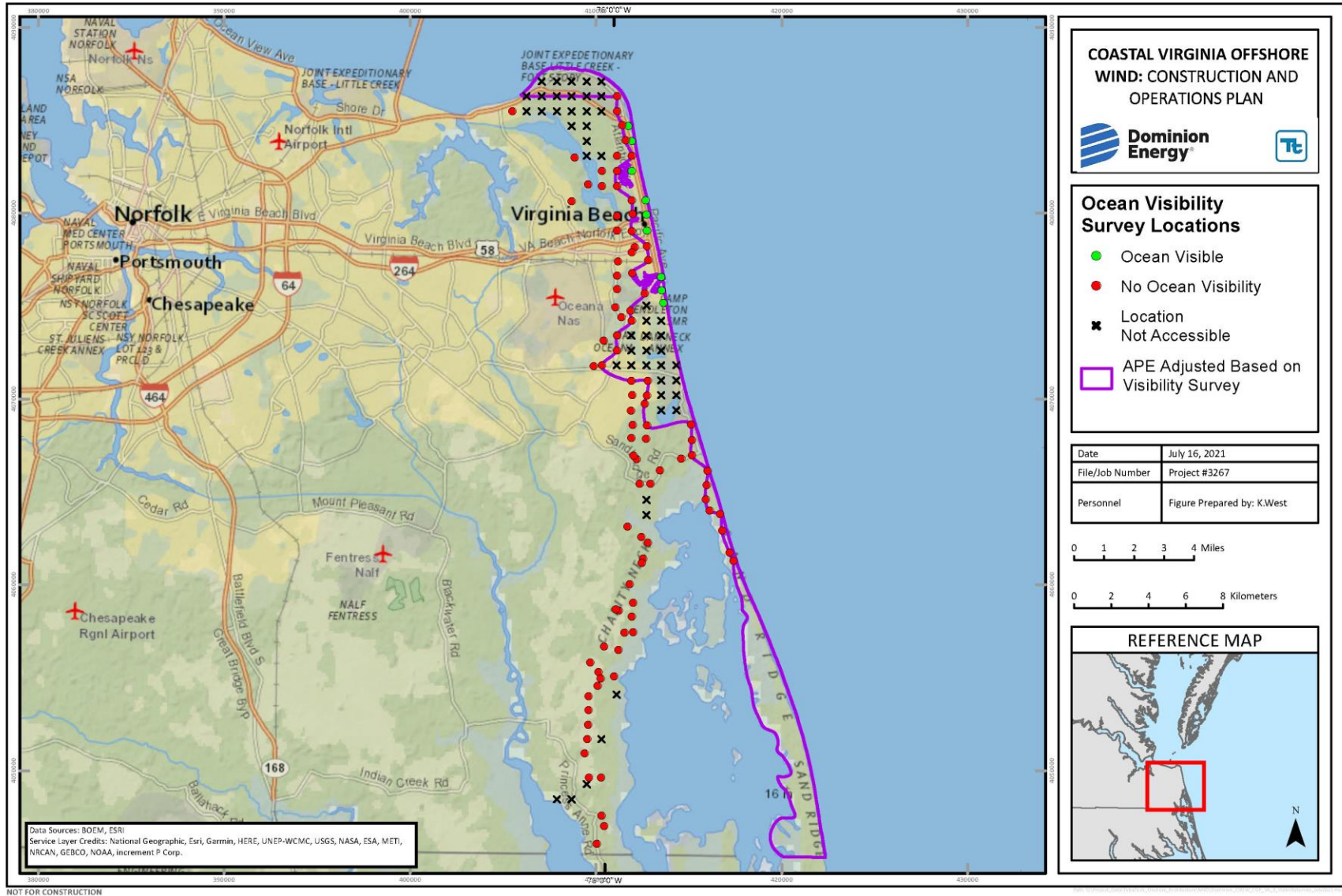


Figure H.6-2. Field-Verified Viewshed Model, Virginia Beach, Virginia

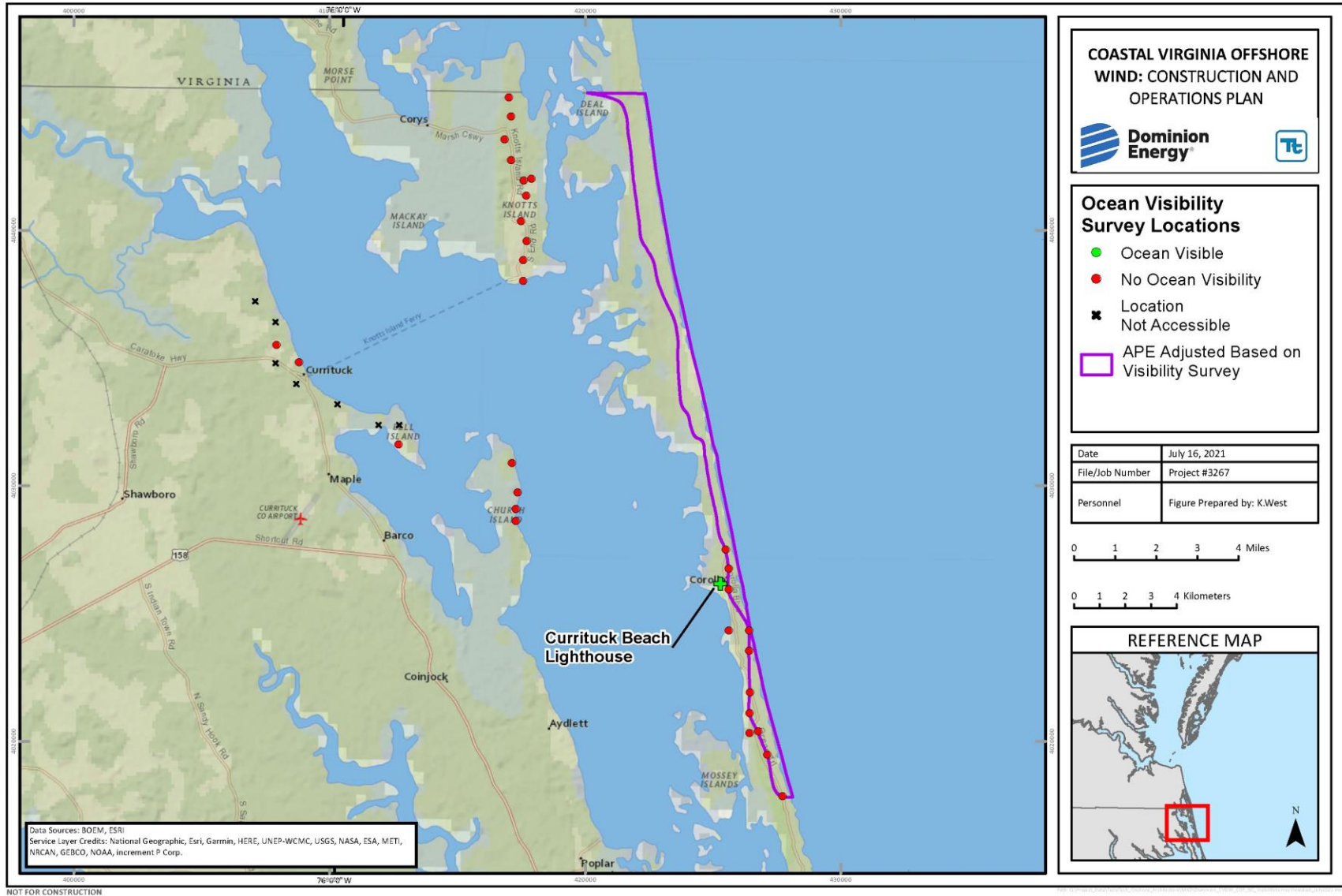


Figure H.6-3. Field-Verified Viewshed Model, North Carolina

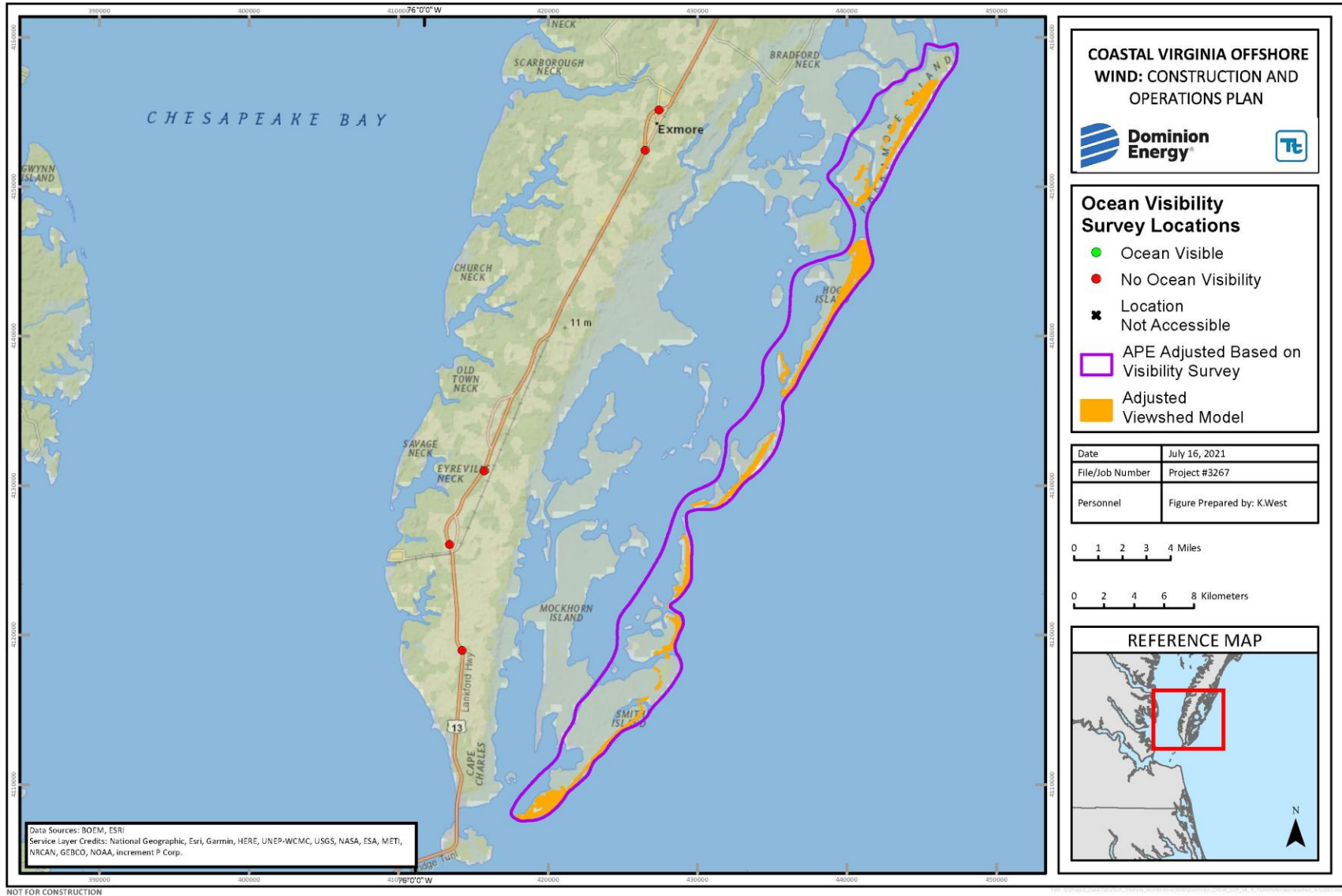


