

**BEFORE THE
NEW JERSEY BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF OCEAN WIND, LLC
PURSUANT TO N.J.S.A. 48:3-87.1(F) FOR A DETERMINATION
THAT EASEMENTS ACROSS GREEN ACRES-RESTRICTED
PROPERTIES AND CONSENTS NEEDED FOR CERTAIN
ENVIRONMENTAL PERMITS IN, AND WITH RESPECT TO, THE
CITY OF OCEAN CITY ARE REASONABLY NECESSARY FOR
THE CONSTRUCTION OR OPERATION OF THE OCEAN
WIND 1 QUALIFIED OFFSHORE WIND PROJECT**

Direct Testimony

of

Pilar Patterson

**Re: Onshore Cable Routes Considered, Easements Across Green Acres-
Restricted Properties and Consents For Environmental Permits for the
Ocean Wind 1 Project**

Dated: February 2, 2022

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Pilar Patterson. My business address is Orsted North America, Inc.,
4 399 Boylston Street, 12th Floor, Boston, MA 02116.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Ørsted North America, Inc. as New Jersey Program Permit
7 Manager, which includes responsibility for the Ocean Wind 1 Offshore Wind
8 Project. My responsibilities include developing and executing permitting strategy,
9 define and manage permitting risk, manage and perform high level stakeholder
10 engagement.

11 **Q. Please describe your professional experience and educational background.**

12 A. I have more than 30 years of experience with state and national regulatory
13 permitting, compliance and implementation. I served as a Bureau Chief with the
14 New Jersey Department of Environmental Protection (“NJDEP”), during which
15 time I led a team of 30 professionals that oversaw more than 400 municipal and
16 industrial treatment plants in the State. I worked with the federal EPA, permittees
17 and local officials in a combined effort to reduce raw sewage overflows. After my
18 time at the NJDEP, I was employed by Kleinfelder Inc., an international
19 engineering consulting firm with 55 offices, as a Program Manager and regulatory
20 expert. I worked with both public and private entities covering a wide range of
21 environmental permitting and compliance issues, including water permitting,
22 wetlands permitting, threatened and endangered species, stormwater permitting,
23 Federal Energy Regulatory Commission approval, and contaminated sites. In June

1 2020, I joined Orsted as Permit Manager for Ocean Wind 1 In November 2021, I
2 was promoted to New Jersey Program Permit Manager.

3 I graduated from Rutgers College of Engineering with a B.S. in Industrial
4 Engineering. I am also a Certified Public Manager based on coursework at the
5 Human Resources Development Institute and Fairleigh Dickinson University.
6 My education, experience and qualifications are fully set forth in Appendix A to
7 my testimony.

8 **Q. Have you previously testified in Board of Public Utilities (“Board” or “BPU”)**
9 **proceedings?**

10 A. No.

11 **Q. Have you testified in proceedings before other utility regulatory commissions**
12 **or administrative bodies?**

13 A. Yes. I have testified before the New Jersey Office of Administrative Law in
14 connection with an appeal of total maximum daily load water quality report while
15 employed by the NJDEP as a Bureau Chief. I also testified in connection with a
16 litigated matter in Montana.

17 **Q. Would you describe the purpose of your testimony?**

18 A. I am testifying on behalf of petitioner Ocean Wind, LLC (“Ocean Wind”) in support
19 of its petition seeking a determination that certain easements across Green Acres-
20 restricted properties and municipal consents for New Jersey Department of
21 Environmental Protection (“NJDEP”) permits in the City of Ocean City (“City” or
22 “Ocean City”) are reasonably necessary for the construction or operation of the
23 Ocean Wind Qualified Offshore Wind Project (“QOWP”). More specifically, my

1 testimony will address the following topics: (1) easements over Green Acres-
2 restricted real property owned by the City that Ocean Wind requires to construct
3 the on-shore portion of the Project; and (2) because the necessary easements
4 involve property that are Green Acres restricted, I discuss the Green Acres
5 diversion process, along with the mitigation Ocean Wind will undertake related to
6 the required diversions; and (3) municipal consents needed from Ocean City with
7 respect to NJDEP permits or approvals necessary for the Project. I will also address
8 the efforts Ocean Wind undertook to determine the most appropriate onshore route
9 for the electric facilities necessary for the Ocean Wind QOWP (“OW 1” or
10 “Project”), including other potential routes considered. Finally, I explain why the
11 selected route that passes through Ocean City (which I will refer to as the “Preferred
12 Route”) is reasonably necessary for both the construction and operation of the
13 Project.

14 **II. Easements Across Green Acres-Restricted Properties**

15 **Q. Please describe the process by which Ocean Wind evaluated potential on-shore**
16 **routes for the electric facilities at issue in this matter.**

17 A. First, let me note that witness Jason Kalwa discusses the specific electric facilities
18 required for the onshore portion of the Project that will pass through Ocean City in
19 his direct testimony, Exhibit OW-1. I will explain the process by which Ocean
20 Wind evaluated potential onshore routes.

21 Ocean Wind’s siting process involved determining onshore interconnection
22 points and substation locations that could form the onshore endpoints for the
23 Project, and developing offshore and onshore export cable route corridors, landfall

1 options and export cable routes. Additional potential route options were developed
2 and analyzed based on Ocean Wind’s purpose and need, schedule, geographic
3 requirements, avoidance and minimization of potential impacts during
4 construction, operation and maintenance, and decommissioning, as well as on
5 agency feedback and to minimize impacts to sensitive resources (community and
6 natural resources). Onshore components of the Project have been sited within
7 previously disturbed areas and existing road rights-of-way (ROWs) to the
8 maximum extent practicable to minimize environmental impacts.

9 Interconnection Points

10 The selection of interconnection points was conducted based on a phased
11 screening approach, which included an initial high-level screening, then a desktop
12 study, and finally site-specific surveys. A total of 15 interconnection points were
13 reviewed for the Project. Based on: (i) discussions with utilities regarding
14 substation upgrades, engineering constraints, environmental and permitting
15 constraints, available real estate; (ii) available technology; and (iii) the results of
16 the desktop study; the following interconnection point options were identified to
17 carry forward for further project development: (1) the Oyster Creek nuclear plant
18 in Lacey Township, Ocean County, New Jersey; (2) the B.L. England plant in
19 Upper Township, Cape May County, New Jersey (“B.L. England”); and (3) the
20 Higbee and Ontario substations in Atlantic City, New Jersey.

