

Guilford Town Marina & Navigation Channels
Maintenance Dredging

Guilford Town Marina
529 Whitfield Street
Guilford, CT 06437



Prepared For:



Town of Guilford
31 Park Street
Guilford, CT 06437

Prepared By:



611 Access Road
Stratford, CT 06615

September 2022

RACE Project No. 2022094

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BID FORM



BID INFORMATION:

Bid #5-2223

Project: Guilford Town Marina & Navigation Channels – Maintenance Dredging
Bid Opening: Wednesday, October 26, 2022 at 2:00pm
Owner: Town of Guilford – 31 Park Street, Guilford, CT 06437
Location: Guilford Town Marina - 529 Whitfield Street, Guilford, CT 06437

To the Board of Selectmen:

We submit for your consideration our bid for the above referenced bid. We have read the bidding documents including the Town of Guilford’s General Conditions and Instructions to Bidders and the bid specifications and are submitting our bid in full compliance with all terms and conditions. We have enclosed our original bid bond or cashier’s check in the amount of 10% of our total base bid.

We acknowledge receipt of all addendums to the bid documents and assume full responsibility to access those addendums from the Town website and/or DAS website, as applicable.

Addenda number and dated as follows:

Addendum No.: _____ Dated: `_____

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

We will provide the following within five (5) business days after receipt of a notice of award from the Purchasing Department:

- (i) The requested Certificate of Insurance from the following company: _____, and
- (ii) Payment and Performance Bonds from the following company: _____.

On site construction, installation, delivery and storage shall be coordinated with the following Town Department Head: Dockmaster Rod McLennan at info@guilfordtownmarina.com



The undersigned authorized representative hereby submits the above bid to the Town of Guilford.

Name of Contractor Entity: _____

City: _____

State: _____ Zip Code: _____

By _____

Print Name and Title: _____

Duly authorized



1. BASE BID

The Base Bid shall include the cost of materials, labor and equipment, including overhead and profit, and performing any associated quality control, environmental protection, safety requirements, and tests and reports, necessary to complete the work to the Owner’s satisfaction, in accordance with the Bid Documents. This includes, but is not limited to, temporary work, submittals, subcontractors, and other efforts required to affect the work. It also includes all materials, labor, and equipment for incidental work associated with the installation of the item, such as hardware, welding, curing and protection, and any other item implicit to the proper installation of the item subject to the acceptance by the Owner. The Bidder proposes to perform the Work for the following costs as listed in the Bid Form, which includes unit prices for possible changes to quantities of certain work items.

BASE BID:				
<u>Contract Item No.</u>	<u>Bid Quantity</u>	<u>Description of Work</u>	<u>Unit Cost</u>	<u>Total Cost</u>
1	1	Mobilization & Demobilization	N/A	\$ _____ (Lump Sum)
2	1	Marina Disassembly & Re-installation	N/A	\$ _____ (Lump Sum)
3	6,000	<u>Maintenance Dredging – Guilford Town Marina:</u> Dredging, transportation, and final relocation of unclassified sediments from the Guilford Town Marina to the Central Long Island Sound Disposal Site (CLDS) .	\$ _____ (CY)	\$ _____ (Extended)
4	13,370	<u>Maintenance Dredging – 6-FT Primary Access Channel:</u> Dredging, transportation, and final relocation of unclassified sediments from the 6-FT Primary Access Channel to the Central Long Island Sound Disposal Site (CLDS) .	\$ _____ (CY)	\$ _____ (Extended)
5	3,000	<u>Maintenance Dredging – 6-FT Sluice Creek Channel:</u> Dredging, transportation, and final relocation of unclassified sediments from the 6-FT Sluice Creek Channel to the Central Long Island Sound Disposal Site (CLDS) .	\$ _____ (CY)	\$ _____ (Extended)
<p>TOTAL BASE BID: Contract Items 1 to 5</p> <p>I will furnish all labor, material, equipment, and services necessary to perform the work required for the Base Bid package in accordance with the bid documents, inclusive of the cost of Performance and payment Bonds, and will take full payment the lump sum price of:</p> <p style="text-align: right;">_____ Dollars (\$ _____)</p> <p>(BIDDER: Fill in the amount in words and numbers. In cases of conflicts between words and numbers, words shall control.)</p>				

NOTE: The Bid Quantity are based on the volume to Base Dredge elevation plus a 1’ Overdepth Allowance. Final payable amount will be based on survey measurement of the material removed within the payable dredge limits per the Contract Documents.



DIVISION 01
GENERAL REQUIREMENTS



SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SCOPE OF WORK

The Scope of Work is generally for the maintenance dredging, transportation, and disposal of dredged sediments from the **Guilford Town Marina**, located at Lower, Whitfield Street, in Guilford, CT, as well as portions of the **6-FT Federal Navigation Channel in Guilford Harbor**, to the **Central Long Island Sound Disposal Site**. The work is needed to address shoaling that has occurred in these areas since the last dredging activities which were conducted in 2014-2015. A general location map of the marina and channels of interest, as represented in the most recent National Oceanic and Atmospheric Administration (NOAA) Nautical Chart 12373, is provided in the figure below:

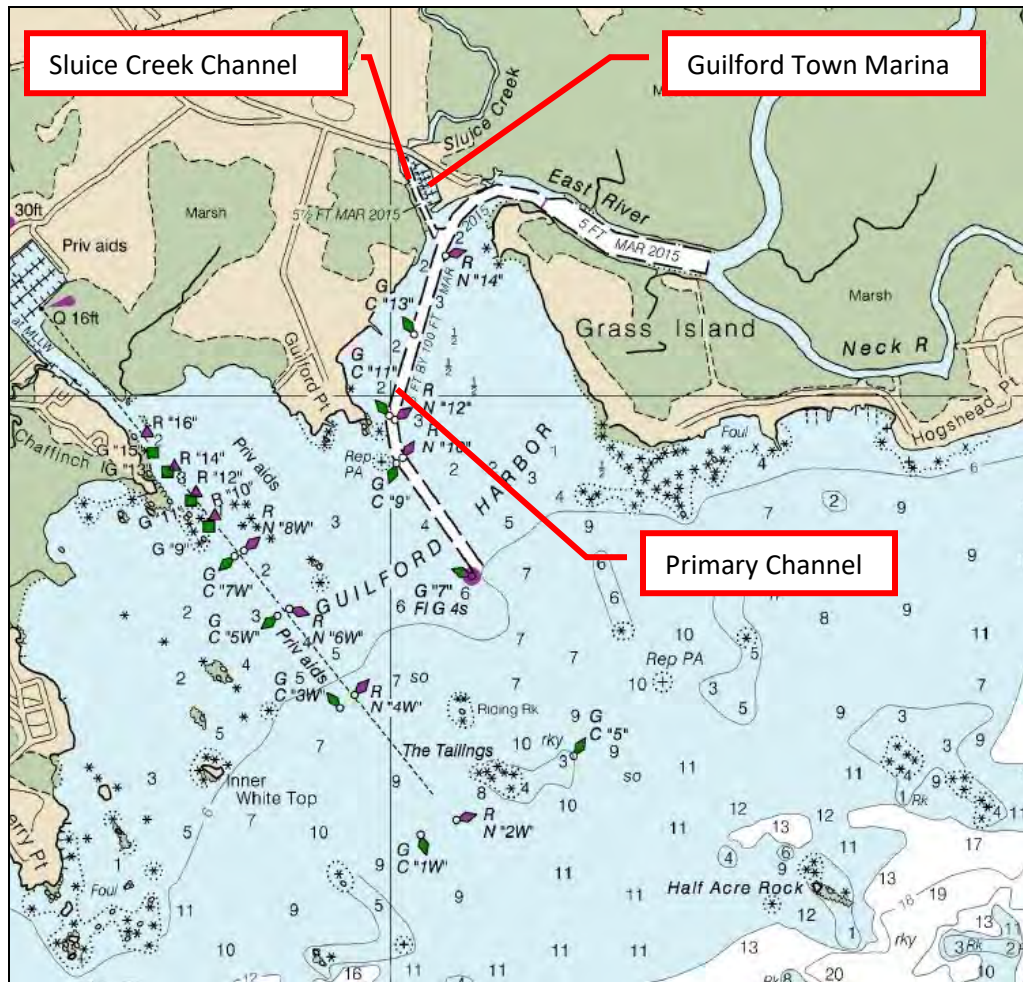


Figure 1 – NOAA Chart 12373

More specifically, the work consists of furnishing all plant, labor, material, and equipment, and performing all construction and rehabilitation as specified herein or indicated in the specifications, including but not limited to:

- 1. Maintenance dredging of approximately 22,370 CY of unclassified sediments, by mechanical dredging means, from the Guilford Town Marina and portions of the adjacent Federal Navigation Channels to Base Dredge El. - 6.0' as referenced to local Mean Lower Low Water Datum (MLLW), (a 1' dredge overdepth allowance to El. -7.0' MLLW is an acceptable construction tolerance for the work);**
- 2. Transportation and relocation of the dredged material by scow to the Central Long Island Sound Disposal Site (CLDS);**
- 3. Temporary disassembly, storage, and re-installation of the existing marina floating dock system, including piles and gangways, marina utilities, as required to facilitate the dredging work (the work shall further include the furnishing and installing of 2 new conical shaped float anchor pile caps); and**
- 4. Installation and maintenance of environmental protection equipment and other items as may be required under the terms and conditions of the specifications and the regulatory permits issued by the Federal, State, and Local authorities with jurisdiction over such work and approved by the OWNER for use as a part of this work.**

Due to environmental restrictions, dredging and disposal operations at the project site will only be permitted from October 1, 2022 through January 31, 2023, inclusive. Therefore, the "No Dredging Season" is defined as all dates prior to October 1, 2022 and after January 31, 2023. However, due to existing marina operations, dredging of the marina, and associated marina disassembly, will not be able to occur prior to November 7, 2022. Dredging within the adjacent Federal Navigation Channel, can occur as allowed by the regulatory windows, and as directed by the OWNER under a Notice to Proceed.

Following acceptance of dredging work by OWNER, marina re-assembly shall be completed by the CONTRACTOR no later than April 14, 2023.

The dredging locations are further described as follows:

1. Maintenance Dredging – Guilford Town Marina

The maintenance dredging work in the Guilford Town Marina consists of the removal of approximately 6,000 CY of material from an approximate 61,000 SF area. Existing depths within the marina vary from approximately El. -4.1' to -5.6' MLLW. The work includes dredging in both the primary 6 dock-tree marina, as well as at commercial wharf in the Northwest corner of the harbor. The general area of dredging within the marina is shown in the below figure:

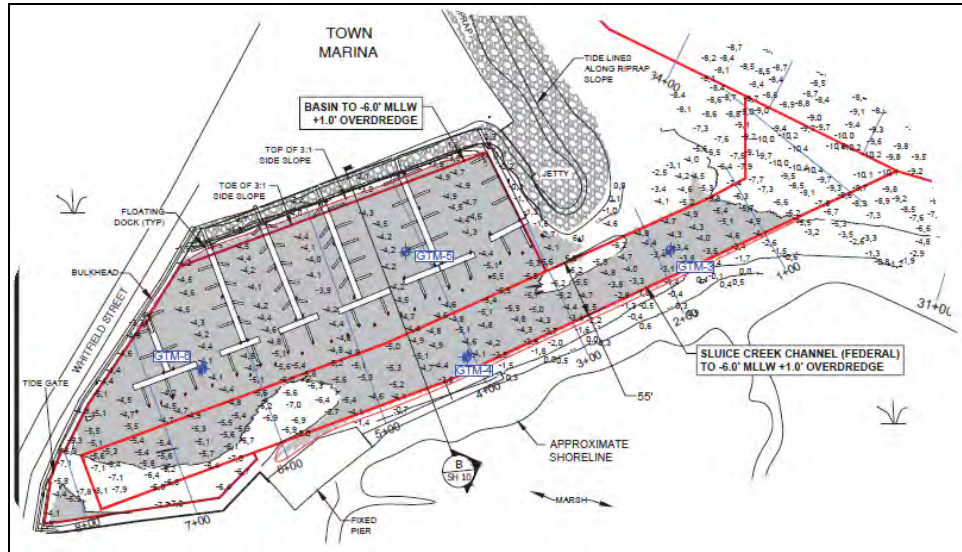


Figure 2 - Dredging area within Guilford Town Marina (Per DEEP Permit)

2. Maintenance Dredging – 6-FT Primary Access Channel

The maintenance dredging work in the 6-ft Primary Access Channel consists of the removal of approximately 13,370 CY of material from an approximate 163,712 SF area. Existing depths within the channel area of interest vary from approximately El. -3.9' to -6.0' MLLW. The channel is 100-FT wide. The location of dredging activities in the channel is focused in the areas between Stations 5+00 through 21+25, and 32+00 through 34+00, as indicated on the most recent hydrographic survey performed by the U.S. Army Corps of Engineers, and as shown in the figures below. Dredging in the Primary Access Channel, north of these areas, including in areas within the contiguous 6-Ft Federal Anchorage, is excluded from the work.

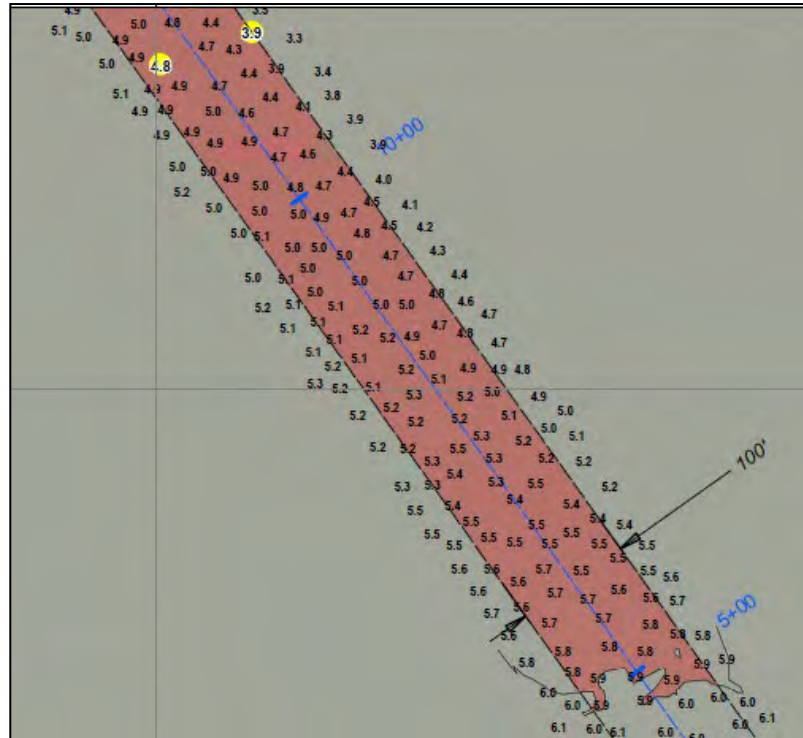


Figure 3 – Primary Access Channel requiring dredging (Sta. 5+00 to 12+50)