Figure H.6-4. Field-Verified Viewshed Model Overlaid with APE, Virginia's Eastern Shore

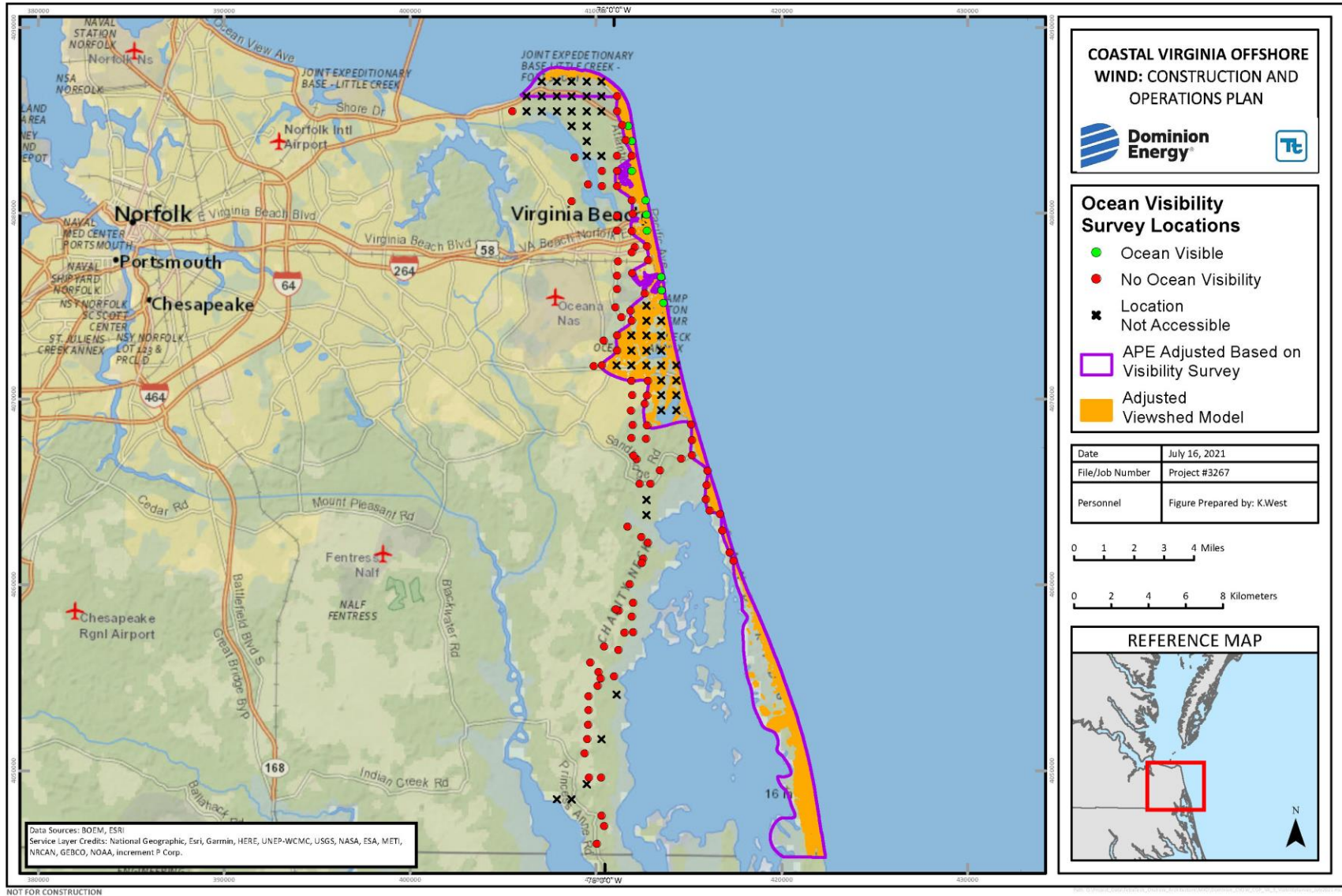


Figure H.6-5. Field-Verified Viewshed Model Overlaid with APE, Virginia Beach, Virginia