21 Although the Higbee and Ontario substations in Atlantic City are located
22 closest to the Wind Farm Area (i.e., the portion of the Bureau of Ocean Energy
23 Management (“BOEM”) lease area that contains the offshore infrastructure,

1 including turbines, offshore substations and array, and substation interconnector
2 cables), these substations are unable to accept the output of the Project without
3 major widespread onshore system upgrades. These upgrades could not be
4 completed within the timeframe necessary to contribute to meet the Board-
5 approved commercial operations dates. Finally, the site required for the onshore
6 substation associated with the Higbee and Ontario point of interconnection would
7 have additional impacts to visual resources, cultural resources, and overburdened
8 communities. Therefore, this interconnection point was not further considered for
9 this Project.

10 The Oyster Creek nuclear plant was retired during the Project development
11 phase and is entering the decommissioning phase. Similarly, the B.L. England coal,
12 oil, and diesel electric generation plant has been retired in phases from 2014 to
13 2019. Utilizing the existing grid infrastructure used to formerly interconnect these
14 plants provides the most efficient method of connecting offshore wind energy to
15 the grid. In addition, the sites adjacent to the existing generation facilities are
16 optimal for placement of the substations because they allow for minimized
17 interconnection lines, take advantage of previously disturbed areas, and are
18 consistent with existing uses.

19 For these reasons, Oyster Creek and B.L. England were selected as
20 interconnection points for the Project. The onshore cable facilities at issue in this
21 matter are those required for the interconnection at B.L. England.

22

1 Onshore and Offshore Export Cable Route Landfalls, Corridors and Substations

2 *Substations*

3 Once the terminal points (the offshore lease area and interconnection points)
4 were identified, further desktop analysis was conducted to determine opportunities
5 and constraints for the onshore substations. Three locations within Upper
6 Township tax parcel 76 were evaluated for potential substation locations for the
7 B.L. England point of interconnection. The parcel is substantial (over 290 acres)
8 and several areas were evaluated. Ocean Wind selected a portion of the parcel for
9 substation development because of its close proximity to the onshore
10 interconnection point at the B.L. England, and because the topography of the
11 proposed development area is relatively flat and would not require extensive import
12 of fill. Siting the onshore substation in this area would also make use of the adjacent
13 generating station access road and limit the amount of additional impervious
14 surface required to access the substation.

15 *Offshore and onshore export cables*

16 Resource maps were developed using existing GIS resource data. Existing
17 resources were reviewed, and such review included bathymetry, geology,
18 contaminated sediments, commercial and recreational fishing activities, navigation
19 channels, anchorage areas, shipping activities, restricted areas, public open space,
20 environmentally sensitive areas, cultural and historical resources, existing
21 infrastructure, surface waters (wetlands and watercourses), and threatened and
22 endangered species, as these resources are likely to impact the development,
23 permitting, and construction of the Project.

1 The resource maps were used to identify and develop study areas, corridors,
2 and route options. Corridors were selected to take advantage of opportunities and
3 avoid constraints where possible. Route options were then developed based on
4 resource opportunities and constraints in combination with engineering
5 requirements. Onshore routes that crossed railroad ROWs were eliminated based
6 on engineering and construction challenges; and routes that crossed inlets, wildlife
7 refuges, and wildlife management areas were eliminated due to sensitive habitats
8 and permitting requirements.

9 Several landfall options were identified within each study area during the
10 desktop study. These landfall sites were then reviewed to determine if they met
11 design and construction criteria. If the landfall did not meet the design and
12 construction criteria, the landfall was removed from further evaluation. The
13 remaining landfalls were then screened based on real estate availability, windshield
14 surveys, and meetings with the local municipalities. The landfall options described
15 below were identified, and based on preliminary engineering, were deemed suitable
16 for cable installation. Ocean Wind plans to use trenchless technology (horizontal
17 directional drilling or “HDD”) to make landfall at beaches.

18 **Q. Can you describe the Preferred Route and what led you to determine that it**
19 **was the best alternative?**

20 A. Based on the route planning and site selection process, the Preferred Route would
21 make landfall at the beach lots owned by Ocean City via HDD at 35th Street in
22 Ocean City. The underground cable would travel west to Bay Avenue, north on
23 Bay Avenue to Roosevelt Boulevard (County Route 623), west across Peck Bay

1 (undeveloped area) at Roosevelt Boulevard Bridge (via HDD) and then continue
2 on within the Roosevelt Boulevard ROW, turning north on State Route 9 (North
3 Shore Road) to the proposed substation property at the decommissioned B.L.
4 England. The Preferred Route is depicted on Appendix B to my testimony and in
5 Appendix C to the Direct Testimony of Jason Kalwa.

6 With the exception of the crossing of the beach lots east of 35th Street and
7 the crossing of Peck Bay, the Preferred Route is sited within existing previously
8 disturbed road ROW areas, thereby avoiding impacts to wetlands, water bodies,
9 and residential and historic properties. The Properties (which I define below) are
10 all proposed to be crossed via HDD. HDD landfall from the Atlantic Ocean will
11 allow the Project to avoid impacts to sensitive resources such as beaches, dunes,
12 and overwash areas. The beach is part of a beach nourishment project, which is not
13 currently active, and HDD installation will allow for burial below the depth of
14 closure while avoiding surface impacts. Landfall is within 35th Street, a previously
15 disturbed, paved area with sufficient space for HDD work areas. As to the Peck
16 Bay crossing, use of the HDD method will allow for avoidance of impacts to
17 shellfish, wetlands, and recreational facilities (a floating dock).

18 **Q. Did Ocean Wind consider alternative landfall and routes to B.L. England? If**
19 **so, can you describe each alternative route and why each was not chosen?**

20 A. Ocean Wind considered several different landfall locations and onshore export
21 cable routes to reach B.L. England as part of its alternatives analysis. These landfall
22 and route locations are depicted on Appendix C to my testimony and discussed in
23 detail below.

1 Ocean City Landfall and Route Alternatives: Ocean Wind considered two other
2 landfall locations in Ocean City in addition to Preferred Route landfall at 35th Street.
3 Specifically, Ocean Wind considered landfall at 5th and 13th Streets in Ocean City.
4 The 5th Street route would follow 5th Street to West Avenue, the cable would then
5 be within West Avenue to 35th Street, then would follow the Preferred Route. The
6 13th Street route would follow 13th Street to West Avenue, the cable would then be
7 within West Avenue to 35th Street, then would follow the Preferred Route.

8 Each of these route alternatives crossed beaches and Green Acres
9 encumbered parcels owned by Ocean City to make landfall in highly developed
10 areas. While the routes would be located within existing road ROWs after crossing
11 the beach, both the 5th Street and 13th Street routes cross through historic districts
12 and are longer than the Preferred Route, increasing overall impacts, particularly
13 those related to traffic and surrounding land use.