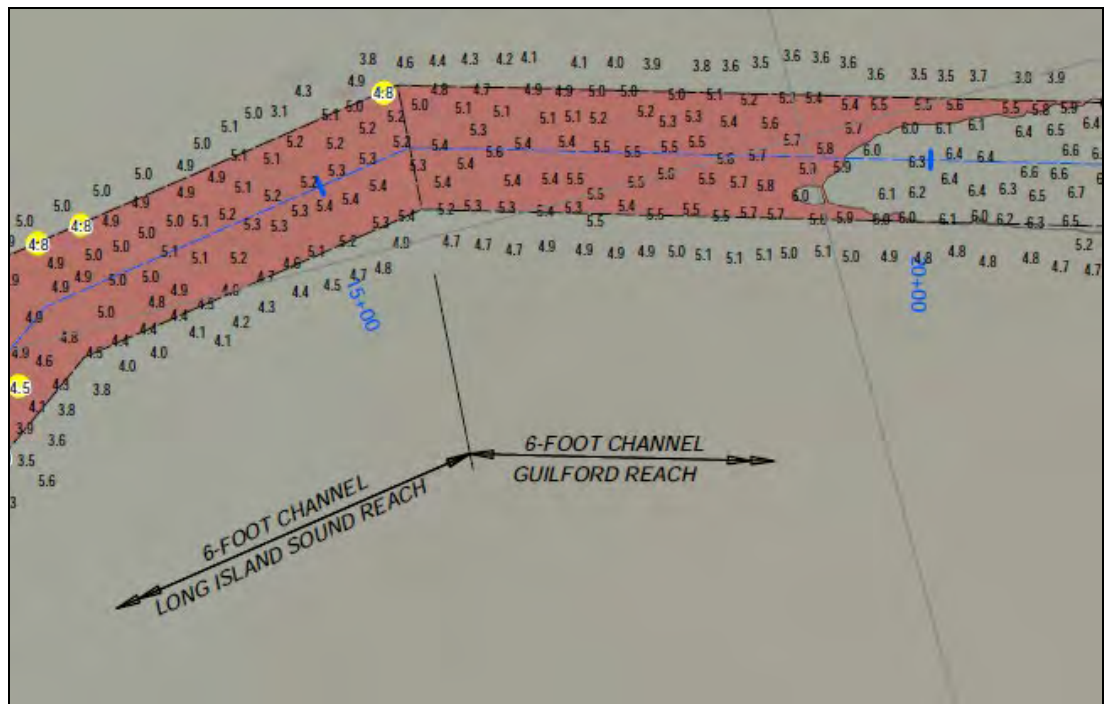


Figure 4 – Primary Access Channel requiring dredging (Sta. 12+50 to 21+25)

3. Maintenance Dredging – 6-ft Sluice Creek Channel

The maintenance dredging work in the 6-ft Sluice Creek Channel consists of the removal of approximately 3,000 CY of material from an approximate 47,300 SF area. The channel is 55-FT wide. Existing depths within the channel area of interest vary from approximately El. -1.3' to -6.0' MLLW. The location of dredging activities in the channel is focused in the areas between Stations 1+00 through 7+84, as indicated on the most recent hydrographic survey performed by the U.S. Army Corps of Engineers, and as shown below:

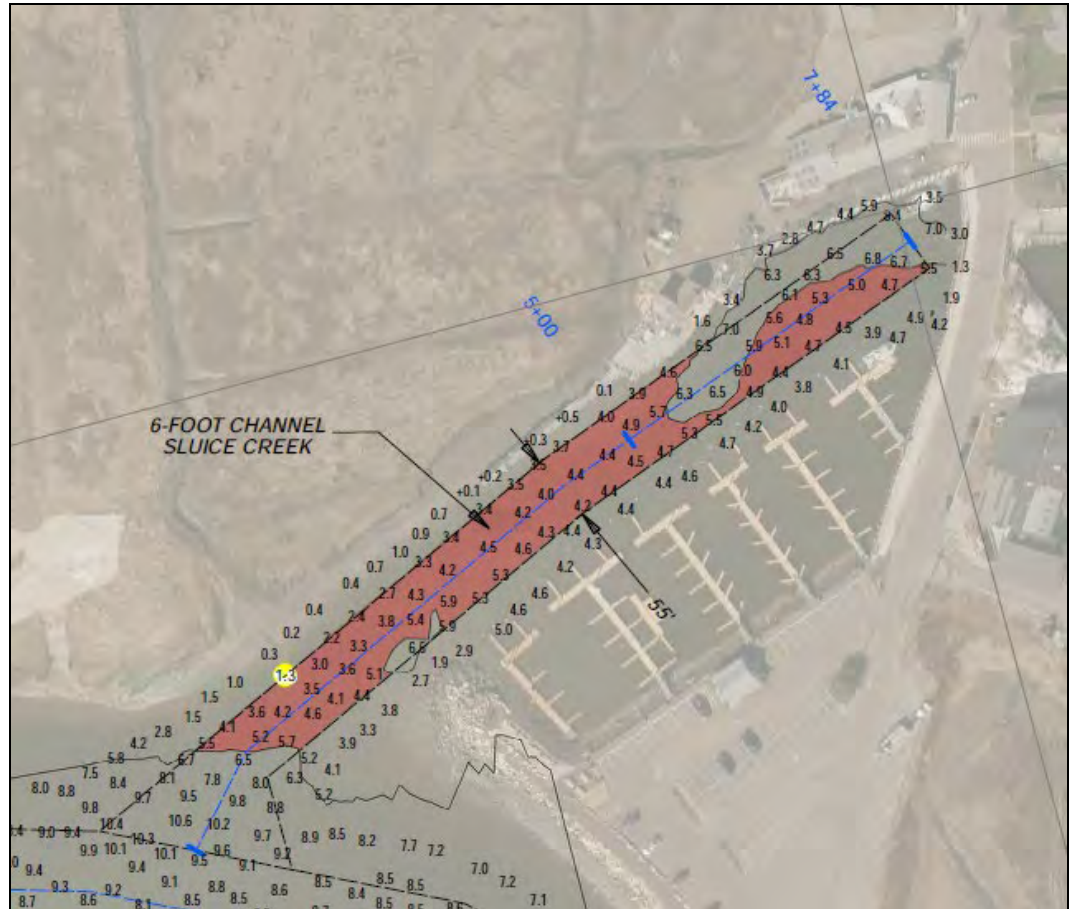


Figure 5 – Sluice Creek Channel requiring dredging

This scope of work includes all necessary measures for protection of the environment. Environmental protection requirements under this contract are as important to overall completion of the work as other technical aspects. Failure to meet the requirements of these specifications for Environmental Protection may result in work stoppages or termination for default.