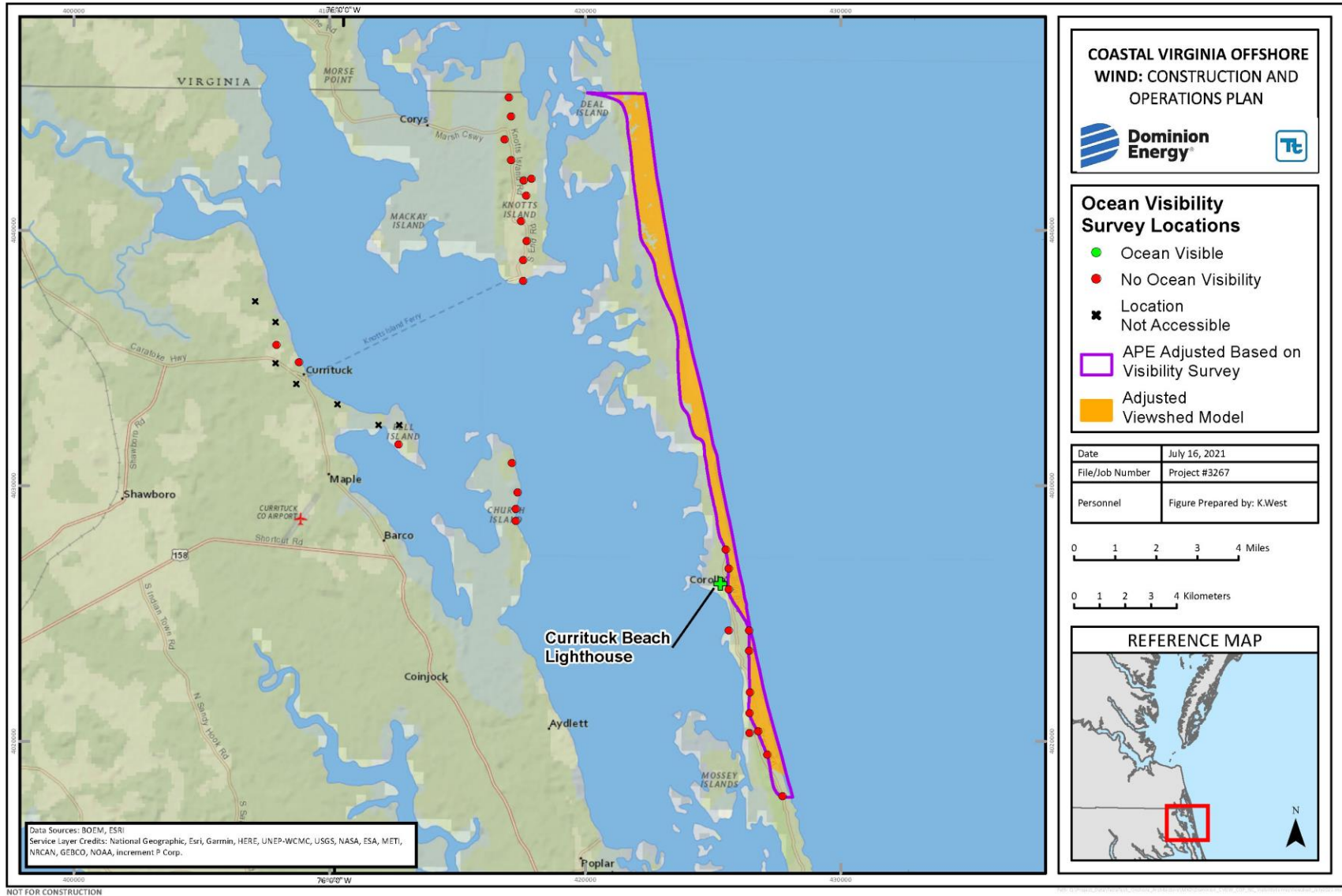


Figure H.6-6. Field-Verified Viewshed Model Overlaid with APE, North Carolina

SHPO Databases—Unevaluated Resources

Similar to investigating SHPO Databases for historic properties, the VDHR system VCRIS, and NCHPO system HPOWeb, were utilized to access data on previously identified unevaluated properties within the field-verified viewshed model. First, GIS shapefile layers were downloaded from both systems detailing the location of all previously identified historic properties in either SHPO database. Next, the shapefile was overlaid first with the APE. Previously identified unevaluated properties within or intersecting the APE model were distilled into an Excel database. Each property recorded in the Excel database included a SHPO identification number. Approximately 660 unevaluated properties were located within the APE. Next, the unevaluated properties were overlaid with the field-verified visibility model. North Carolina contains zero previously identified unevaluated properties within the field-verified viewshed model. Virginia contains 145 previously identified properties within the field-verified viewshed model. Field survey found that of the 145 properties, 134 are extant and eleven have been demolished.

H-1.6.2 Historic Property Types

Previously identified unevaluated properties within the field-verified viewshed model all are located within Virginia Beach, Virginia. The following property types were identified via field survey:

- Recreation,
- Maritime,
- Residential,
- Defense Facilities,
- Religious,
- Commercial,
- Municipal/Government, and
- Cultural.

Common features associated with each of the property types were analyzed to identify the character defining features important to significance and to the integrity aspect of the setting of each class of resources. The objective of this analysis was to quantify the importance of the presence or absence of a maritime setting and views to the ocean to properties of significance. Typically, a discussion of the importance of the maritime setting for the properties was not included in documentation. Field verification was undertaken to identify the maritime setting and ocean views of each historic resource where previous documentation was lacking.

Recreation

Sixteen recreational unevaluated properties are located within the field-verified viewshed model. Properties include inns, motels, and a lodge.

Common Attributes of the Property Type

Common attributes include:

- Functionality associated with human use and enjoyment;
- Setting along the Atlantic Ocean;
- Presence of temporary lodging facilities; and
- Maritime setting.

Maritime

One unevaluated maritime facility, the Sandbridge Lifesaving Station, is located within the field-verified viewshed model.

Common Attributes of the Property Type

Common attributes include:

- Functionality to provide safety along the coastline,
- Location along the water,
- Maritime setting, and
- Direct views of the Atlantic Ocean.

Residential

Ninety- four unevaluated residential properties are located in the field-verified viewshed model. Property types include single-family houses, duplexes, and multi-family houses.

Common Attributes of the Property Type

Residential buildings within the field-verified viewshed model typically are located within suburban and urban settings on lots with lawns and vegetation. Common attributes include:

- Urban and suburban setting,
- Landscaped lawns and vegetation, and
- Driveways.

Defense Facilities

One defense facility is located within the field-verified viewshed model, the Dam Neck Annex Historic District, a naval facility.

Common Attributes of the Property Type

Common attributes include:

- Location along the water,
- Views of the ocean, and
- Encompasses hundreds of acres.

Religious

Three religious facilities are located within the field-verified viewshed model: Star of the Sea Catholic Church, St. Simon's Church, and Temple Emmanuel.

Common Attributes of the Property Type

The religious properties lack a maritime association or views of the ocean. Common attributes include:

- Parcels with lawns;
- Typically, no maritime association; and
- Typically, no views to the ocean.

Commercial

Eight unevaluated commercial buildings are located within the field-verified viewshed model. These properties include examples of restaurants, shopping centers, an auto showroom, a service station and office buildings.

Common Attributes of the Property Type

Common attributes include:

- Lack of ocean views and maritime setting,
- Urban setting surrounded by other buildings and parking lots, and
- One-story massing.

Municipal/Government

Three unevaluated municipal or government properties are located within the field-verified viewshed model. These properties include the Barbour's Hill Check Station, Virginia Beach Fire Station #11, and the Seapines Post Office.

Common Attributes of the Property Type

Common attributes include:

- Lack of ocean views and maritime setting, and
- Urban setting surrounded by other buildings and parking lots.

Cultural

Eight cultural unevaluated properties are located within the field-verified viewshed model: a theater and seven sculptures.

Common Attributes of the Property Type

Common attributes include:

- Ocean views and maritime setting,

- Typically sculptural,
- Urban setting surrounded by other buildings and parking lots, and
- Small massing.

H-1.7 ANALYSIS

H-1.7.1 Identification of Offshore Project Components that May Affect Historic Properties

Visual modeling of the APE revealed that the maximum blade tip and hub of the WTGs may be visible from points onshore. Offshore substations will not be visible within the APE due to their low-lying massing and size. Offshore Project Components below the ocean surface will also not be visible from points onshore. Construction of the Offshore Project Components will not require the physical destruction or alteration of any onshore historic properties. The Offshore Project Components will not create any physical effects in the built environment. However, the introduction of WTGs has the potential to alter the visual or auditory setting of the APE. Setting is defined as “the physical environment of the historic property” (National Park Service 1990) and is one of the aspects of integrity. Integrity is defined as a property’s qualities of location, design, setting, materials, workmanship, feeling, and association. The integrity of historic properties, those listed in, eligible, or potentially eligible for listing in NRHP, can be diminished by adverse effects.

Federal agencies must take into account the effects of their actions on historic properties, those that are eligible for or listed in the NRHP, under Section 106 of NHPA. The Criteria of Adverse Effect is defined as:

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.

Under 36 CFR §800.5 (a)(2), the Criteria of Adverse Effect states, “Adverse effects on historic properties include, but are not limited to:... (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significance historic features.”

BOEM’s 2012 study *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits* defines a significant maritime setting as:

Resources within this category derived their importance, in whole or in part, from their proximity to the sea. They include 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 (Klein et al. 2012a).

Significant maritime settings and views to the ocean were recorded via desktop survey and a reconnaissance investigation. The visual effects sensitivity of resources was assessed following the reconnaissance field investigation by identifying maritime setting and views to the ocean. The level of sensitivity was assigned an evaluation of either low or high levels of sensitivity. High sensitivity properties are those who derive their historic importance from their relationship with the ocean. This was determined by the quality being discussed in previously explored documentation or via reconnaissance field investigations where surveyors found the relationship to the ocean and views to the ocean to be integral to the setting of the resource. Primarily these resources are those logged in BOEM's 2012 study *Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits*. Medium sensitivity was assigned to those properties where the resource's relationship and views to the ocean are not of primary importance to significance. Low sensitivity includes those properties with no maritime setting and no views of the ocean. There is no potential for these properties to be affected by the Offshore Project Components.

KOPs and Visual Simulations

KOPs were developed via a refinement of viewpoint locations. A list of potential sensitive viewing locations is being developed, based on locations identified in BOEM's *Visualization Study for Offshore North Carolina* (2012), locations previously analyzed for the Virginia Offshore Wind Technology Advancement Project, BOEM's *Virginia Offshore Wind Technology Advancement Project on the Atlantic Outer Continental Shelf Offshore Virginia* (2014), GIS-generated data, and additional potential locations within different categories (e.g., landscape zones, viewer types). After completion of the initial list preliminary viewpoints will be identified as having potential visibility based on the viewshed analysis.

Based upon the field inventory, a select number of KOPs from the list of viewpoint locations will be identified in coordination with BOEM and other agencies. KOPs are representative locations of sensitive viewing areas where viewers could notice a change in the existing landscape setting due to the presence of project facilities and are used to assess visual impacts of a proposed project. In this regard, viewing locations are typically associated with key travel routes, recreation areas, and residential areas.

Photographic simulations will be created to depict the proposed Project components and their potential changes to the existing landscape. Using photographs taken during a site visit, Tetra Tech will prepare simulations by combining site photography with accurate, rendered computer models of proposed Project WTGs to predict what would be seen if the WTGs were built in the photographed setting. These visual simulations will supplement the analysis undertaken to identify the maritime setting and ocean views of historic properties. KOPs from historic properties or previously identified unevaluated properties include the SMR, Fort Story, Kendall Grove, Neptune Statue/Boardwalk, Old Donation Church, the Chesapeake Bay Bridge-Tunnel, and the Currituck Beach Lighthouse.