14 Great Egg Harbor Inlet: Ocean Wind considered a route through Great Egg Harbor
15 Inlet, the Shipping Channel and Great Egg Harbor Bay, making landfall near the
16 substation site. The route was not carried forward due to increased impacts within
17 Great Egg Harbor Inlet and Great Egg Harbor Bay. Sediments in the inlet are
18 dynamic; therefore, additional cable protection such as cable mattresses would be
19 needed, resulting in additional impacts to natural resources. Access to the inlet by
20 other vessels would be restricted during construction, which would result in
21 additional impacts to other marine uses and navigation. There is an existing United
22 States Army Corps of Engineers (“USACE”) borrow area at the mouth of the inlet.
23 USACE typically does not authorize crossing of borrow areas or would require

1 impracticable mitigation including burial depths of up to 80 feet below the federal
2 project limit. An in-water route through the Great Egg Harbor Bay and Shipping
3 Channel would result in 5.8 miles of cable burial within designated shellfish habitat.
4 The route would also cross under two historic bridges with low clearance, making
5 construction significantly challenging.

6 Strathmere Landfall: Ocean Wind considered a landfall in Strathmere, within
7 Upper Township, Cape May County, New Jersey. The Strathmere route would
8 continue west on a local roadway to Sea Isle City then would follow the Sea Isle
9 City route (described below). This route was not carried forward because it would
10 be longer than the Preferred Route and would increase impacts. The offshore export
11 cable route to Strathmere would cross prime fishing areas, extensive borrow areas,
12 and the Carl Shuster Horseshoe Crab Reserve. This route would proceed through a
13 highly developed area, and would also have the impacts associated with the Sea
14 Isle City route below.

15 Sea Isle City Landfall and Route: Ocean Wind also considered a landfall in Sea
16 Isle City. The Sea Isle City route would continue west from landfall to Route 625
17 (Sea Isle Boulevard) then follow Route 625 to Route 9 (North Shore Road) and
18 continue north on Route 9 to the substation. The Sea Isle City route was not carried
19 forward because the route would be longer and would increase impacts. The
20 offshore cable route would cross USACE and state borrow areas, prime fishing
21 areas, an artificial reef and Carl Shuster Horseshoe Crab Reserve. The onshore
22 route following Sea Isle City Boulevard and Route 9 would involve several stream
23 crossings, including a major tributary of Ludlam Bay (intracoastal waterway), as

1 well as crossings of underground pipeline connectors. These types of crossings
2 would not be necessary using the Preferred Route. The onshore cable route would
3 cross or be adjacent to multiple historic sites and districts including the Atlantic
4 City Railroad Cape May Division Historic District. The route may abut or cross
5 through several National Heritage Priority Sites, including the Corson Inlet South
6 and Whale Beach, the Seaville Methodist Church Site, and the Magnolia Lake Site.
7 The route would potentially cross or abut Excursion Park and/or JFK Boulevard
8 Park and Pinelands regional growth and forest areas and would cross a known
9 groundwater contamination area.

10 **Q. Please summarize why Ocean Wind is proceeding with the Preferred Route**
11 **instead of the other routes evaluated?**

12 A. Compared to the potential alternatives, the Preferred Route is technically feasible,
13 and has the least impacts to natural resources, including wetlands and water bodies,
14 and residential and historic properties.

15 **Q. Please describe the specific easements the Project needs over properties owned**
16 **by Ocean City.**

17 A. Ocean Wind requires permanent rights of way and easements, approximately 30
18 feet in width, for the construction, reconstruction, installation, operation,
19 maintenance, inspection, patrolling, decommissioning, replacement and repair of a
20 certain onshore export cable and associated equipment and facilities upon, across,
21 and under Ocean City-owned Green Acres restricted properties identified on the
22 Official Tax Map of Ocean City as Block 611.11, Lots 137 and 145, Block 3500,
23 Lot 1 (including riparian grant), and Block 3350.01, Lot 17 (collectively, the

1 “Properties”), totaling 0.838 acres. Legal descriptions and drawings depicting the
2 easements are included in Appendix D to my testimony.

3 **Q. Has Ocean Wind attempted to obtain the easements directly from Ocean City?**

4 A. Yes. Ocean Wind witness Madeline Urbish discusses Ocean Wind’s efforts to
5 obtain the required easements from Ocean City in her testimony, Exhibit OW-3.
6 These efforts have been unsuccessful because Ocean City has been unwilling to
7 participate in the Green Acres diversion process and grant the necessary easements
8 to Ocean Wind.

9 **Q. Do the easements you just described cross properties that are Green Acres
10 restricted?**

11 A. Yes. Please see Appendix D to my testimony.

12 **Q. Please describe what a Green Acres restriction means.**

13 A. This means that the properties are subject to New Jersey Green Acres statutes and
14 regulations, including *N.J.A.C. 7:36-1.1 et seq.*, which prohibit the conveyance or
15 use of parkland for other than recreation and conservation purposes.

16 **Q. Please describe what approvals are required for Ocean Wind to install the
17 electric cable within the Green Acres-restricted properties?**

18 A. The grant of an easement by Ocean City to Ocean Wind for the export cable within
19 the Green Acres restricted properties would constitute a diversion, i.e., a use for
20 other than recreation and conservation purposes. If Ocean City were willing to
21 voluntarily grant an easement, it would need to first go through the Green Acres
22 diversion process. *N.J.A.C. 7:36-26.1 et seq.* This includes, among other things,
23 the holding of two public hearings, the submittal of a formal application to the

1 NJDEP, Green Acres Program that meets certain substantive requirements, and
2 ultimate approval by the NJDEP Commissioner and the State House Commission.

3 **Q. Has Ocean City agreed to participate in the Green Acres diversion process?**

4 A. No. Ocean City witness Madeline Urbish discusses Ocean Wind's efforts to secure
5 Ocean City's cooperation in the Green Acres diversion process. These efforts have
6 been unsuccessful because Ocean City has not been willing to cooperate in the
7 process or grant an easement to Ocean Wind.

8 **Q. Based on the filing of this Petition, what will be the process regarding the
9 Green Acres-restricted properties at issue?**

10 A. Ocean Wind will comply with the Green Acres rules concerning the major
11 diversion of parkland. Ocean Wind anticipates holding a public scoping hearing
12 regarding the proposed diversions and then submitting an application to the NJDEP,
13 Green Acres Program. Ocean Wind will become the record owner of the easements
14 on the Properties upon the recording of the BPU's Order issued in this matter.
15 Ocean Wind anticipates the Commissioner of the NJDEP and State House
16 Commission will formally act on the diversion application following the BPU's
17 Order.

18 **Q. Please describe the NJDEP's interest and role in the Green Acres-restricted
19 properties at issue in this matter.**

20 A. NJDEP holds a restriction on the properties that prohibits the disposal or diversion
21 of the Properties from recreation and conservation purposes. NJDEP's role would
22 be to review and approve the diversion application submitted to it for the Project.