The proper relocation of all dredged materials shall be the responsibility of the CONTRACTOR. No part of time lost due to any work stoppages resulting from failure to meet the requirements for environmental protection or proper relocation of dredged

materials shall be made the subject of claims for time extensions or for excess costs or damages by the CONTRACTOR.

If the CONTRACTOR fails or refuses to promptly repair any damage caused by violation of the provisions of these specifications, the OWNER may have the necessary work performed and charge the cost thereof to the CONTRACTOR.

1.2 ENGINEER

- a. The ENGINEER shall be appointed by the OWNER and the CONTRACTOR will be so notified of the identity of the ENGINEER including firm, individual name, telephone number, and mailing address. The ENGINEER for the Work is:

Steven Sternberg, P.E., Project Manager
RACE COASTAL ENGINEERING, LLC
611 Access Road
Stratford, CT 06615
(203) 377-0663
steve@racecoastal.com

- b. The performance of the work shall be under the administration of the ENGINEER and he shall review the work for compliance with the specifications.
- c. The provisions of this Contract regarding review or approval by the ENGINEER or any action taken pursuant thereto, are not intended to and shall not relieve the CONTRACTOR of responsibilities for the accomplishment of the work, either as regards sufficiency or the time for performance, except as may be otherwise expressed in writing. No oral statement or directive, by the ENGINEER, shall in any manner or degree modify or otherwise affect the terms of this Contract.

1.3 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following documents shall be submitted by the CONTRACTOR:

Pre-construction Submittals:

a. Initial Project Schedule

In accordance with the contract clauses, the CONTRACTOR shall, within 5 days after receipt of Notice to Proceed (NTP) or as otherwise determined by the OWNER, submit for approval a practicable project schedule. When changes are authorized that result in contract time extensions, the CONTRACTOR shall submit a revised project schedule for approval by the OWNER.

b. Notice to Mariners

Submit a copy of Notice to Mariners to the OWNER.

c. Safe Harbor Plan; O

The CONTRACTOR shall submit a Safe Harbor Plan to the OWNER for approval prior to the start of on-site work. The Safe Harbor Plan shall include a written description of the CONTRACTOR's plan to provide for the safety and security of floating plant, equipment, and personnel in the event of a storm or other site emergency. The location for the docking of floating plant and the off-loading of equipment and crews shall be clearly indicated.

d. Marina Dock and Pile Removal Plan

During-construction Submittals:

a. Periodic Schedule Updates

1.4 LIQUIDATED DAMAGES

CONTRACTOR and OWNER recognize that time is of the essence as stated in 1.1 above and that OWNER will suffer financial loss if the work is not completed before the "No Dredging Season". The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the OWNER if the work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as penalty), CONTRACTOR shall pay OWNER as follows:

- a. Dredging and relocation of dredged material to CLDS shall not be performed after **January 31, 2023** in accordance with the regulatory permits or as may be extended by the Federal, State, and Local regulating agencies for that particular dredging season. Liquidated damages for non-completion of the work by this date shall be a **\$25,000 Lump Sum** payment to the OWNER.
- b. Marina floating dock system, including piles, gangways, and utilities, shall be reinstalled, and in good working order, prior to **April 14, 2023**. Liquidated damages for non-completion of marina reassembly by this date shall be **\$500/day**.

1.5 PHYSICAL DATA

Data and information furnished or referred to below is for the CONTRACTOR's information. The OWNER shall not be responsible for any interpretation of or conclusion drawn from the data or information by the CONTRACTOR.

a. Site Conditions:

The indications of physical conditions in the specifications are the result of site investigations and past surveys. The conditions represented prevailed at the time the investigations and surveys were made. A pre-dredge survey will be performed by the OWNER prior to the start of CONTRACTOR dredging operations at the site. Before commencing work at the site, the CONTRACTOR shall verify the existing conditions indicated on the drawings and in the specifications.

b. Weather Conditions:

The Site is subject to tropical storms and hurricanes from June through November, and to windy and/or rainy weather during any time of the year. It shall be the CONTRACTOR's responsibility to obtain information concerning rain, wind, wave, and water surface fluctuations that could influence the construction activities. The OWNER reserves the right to direct the CONTRACTOR through the ENGINEER to shift within the Site or to demobilize floating equipment from the Site if weather conditions warrant in the opinion of the OWNER. The CONTRACTOR shall comply with such requests to be given in writing by the ENGINEER no later than 12 hours prior to any required actions. Weather conditions for the site may be obtained by the CONTRACTOR from the National Oceanic and Atmospheric Administration's National Weather Service; www.NOAA.gov.

c. Transportation facilities:

The CONTRACTOR shall make its own investigations on the use of municipal, State and Federal highways, roads, streets, and bridges.

d. Conditions of FNP:

The Site is accessed by way of the Guilford Harbor Federal Navigation Project (FNP), and the work includes dredging of areas within the channel which have shoaled. The conditions of the FNP can be found in the appendices of these specifications and at US Army Corps of Engineers, New England District website: www.nae.usace.army.mil/Missions/Navigation.aspx

e. Vessel Traffic:

Vessel traffic in and around the Site is dominated primarily by recreational craft. Commercial shell fishing vessels additionally use the harbor.

f. Tidal Conditions:

The Site is subject to semi-diurnal tidal fluctuations. The average tide range at the project site is **5.4** feet (MHW to MLLW). CONTRACTOR's dredging equipment and activities shall compensate for all water surface variations at the Site.

g. Marina:

The marina dock system is of timber-framed construction with composite decking. Flotation consists of polyethylene encased polystyrene tubs. Main dock, and T-head sections are nominally 6-ft wide and 20-ft long. Finger piers are 2-ft wide, and vary between 13-ft and 17-ft long. Docks are connected by hinge pin connection. The marina is secured in-place by approximately 62 timber float anchor piles. Access to docks is made by way of shore-mounted aluminum gangways.

The CONTRACTOR shall make its own investigations as to the marina system, and disassembly/re-installation requirements, including utilities. A marina layout, as presented as part of the 2014 bid solicitation by USACE for similar, dredging and marina disassembly work, is presented in the appendices for reference only.

1.6 SUPERINTENDENCE BY THE CONTRACTOR

- a. At all times during the performance of the contract and until the work is completed and accepted, the CONTRACTOR shall directly superintend the work or assign and have on the worksite a competent project superintendent who is satisfactory to the OWNER and has the authority to act for the CONTRACTOR.
- b. The project superintendent shall maintain a physical presence at the site at all times and be responsible for all construction and related activities at the site, except as otherwise acceptable to the OWNER.
- c. Failure to comply with these requirements shall be deemed as cause for a non-compensatory stoppage and suspension of work until the deficiency is remedied.