H-1.7.2 Summary of Visual Effects to Historic Properties

The reconnaissance survey undertaken served to identify the presence of a maritime setting and views to the ocean to historic properties. The photographs taken as part of the reconnaissance investigations can be found in Attachment H-3, Historic Properties Field Survey Photographs. This data then was analyzed to identify each historic property's sensitivity to visual effects: low, moderate, or high. Properties with high sensitivity to visual effects were determined to be potentially adversely affected by the Project's Offshore Project Components due to their character-defining views and relationship to the ocean. Properties possessing a maritime setting and no views to the ocean were evaluated as moderate sensitivity to effects. It was hypothesized that moderate sensitivity likely will not result in an adverse effect to the properties' setting due to the lack of integral views to the ocean. Field survey revealed that these properties possessed a maritime setting but lack views to the ocean. Therefore, views to the ocean are not integral to the integrity of setting of the resource. Therefore, there are no potential adverse effects from the construction of the Offshore Project Components. Properties possessing neither a maritime setting nor views to the ocean were determined to possess low sensitivity to visual effects and will not be adversely affected by the Project. Mapping of property locations and photograph locations can be found in Attachment H-4 Historic Properties, Survey Location and Photograph Mapping, to be provided in supplemental filing.

Table 0-1 provides a summary of the results of previously identified historic properties that will be potentially affected by the Project's Offshore Project Components.

Table 0-1. Summary of Results of Historic Properties Potentially Affected by the Offshore Project Components

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	Accomack County	001-5030	Residential	Eligible	Yes	Yes	High
Virginia	Northampton County	065-0003	Residential	NRHP, VLR	No	No	Low
Virginia	Northampton County	065-0008	Residential	NHL, NRHP, VLR	No	No	Low
Virginia	Northampton County	065-0011	Residential	Eligible	No	No	Low
Virginia	Northampton County	065-0019	Residential	NRHP, VLR	No	No	Low
Virginia	Northampton County	065-0024	Residential	NRHP, VLR	No	No	Low
Virginia	Northampton County	065-0060	Residential	NRHP, VLR	No	No	Low
Virginia	Northampton County	065-0083	Residential	Eligible	Yes	No	Moderate
Virginia	Northampton County	065-0084	Residential	Eligible	No	No	Low
Virginia	Northampton County	065-0091	Religious	Eligible	No	No	Low
Virginia	Northampton County	065-0128	Maritime	Eligible	Yes	Yes	High
Virginia	Northampton County	065-0138	Residential	Eligible	No	No	Low

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	Northampton County, City of Virginia Beach	065-0167	Transportation	Eligible	Yes	Yes	High
Virginia	Northampton County	065-0368	Residential	Eligible	No	No	Low
Virginia	Northampton County	065-0541	Mixed Use	Eligible	Yes	No	Moderate
Virginia	City of Chesapeake	131-5324	Defense Facility	Eligible	No	No	Low
Virginia	City of Chesapeake, City of Virginia Beach	131-5720	Mixed Use	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0003	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0004	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0007	Maritime	NHL, NRHP, VLR, VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0015	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0016	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0025	Religious	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0031	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0034	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0035	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0043	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0047	Maritime	NRHP, VLR, VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0058	Residential	VLR	No	No	Low
Virginia	City of Virginia Beach	134-0066	Residential	NRHP, VLR, VDHR	Yes	Yes	High

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	City of Virginia Beach	134-0079	Maritime	NRHP, VLR, VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0080	Religious	Eligible, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0082	Transportation	Eligible	Yes	Unknown	High
Virginia	City of Virginia Beach	134-0084	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0099	Recreational	NRHP, VLR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0100	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0171	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0213	Residential	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0242	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0248	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0351	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0399	Educational	Eligible, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0413	Defense Facility	NRHP, VLR	Yes	Unknown	High
Virginia	City of Virginia Beach	134-0427	Religious	Eligible, VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0440	Commercial	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0449	Recreational	Eligible	Yes	Yes	High
Virginia	City of Virginia Beach	134-0471	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0503	Recreational	NRHP, VLR, VDHR	Yes	Yes	High

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	City of Virginia Beach	134-0513	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0532	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0535	Residential	Eligible	Yes	Yes	High
Virginia	City of Virginia Beach	134-0536	Recreational	Eligible	Yes	Yes	High
Virginia	City of Virginia Beach	134-0596	Maritime	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0598	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0600	Residential	NRHP, VLR, VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-0606	Residential	Eligible, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0660	Defense Facility	Eligible	Yes	Yes	High
Virginia	City of Virginia Beach	134-0669	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0682	Residential	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0702	Religious	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-0917	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-0968	Residential	NRHP, VLR	No	No	Low
Virginia	City of Virginia Beach	134-0969	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-5002	Residential	NRHP, VLR, VDHR	No	No	Low
Virginia	City of Virginia Beach	134-5068	Residential	Eligible	No	No	Low
Virginia	City of Virginia Beach	134-5089	Residential	Eligible, VDHR	Yes	Yes	High

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	City of Virginia Beach	134-5104	Residential	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-5286	Residential	VDHR	Yes	No	Moderate
Virginia	City of Virginia Beach	134-5299	Mixed Use	NRHP, VLR	No	No	Low
Virginia	City of Virginia Beach	134-5379	Residential	NRHP, VLR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5379-0013	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5379-0037	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5379-0048	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5379-0094	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5379-0097	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5407	Religious	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-5444	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5445	Residential	VDHR	Yes	Yes	High
Virginia	City of Virginia Beach	134-5446	Residential	VDHR	Yes	No	Moderate
Virginia	City of Virginia Beach	134-5447	Residential	VDHR	Yes	No	Moderate
Virginia	City of Virginia Beach	134-5456	Residential	VDHR	Yes	No	Moderate
Virginia	City of Virginia Beach	134-5491	Residential	VDHR	No	No	Low
Virginia	City of Virginia Beach	134-5493	Residential	VDHR	Yes	No	Moderate
Virginia	City of Virginia Beach	134-5524	Residential	VDHR	No	No	Low

State	Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia	City of Virginia Beach, City of Norfolk	134-5608	Residential	Eligible	No	No	Low
Virginia	Virginia Beach	134-5721	Residential	NRHP, VLR	Yes	Yes	High
Virginia	Northampton County	182-0003	Educational	Eligible	No	No	Low
Virginia	Northampton County	214-0040	Mixed Use	NRHP, VLR	No	No	Low
Virginia	City of Virginia Beach	134-5721	Recreational	Eligible	Yes	Yes	High
Virginia	Virginia Beach	Old Beach Overlay District	Residential	Virginia Beach	Yes	Yes	High
North Carolina	Currituck County	CK0001, CK0106	Maritime	NRHP	Yes	Yes	High
North Carolina	Currituck County	CK0005	Recreational	NRHP	Yes	No	Moderate
North Carolina	Currituck County	CK0025	Maritime	Eligible	Yes	Yes	High
North Carolina	Currituck County	CK0026	Mixed Use	NRHP	Yes	Yes	High
North Carolina	Currituck County	CK0300	Recreational	NRHP	No	No	Low
North Carolina	Currituck County	CK0088	Maritime	Eligible	Yes	Yes	High
North Carolina	Currituck County	CK0097	Mixed Use	Eligible	Yes	No	Moderate

H-1.7.3 Summary of Visual Effects to Effects Previously Identified Unevaluated Properties

The reconnaissance survey undertaken served to identify the presence of a maritime setting and views to the ocean for previously identified unevaluated properties. The photographs taken as part of the reconnaissance investigations can be found in Attachment H-5, Unevaluated Properties Field Survey Photographs. This data then was analyzed to identify each unevaluated property's sensitivity to visual effects: low, moderate, or high. Properties with high sensitivity to visual effects were determined to be potentially adversely affected by the Project's Offshore Project Components due to their character-defining views and relationship to the ocean. Properties possessing a maritime setting and no views to the ocean were evaluated as moderate sensitivity to effects. Moderate sensitivity likely will not result in an adverse effect to the properties' setting due to the lack of integral views to the ocean. Field survey revealed that these properties possessed a maritime setting but lack views to the ocean. Therefore, views to the ocean are not integral to the integrity of setting of the resource. Therefore, there are no potential adverse effects from the construction of the Offshore Project Components to these resources. Properties possessing neither a maritime setting nor views to the ocean were determined to possess low sensitivity to visual effects and

will not be adversely affected by the Project. Mapping of property locations and photograph locations can be found in Attachment H-6, Unevaluated Properties Survey Location Mapping.

For the purposes of this Project analysis, all unevaluated properties are considered historic until determined otherwise. All evaluation and mitigation will consider these properties historic for purposes of this Project analysis until determined otherwise.

Table H-7-2 provides a summary of the results of previously identified historic properties that will be potentially affected by the Project's Offshore Project Components.

