ATTACHMENT A

EXECUTIVE SUMMARY

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The Connecticut Port Authority (CPA) is a quasi-public agency created in 2014 that is responsible for marketing and coordinating the development of the state's ports and maritime economy. The creation of the CPA represents a major commitment to invest in the state's port infrastructure to create jobs and attract private investment to the state. It is the mission of the CPA to grow Connecticut's economy and create jobs by strategically investing in the state's deep water ports and small harbors to enable each to maximize its own economic potential.

The State Pier Facility in New London, CT encompasses approximately 30 acres including the northern 'offsite' parcel and has three general operational areas: the existing piers (Admiral Shear State Pier and Central Vermont Railroad [CVRR] Pier), near dock shoreline areas, and offsite areas. The offsite areas comprise about one-fourth of the overall acreage and are situated north of and separated from the main port facility by State Pier Road and Amtrak's rail corridor embankment. The property generally consists of unpaved, gravel surfaces that are uneven or contain small depressions that pond water during storm events. The offsite areas are segmented by the rail siding to the State Pier Facility and bisected by the bridge piers for I-95's Gold Star Memorial Bridge. The property is bounded to the west by the New England Central Railroad (NECR) tracks and to the east by the Thames River.

The near-dock shoreline areas are south of State Pier Road and accommodate most of the port's cargo intermodal activity. This area contains two heavy load warehouse buildings totaling 102,000 square feet with railcar and truck loading docks, two 3,200-square-foot equipment forklift maintenance buildings and an administration building. The area located at the head of the two piers is largely paved to facilitate forklift and tractor trailer movements. The shore edge consists of a combination of sheet piling, pile-supported docks, and stone block quay walls. The western area adjoining the NECR siding yard are largely unpaved areas, with irregular topography.

Located in New London Harbor along the Thames River, the State Pier Facility is strategically situated in far eastern Connecticut, exhibits the necessary pre-qualifying port and navigation channel attributes and is uniquely positioned to support the emerging offshore wind energy sector that is gaining momentum in New England. Through this Project, it is the goal of CPA to create infrastructure in Connecticut that will serve as a long-term regional wind turbine generator (WTG) port facility while at the same time continuing to support other existing long-term breakbulk operations for steel, lumber, copper billets, as well as other cargo. Accordingly, and consistent with its mission, CPA proposes the State Pier Infrastructure Improvements (SPII, or Project) at the State Pier Facility.

The proposed Project's infrastructure improvements were subject to a thorough analysis of potential alternatives. This analysis considered several regional ports, three existing deep water ports in Connecticut (Bridgeport, New Haven Harbor and New London Harbor) and various configurations at the State Pier Facility itself, in the context of the very specific and demanding criteria required for a regional WTG port facility. While meeting the strict criteria of a WTG port facility, the proposed Project's design likewise considered avoidance and minimization of impacts to existing natural resources to the extent practicable. Using these criteria, CPA has identified SPII as the least environmentally damaging practicable alternative to meeting the Project purpose and need.

Proposed Project

The proposed work is anticipated to occur in two phases, with some overlap in activities anticipated between Phase 1 and Phase 2 and generally moving from upland areas to in-water work. Work activities will only progress once applicable permits have been obtained. Anticipated SPII components are detailed below.

Phase 1 work generally consists of the on-shore improvements and activities at the site, as well as select in-water activities. Work will include demolition of buildings, excavation, grading and installation of a stormwater management system and utilities. The site will be leveled and graded to accommodate future uses. Specifically, the entire upland portion of the site will be provided with a level, compacted gravel surface for use by any cargo handling and storage activities. Select in-water activities, such as derelict structure removal and bulkhead oversheeting, which have been authorized through the COP/GP process will be conducted in Phase 1.

Phase 2 work generally consists of the in-water and over-water improvements such as dredging, fill placement and marine structure construction for creation of the new Central Wharf area and heavy-lift pad.