1 If approved by NJDEP, the diversion would need to be approved by the New Jersey
2 State House Commission.

3 **Q. How will Ocean Wind mitigate the impacts of the Green Acres diversion?**

4 A. In terms of construction, to avoid impacts to Ocean City's properties and regulated
5 features thereon, Ocean Wind will install the onshore export cable through the
6 affected Green Acres Parcels by HDD. HDD is a trenchless method of construction
7 that is accomplished in phases using a specialized horizontal drilling rig with
8 ancillary tools and equipment. The HDD method involves drilling a hole (tunnel)
9 under a waterbody or other features and subsequently pulling a prefabricated
10 segment of pipe back through the hole. No surface impacts within the Green Acres
11 encumbered parcel are anticipated, and the surface use will remain the same after
12 construction.

13 In terms of monetary compensation for the diversion, assuming the Board
14 approves this petition, Ocean Wind will comply with the requirements under
15 *N.J.S.A. 48:2-87.1(f)(2)*, which include: (1) paying fair market value for the
16 easement, right-of-way, or other real property interest to the owner of the preserved
17 land; and (2) providing funds to the DEP's Office of Green Acres, established
18 pursuant to section 24 of P.L.1999, c.152 (C.13:8C-24), a local government unit,
19 or a qualifying tax exempt nonprofit organization, as defined in section 3 of
20 P.L.1999, c.152 (C.13:8C-3), for the acquisition of three times the area of preserved
21 land within the easement, right-of-way, or other real property interest subject to the
22 Board's order in additional land for recreation and conservation purposes within
23 the same county within three years after the Board's Order in this matter.

1 **Q. Are the easements over properties with Green Acres restrictions you describe**
2 **in this testimony reasonably necessary for the construction or operation of the**
3 **Project?**

4 A. Yes. As discussed above, Ocean Wind followed a comprehensive process to
5 identify potential onshore electric cable routes for the Project. It considered and
6 weighed the benefits and detriments of the alternative routes identified. Based on
7 this process, it has determined that the Preferred Route is the best alternative.
8 Therefore, in my opinion, the easements across the Green Acres-restricted
9 Properties owned by and located in Ocean City are reasonably necessary for both
10 the construction and the operation of the Project.

11 **III. NJDEP Permitting Consents**

12 **Q. What other NJDEP permits or approvals will the Project require for the**
13 **portion of the onshore electric cable that passes through Ocean City?**

14 A. These applications include Waterfront Development, Wetlands Act of 1970,
15 Coastal Area Facilities Review Act, Flood Hazard Area Control Act, and
16 Freshwater Wetlands Protection Act Individual Permits, and a Tidelands License.
17 These permits and approvals are required in order for NJDEP to issue its federal
18 consistency determination as explained further below.

19 In addition, New Jersey Pollution Discharge Elimination System
20 Stormwater Construction Permit (5G3), New Jersey Pollution Discharge
21 Elimination System construction dewatering permit (B7 or BGR), Water Allocation
22 Permit, and a Treatment Works Approval will also be required. Once construction
23 is underway, additional NJDEP permits or approvals may be required.

1 **Q. Absent the filing of this Petition, would Ocean Wind be required to obtain**
2 **Ocean City's consent to obtain those permits from the NJDEP?**

3 A. Yes. Ocean Wind must have the legal authority and/or consent from Ocean City to
4 perform the Project activities on the Properties and within Ocean City's road ROWs
5 for the NJDEP to issue the permits for the Project. Ocean City has been unwilling
6 to provide Ocean Wind with the consent required for the NJDEP permit
7 applications.

8 **Q. Did Ocean Wind attempt to secure Ocean City's cooperation in obtaining**
9 **consents for these NJDEP permit applications?**

10 A. Yes. In her Direct Testimony, Ocean Wind witness Madeline Urbish discusses
11 Ocean Wind's efforts to secure the consents needed from Ocean City for the NJDEP
12 permits. These efforts have been unsuccessful because Ocean City has not been
13 willing to consent to the Project activities on the Properties and within Ocean City's
14 road ROWs.

15 **Q. Can you address the timing requirements for these NJDEP permits?**

16 A. In order for BOEM to issue its Record of Decision for the Project, NJDEP must
17 issue its federal consistency determination in accordance with an agreement
18 between the NJDEP and the Project. Specifically, on March 31, 2021, NJDEP and
19 Ocean Wind agreed to stay the six-month review period under the Coastal Zone
20 Management Act, 16 U.S.C. 1451-1466, and implementing regulations at 15 CFR
21 part 930, subpart D and subpart E, until October 28, 2022. Accordingly, NJDEP
22 must issue its consistency decision for the Project on or before October 28, 2022.
23 In order to meet this deadline, Ocean Wind has been advised by NJDEP that the

1 Project must receive all relevant NJDEP permits and approvals, including
2 approvals for the Green Acres diversion of the Properties, before October 28, 2022.
3 The permit applications must be filed in February 2022 to allow NJDEP sufficient
4 time to review and render a decision on the applications.

5 **Q. Are the municipal consents for the NJDEP permits reasonably necessary for**
6 **the construction or operation of the Project?**

7 A. Yes. For the reasons I discussed above, the Preferred Route is the best route for the
8 onshore electric cable. The NJDEP permits I discuss in this testimony are required
9 before Ocean Wind can begin construction on this portion of the onshore electric
10 cable. In addition, the NJDEP permits are required for BOEM to issue its Record
11 of Decision for the Project, which in turn is required before construction can
12 commence. Therefore, the municipal consents from Ocean City are reasonably
13 necessary for the construction and operation of the Project. Accordingly, Ocean
14 Wind is seeking approval from the Board that preempts or supersedes Ocean City's
15 consent rights with respect to such permits.

16 **IV. Summary of Ocean Wind's Requests for Relief**

17 **Q. What is Ocean Wind requesting that the NJBPU approve regarding the**
18 **easements across Green Acres-restricted properties owned by Ocean City?**

19 A. I have been advised by counsel that pursuant to New Jersey law, the NJBPU has
20 jurisdiction to approve Ocean Wind's acquisition of the required easements.
21 Accordingly, Ocean Wind is requesting that the NJBPU issue an Order granting the
22 easements described in my testimony to Ocean Wind. As I discussed above, Ocean

1 Wind will follow the NJDEP process for the diversion of Green Acres restrictions
2 on the Properties.

3 **Q. What is Ocean Wind requesting that the NJBPU approve regarding municipal**
4 **consents needed for the NJDEP permits required for the Project with respect**
5 **to construction within Ocean City?**

6 A. I have also been advised by counsel that, under New Jersey law, the NJBPU has
7 jurisdiction to preempt or supersede municipal consents or other affirmative filings
8 that are a condition of the issuance of a permit or other approval of the NJDEP and
9 are reasonably necessary for the construction or operation of a QOWP. Since the
10 onshore cable route crosses several properties owned by Ocean City, including
11 Ocean City's road ROW, Ocean Wind would need the City's consent as part of the
12 above-discussed NJDEP permit applications. Therefore, Ocean Wind is requesting
13 that the NJBPU issue an order preempting or superseding all municipal consents
14 needed from Ocean City for the above NJDEP permits.