Table 0-2. Summary of Results of Unevaluated Properties Potentially Affected by the Offshore Project Components

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-0422	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0423	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0425	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0426	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0443	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0444	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0445	Religious	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0451	Municipal/Government	Unevaluated; Eligible for Purposes of the Project	No	No	Low
Virginia Beach	134-0457	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0460	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0465	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-0466	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0468	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0469	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0470	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0472	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0477	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0478	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0479	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0490	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0492	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0494	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0500	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0502	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0505	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-0506	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0508	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0516	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0527	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0528	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0577	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0583	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0586	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0587	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0619	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0704	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-0987	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0988	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0990	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-0991	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0993	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-0995	Cultural	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5046	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5106	Residential	Unevaluated; Eligible for Purposes of the Project	No	Yes	Moderate
Virginia Beach	134-5109	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5111	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5384	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5387	Municipal/Government	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5388	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5389	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5390	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5391	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5395	Religious	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5397	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5403	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5404	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5441	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5455	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5457	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5459	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5460	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5574	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5584	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5588	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5594	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5632	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5660	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5661	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5664	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5665	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5666	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5722	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5723	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5725	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5726	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5727	Religious	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5728	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5729	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5732	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5734	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5735	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5736	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5737	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5739	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5740	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5741	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5742	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5743	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5744	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5745	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5747	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5748	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5750	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5751	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5753	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5754	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5755	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5757	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5758	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5759	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5761	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5763	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5764	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5765	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5766	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5767	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5768	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5771	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5772	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5773	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5774	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5775	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5776	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5777	Commercial	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5780	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5843	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5844	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5845	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5846	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5857	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5858	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5859	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5860	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Property Type	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects (Low, moderate, high)
Virginia Beach	134-5861	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	No	Moderate
Virginia Beach	134-5863	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5864	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5865	Residential	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5866	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5869	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5870	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5871	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5872	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
Virginia Beach	134-5873	Recreational	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

H-1.7.4 Visibility Analysis

The 2013 study *Offshore Wind Turbine Visibility and Visual Impact Threshold Distances* (Sullivan et al.) serves to analyze the distances from shore from which offshore turbines can be viewed. The study evaluated the visibility of wind turbines from the shore at increasing distances. The study creates a visibility rating system from one to six; one corresponding with low levels of visibility, and six corresponding with high visual contrast. The study finds that at a distance of 18 miles (29 km) the visibility is rated at a three. A three rating denotes that the turbines cannot be viewed by the casual observer. The study also finds that moderately sized wind farms can be seen at a maximum of 27 miles (44 km) from shore (Sullivan et al. 2013:12).

A 27-mile buffer was projected from the proposed Offshore Project Components in order to anticipate the maximum visibility radius as projected by the Sullivan study (Figure H.7-1). The addition of the 27-mile maximum visibility radius identified 12 historic or considered eligible properties for the purposes of the Project analysis with both views of the ocean and a maritime setting and high sensitivity to visual effects. Three lighthouses were then added to the list of visible properties due to their size, scale, and locations in relation to the ocean. All of these properties are within the 18-to-27-mile visibility radius defined by Sullivan as not being visible to the casual observer. Due to the limits of visibility to the casual observer within the 18-to-27-mile radius, it is unlikely that the historic setting of the historic property would be substantially diminished.

A historic property's integrity conveys its significance and is defined by seven aspects: location, design, setting, materials, workmanship, feeling, and association. To retain integrity, a property must exhibit most of the seven aspects (NPS 1995). The aspect of integrity of setting has the potential to be adversely affected by the Project by introducing new, modern visual elements into the viewshed of the ocean. However, the character of views to ocean of these properties have changed over time with advancements in transportation and maritime technology, including designated shipping channels and the introduction of large container ships. The construction of the Project will represent further evolution in this maritime landscape. It is anticipated that the Project will not be visible to the casual observer within the 18-to-27-mile radius and not visible beyond the 27-mile marker from the lower-scale resources. While the Project may impact the aspect of historical integrity associated with setting, it will not diminish the integrity or affect the NRHP-eligibility of the affected resources. Due to the unique design and construction of the lighthouses and their character-defining orientation towards the maritime landscape, changes in their historic setting are anticipated to constitute an adverse effect.

Visual simulations are presented in the Appendix I: Visual Impact Assessment.

Table H-7-3 provides a summary of the results of the properties that are within the 27-mile visibility buffer—the limit of visibility.

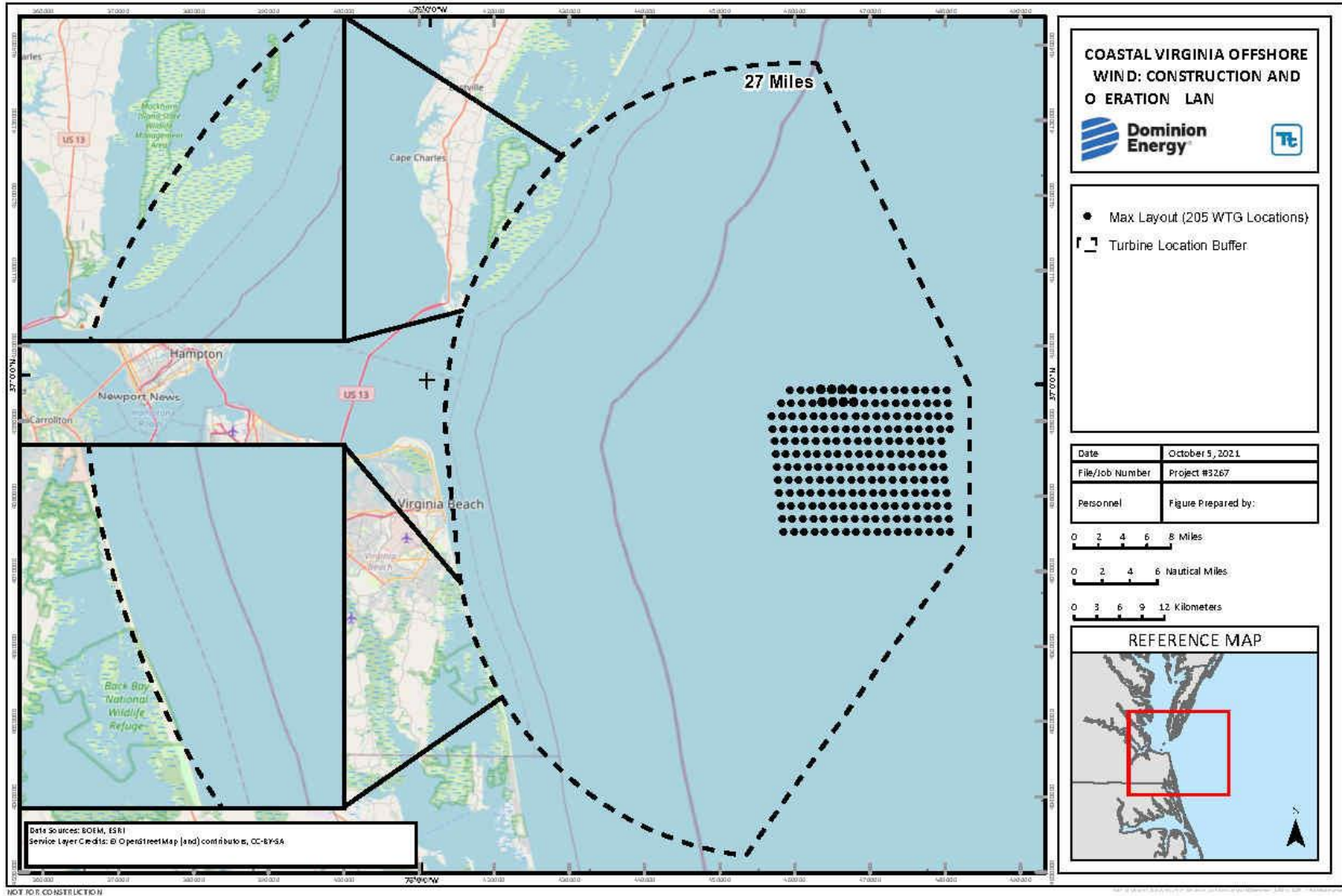


Figure H.7-1: 27-Mile Visibility Radius Overlay

Table 0-3. Applying Offshore Wind Turbine Visibility and Visual Impact Threshold Distances (Sullivan et al.)

Location	SHPO ID Number	Property Type	Eligibility Status	Distance from Project	Potential for Visibility to Casual Observer
City of Virginia Beach	134-0007	Maritime	NHL, NRHP, VLR, VDHR	18-to-27-mile radius	Minimal
City of Virginia Beach	134-0079	Maritime	NRHP, VLR, VDHR	18-to-27-mile radius	Minimal
City of Virginia Beach	134-0596	Maritime	VDHR	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5301	Maritime	VDHR	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5744	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5750	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5751	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5753	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5758	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5764	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5768	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5772	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5773	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
City of Virginia Beach	134-5777	Residential	Unevaluated; Eligible for Purposes of the Project	18-to-27-mile radius	Minimal
Currituck County	CK 0001, CK 0106	Residential	NRHP	18-to-27-mile radius	Minimal

H-1.8 SUMMARY AND CONCLUSION

H-1.8.1 Summary of Potential Effects

Federal agencies must consider the effects of their actions on historic properties, especially those that are eligible for or listed in the NRHP under Section 106 of the NHPA. The Criteria of Adverse Effect is defined as:

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.