Phase 1 Work (Uplands and NE Bulkhead)

Onshore Demolition Activities

- Demolition of various existing buildings (including the Administration Building and Warehouse 1) and site utilities in upland area.
- Demolition of a segment of State Pier Road, including the bridge and bridge abutment.
- Offsite relocation of NOAA station.
- Removal of existing onsite rail tracks.

In-Water and Over-Water Demolition Activities

- Demolition of existing unused berthing dolphins (permitted under CT DEEP Certificate of Permission (201910828-COP) and USACE CT General Permit process (NAE-2018-02161).
- Demolition of Northeast Annex timber pile supported concrete deck on east side of Admiral Shear State Pier along shoreline under same CT DEEP COP / USACE GP process.

Onshore Improvements

- Cutting of the onsite hill (±190,000 CY). Soils to be used as fill between the piers during Phase 2.
- Overall grading and compaction of the site and installation of a gravel surface.
- Installation of retaining wall or earth embankment to maintain existing State Pier Road.
- Installation of new drainage and stormwater treatment system.
- Onshore installation of an anchored heavy-lift relieving platform on the existing Northeast Bulkhead (bulkhead work permitted separately under above CT DEEP COP / USACE GP processes).
- Installation of fendering and bollards at Northeast Bulkhead.
- Installation of new electrical utilities. High mast light poles will be installed. Electrical equipment may include electrical substations, transformers and powered racks for nacelles.
- Installation of new fire protection mains, hydrants and potable water supply lines.
- Installation or upgrade of sanitary sewers.
- Installation of perimeter security fencing and gate.
- New roadway entrance to the site.

Phase 2 Work (Waterfront Works: State Pier / CVRR Pier / Central Wharf)

In-Water, Over-Water and On-Shore Improvements

- Demolition of approximately 420 linear feet (~84,000 SF) of State Pier to facilitate construction of the heavy lift pile supported area and bulkhead at the State Pier East Berth.
- Demolition of additional segments (~34,000 SF) of the west face of State Pier concrete deck to facilitate fill placement between the piers.

- Demolition of two areas at the east face and southeast corner of State Pier (each approximately 1,500 SF) to facilitate mooring bollard installation.
- Dredging of Turning Basin including approaches to both berths. Dredging to -39.8' NAVD88 (-36' MLLW + 2' overdredge), matching the existing New London Federal Channel depths. This includes removal of approximately 55,000 CY of material, including overdredge, generated from approximately 241,000 SF . The majority of this material will be generated in the northern portion of the turning basin.
- Dredging of vessel berthing areas to -41.8' NAVD88 (-38' MLLW + 2' overdredge) for berthing layout and up to -66.8' NAVD88 (-63' MLLW + 2' overdredge) to accommodate the seabed preparation work described below. Dredging to be completed at the proposed Northeast Berth (Up to ~240,000 SF; ±222,000 CY) and East Berth (Up to ~210,000 SF; ±122,000 CY) proximate to the new heavy lift areas.
- Seabed preparations would be completed after the above dredging to allow for berthing of vessels equipped with jack up legs (or similar) at the Northeast Bulkhead and East Berth heavy lift areas. Jack-up pockets will be constructed by filling the dredged pockets with crushed stone or gravel, to provide a stable jacking platform and to protect the seafloor from damage during install vessel jacking operations. Dredging and rock pad design utilizes a tiered approach, with stone pad thickness of 13' to 27' (maximum; in the eastern portions). Up to 107,000 CY of crushed stone would be placed in each pocket. The East Berth seabed preparation would be completed first and the Northeast Bulkhead seabed preparation work would be constructed at a later stage. This stone bed will be maintained throughout the duration of WTG operations.
- Installation of longitudinal steel sheeting or protected slope at CVRR pier.
- Installation of king pile bulkhead between the State Pier and the CVRR Pier, extending into the CVRR pier, tying into the new longitudinal sheet pile wall/slope along the CVRR pier.
- Filling approximately 7.4 acres (~322,000 SF; ±400,000 CY) between the CVRR Pier and State Pier to create the new Central Wharf operational area and East Berth Heavy Lift area. Approximately 308,600 CY will be placed below MHHW (+1.21 ft. NAVD88) and the balance will be placed above this elevation to raise the Central Wharf to finish grades. Relative to the DEEP New London Coastal Jurisdiction Line (CJL; elevation of +2.1 ft. NAVD88), approximately 315,900 CY of fill would be placed between the piers for Central Wharf creation.
- Installation of a series of ~3' wide stone columns, or comparable technology, in the filled area of the new Central Wharf created between the piers and at the East Berth Heavy Lift area.
- Installation of steel sheet pile to enclose the State Pier heavy lift platform and filling approximately 33,600 SF between the existing State Pier riprap slope and the proposed sheet pile wall along its East Face[1]. Approximately 15,000 CY will be placed below MHHW (+1.21 ft. NAVD88) for the East Face Heavy lift area creation. Relative to the CJL (+2.1 ft. NAVD88), approximately 15,600 CY of fill would be installed for East Face Heavy Lift area creation.
- Installation of steel toewall system at the base of the State Pier heavy lift platform. ~1,115 LF of toewall is proposed at and adjacent to the heavy lift platform.
- Installation of upgraded fendering and mooring bollards at the State Pier East Face Berth.
- Installation of a toewall to protect an existing eelgrass bed from dredging activities. Toewall will consist of up to ~170 linear feet of combination sheet pile (to extend ~1 foot above mudline).
- Installation of high mast lights at the State Pier Facility.
- Installation of cold ironing infrastructure.
- Installation of piles and associated gangway to support ConnDOT Chester-Hadlyme ferry overwintering at the Northwest Bulkhead area.

