

The latest revision date of the TARA Nontechnical Summary is November 2022. This nontechnical summary was not revised as part of the November 2023 COP submittal; therefore, the date on the cover sheet remains as November 2022.

APPENDIX

Terrestrial Archaeological Resources Assessment Nontechnical Summary

Y

Prepared for

equinor



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TABLE OF CONTENTS

TABLE OF CONTENTS	I
FIGURES	I
ACRONYMS AND ABBREVIATIONS.....	II
1.0 INTRODUCTION.....	1
2.0 PURPOSE	1
3.0 PROJECT OVERVIEW.....	1
4.0 METHODS.....	4
5.0 CONCLUSIONS AND RECOMMENDATIONS	4

FIGURES

Figure 1	EW 1 Onshore Components and Study Area, Aerial Background	2
Figure 2	EW 2 Onshore Components and Study Area, Aerial Background	3

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
BOEM	Bureau of Ocean Energy Management
COP	Construction and Operations Plan
Empire	Empire Offshore Wind LLC
EW 1	Empire Wind 1
EW 2	Empire Wind 2
Lease Area	Renewable Energy Lease Area OCS-A 0512
NRHP	National Register of Historic Places
NY SHPO	New York State Historic Preservation Office
PAPE	preliminary area of potential effects
Project	the Empire Wind Project (EW 1 and EW 2)
Study Area	the onshore facilities plus a 0.25-mile (0.4-kilometer) radius buffer
Tetra Tech	Tetra Tech, Inc.

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) conducted a Phase IA terrestrial archaeological survey for Empire Offshore Wind LLC (Empire) in 2019. These surveys occurred for the proposed Empire Wind 1 (EW 1) interconnection cable corridor, onshore substation, and Operations and Maintenance Base in Kings County, New York, and for the proposed Empire Wind 2 (EW 2) onshore export and interconnection cable corridor and onshore substation in Nassau County, New York.

The archaeological investigation results were presented in detailed technical reports included as Appendix Y Terrestrial Archaeological Resources Assessment to the Construction and Operations Plan (COP) submitted to the Bureau of Ocean Energy Management (BOEM) for the Empire Wind Project (Project). The methods and results detailed in these reports are summarized below.

2.0 PURPOSE

The survey was undertaken to comply with BOEM guidelines regarding the development of offshore wind generated power facilities, New York State guidelines, and to satisfy the requirements of federal permitting under Section 106 of the National Historic Preservation Act of 1966, as amended.

3.0 PROJECT OVERVIEW

Onshore components of EW 1 include: (1) an export cable landfall in Brooklyn, New York; (2) onshore high voltage alternating current interconnection cable installed in subsurface trenches within public road and private property rights-of-way; (3) an onshore substation; and (4) an Operations and Maintenance Base (**Figure 1**).

Onshore components of EW 2 include: (1) up to two potential export cable landfalls installed via trenchless methods, located in the City of Long Beach and/or in the unincorporated hamlet of Lido Beach, Town of Hempstead, New York; (2) onshore high voltage alternating current onshore export cables installed in subsurface trenches within public road and private property rights-of-way in the City of Long Beach and Town of Hempstead, New York; (3) an onshore substation to be built on one of two parcels in the Village of Island Park or the unincorporated hamlet of Oceanside, Town of Hempstead; and, 4) onshore interconnection cables to be installed in subsurface trenches connecting the onshore substation to the existing Oceanside Point of Interconnection (**Figure 2**).