15 **Q. Does this conclude your direct testimony at this time?**

16 A. Yes, it does.

Pilar Patterson
PILPA@Orsted.com
 609-289-1298

SUMMARY OF EXPERIENCE

Bringing more than 30 years of experience with state and national regulatory permitting, compliance and implementation, I support engineering solutions and provide regulatory insight to complex federal and state regulatory challenges.

Orsted (June 2020 to present)

- Ocean Wind Permit Manager June 2020 – Nov 2021

Scope of work – Ocean Wind

- New Jersey Program Permit Manager (Nov 2021-present)

Scope of Work – Ocean Wind and Ocean Wind 2

Leading a team of professionals in a range of environmental, permitting and scientific topics to support both permitting and construction. Coordinates with federal, state and local government agencies, stakeholders, and others to provide and support regulatory aspects of the Ocean Wind Offshore Wind Farm (1,100 MW) and Ocean Wind 2 Wind Farm (1,148 MW).

Private Consulting (2016-2020)

Employed by Kleinfelder Inc., an international engineering consulting firm with 55 offices, as a Program Manager and regulatory expert. Worked with both public and private entities covering a wide range of environmental permitting and compliance issues, including water permitting, wetlands permitting, threatened and endangered species, stormwater permitting, Federal Energy Regulatory Commission approval, and contaminated sites.

Provided regulatory expertise primarily in the eastern US at both the federal and state levels to support clients in regulatory areas such as permitting, compliance, negotiated consent agreements, and Expert Witness services. As a collaborative technical problem solver, brought insight and highlighted shared goals of clients, local municipalities, and state and federal regulators, thereby saving clients time, money, and effort while creating an environment of four-cornered support: local citizens, state and federal regulators, and client goals, budget and timeline.

New Jersey Department of Environmental Protection, Bureau Chief (1987-2016)

Oversaw over 400 municipal and industrial treatment plants in the state. Worked closely with EPA Headquarters, Region 2 and local governments to develop a NJ Combined Sewer Overflow Program in New Jersey that used a collaborative approach among permittees, regulators and the local community. Led a team of 30 professionals, for the first time in NJ history we successfully brought together 26 treatment facilities and municipalities into a combined effort to reduce raw sewage overflows. In addition, also for the first time in this NJ program, we required the approach include extensive community involvement including the creation of local public participation teams to work together with treatment facilities and municipalities to ensure a local focus on all levels of development and encourage universal project support.

SELECT PROJECT EXPERIENCE

Orsted (2020 to present)

Manage the environmental and regulatory review and permitting of the Ocean Wind 1,100 MW offshore wind farm through:

- Manage and coordinate revisions to the Construction and Operations Plan (COP) and submission to the Federal Bureau of Ocean Energy Management
- Coordinate for purposes of COP inclusion on-going environmental assessments completed by Orsted program area experts and consultants including:

Pilar Patterson
PILPA@Orsted.com
 609-289-1298

- Geophysical and Geotechnical Site Investigations
 - Oceanography and Meteorology
 - Benthic Resources
 - Fisheries
 - Marine Mammals
 - Sea Turtles
 - Birds and Bats
 - Terrestrial Resources
 - Sensitive Biological Resources and Habitats
 - Existing Infrastructure
 - Cultural Resources
 - Coastal Use and Social and Economic Resources
- Manage the preparation of applications to agencies and regulator entities
 - Manage schedules and budgets
 - Manage and represent Ocean Wind and Orsted in meetings with relevant stakeholders, local, state and federal authorities and government agencies in relation to various environmental topics, permits, regulations and surveys
 - Report to the senior project management on progress, budget and key risks for the permitting process

Private Consulting (2016-2020)

(select projects)

- **City of Newark Regulatory Expert Permitting (2019-2020)** preparing regulatory compliance manual, emergency compliance manual, assignment matrix and responsible party calendar.
- **Passaic Valley Sewerage Commission Regulatory Expert Permitting (PVSC) (NJ) (2017 - 2020)** On-call regulatory expert for this 330 MGD facility (113 CSOs in eight communities). Provide regulatory support for all aspects of NJPDES (New Jersey Pollutant Discharge Elimination System) permitting, water quality management planning, water quality models and their application, CSO support and other associated regulatory issues.
- **Springfield Water and Sewer Commission (MA) Regulatory Expert Permitting (2017 - 2020)** In-depth analysis of NPDES permitting requirements for 67 MGD facility with 23 combined sewer overflows. Recommendations regarding regulatory options and flexibility, preparation of comments to U.S. Environmental Protection Agency (EPA), public meeting and comments.
- **Confidential Client Regulatory Expert Transco Pipeline (2017 - 2020)** Provide regulatory review of the Transco Pipeline FERC process and Environmental Impact
- **Long Island Sound TMDL (total maximum daily load) for Springfield Water and Sewer Commission Regulatory Expert (MA) (2017 - 2020)** In-depth analysis and regulatory support regarding the Long Island Sound Total Maximum Daily Load for Nitrate impacts and regulatory requirements for Springfield Water and Sewer Commission Facility. Preparation of extensive comments regarding EPA proposal using empirical modeling to establish nitrogen endpoints for embayments, large riverine systems, and western Long Island Sound Open Water.
- **City of Cambridge (MA) NPDES Permitting, LTCP and CWA compliance (2019 - 2020)** Regulatory expert for the City's NPDES permits, combined sewer overflow program, variance procedures, and related aspects of Clean Water Act compliance. Providing regulatory support

Pilar Patterson
PILPA@Orsted.com
 609-289-1298

for Long Term Control Plan requirements, water quality monitoring and modeling intended goals, and related state and federal requirements.