[1] Engineering design is progressing. The East Berth Heavy Lift area may be constructible using a toe wall and associated pile supports, thus eliminating a need for structural solid-fill placement atop the riprap slope. Conservatively, and for permitting purposes, placement of this fill has been assumed.

It is anticipated that the Project will permanently impact the following coastal resource areas: Developed Shorefront, Rocky Shoreline, Nearshore Waters, Offshore Waters and associated benthic habitat (See DEEP Application Part III-4 for additional detail on breakouts by aquatic resource type). Anticipated impacts from Project related activities include:

- Permanent fill placed between the Admiral Shear State Pier and the CVRR Pier; Fill placement to create the East Face Heavy Lift Area; Navigational and berthing area dredging; Seabed Preparation activities (rock pad construction); and associated activities affecting in-water resources as documented in Table 1, below.
- Approximately 4,546 linear feet of impacts to existing Developed Shorefront are anticipated.
- Installation of an approximately 160-foot long combination sheet pile toewall near the northeast bulkhead to protect an existing eelgrass bed from dredging activities.
- Direct impacts to onsite Tidal Wetlands, Beach and Eelgrass Beds have been avoided.
- Approximately 500 SF of Rocky Shore will be temporarily affected by construction of stormwater outfall OF-3. Permanent impacts will be limited to the new outfall structure.
- Compensatory mitigation activities, including mitigation work within select resource areas, as described in Attachment M8.
- Construction methodologies and additional details are presented in USACE Form 3445, Block 18; CT DEEP Form Part III.2 and JPA Attachment I (Project plans).

From a geotechnical perspective, a portion of the SPII dredged materials may be suitable for offshore disposal at one of the Long Island Sound disposal sites (which are managed by USACE / U.S. EPA / local states and would require additional coordination); however, the Project proposes the beneficial reuse of these materials within the new "Central Wharf" area, as practicable. Offshore disposal is not anticipated. Select dredged materials that are unusable from a geotechnical or project sequencing perspective may need to be disposed of at an upland facility in accordance with disposal facility requirements.