Figure 1 EW 1 Onshore Components and Study Area, Aerial Background

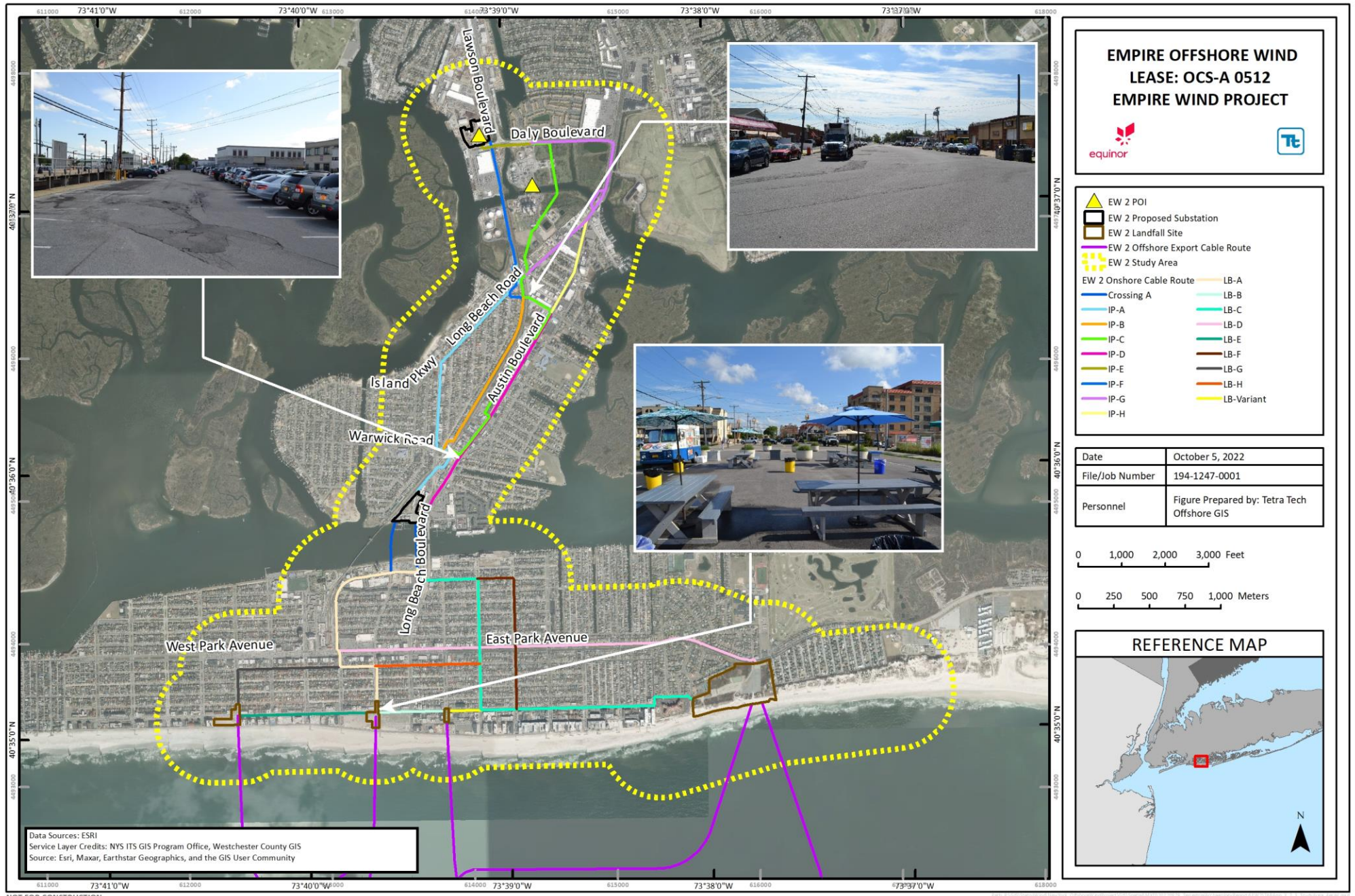


Figure 2 EW 2 Onshore Components and Study Area, Aerial Background

4.0 METHODS

Investigations focused on the onshore facilities plus a 0.25-mile (0.4-kilometer) radius buffer (0.5 mile [0.8 kilometer] total) around the facilities (the Study Area). The direct effects Preliminary Area of Potential Effects (PAPE) was defined as any areas where Project construction, operations, or maintenance will result in ground disturbing activities. Research methods for the Phase IA survey were developed in accordance with New York Archaeological Council standards for archaeological investigations.