- **SUEZ Water Princeton Meadows Regulatory Analysis (NJ) (2017 - 2020)** Performed a regulatory analysis for 1.64 MGD plant rehabilitation and expansion. Evaluated all permitting and expansion regulatory requirements including anti-degradation analysis; water quality management planning; NJPDES permitting for point source, stormwater and groundwater (I/P lagoon); land use permitting; treatment unit closure requirements; local and county approvals; and Delaware and Raritan Canal Commission.
- **Confidential Client in Montana Expert Witness (2019 - 2020)** Provide expert report regarding regulatory aspects of NPDES permitting and treatment plant/collection system permitting; scheduled for expert witness testimony Fall 2019.
- **Confidential Client Superfund Site (2017 - 2020)** Providing technical and regulatory counsel for a “Potentially Responsible Party” to the Berry’s Creek Superfund site in Bergen County, New Jersey. Characterized potential contribution pathways for our client’s site, provided regulatory support for fate and transport of identified chemical of concern.
- **Confidential Client Water Quality Management Plan (WQMP) Site-Specific Amendment (NJ) (2018 - 2020)** Prepared necessary components of the amendment including build-out analysis, mapping, threatened and endangered species evaluation, public notification, and coordination with the Highlands Council and the NJDEP.
- **Middlesex Water Company Stormwater Audit (NJ) (2017)** Conducted extensive on-site regulatory audit of maintenance and storage yard, shop buildings, office and parking areas to determine type and extent of stormwater permitting needs and regulatory options available.
- **North Brookfield Wastewater Treatment Facility Regulatory Expert NPDES Permitting (MA) (2017- 2018)** Evaluated EPA Region 1 issued draft NPDES permit and prepared extensive comments for this 0.76 MGD treatment facility. In-depth analysis of nutrient issues, relationship to the Long Island Sound TMDL, metals and anti-degradation evaluation.
- **Confidential Client Industrial Wastewater Non-POTW NPDES Analysis Regulatory Expert Services (NJ) (2018 - 2020)** On-call regulatory expert for NPDES permitting including applicability of EPA effluent limitation guidelines (ELGs) and centralized waste treatment effluent guideline.

State Government; New Jersey Department of Environmental Protection (2001-2016)

Managed a team of 34 professionals in the implementation of the federal NPDES program (delegated to NJDEP) regulating the discharge of pollutants to surface waters in New Jersey. Regulated entities include over 400 publicly and privately owned treatment works, nuclear and other power generating facilities, contaminated site clean-ups, construction activities, water quality modeling and the combined sewer overflow program.

- Specialties include high-level expertise implementing or providing:

Pilar Patterson
PILPA@Orsted.com
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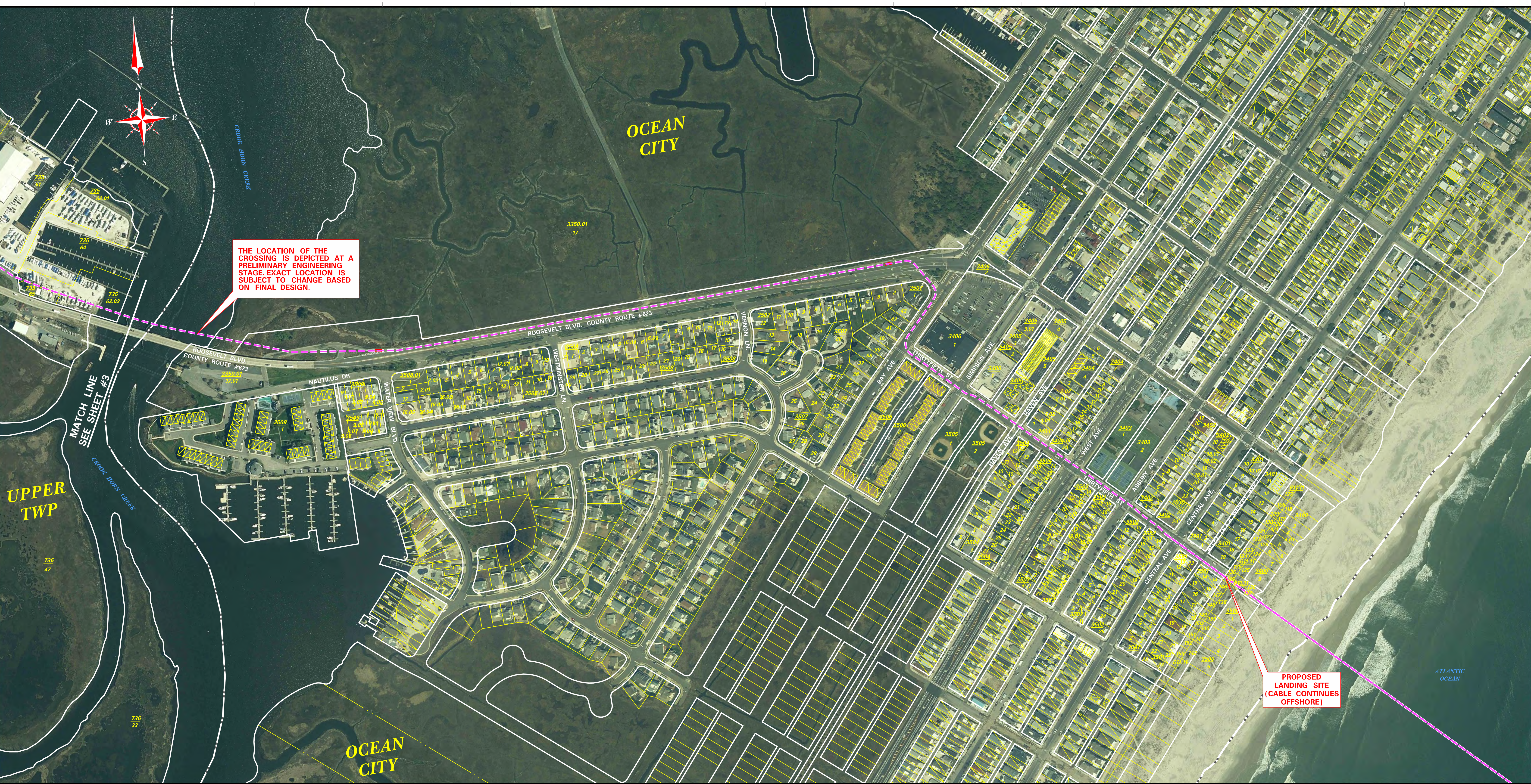
- Federal Clean Water Act Permit Program
- Combined Sewer Overflow NPDES Permitting Program
- Blending and NPDES authorized bypassing at POTWs
- No Feasible Alternatives Analysis
- Point Source (municipal and industrial) NPDES Permitting Program
- Long Term Control Plan regulatory requirements
- Surface Water Quality Variance procedures
- Surface Water Quality Standards
- Total Maximum Daily Load (TMDL) regulatory implementation
- Expert testimony
- Federal Anti-degradation Analysis
- Regulatory negotiations pertaining to state and federal consent decrees and administrative orders
- Regulatory requirements of Delaware River Basin Commission (DRBC); Interstate Sanitation Commission (IEC); NY/NJ Harbor Estuary Program
- Phosphorus technical manual
- Capacity Assurance/Build-out analysis
- Team Author for the creation and updating of state regulations for program implementation

State Government; New Jersey Department of Environmental Protection (1987-2001)

- Regulatory design standards for the construction and operation of treatment works (collection systems, pumping station, wastewater treatment plants)
- Minimum regulatory requirements for Inflow/Infiltration management
- State Revolving Fund Financing Program
- Team Author for the creation and updating of state regulations for program implementation

EDUCATION

- BS Industrial Engineering, Rutgers College of Engineering, NJ
- Certified Public Manager, Human Resources Development Institute and Fairleigh Dickinson University.