To mitigate for unavoidable Project impacts to coastal resources, especially impacts to fisheries habitats, CPA will continue to work the CT DEEP, USACE and other federal agencies including National Marine Fisheries Service (NMFS) to identify viable and appropriate fishery projects that are currently without funding. It is anticipated that in addition to funding multiple fisheries projects, the compensatory mitigation package would include other aspects such as potentially accepting dredged sediment from other local dredge projects for use as fill between the State Pier and CVRR Pier, improvements to the storm water runoff quality from the site, and implementation of a "Living Shoreline" mitigation area in areas of the Thames River in the immediate Project vicinity. Other habitat enhancements may also be considered. In addition, the CPA will fund improvements to local rail tracks for immediate freight industry usage.

Anticipated Schedule

The construction would be competed in two (2) phases, "Phase 1: Uplands and NE Bulkhead" work and "Phase 2: Waterfront Works". As noted above, some overlap between the phases may occur. Construction is anticipated to start in February 2021. The final Project schedule will be determined by multiple factors, including regulatory approvals, contracting and other variables. Regardless of schedule changes, if any are ultimately required, adherence to the following time of year restrictions is anticipated.

To protect spawning species, and as based on initial input from CT DEEP Inland Fisheries, NOAA NMFS and CT Bureau of Aquaculture, a "no in-water-work" window is anticipated in June through September,

annually[2]. In addition, the CPA anticipates that the Project would have a Time-of-Year (TOY) window which allows for dredging activities between October 1 through January 31, annually.

To address concerns relative to potential Peregrine Falcon (*Falco peregrinus*) nesting, CT DEEP Natural Diversity Data Base (NDDB) has indicated that no Project construction activities should occur during the period of April 1 to June 30; or, if required, work during this timeframe should occur in accordance with the CT DEEP NDDB-approved Project Peregrine Falcon Protection Plan (NDDB # 201901490 REVISED) included in Attachment C.

Based on language included in the USACE CT GP, CPA anticipates that the following schedule and mitigation considerations may also be applicable to the Project: "*Piles should either be installed between November 1 and March 15 OR must use a soft start each day of pile driving, building up power slowly from a low energy start-up over a period of 20-40 minutes to provide adequate time for fish and marine mammals to leave the vicinity. The buildup of power should occur in uniform stages to provide a constant increase in output. Bubble curtains can be used to reduce sound pressure levels during vibratory or impact hammer pile driving*."

Further details regarding the anticipated Project schedule are presented below.

<u>Phase 1 Work (Uplands and NE Bulkhead)</u>

- Upland demolition and regrading, February 2021 to October 2021.
- Upland construction, February 2021 to November 2021 (Phase 2 Uplands construction into 2022).
- In-water work (under COP / GP2 authorizations): Northeast Bulkhead oversheeting, Northeast Annex Demolition, Mooring Dolphin Demolition, February 2021 to June 2021.

<u>Phase 2 Work (Waterfront Works: State Pier / CVRR Pier / Central Wharf)</u>

- Pier Work (Pier demolition, sheeting and elevation improvements, heavy lift area construction, pier-side mooring structure installation, etc.), February 2021 to August 2022.
- Install King Pile bulkhead (and complete associated demolition work) at south end of Admiral Shear State Pier and CVRR Pier, February 2021 through September 2021.
- Dredging of NE bulkhead berth and jack-up pocket and transport of dredged material for onsite re-use/offsite disposal (as needed), October 2021 to December 2021.
- Dredging of Turning Basin and transport of dredged material for onsite re-use/offsite disposal (as needed), December 2021 to January 2022.
- Dredging of jack-up pocket at East Berth and transport of dredged material for onsite re-use/offsite disposal (as needed), January 2022.
- Filling of newly created Central Wharf area between the existing Admiral Shear State Pier and the CVRR Pier. Work includes placement of suitable onsite dredged materials, materials from the onsite uplands and additional offsite fill, compaction, stone column installation, aggregate surface installation, September 2021 to November 2022.
- Install temporary offices, September 2021 to May 2022.
- Utilities demolition, June 2021 to July 2021 and installation, July 2022 to October 2022.