Background research and a literature review on bedrock geology, hydrology, soils, Native American land use, Euro-American settlement history, and socio-economic transformations was conducted in order to understand the environmental setting and historical development of the Study Area. Historic maps and aerial imagery were reviewed to identify documented structures, historic roads, and other landscape features present within the Study Area and the PAPE. Archaeological site and standing structure files maintained by the New York State Office of Parks, Recreation and Historic Preservation, which functions as the state historic preservation office in New York (NY SHPO), were searched within the Cultural Resource Information System, an online archive of site files and survey reports that is viewable to qualified professionals. The files were reviewed for information relating to site location and type, temporal period, and NRHP-status, in addition to information regarding prior archaeological surveys conducted within the Study Area. A pedestrian reconnaissance of the proposed facilities sites was then conducted to evaluate the extent of prior ground disturbance within the PAPE, and to identify locales within the PAPE that might have the potential to contain undocumented archaeological resources. No portions of the proposed Project were identified where subsurface shovel tests or hand augers would have been practical at exposing soil stratigraphy.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The archaeological investigation concluded that no National Register of Historic Places (NRHP)-listed, eligible, or potentially eligible archaeological resources are known to be present within the PAPEs for both EW 1 and EW 2 as evaluated during the Phase IA Terrestrial Archaeological Survey.

The archaeological investigation concluded that, overall, the onshore portions of the Project possess low sensitivity to contain intact archaeological resources that might be eligible for listing on the NRHP. This assessment of low sensitivity is due to prior large-scale ground disturbing activities. For EW 1, these include: (1) creation of made-land along Gowanus Bay; and (2) previous installation of urban infrastructure within the public road and private parcels rights-of-way. For EW 2, these include: (1) barrier island dynamics; (2) early twentieth century dredging and land-filling of marshland; (3) the construction of suburban developments on Long Beach Island, Barnum Island, and adjacent marshland; (4) the cyclical episodes of infrastructure repair and replacement beneath surface roads where the export cable is to be installed; (5) industrial development and demolition of a tank farm, and subsequent redevelopment at the location of the EW 2 Onshore Substation A site; and (6) shoreline armoring and land-making at the location of the EW 2 Onshore Substation C site, in addition to the nearby Long Beach Bridge and the Long Island Rail Road bridge crossing Reynolds Channel.

Tetra Tech therefore recommends that construction and operations of EW 1 would present little to no risk of archaeological impacts within the areas surveyed. If any substantial modifications are made to the Project design, consultation with the NY SHPO and possibly an additional archaeological survey may be necessary.

Based on this assessment of overall low sensitivity, Tetra Tech recommends that a Phase IB archaeological survey is not warranted at EW 1.

Within the EW 2 PAPE, Project elements will cross a relict upland that exhibits potential for the presence of undisturbed native soils beneath road pavement and possesses moderate archaeological sensitivity. Despite the low archaeological sensitivity elsewhere within the EW 2 PAPE, Empire will provide Secretary of the Interior-qualified professional archaeologists to be present during all phases of Project-related onshore construction that will result in significant ground disturbances at seven potential locations:

- An approximately 1,000-ft (300-m) section of EW 2 Route IP-A from the intersection of Williams Lane and Long Beach Road to the intersection of Long Beach Road and the Long Island Railroad.
- An approximately 330-ft (100-m) section of EW 2 Route IP-B at the southern terminus of Parente Lane North northward to the intersection of IP-B with IP-C.
- An approximately 650-ft (200-m) section of EW 2 Route IP-C from the intersection of Saratoga Boulevard and Sherman Road, under the Long Island Railroad, to the intersection of IP-C with IP-A at Long Beach Road, then northeastward to the intersection of the Route with Long Beach Road.
- An approximately 370-ft (112-m) section of EW 2 Route IP-F from near No. 11 Parente Lane North to the intersection of Kildare Road.
- An approximately 110-ft (35-m) section of EW 2 Route IP-F along Kildare Road from the intersection of Parente Lane North northward to the intersection of Long Beach Road.
- An approximately 475-ft (145-m) section of EW 2 Route IP-F along Long Beach Road from the intersection of Kildare Road northeastward to the intersection of North Nassau Lane with Waterford Road.
- An approximately 800-ft (245 m) section of EW 2 Route IP-G along Long Beach Road from the intersection of Sherman Road northeastward to the intersection of Long Beach Road and McCarthy Road.

With implementation of archaeological monitoring, no significant adverse impacts to archaeological resources would be expected to result from construction or operations of the proposed EW 2 onshore facilities. If any substantial modifications are made to the Project design, consultation with the NY SHPO and possibly an additional archaeological survey may be necessary.