Under 36 CFR §800.5 (a)(2), the Criteria of Adverse Effect state, "Adverse effects on historic properties include, but are not limited to:... (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significance historic features."

Physical Effects

Construction of the Offshore Project Components will not result in any physical effects including demolition, destruction, or physical alteration of onshore historic properties.

Visual Effects

The construction of the Offshore Project Components possesses the potential to adversely affect onshore historic properties through the introduction of new visual elements. Visual elements have the potential to affect the historic properties' integrity of setting, one of the seven aspects of integrity. These visual elements have the potential to be visible from the hub and above, 488.8 ft (149 m) of WTG height, to the maximum blade tip, 869.4 ft (265 m) of WTG height.

Field investigation determined that 97 properties within the APE possess a maritime setting and views to the ocean: 35 historic properties and 62 unevaluated properties. These properties have high sensitivity to visual effects due to their maritime setting and views to the ocean. These properties have the potential to be adversely affected by the Offshore Project Components. Notably, one NHL, the Cape Henry Lighthouse, is included amongst the 97 historic properties and potentially will be impacted visually by the Offshore Project Components. Further consultation and assessment are required to determine whether these visual effects are adverse regarding the historic features of these resources. Additionally, compliance with NHPA Section 110(f) also is required when a NHL is present.

Auditory Effects

Vibratory pile driving will be needed to construct nearshore cofferdams at the associated Offshore Horizontal Directional Drilling (HDD) Punch-Out Location. Noise levels from the vibratory pile driving will reach 66 A-weighted decibel (dBA) at the nearest onshore receptor (Tetra Tech 2020). These levels are deemed to be not significant due to such activity being daytime-only, short-lasting, and temporary and diffused by general existing noise onshore.

In association with the vibratory pile driving, the Offshore Export Cables will require HDD operations at the associated Cable Landing Location. The HDD sound levels could reach 58 dBA during HDD construction at the Proposed Parking Lot west of the Firing Range at the SMR, pending SMR approval. If any noise issues are identified, moveable temporary noise barriers can be erected with placement as close to the sound sources as possible. These barriers have been shown to effectively reduce sound levels by 5 to 15 dBA (Tetra Tech 2020).

Impact pile driving will occur offshore during the construction stage to install the WTG and Offshore Substation Foundations. The highest predicted received sound level at any onshore location during pile driving is less than 30 dBA, which is well below all applicable noise regulations. Given the extended distances between the coastal shoreline (approximately 24 nm [44 km]) no onshore impacts are expected.

Operations associated with WTGs, Offshore Substations, and sound signals will not have an impact to the nearshore environment due to the distance between the source of these sounds and the shoreline.

H-1.8.2 Summary of Results

The Project will be located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the OCS Lease Area which was awarded to Dominion Energy through the BOEM competitive renewable energy lease auction of the wind energy area (WEA) offshore of Virginia in 2013. The Lease Area covers approximately 112,799 ac (45,658 ha) and is approximately 27 mi (23.75 nm, 43.99 km) off the Virginia Beach coastline.

Offshore components of the Project will comprise of:

- 176 to 205 WTGs and associated WTG Foundations;
- Between two and three Offshore Substations and associated Offshore Substation Foundations;
- Up to 300 mi (484 km) total length of Inter-Array Cables (average Inter-Array Cable length of 6,922.6 feet (ft); 2,110 m) between turbines; and;
- Up to nine buried submarine high-voltage alternating-current Offshore Export Cables.

The PDE maximum design scenario under consideration for the WTGs is a 14-16MW WTG with a maximum tip height of 869.4 ft (265 m), maximum rotor diameter of 761.2 ft (232 m), and a corresponding hub height of 488.8 ft (149 m).

The PDE maximum design scenario under consideration for the Offshore Substations includes three substations each with a capacity of up to 1,000 MW and a height no greater than 219.8 ft (67 m). The

Offshore Substations will be lower in height as compared to the WTGs, therefore visual modeling to support the historic properties assessment is based on the height of the WTGs.

The Study Area consists of a 40 mi (64 km) buffer around the WTGs. The Study Area was defined using a bare earth method based on a visibility analysis that evaluated the location of WTGs, curvature of the earth, and topography to identify where, and at what distance, the WTGs would be visible. Mapping depicts that visibility of the turbines includes limited onshore areas with visibility of the WTG hub and above within 30 miles (48 km) of the WTGs. The majority of the Study Area contains visibility of the max blade tip of the WTGs located between 30 (48 km) and 40 miles (64 km) of the WTGs. There is no visibility of the rotor or entire WTG from land within the Study Area.

The Study Area further was refined with additional visual modeling through the addition of vegetation layers applying a land cover vegetation layer to account for large areas of tall vegetation. Data for building footprints and height then were added to account for development that has the potential to screen the Project within viewsheds. This refinement developed the APE. The APE was used to assess the potential visibility of the Offshore Project Components and evaluate potential effects to visual resources.

A progressive system of consultation, archival research, outreach and engagement, field survey, and data analysis was undertaken to identify previously identified properties within the Study Area. This documentation then was refined to previously identified historic properties and previously identified unevaluated properties within the APE. Field survey was undertaken to field verify the maritime setting and ocean views of the previously identified historic and unevaluated properties. For the purposes of the Project analysis, unevaluated resources are considered historic until deemed otherwise. A field-verified viewshed model was applied for the identification of unevaluated properties within the APE. Field verification resulted in the identification of 97 properties within maritime settings and views to the ocean. The majority of the properties with maritime settings and ocean views are located within Virginia Beach, Virginia, 90 properties. One is located in Accomack County, Virginia; one in Northampton County Virginia; four in Currituck County, North Carolina; and one is located in both Northampton County and Virginia Beach. These 97 properties have a potentially to be subject to visual effects from the Offshore Project Components. These properties are listed in Table 0-1.

Table 0-1. List of Properties with Maritime Settings and/or Ocean Views

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
Accomack County	001-5030	Eligible	Yes	Yes	High
Northampton County	065-0128	Eligible	Yes	Yes	High
Northampton County, City of Virginia Beach	065-0167	Eligible	Yes	Yes	High
City of Virginia Beach	134-0007	NHL, NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0047	NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0066	NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0079	NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0082	Eligible	Yes	Unknown	High
City of Virginia Beach	134-0099	NRHP, VLR	Yes	Yes	High

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
City of Virginia Beach	134-0413	NRHP, VLR	Yes	Unknown	High
City of Virginia Beach	134-0427	Eligible, VDHR	Yes	Yes	High
City of Virginia Beach	134-0449	Eligible	Yes	Yes	High
City of Virginia Beach	134-0457	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0471	VDHR	Yes	Yes	High
City of Virginia Beach	134-0477	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0478	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0490	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0502	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0503	NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0508	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0513	VDHR	Yes	Yes	High
City of Virginia Beach	134-0527	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0528	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0535	Eligible	Yes	Yes	High
City of Virginia Beach	134-0536	Eligible	Yes	Yes	High
City of Virginia Beach	134-0587	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0596	VDHR	Yes	Yes	High
City of Virginia Beach	134-0600	NRHP, VLR, VDHR	Yes	Yes	High
City of Virginia Beach	134-0619	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0660	Eligible	Yes	Yes	High
City of Virginia Beach	134-0987	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
City of Virginia Beach	134-0988	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0990	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0991	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0993	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-0995	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5046	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5111	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5379	NRHP, VLR	Yes	Yes	High
City of Virginia Beach	134-5379-0013	VDHR	Yes	Yes	High
City of Virginia Beach	134-5379-0037	VDHR	Yes	Yes	High
City of Virginia Beach	134-5379-0048	VDHR	Yes	Yes	High
City of Virginia Beach	134-5379-0094	VDHR	Yes	Yes	High
City of Virginia Beach	134-5379-0097	VDHR	Yes	Yes	High
City of Virginia Beach	134-5384	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5391	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5395	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5444	VDHR	Yes	Yes	High
City of Virginia Beach	134-5445	VDHR	Yes	Yes	High
City of Virginia Beach	134-5661	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
City of Virginia Beach	134-5664	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5666	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5722	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5723	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5736	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5739	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5740	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5741	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5742	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5743	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5744	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5745	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5748	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5750	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5751	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5753	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
City of Virginia Beach	134-5754	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5758	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5764	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5765	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5768	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5772	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5773	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5777	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5858	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5859	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5860	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5863	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5864	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5865	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5866	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5869	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High

Location	SHPO ID Number	Eligibility Status	Maritime Setting	View of the Ocean	Sensitivity to Visual Effects
City of Virginia Beach	134-5870	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5871	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5872	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	134-5873	Unevaluated; Eligible for Purposes of the Project	Yes	Yes	High
City of Virginia Beach	Edgar Cayce Home	VDHR	Yes	Yes	High
Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970) MPDF		Eligible	Yes	Yes	High
Old Beach Overlay District		Virginia Beach	Yes	Yes	High
Currituck County	CK0001, CK0106	NRHP	Yes	Yes	High
Currituck County	CK0025	Eligible	Yes	Yes	High
Currituck County	CK0026	NRHP	Yes	Yes	High
Currituck County	CK0088	Eligible	Yes	Yes	High

A 27-mile buffer was projected from the proposed Offshore Project Components in order to anticipate the maximum visibility radius as projected by the Sullivan study. The addition of the 27-mile maximum visibility radius identified 12 historic or considered eligible properties for the purposes of the Project analysis with both views of the ocean and a maritime setting and high sensitivity to visual effects. Three lighthouses were then added to the list of visible properties due to their size, scale, and locations in relation to the ocean. All of these properties are within the 18-to-27-mile visibility radius defined by Sullivan as not being visible to the casual observer. Due to the limits of visibility to the casual observer within the 18-to-27-mile radius, there is limited likelihood that the historic setting of the historic property would be substantially diminished.