LEGEND NOT ALL ITEMS ARE TO SCALE.

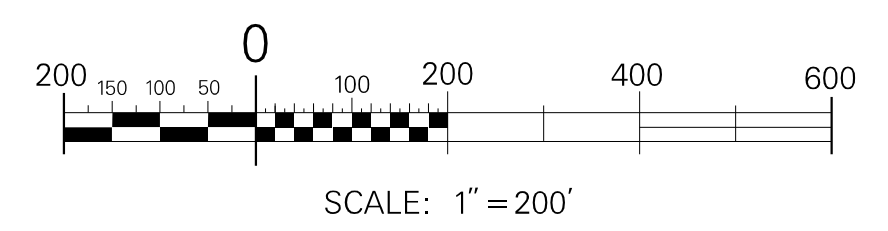
- APPROXIMATE PROJECT ROUTE
- STATION PROPERTY BOUNDARY
- MUNICIPAL LINE
- TAX BLOCK LINE & NUMBER
- TAX LOT LINE & NUMBER
- UTILITY EASEMENTS

NOTES:

- MAPPING IS BASED ON THE NJ STATE PLANE COORDINATE SYSTEM. HORIZONTAL DATUM = NAD-83(2011) UNITS = U.S. FOOT
- THESE PLANS ARE FOR DISPLAY PURPOSES ONLY AND NOT INTENDED FOR CONSTRUCTION.

REFERENCES:

- RIGHT OF WAY INFORMATION BASED ON SURVEYS PREPARED THROUGH AUGUST 24, 2021 BY FRANKLIN ENGINEERING, BRIDGE TON, NJ.
- NEW JERSEY STATE ORTHOPHOTOGRAPHY WAS CAPTURED IN APRIL AND MAY 2015, AND PRODUCED AT A SCALE OF 1:2400 (1"=200') WITH A 1 FOOT PIXEL RESOLUTION, PROVIDED BY NJ OFFICE OF INFORMATION TECHNOLOGY (NJOTI), OFFICE OF GEOGRAPHIC INFORMATION.
- TOWNSHIP OF UPPER TAX MAP SHEETS 27.01, 27.02, 27.03, 27.04, 27, 28.01, 28.02, 28.03, 28.04, 28 & 29.
- OCEAN CITY TAX MAP SHEETS 2, 27, 28, 33, 34, 35 & 335.
- BL ENGLAND PLAN ENTITLED "BOUNDARY SURVEY PLAN BLOCK 479, LOT 76, 76.01 AND BLOCK 661, LOT 81, 900 NORTH SHORE ROAD, TOWNSHIP OF UPPER, COUNTY OF CAPE MAY - STATE OF NEW JERSEY, PREPARED BY SHARREED A. SMITH GEOSPATIAL, LLC ONE GATEWAY CENTER SUITE 2600-625 NEWARK, NJ 07102." LAST REVISED 10-29-21.



Ocean Wind
An Ørsted & PSEG project

NO.	DATE	DESCRIPTION	MP	MDR
1	01/07/22	UPDATED PROPOSED STATION & ROUTE		
REVISION				
			DWN	EXD

PSEG
Services Corporation
SURVEYS & MAPPING

CORPORATE HEADQUARTERS
80 Park Plaza T6B
Newark, N.J., 07102-4194
Email: surveying@pseg.com

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B.L. ENGLAND SUBSTATION & ONSHORE ROUTING

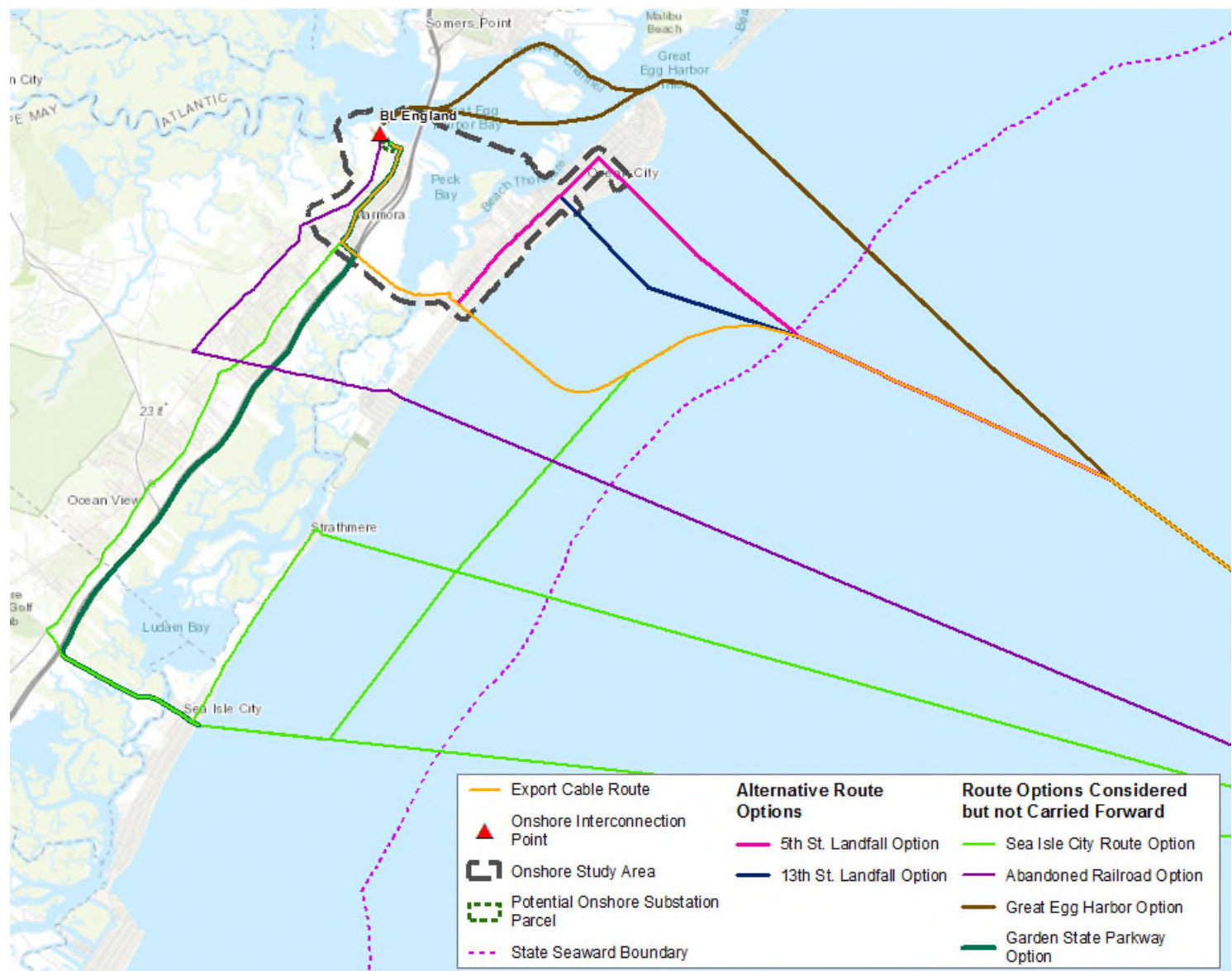
OCEAN CITY, NJ
UPPER TWP

CAPE MAY CO., N.J.
CAPE MAY CO., N.J.