1.7 SEQUENCING AND SCHEDULING

1.7.1 Hours of Operations

The CONTRACTOR will be allowed to perform all work 24 hours per day, seven days per week, including legal holidays, for the entire performance period. Refer to Subpart 1.1 WORK COVERED BY CONTRACT DOCUMENTS of this section for environmental requirements and restrictions to dredging and disposal activities.

The work hours stated above and work on Saturday, Sunday and legal holidays has been considered in computing the performance time of this contract. The following legal holidays are observed:

January 1st
Third Monday in January
Third Monday in February
Last Monday of May

July 4th
1st Monday of September
2nd Monday of October
11th of November
Fourth Thursday of November
25th of December

1.7.2 Work Sequence

1.7.2.1 General

There are certain essential criteria relative to the preparation of a work sequence and time schedule which the CONTRACTOR will be required to implement and follow during the prosecution of the work. Minor variations in the sequence of the items of work as approved may be made by the CONTRACTOR, provided such variations do not conflict with critical elements of the schedule. Proposed minor variations shall be noted on the progress charts submitted by the CONTRACTOR. See Section 35 20 23 DREDGING, Subpart "Order of Work" for additional requirements.

1.7.2.2 Initial Project Schedule

The initial project schedule shall be in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed and indicating calendar days to completion. The CONTRACTOR shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. This schedule will be the medium through which the timeliness of the CONTRACTOR's construction effort is appraised. Anticipated adverse weather delay days shall be included in the schedule.

1.7.2.3 Periodic Schedule Updates

An updated schedule showing actual progress shall be submitted at least monthly. Changes to the base-line schedule shall be outlined in a narrative describing the reason for the change.

1.7.3 Organization at the Site

1.7.3.1 General

The CONTRACTOR shall employ ample personnel and sufficient equipment to accomplish the work of this contract in the least amount of time, within the **2022-2023** dredging window.

1.7.3.2 Rate of Progress

Should the CONTRACTOR fail to maintain a satisfactory rate of progress, the OWNER may require that additional personnel and equipment be placed on the work and weekend and overtime work be performed, in order that the work be brought up to schedule and maintained.

1.8 CONTRACTOR'S USE OF UPLAND FACILITIES AND HAULING ROUTES

- a. Unless obtained by the OWNER or specified otherwise in the contract documents, the CONTRACTOR shall be responsible for the following:
 1. Locating, coordinating, and obtaining permission to use any land-based water access (docks, piers, ramps, etc.) that the CONTRACTOR deems necessary to complete the work. **The existing marina docks and adjacent boat launch ramp are available for use by the CONTRACTOR.**
 2. Determining, if necessary, the trucking and hauling routes and associated restrictions to and from the work, to include the coordination for the use of such routes with local, State, and Federal authorities.
 3. Complying with all local, State, and Federal regulations and restrictions when using any upland facilities or hauling routes.
- b. The OWNER and its representatives will be allowed the use of the same land-based water access obtained by the CONTRACTOR.

1.9 CONTRACTOR USE OF PREMISES

1.9.1 Access to the Site and Storage/Staging Areas

- a. The CONTRACTOR is responsible for maintaining access necessary for its equipment, material, and plant to and from the work area.

1.9.2 Site Utilities

a. Water:

The responsibility shall be upon the CONTRACTOR to provide and maintain at his own expense, an adequate supply of water for his use for construction, and to install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be necessary for the

completion of the work and only with the written approval of the OWNER. All necessary permit and fees associated with the provision of such approved water supply shall be the responsibility of the CONTRACTOR.

b. Electricity:

The responsibility shall be upon the CONTRACTOR to provide and maintain at his own expense, any and all electric power service for his use for construction, and to install and maintain necessary connections and distribution equipment for same, but only at such locations and in such manner as may be necessary for completion of the work and only with the written approval of the OWNER. All permits and fees required for the electric power supply shall be the responsibility of the CONTRACTOR.

1.9.3 Temporary Facilities and Storage Areas

The CONTRACTOR shall coordinate the need for temporary facilities and storage areas with the OWNER. Confine all operations (including storage of materials) to areas authorized or approved by the OWNER. The CONTRACTOR shall hold and save the OWNER, its representatives, free and harmless from liability of any nature occasioned by the CONTRACTOR's performance. Approval for such use can be revoked by the OWNER at any time if conditions warrant.

1.9.4 Work Limits

The limits of work consist of the shoaled areas with the marina and navigation channels, and the side slope areas which must be dredged to obtain the required depth. **Dredging offsets to adjacent stone rip rap, and bulkhead structures will be established following completion of the Pre-Dredge Survey to be performed by the OWNER.**

1.9.5 Protection and Security

Protection to CONTRACTOR personnel or their equipment cannot be provided at the worksite by the OWNER. The CONTRACTOR shall protect all its personnel, OWNER personnel, and the general public from injury. The CONTRACTOR shall conduct all its work so as to prevent injury or unsafe conditions during construction.

1.9.6 Work By Other Contractors

During the performance period of this contract, no other work is anticipated to occur by other CONTRACTORS.

1.9.7 Emergency Contacts

The CONTRACTOR shall provide a list of emergency contacts in the event of an emergency. The list shall include the contact names, addresses, and telephone numbers. As changes occur and additional information becomes available, correct, and change the information contained in previous lists.

1.9.8 Damaged Property

Work shall proceed in a manner which will minimize disturbance or risk of damage to boats, structures, and surrounding lands. The CONTRACTOR shall repair such items damaged in the course of carrying out the work at no additional cost to the OWNER. All repairs shall match similar existing items in all aspects. All replacements shall be in kind.

1.9.9 Contractor's Receipt of Supplies

The CONTRACTOR shall be responsible for all arrangements for the receipt of materials and supplies at the job site. OWNER's personnel are not permitted to receive or sign for items delivered to the site.

1.9.10 Daily Clean Up

The CONTRACTOR shall at all times keep rubbish from entering surrounding lands and water. Rubbish accumulated at the temporary facilities shall be removed from the premises daily.

1.10 QUALITY ASSURANCE

- a. All items of work not addressed in the contract documents shall be completed in strict accordance with the manufacturers' specifications.
- b. The ENGINEER is not obligated to inspect the CONTRACTOR's work, or to protect the CONTRACTOR from the consequences of its work. ENGINEER inspections are a general examination of the CONTRACTOR's conduct and workmanship and are solely for the purpose of the OWNER.
- c. ENGINEER representatives are not authorized to change the contract without the written approval of the OWNER; this lack of authority extends to all situations in which the action of these representatives, could be construed as constituting change.
- d. The CONTRACTOR shall submit all request for changes in writing to the ENGINEER. Do not proceed with changes without possession of written authorization of the OWNER.

1.11 Marina Floating Dock System

The existing marina floating dock system, including gangways and float anchor piles, shall be temporarily dismantled, and stored, as required to facilitate CONTRACTOR's dredging operations. The system shall be removed, re-handled, stored, and re-installed with due consideration to the condition of system elements. Upon acceptance of the dredging work by the OWNER, the marina shall be re-installed in same location by the CONTRACTOR. The docks and piles which are required to be dismantled, need only be those deemed necessary by the CONTRACTOR, in order to achieve a complete dredging project. Prior to dock removal, the CONTRACTOR shall submit a plan to the OWNER identifying the docks and piles which will require removal.