The entire project is expected to be completed over a 2-year period with construction finished in 2022.

[2] CPA understands that select, confined in-water Project activities may progress behind sheeting and/or turbidity curtains once established, if within this period.

Table 1 – Project Dredge and Fill: Areas and Volumes

Location / Activity	Navigational Dredging[+]	Seabed Preparation Areas: Vessel Berth Dredging and Stone Pad Installation[+**]	Wharf Creation: Fill Placement[***]
Turning Basin[*a]	241,000 SF 55,000 CY	N/A	N/A
Northeast (Delivery Vessel) Berth[b]	70,000 SF 98,000 CY	170,000 SF 124,000 CY[++]	N/A
East Face (Installation Vessel) Berth[c] and Heavy Lift Area[****]	N/A	210,000 SF 122,000 CY[++]	33,600 SF 15,000 CY[***]
Central Wharf Area (Between Existing Piers)	N/A	N/A	322,000 SF 308,600 CY[***]
Activity Total	**311,000 SF** **153,000 CY**	**380,000 SF** **246,000 CY[++]**	**355,600 SF** **323,600 CY[***]**

[+] Approximate areas and volumes presented for dredging and stone pad placement have been updated to include sideslope construction and deeper berth pocket design depths.

[++] Dredge material volume presented in table above; backfill volumes are slightly less. Up to 107,000 CY of crushed stone would be installed at the East Berth and 107,000 CY of crushed stone at the Northeast Berth for seabed preparation / jack-up pad creation work. It is anticipated that the East Berth seabed preparation work would be completed first and the Northeast Bulkhead seabed preparation work would be constructed at a later stage.

[*] Dredging will include removal of material above -39.8' NAVD88 (-36' MLLW plus a two-foot overdredge) to address navigational concerns. Approximately three-quarters of this dredge material would be generated in the northern third of the turning basin. The proposed Turning Basin has a larger overall total footprint (~460,000 SF) than the dredging work area identified above (i.e. many existing areas of the Turning Basin are already below the design depth).

[**] Crushed stone will be placed to protect seafloor from vessel spud cans and to create a stable lifting platform. NE Berth rock pad to be installed at later stage.

[***] Approximate fill volumes represent material placed below MHHW line (Elevation +1.21' NAVD88). Total Fill at Central Wharf to +9' NAVD88 ~400,000 CY. Fill relative to CT DEEP Coastal Jurisdiction Line (CJL: +2.1' NAVD88 in New London) is 315,900 CY at the Central Wharf Area and 15,600 CY at the East Face Heavy Lift Area (See note below).

[****] Engineering design is progressing. The East Berth Heavy Lift Area may be constructible using a toe wall and associated pile supports, thus eliminating a need for structural solid-fill placement atop the existing embankment. Conservatively, and for permitting purposes, placement of this fill has been assumed.

[a] Dredging to -38' MLLW (-36' plus 2' overdredge)/-39.8' NAVD88.

[b] Dredging to -40' MLLW (-38' plus 2' overdredge)/-41.8' NAVD88 in "dredging only" berthing areas. Tiered Jack-Up Pad area dredging to -52 MLLW (-50' plus 2' overdredge)/-53.8' NAVD88 in shallower section; and to -65 MLLW (-63' plus 2' overdredge)/-66.8' NAVD88 in deeper, eastern section. Feature also referred to as the "Northeast Bulkhead Berth".

[c] Tiered Jack-Up Pad area dredging to -52 MLLW (-50' plus 2' overdredge)/-53.8' NAVD88 in shallower section; to -65 MLLW (-63' plus 2' overdredge)/-66.8' NAVD88 in deeper, eastern section. Feature also referred to as the "East Berth".