A historic property's integrity conveys its significance and is defined by seven aspects: location, design, setting, materials, workmanship, feeling, and association. To retain integrity, a property must exhibit most of the seven aspects (NPS 1995). The aspect of integrity of setting has the potential to be adversely affected by the Project by introducing new, modern visual elements into the viewshed of the ocean. However, the character of views to ocean of these properties have changed over time with advancements in transportation and maritime technology, including designated shipping channels and the introduction of large container ships. The construction of the Project will represent further evolution in this maritime landscape. It is

anticipated that the Project will not be visible to the casual observer within the 18-to-27-mile radius and not visible beyond the 27-mile marker from the lower-scale resources. While the Project will impact the aspect of historical integrity associated with setting, it will not minimize the integrity or affect the NRHP-eligibility of the effected resources. Due to the unique design and construction of the lighthouses and their character-defining orientation towards the maritime landscape, changes in their historic setting is anticipated to constitute an adverse effect.

H-1.9 RECOMMENDATIONS

H-1.9.1 Mitigation Recommendations

Mitigation to address adverse effects to historic properties generally is memorialized in binding agreement documents negotiated with the consulting parties in the Section 106 process. Under 36 CFR §800.6(b)(1)(i), “The agency official shall consult with the SHPO/THPO and other consulting parties to seek ways to avoid, minimize, or mitigate adverse effects.” Total avoidance or minimization of the adverse effects to historic properties identified in the current investigation is anticipated to be impracticable owing to the nature, scale, and complexity of the proposed Project WTGs.

Mitigation measures to address residual adverse effects to historic properties are designed to be commensurate with the scope and nature of the adverse effect. Examples of such mitigation may include support for cultural resource survey efforts, NRHP nominations, specialized historic preservation planning initiatives, or historic building rehabilitation. Mitigation options for consideration in agreement documents may include:

- *Support for preparation of NRHP nominations for Chesapeake Beach, Doyletown, or Queen City, Virginia Beach.* This mitigation would include financially supporting the development of a NHRP nomination in Virginia Beach listed previously. Virginia Beach has developed a study list of potential NRHP historic districts that warrant further investigation and NRHP nominations.
- *Support for planning for renovation and rehabilitation of the Cape Henry Historic including potential restoration of St. Teresa’s Chapel and the 1902 Railroad Station.* Both buildings require rehabilitation and renovation for further use. Support could be given in funding such future work for either or both buildings.
- *Support for the preservation of historic properties associated with African-American history, including Seatack Elementary School and the Mount Olive Baptist Church.* Virginia Beach seeks to better preserve and interpret historic resources associated with African American communities. Support of the preservation of the buildings will further the goals of the City.
- *Support for updating the publication, 50 Most Significant Houses and Structure in Virginia Beach.* Virginia Beach maintains the publication documenting historic houses in the City. Supporting the update of the publication would further the amount of information presented to the public of historic houses in Virginia Beach. An update would include additions to the document from the recent past and eliminating demolished properties.
- *Support for interpretive signs in the Historic Kempsville mini park in Virginia Beach.* Such signs would interpret the history of the history of the sight. The support would include the research,

writing, and installation of a set number of interpretative panels. Interpretive panels would aid in the public use and engagement of the site and understanding the history of the site.

- *Support for preservation planning for 302 22nd Street—the C & P Telephone Building.* Supporting a reuse and rehabilitation study for the building would aid in planning for future preservation and use.
- *Support for the survey and designation of resources associated with underrepresented communities in the region.* Coordination with the City of Virginia Beach will identify regional groups that are underrepresented in scholarship and warrant further investigation. Resulting work could include support for further historic preservation initiatives
- *Support for a public lecture series on preservation topics to support regional historic preservation planning objectives.* A lecture series would aid in public engagement in preservation and history. Potential lecture topics include the early history of Virginia Beach and historic houses associated with the period or modern historic resources focusing on scholarship undertaken for the Virginia Beach Oceanfront Resort Motel and Hotels (1955-1970) MPDF. The lecture series would include a set number of publicized lectures to be undertaken over a period of time.

H-1.10 REFERENCES

The Beacon. 1988. 25th Anniversary Supplement to The Beacon. The Virginian-Pilot and Ledger-Star, Norfolk, Virginia.

BOEM (Bureau of Ocean Energy Management). 2020. Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585. Accessed June 23, 2021.

<https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope->

-----2018. Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan. Accessed January 14, 2021. <https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope->

-----2014. Virginia Offshore Wind Technology Advancement Project on the Atlantic Outer Continental Shelf Offshore Virginia. Accessed February 2, 2021.

https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/VA/VOWTAP_EA_12_02_14.pdf.

-----2012. Visualization Study for Offshore North Carolina. 2020. Accessed February 2, 2021.

<https://www.boem.gov/renewable-energy/state-activities/offshore-north-carolina-visualization-study#:~:text=Offshore%20North%20Carolina%20Visualization%20Study%20%20%20,%20%20%20%2016%20more%20rows>.

City of Virginia Beach. 2020. It's Our Future: A Choice City: City of Virginia Beach Comprehensive Plan. Accessed May 13, 2021.

<https://www.vbgov.com/government/departments/planning/2016ComprehensivePlan/Documents/Fall%202020%20Update/Entire%202016%20Comprehensive%20Plan%20Policy%20document%2012-14-20%20MES.pdf>.

- n.d.a. "Historic Preservation Commission." Accessed May 12, 2021.
<https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/Historic-Preservation-Commission.aspx>.
- n.d.b. "Historical Review Board." Accessed May 12, 2021.
<https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/historical-review-board.aspx>.
- n.d.c. "Old Beach Overlay District, Design Guidelines, and Design Review Committee." Accessed May 12, 2021. <https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/Old-Beach.aspx>.
- n.d.d. "Virginia Beach Historical Register." Historic Preservation Commission. Accessed March 8, 2021. <https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/Historic-Preservation-Commission.aspx>.
- n.d.e. "Little Island Coast Guard Station." Historic Preservation Commission. Accessed March 12, 2021. <https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/VB%20Historical%20Register/Ford-Property.aspx?print=page>.
- n.d.f. "Spruance Cottage." Historic Preservation Commission. Accessed March 12, 2021.
<https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/VB%20Historical%20Register/Ford-Property.aspx?print=page>.
- n.d.g. "The Ford Property." Historic Preservation Commission. Accessed March 12, 2021.
<https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/VB%20Historical%20Register/Ford-Property.aspx?print=page>.
- n.d.h. "The Edgar Cayce Home." Historic Preservation Commission. Accessed March 12, 2021.
<https://www.vbgov.com/government/departments/planning/boards-commissions-committees/Pages/VB%20Historical%20Register/Ford-Property.aspx?print=page>.
- Culhane, K.E. 1999. Reconnaissance and Intensive Survey of Architectural Resources in the City of Chesapeake, Virginia. Prepared for the Virginia Department of Historic Resources. John Milner Associates, Inc., Alexandria, Virginia.
- Cultural Resource Analysts, Inc. and Debra A McClane. 2017. Historic Architectural Resource Survey, Eastern Shore, Accomack and Northampton Counties, Virginia. Prepared for the Virginia Department of Historic Resources.
- Cultural Resource Analysts, Inc. and Debra A. McClane. 2018. Historic Architectural Resource Survey Update, City of Virginia Beach, Virginia: Northern Half. Prepared for the Historic Preservation Commission, Department of Planning and Community Development, City of Virginia Beach, Virginia.
- Dames & Moore. 1996. Historic Architectural Survey: Settlements, Villages and Towns of Northampton, Virginia. Prepared for the Virginia Department of Historic Resources.