The CONTRACTOR may utilize the adjacent boat launch ramp for marina hauling, and the existing marina parking lot for floating dock and pile storage. Storage activities shall be coordinated with the OWNER.

a. Marina Utilities

The existing marina is fitted with utilities including electrical and water, which will require disconnection prior to dock removal. The CONTRACTOR shall utilize a licensed tradesperson to conduct utility connections and disconnections. Prior to disconnection, coordinate activities with the OWNER to ensure proper Lockout/Tagout of power sources and then disconnect electrical feeds for each dock at the electrical distribution box. Utility work shall be conducted in accordance with the 2018 CT State Building Code, which includes the National Fire Protection Association (NFPA), National Electrical Code, NFPA 70, as well as NFPA 303, Fire Protection Standard for Marinas and Boatyards.

b. Marina Piles

Piles shall be re-installed to same top of pile elevations but need not be installed higher than **El. +14.0' MLLW**. CONTRACTOR shall notify ENGINEER should piles not be able to achieve a minimum embedment of **14-FT below dredge overdepth El. -7.0' MLLW**.

Pile caps shall be collected prior to disassembly, and re-installed following. The CONTRACTOR shall further furnish and install 2 additional conical shaped pile caps, to be installed at pile locations to be coordinated with the OWNER.

1.12 COORDINATION

1.12.1 Notice to Mariners

Before beginning dredging operations and also prior to starting work, the CONTRACTOR shall coordinate with the U.S. Coast Guard (USCG) to issue a

"Notice to Mariners" regarding the work to be performed and the CONTRACTOR's proposed operations.

The U.S. Army Corps of Engineers and the USCG have agreed to phraseology when issuing navigational bulletins and notices. The information furnished shall be consistent with USCG Broadcast Notice to Mariners and Local Notice to Mariners. When requesting local USCG offices to issue navigational information for Corps of Engineers work involving marine construction, the following terminology shall be used, as applicable:

For cautionary areas: "Mariners are urged to use extreme caution in the area."

For dredging and work operations: "Mariners are urged to transit at their slowest safe speed to minimize wake and proceed with caution after passing arrangements have been made."

1.12.2 Aids to Navigation

a) Federal Aids to Navigation

Aids to navigation (beacons, buoys, markers, etc.) have been placed by the USCG in the vicinity of the project area. The CONTRACTOR shall not interfere with these aids to navigation. If the work of this project requires the temporary movement or relocation of any aid to navigation, the CONTRACTOR shall notify the USCG and the ENGINEER of the requirement 30 days in advance. Under no circumstances shall the CONTRACTOR move or relocate an aid to navigation under his own authority with his own personnel. The Contractor shall also contact the USCG at the completion of all work and the removal of all marine plant.

b) Private Aids to Navigation (PATON)

There are no Private Aids to Navigation (PATONs) in the work area.

1.12.3 Harbormaster

Before beginning dredging operations and scow transport of dredged materials, the CONTRACTOR shall coordinate his work operations with the local Harbormaster, as required by local marine law.

1.12.4 Points of Contact

a. Coast Guard:

Mr. Matthew Stuck; 617-223-8365; matthew.b.stuck@uscg.mil.

Mr. John Mauro; 617-223-8355; john.j.mauro@uscg.mil.

For Notice to Mariners:

Ms. Mary Swanson, 617-223-8356, mary.f.swanson@USCG.mil

b. Harbormaster, Town of Guilford, CT:

Mr. Fred Brisbois; P: 203-605-7747

c. Dockmaster, Guilford Town Marina:

Mr. Rod McLennan; P: 203-453-8092

1.13 GENERAL SAFETY REQUIREMENTS

1.13.1 General

The CONTRACTOR shall implement and maintain a safety program conforming to the latest requirements of the applicable Federal, State, and Local laws, rules, and regulations. The CONTRACTOR shall take all necessary precautions in observing safety regulations, and shall assume the responsibility to guard against causing of fires and/or explosions and to protect OWNER property. The CONTRACTOR shall perform the work in a manner consistent with security and with fire safety regulations especially with regards to ingress and egress. Temporary closures shall not compromise life safety, security or fire safety.

1.13.2 CONTRACTOR's Project Superintendent

The CONTRACTOR's project superintendent shall take an active role in enforcing the safety requirements by participation in safety conferences, hazard analysis, tool box meetings, walk-through inspections, correction of violations, etc., and including that of any subcontractor's work.

1.14 ENVIRONMENTAL PROTECTION

To provide for control of all environmental pollution arising from construction activities, the CONTRACTOR and its subcontractors, in the performance of this contract, shall comply with Section 01 57 20 ENVIRONMENTAL PROTECTION, and all applicable federal, state, and local laws and regulations concerning environmental protection pollution control and abatement.

1.15 PRECONSTRUCTION CONFERENCE

Prior to the start of any site activities including mobilization of equipment and following issuance of a Notice to Proceed by the OWNER, a preconstruction conference with key CONTRACTOR personnel, shall be held at a time and place to be determined by the OWNER. The purpose of the conference is to review contract requirements and to establish a working relationship between the CONTRACTOR's Staff and the ENGINEER. The CONTRACTOR's Superintendent and Quality Control Representative shall attend this conference.

The CONTRACTOR shall provide to the OWNER, at the time of the Preconstruction Conference, the applicable of the following items:

- a. List of Proposed Subcontractors; including Tax ID No.'s, value of subcontract, as applicable
- b. CONTRACTOR's Proposed Dredging Procedures and Methods
- c. List of specific Dredge Plant equipment to be mobilized to the Site
- d. Proof of Insurance Coverage
- e. Other items as may be specified elsewhere in the Contract Documents

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

--END OF SECTION--

SECTION 01 22 00

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following shall be submitted in accordance with this Section:

Design Data:

a. Quantity Surveys

Submit originals of all field notes and all other records relating to quantity surveys.

1.2 JOB PAYMENT ITEMS

Payment items for the work of this contract for which contract job payments will be made are listed in the Bid Form and described below. The job price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated CONTRACTOR quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.3 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the Bid Form and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated CONTRACTOR quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items. Submit originals of all field notes and all other records relating to Quantity Surveys.

1.4 BIDDING SCHEDULE - PAYMENT ITEMS

Payment items for the work of this contract on which the contract progress payments will be based are listed in the Bid Form and are described below. All costs for items of work, which are not specifically mentioned to be included in a particular Bidding Schedule job or unit price payment item, shall be included in the listed job item most closely associated with the work involved.

BASE BID ITEMS

a. Contract Item Number 01, "Mobilization and Demobilization".

Payment will be made for costs associated with mobilization and demobilization of CONTRACTOR equipment, including both dredging plant, and marina disassembly equipment. The OWNER shall pay **60%** of the accepted value for this Bid Item, following completion of all mobilization activities as determined by the ENGINEER. The balance of the Bid Item, less any retainage, shall be paid following acceptance of the complete and final work, and removal of all CONTRACTOR equipment from the site and repair of any and all damages to the property or adjacent properties which resulted from CONTRACTOR Activities.

Unit of Measure: Job.

b. Contract Item Number 02, "Marina Disassembly & Re-installation".