MUNICIPAL EXHIBIT

DRAWN	CCX	CHECKED	BSG	SCALE	AS SHOWN
DATE	11-2-2021	EXAMINED	MDR	AUTH	PRJ-19048

BL England Landfall and Onshore Export Cable Route Alternatives Considered



Metes and Bounds Description**Proposed Diversion Area****City of Ocean City, Cape May County, State of New Jersey**

Beginning at a point at the Northwestern corner of Green Acres Parcel Block 611.11, Lot 145.

1. Continuing along the western boundary of Green Acres Parcel Block 611.11, Lot 145 N39° 10' 28.60E for a distance of 1.44' to a point, thence;
2. S49° 28' 15.47"E for a distance of 569.34' to a point, thence;
3. S37° 23' 38.48"W for a distance of 17.39' to a point, thence;
4. S51° 01' 11.64"E for a distance of 217.04' to a point, thence;
5. S51° 01' 11.64"E for a distance of 425.44' to a point, thence;
6. S49° 28' 15.47"E for a distance of 100.06' to a point, thence;
7. S41° 46' 15.70"W for a distance of 30.01' to a point, thence;
8. N47° 28' 15.47"W for a distance of 1310.81' to a point, thence;
9. N39° 10' 28.60"E for a distance of 28.57' back to the point and place of **beginning**.

The above described easement contains 33,771.23 square feet or 0.77 Acres.



no.	date	by	ckd	description
A	09/16/21	TSV	-	ISSUED FOR REVIEW

LEGEND

PROPOSED DRILL PATH	
UNDERGROUND CONDUIT	
PERMANENT EASEMENT	
TEMPORARY WORKSPACE	
PROPERTY BOUNDARY	
TIDAL WATER LEVEL	
RIPARIAN GRANT BOUNDARY	
DIVERSION AREA (PERMANENT EASEMENT)	



Ocean Wind
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000,
MAHWAH, NJ 07495

date	09/03/21	detailed	T. VONBERGE
designed		checked	

**PERMANENT EASEMENT ACROSS
THE PROPERTY OF OCEAN CITY
BLOCK 611.11, LOTS 137 & 145**

CAPE MAY COUNTY, NEW JERSEY
LF D BL ENGLAND
35TH STREET CROSSING
PLAN VIEW

project	RDS-PP CODE
drawing	10092078-01T-4-001
sheet	1 of 1 sheets
file	10092078-01T-4-001

**PRELIMINARY - NOT
FOR CONSTRUCTION**

**METES AND BOUNDS DESCRIPTION
PROPOSED 30 FOOT WIDE PERMANENT EASEMENT
FOR UNDERGROUND TRANSMISSION
BLOCK 3350.01, PORTION OF LOT 17
CITY OF OCEAN CITY
CAPE MAY COUNTY, NEW JERSEY**

BEGINNING at a point within the bounds of the land now or formerly of now or formerly of City of Ocean City (Tax Lot 17, Block 3350.01), said beginning point being distant the following two (2) courses from the most southwesterly corner of said lands of the City of Ocean City and the intersection of the northerly line of Roosevelt Boulevard (Cape May County Route 623; 130 foot wide Right-of-Way per tax map) with the Mean High Water line along the easterly line of Crook Horn Creek:

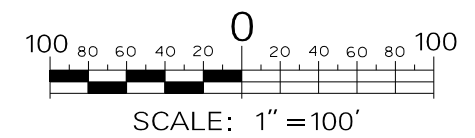
- A. Commence from MHW along Roosevelt Boulevard along a curve to the left, having a radius of 1,830.00 feet, an arc length of 93.20 feet, turning a central angle of 02°55'05", having a chord bearing of South 74°30'24" East, a chord distance of 93.19 feet, thence;
- B. Continuing along said northerly line of Roosevelt Boulevard, North 39°40'06" East, a distance of 43.98 feet, to the true point of **BEGINNING**, having New Jersey State Plane Coordinate System Grid Values [NAD 1983 (2011)] of North: 152,815.02 feet, East: 456,408.78 feet, running thence along the ground in NAD 1983 (2011) N.J.S.P.C.S. bearing base the following (4) courses:
 1. Along a new line through and across said lands of the City of Ocean City, North 74°12'40" West, a distance of 97.13 feet to the intersection of the same with the aforementioned Mean High Water Line along the easterly side of Crook Horn Creek, thence;
 2. Along said MHW, a distance of 37 feet, an inverse bearing of North 44°58'00" East, an inverse distance of 34.36 feet to a point in line of the same;
 3. Departing said Mean High Water Line along a new line through and across said lands of the City of Ocean City being parallel with and 30 feet northerly at right angles to Course #1, South 74°12'40" East, a distance of 93.66 feet to the intersection of the same with the aforementioned line of Roosevelt Boulevard, thence;
 4. Along said line, South 39°40'06" West, a distance of 32.81 feet to the point and place of **BEGINNING**

The above-described easement contains 2,950 Square Feet of Land or 0.068 Acre, more or less.

Subject to any and all easements of record.



LEGEND	
	= PROJECT ROUTE
	= MUNICIPAL LINE
	= TAX BLOCK LINE & NUMBER
	= TAX LOT LINE & NUMBER
	= UTILITY EASEMENTS
	= PROPOSED PERMANENT EASEMENT



2				
1	02/08/21	REVISED PROPERTY BOUNDARIES AND PROPOSED EASEMENT	CCK	MDR
REVISION				
PERMANENT EASEMENT ACROSS THE PROPERTY OF OCEAN CITY BLOCK 3350.01 LOT 17 OCEAN CITY CAPE MAY CO., N.J. EASEMENT EXHIBIT				
<small>DRAWN: CCK CHECKED: BSG SCALE: AS SHOWN DATE: 09-20-2021 EXAMINED: MDR AUTH: Pr J-19048</small>				