- Derry, Anne, H. Ward Jandl, Carol D. Shull, and Jan Thorman. 1977. National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning. Prepared for the National Park Service.
- de Miranda, Cynthia, and Jennifer Martin. 2015. Flyway Club: National Register of Historic Places Nomination. Washington, D.C.: National Park Service.
- Hanbury, John Paul C. 1998. Shirley Hall: National register of Historic Places Nomination Form. Washington, D.C.: National Park Service.
- Hanbury Evans Newill Vlattas & Co. 1996. City of Chesapeake, Virginia, Historic Preservation Plan. Prepared for Planning Department, City of Chesapeake and the Virginia Department of Historic Resources.
- Klein, J.I., M.D. Harris, W.M. Tankersley, R. Meyer, G.C. Smith, and W.J. Chadwick. 2012a. Evaluation of Visual Impact on Cultural Resources/Historic Properties: North Atlantic, Mid-Atlantic, South Atlantic, and Florida Straits. Volume I: Technical Report of Findings. New Orleans, Louisiana: U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. OCS Study BOEM 2012-006.
- , 2012b. 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. OCS Study BOEM 2012-006.
- Little-Stokes, Ruth and John B. Flowers. n.d. Currituck Courthouse Historic District: National Register of Historic Places Nomination. Washington, D.C.: National Park Service.
- Loth, Calder. 1992. Oak Grove: National Register of Historic Places Nomination Form. Washington, D.C.: National Park Service.
- Malvasi, M. 2010. Historic and Architectural Resources of Currituck County, 1790-1958. Prepared for the National Park Service.
- Martin, J. No date. "Currituck County." North Carolina History Project. Accessed November 6, 2020. <https://northcarolinahistory.org/encyclopedia/currituck-county-1668/>.
- Mattson, Alexander and Associates, Inc. 1995. Mid-Currituck Sound Bridge Sound Study: Phase II (Intensive Level) Architectural Survey and Evaluations of Eligibility. Prepared for Parsons Brinckerhoff Quade & Douglas, Inc.
- McClane, Debra A. and Kristen H. Kirchen. 2020. Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970): National Register of Historic Places Multiple Property Documentation Form. Washington, D.C.: National Park Service.
- Moffett, Simone M. 2003. Camp Pendleton/State Military Reservation Historic District: National Register Nomination. Washington, D.C.: National Park Service.
- National Park Service. 1983. "Federal Register: Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines." Vol. 48 No. 190. September 29, 1983. Accessed June 16, 2021.

<https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf>.

-----1995. “National Register Bulletin 15L How to Apply the National Register Criteria for Evaluation.” National Park Service. Accessed October 6, 2021.

https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

-----2012. “National Register of Historic Places—Traditional Cultural Properties (TCPs): A Quick Guide for Preserving Native American Cultural Resources.” National Park Service. Accessed April 7, 2021. <https://www.nps.gov/history/tribes/documents/tcp.pdf>.

-----n.d.a. “Secretary of the Interior’s Standards for Historical Documentation.” Accessed June 16, 2021.

https://www.nps.gov/history/local-law/arch_stnds_5.htm.

-----n.d.b. “Secretary of the Interior’s Standards for Evaluation.” Accessed June 16, 2021.

https://www.nps.gov/history/local-law/arch_stnds_3.htm.

-----n.d.c. “Become a Certified Local Government (CLG).” Accessed May 12, 2021.

<https://www.nps.gov/clg/become-clg.html>.

Parrington, Michael and Richard Meyer. 1987. A Phase I Archaeological and Historical Survey of the Downtown Norfolk Study Corridor, Norfolk, Virginia. Prepared for DeLeuw, Cather and Company of Virginia and The Virginia Department of Transportation. John Milner Associates, Inc. Alexandria, Virginia.

Penberthy, Brian. 2016. “History of the Virginia Beach (Seatack) Lifesaving Station.” U. S. Lighthouses. Accessed July 1, 2020. <https://www.us-lighthouses.com/virginia-beach-life-saving-station>.

Roberts, Claudia P. 1979. The Whalehead Club: National Register of Historic Places Nomination Form. Washington, D.C.: National Park Service.

Rowe, J., A. Payne, A. Williams, D. O’Sullivan, and A. Morandi. 2017. Phased Approaches to Offshore Wind Developments and Use of Project Design Envelope. Final Technical Report to the U.S.

Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017-057. 161 pp. Available online at:

<https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/Phased-Approaches-to-Offshore-Wind-Developments-and-Use-of-Project-Design-Envelope.pdf>. Accessed January 14, 2020.

Sandbeck, Penne Smith. 2003a. (Former) Currituck Beach Life-Saving Station. Prepared for Outer Banks Conservationists, Inc.

-----2003b. (Former) Wash Woods U.S. Coast Guard Station. Prepared for Outer Banks

Conservationists, Inc.

Seatack Life Saving Station Museum. 1989. Museum display text.

Smith, Penne. 1999. Currituck Beach Lighthouse Complex (Additional Documentation and Boundary

Expansion): National Register of Historic Places Nomination Form. Washington, D.C.: National Park Service.

Spriggs, Patricia. 1996. Dr. John Miller-Masury House: National Register of Historic Places Nomination Form. Washington, D.C., National Park Service.

Sullivan, Robert G., et al. 2013. "RESEARCH ARTICLE: Offshore Wind Turbine Visibility and Visual Impact Threshold Distances." *Environmental Practice* 15 (1). Cambridge University Press: 33-49.

Tetra Tech. 2020. Construction and Operations Plan: Coastal Virginia Offshore Wind Commercial Project: Appendix Y: In-Air Acoustic Assessment.

Tracerics. 1994. Historic Architectural Survey of The City of Norfolk. Prepared for The Virginia Department of Historic Resources and The City of Norfolk Department of Planning and Codes Administration.

Virginia Department of Historic Resources. 1972. DHR ID: 065-0083. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1975a. DHR ID: 134-0031. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1975b. DHR ID: 134-0034. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1982. DHR ID: 065-0060. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1983. DHR ID: 065-0024. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1988. DHR ID: 065-0138. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1991. DHR ID: 065-0011. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1992a. DHR ID: 134-0440. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1992b. DHR ID: 134-0471. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1992c. DHR ID: 134-0513. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1993a. DHR ID: 065-0019. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

----- . 1993b. DHR ID: 134-0702. Accessed March 8, 2021. <https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

- , 1993c. DHR ID: 134-0682. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994a. DHR ID: 122-0912. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994b. DHR ID: 134-0078. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994c. DHR ID: 134-0351. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994d. DHR ID: 134-0100. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994e. DHR ID: 134-0242. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994f. DHR ID: 134-0248. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994g. DHR ID: 134-0082. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994h. DHR ID: 134-0535. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994i. DHR ID: 134-0536. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994j. DHR ID: 134-0427. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1994k. DHR ID: 134-0449. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1995. DHR ID: 065-0084. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1996a. DHR ID: 065-0091. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1996b. DHR ID: 065-0128. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1996c. DHR ID: 065-0368. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1996d. DHR ID: 065-0541. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 1999. DHR ID: 134-5002. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

- , 2001. DHR ID: 001-5030. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2003. DHR ID: 134-0532. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2004. DHR ID: 134-0084. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2005a. DHR ID: 134-5089. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2005b. DHR ID: 134-0669. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2005c. DHR ID: 134-0080. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2005d. DHR ID: 134-0099. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2006. DHR ID: 134-5104. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2007. DHR ID: 134-0058. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2009. DHR ID: 214-0040. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2010. DHR ID: 134-0016. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2011a. DHR ID: 134-0003. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2011b. DHR ID: 134-0917. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2011c. DHR ID: 134-5068. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2011d. DHR ID: 134-0660. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2011e. DHR ID: 134-5286. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2012. DHR ID: 134-0600. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013a. DHR ID: 134-0007. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

- , 2013b. DHR ID: 134-0015. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013c. DHR ID: 134-0047. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013d. DHR ID: 134-0047. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013e. DHR ID: 134-0079. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013f. DHR ID: 134-5301. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2013g. DHR ID: 134-0066. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2014a. DHR ID: 065-0167. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2014b. DHR ID: 134-0413. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2014c. DHR ID: 134-0503. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2015. DHR ID: 134-0043. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2016. DHR ID: 065-0008. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2017a. DHR ID: 134-0606. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2017b. DHR ID: 065-0003. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2017c. DHR ID: 134-0968. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018a. DHR ID: 131-5324. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018b. DHR ID: 131-5270. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018c. DHR ID: 134-5299. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018d. DHR ID: 134-5407. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

- , 2018e. DHR ID: 134-5379-0013. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018f. DHR ID: 134-5379-0037. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018g. DHR ID: 134-5379-0048. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018h. DHR ID: 134-5379-0094. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018i. DHR ID: 134-5379-0097. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018j. DHR ID: 134-5444. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018k. DHR ID: 134-5445. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018l. DHR ID: 134-5446. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018m. DHR ID: 134-5456. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018n. DHR ID: 134-5491. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018o. DHR ID: 134-5493. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2018p. DHR ID: 134-5524. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019a. DHR ID: 134-0969. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019b. DHR ID: 134-5608. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019c. DHR ID: 182-0003. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019d. DHR ID: 134-0399. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019e. DHR ID: 134-0171. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.
- , 2019f. DHR ID: 134-0598. Accessed March 8, 2021.
<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

-----, 2019g. DHR ID: 134-5379. Accessed March 8, 2021.

<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

-----, 2019h. DHR ID: 134-0025. Accessed March 8, 2021.

<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

-----, 2019i. DHR ID: 134-0213. Accessed March 8, 2021.

<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

-----, 2019j. DHR ID: 134-0035. Accessed March 8, 2021.

<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

-----, 2020. DHR ID: 134-0004. Accessed March 8, 2021.

<https://vcris.dhr.virginia.gov/VCRIS/Mapviewer/>.

Watts, Gordon P., Jr. 2007. Archaeological Remote Sensing Survey of Offshore Borrow Areas near Sandbridge Beach, Virginia. Submitted to Environmental Resources Branch, U. S. Army Engineer District, Wilmington, NC. Tidewater Atlantic Research, Washington, NC.