Payment will be made for costs associated with the temporary disassembly, re-handling, storage, and re-installation of the marina floating dock system including gangways and float anchors piles, and utility connections and disconnections, as required to facilitate the dredging work. The work shall include furnishing and installing 2 conical shaped pile caps atop existing float anchor pile tops. The OWNER shall pay **50%** of the accepted value for this Bid Item, following initial disassembly as determined by the ENGINEER. The balance of the Bid Item, less any retainage, shall be paid following acceptance of the complete and final work, and removal of all CONTRACTOR equipment from the site and repair of any and all damages to the property or adjacent properties which resulted from CONTRACTOR Activities.

Unit of Measure: Job.

c. Contract Item Number 03, "Maintenance Dredging – Guilford Town Marina".

The contract price per cubic yard for Contract Item Number 02 shall include all cost to remove all materials encountered from the **Guilford Town Marina** to the specified depths, and disposal of the material to the specified open-water site.

Unit of Measure: Cubic Yard (CY).

d. Contract Item Number 04, "Maintenance Dredging – 6-FT Primary Access Channel".

The contract price per cubic yard for Contract Item Number 02 shall include all cost to remove all materials encountered from the **6-FT Primary Access Channel** to the specified depths, and disposal of the material to the specified open-water site.

Unit of Measure: Cubic Yard (CY).

e. **Contract Item Number 05, "Maintenance Dredging – 6-FT Sluice Creek Channel"**.

The contract price per cubic yard for Contract Item Number 02 shall include all cost to remove all materials encountered from the **6-FT Sluice Creek Channel** to the specified depths, and disposal of the material to the specified open-water site.

Unit of Measure: Cubic Yard (CY).

The total amount of material removed and paid for under the contract for Contract Items 3, 4 and 5, will be measured by the cubic yard in place by computing the volume between the bottom surface shown by soundings of the Pre-Dredge Survey made before dredging begins and the bottom surface shown by the soundings of a Post-Dredge Survey made as soon as practicable after the removal of the material, and as further described in paragraph 1.5 MEASUREMENT below. Dredged material will be included that is within the limits of the side slopes and specified overdepth as described in Section 35 20 23 DREDGING, paragraph OVERDEPTH AND SIDE SLOPES, less any deductions that may be required for misplaced material described in paragraph DISPOSAL OF EXCAVATED MATERIAL.

The depths noted, and reference documents provided, are believed to accurately represent existing conditions, but the depths and the specific areas to be dredged may be verified and corrected by soundings taken by the ENGINEER before dredging begins. Determination of quantities removed, and the deductions made to determine quantities after having once been made by the ENGINEER, will not be reopened, except on evidence of collusion, fraud, or obvious error. The Pre-Dredge Survey made immediately before dredging, and the Post-Dredge Survey made as soon as practicable after the removal of the material, will be performed by the ENGINEER at no cost to the CONTRACTOR.

Also refer to Section 35 20 23 DREDGING, Subpart "Overdepth and Side Slopes".

1.5 MEASUREMENT

The total amount of dredged material removed, and to be paid for under the contract, will be measured by the cubic yard in place as determined by volumetric comparison of Pre-Dredge and Post-Dredge survey data approved by the ENGINEER. The quantity calculated for payment shall include the volume within the limits of the required depth and side slopes plus any allowable over-dredging, less any deductions that may be applied.

1. Pre-Dredge Survey:

The OWNER shall provide to the CONTRACTOR, no later than **14** calendar days prior to the commencement of dredging activities, as specified in the Notice to Proceed, a Pre-Dredge Survey reviewed and approved by the ENGINEER. This survey will consist of fathometer soundings collected using real-time data acquisition methods and systems. The survey will include site planimetrics, dredging limits, soundings, contours, and cross-sections with volumetric summary tables. The Pre-Dredge Survey shall serve as a basis for comparison of final conditions as obtained in a Post-Dredge survey for determination of amount of material removed from within the contract limits of the work. The OWNER shall make available to the CONTRACTOR electronic files of all survey data in a format to be established at the Pre-Construction meeting.

2. Post-Dredge Survey:

The OWNER shall perform, no later than **5** calendar days after completion of the dredging as advised by the CONTRACTOR, pending weather conditions, a Post-Dredge Survey to be reviewed and approved by the ENGINEER. This survey will consist of fathometer soundings collected using real-time data acquisition methods and systems and collected along the approximate same transects as the Pre-Dredge survey. The survey will include site planimetrics, dredging limits, soundings, contours, and cross-sections with volumetric summary tables. The Post-Dredge Survey shall be compared with the Pre-Dredge survey and serve as a basis for comparison with the pre-dredge conditions for determination of amount of material removed from within the contract limits of the work.

If it is determined that additional dredging is required to meet the specified dredging limits following the Post-Dredge survey then the costs for any additional survey effort to be reviewed and approved by the ENGINEER, shall be reimbursed to the OWNER by the CONTRACTOR.

The OWNER shall provide the CONTRACTOR with a copy of the Post-Dredge Survey, and all related files in electronic format, no later than **3** days, pending weather conditions, following completion of the Post-Dredge Survey field work. Payment will not be authorized without the review and approval of the Survey by the ENGINEER.

1.6 PROGRESS PAYMENTS

During the course of the work, the CONTRACTOR may request progress payments for dredging no more than once every other week. The progress payments will be based on approximate quantities determined by CONTRACTOR quality control surveys or scow counts, multiplied by the agreed upon cubic yard contract rate, less **20%**.

1.7 FINAL EXAMINATION & ACCEPTANCE

- a. Final acceptance of the whole or a part of the work and the deductions or corrections made thereon will not be reopened after having once been made, except on evidence of collusion, fraud or obvious error, and the acceptance of a complete section of the work shall not change the time of payment of the retained percentages of the whole or any part of the work.
- b. CONTRACTOR shall not demobilize from the Site until final examination and acceptance by the OWNER is complete.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

--END OF SECTION--

SECTION 01 45 00

CONTRACTOR QUALITY CONTROL

PART 1 - GENERAL

1.1 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following shall be submitted in accordance with this Section:

Preconstruction Submittals:

- a. **CONTRACTOR Quality Control Plan (CQC) Plan; O**

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices contained in the bid.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

The CONTRACTOR is responsible for quality control and shall establish and maintain an effective quality control system. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the OWNER for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence onsite during dredging activities and shall be responsible for all construction and construction related activities at the site.

3.2 CONTRACTOR QUALITY CONTROL (CQC) PLAN

The CONTRACTOR shall furnish for review by the OWNER, not later than 15 days after receipt of Notice-To-Proceed, the CQC Plan. The plan shall identify personnel,

procedures, control, instructions, tests, records, and forms to be used. Construction will only be permitted after acceptance of the CQC Plan by the OWNER.

3.2.1 Content of CQC Plan

The CQC Plan shall include, at a minimum, the following to cover all construction operations, both onsite and offsite:

- a. A description of the quality control organization, including an organization chart showing individuals working on the proposed project.
- b. The name, qualifications, duties, responsibilities, and authorities for each person designated on the CQC plan.
- c. Procedures for scheduling, reviewing, certifying, and managing submittals.
- d. Procedures for establishing horizontal and vertical controls.
- e. Procedures for monitoring quality control during construction phase of work.
- f. Reporting procedures to document CONTRACTOR work.

3.2.2 Acceptance of Plan

Acceptance of the CONTRACTOR's plan by the OWNER is required prior to start of construction. Such acceptance is conditional and will be predicated on satisfactory performance during construction. The OWNER reserves the right to require the CONTRACTOR to make changes to CQC Plan as necessary to obtain quality specified.

3.2.3 Notification of Changes

After acceptance of the CQC Plan, the CONTRACTOR shall notify the Owner in writing of any proposed changes. Proposed changes are subject to acceptance by Owner.

3.3 COORDINATION MEETINGS

After the pre-construction conference and prior to start of construction, the CONTRACTOR shall meet with the OWNER to review the CQC Plan. The CQC Plan shall be submitted a minimum of seven days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed. Minutes of the meeting shall be prepared by the OWNER and submitted to the CONTRACTOR for review and acceptance. The minutes shall become part of the contract file. Additional

Coordination Meetings may be conducted as necessary to reconfirm mutual understandings of CQC Plan and/or to address deficiencies in CQC Plan that may require corrective action.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization include a CQC System Manager and sufficient qualified personnel to ensure quality control, safety, and contract compliance. A person must be designated as a Safety and Health Manager. The CONTRACTOR's CQC staff shall maintain a presence at the project site during construction. The CQC staff shall be subject to acceptance by the OWNER.

3.4.2 CQC System Manager

The CONTRACTOR shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of the CQC and shall have the authority to act in all CQC matters for the CONTRACTOR. The CQC System Manager shall be onsite during construction and have a minimum experience of three years in related work.

--END OF SECTION--

SECTION 01 54 50

DREDGING PLANT AND EQUIPMENT

PART 1 - GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

- a. U.S. ARMY CORPS OF ENGINEERS (USACE) EM 385-1-1 (2014)
Safety and Health Requirements Manual

1.2 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following shall be submitted in accordance with this Section:

Preconstruction Submittals:

a. Plant and Equipment

Submit a schedule of the plant and equipment the CONTRACTOR will employ in the performance of the work of this contract. Submit also copies of all applicable inspections and certifications for all floating plant and equipment.

1.3 PLANT AND EQUIPMENT

1.3.1 Sufficient Capacity

The CONTRACTOR shall keep on the job sufficient plant and equipment to meet the requirements of the work. The plant and equipment shall be in satisfactory operating condition and be capable of safely and efficiently performing the work.

1.3.2 Minimum Capacity

The plant and equipment listed on the Plant and Equipment Schedule submitted with the CONTRACTOR's bid is understood to be the minimum which the CONTRACTOR shall place and keep on the job. The listing of plant and equipment is not to be construed as an agreement on the part of the OWNER that the equipment is adequate to perform the required work.

1.3.3 Reduction in Capacity

No reduction in the capacity of the plant and equipment employed on the work shall be made except by written permission of the OWNER. The measure of the capacity of the plant and equipment shall be its actual performance on the work covered by this contract.

1.3.4 Inspections and Certifications

Prior to commencement of work at the site, the CONTRACTOR shall make available to the OWNER for review, copies of all applicable inspections and certifications of floating plant and equipment as required by Federal, State and local laws and regulations. See also EM 385-1-1, Sections 16, 18, 19, and 20. Such inspections and certifications shall be current and maintained in force for the duration of this contract. Each item of floating plant and equipment shall have on board a waste oil management plan which details the intended disposal method for waste oil.

The responsibility for actual supervision and direction of dredging operations including the safe and efficient operation of dredge plant and equipment lies with the CONTRACTOR.

1.4 LICENSE REQUIREMENTS

Each vessel exceeding twenty-six feet in length, excluding sheer, which is used for pushing, hauling alongside, or any other method of towing, and not required by law to have a valid Certificate of Inspection by the U.S. Coast Guard, shall be under the actual direction and control of a person licensed for towing in the geographic area of the work by the U.S. Coast Guard. Licensed persons shall not perform command or other duties in excess of twelve hours in any consecutive twenty-four hour period except in an emergency.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

--END OF SECTION--

SECTION 01 57 20

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

- a. U.S. ARMY CORPS OF ENGINEERS (USACE) EM 385-1-1 (2014)
Safety and Health Requirements Manual
- b. WETLANDS DELINEATION MANUAL (1987)
Corps of Engineers Wetlands Delineation Manual
- c. U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
33 CFR 328 Definitions of Waters of the United States
40 CFR 279 Standards for the Management of Used Oil
40 CFR 302 Designation, Reportable Quantities, and Notification
40 CFR 355 Emergency Planning and Notification
40 CFR 68 Chemical Accident Prevention Provisions

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 CONTRACTOR Generated Hazardous Waste

CONTRACTOR generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the CONTRACTOR to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.5 Wetlands

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland shall be done in accordance with WETLANDS DELINEATION MANUAL.

1.3 GENERAL REQUIREMENTS

Minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. Comply with all applicable environmental Federal, State, and local laws and regulations. Any delays resulting from failure to comply with environmental laws and regulations will be the CONTRACTOR's responsibility.

1.4 SUBCONTRACTORS

Ensure compliance with this section by subcontractors.

1.5 PAYMENT

No separate payment will be made for work covered under this section. State and Federal regulatory permits, have been obtained by the OWNER. The payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations are the CONTRACTOR's responsibility. All costs associated with this section shall be included in the contract price.

1.6 SUBMITTALS

OWNER approval is required for submittals with an “O” designation; submittals not having an “O” designation are for information only. The following shall be submitted in accordance with this section:

Preconstruction Submittals:

a) Environmental Protection Plan; O

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, submit an Environmental Protection Plan for review and approval by the OWNER. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the CONTRACTOR shall address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. Address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but are considered necessary, shall be identified and discussed after those items formally identified in this section. The Environmental Protection Plan shall be current and maintained onsite by the CONTRACTOR.

1.7.1 Compliance

No requirement in this Section will relieve the CONTRACTOR of any applicable Federal, State, and local environmental protection laws and regulations. During construction, the CONTRACTOR will be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

Include in the environmental protection plan, but not limit to, the following:

- a) Name(s) of person(s) within the CONTRACTOR’s organization who is (are) responsible for ensuring adherence to the Environmental Protection Plan.
- b) Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c) Name(s) and qualifications of person(s) responsible for training the CONTRACTOR’s environmental protection personnel.
- d) Description of the CONTRACTOR’s environmental protection personnel training program.

- e) Drawings showing locations of proposed temporary material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to contain materials on the site.

- f) Include in the Spill Control Plan the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. Include in this plan, as a minimum:
 - 1) The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual will immediately notify the OWNER in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. Include in the plan a list of required reporting channels and telephone numbers.
 - 2) The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.
 - 3) Training requirements for CONTRACTOR's personnel and methods of accomplishing the training.
 - 4) A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.
 - 5) The names and locations of suppliers of containment materials and locations of additional fuel recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
 - 6) The methods and procedures to be used for the expeditious contaminant cleanup.
 - 7) A containment prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and detailed provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be onsite at any given time shall be included in the contaminant prevention plan. Update the plan as new hazardous materials are brought onsite or removed from the site.

1.7.3 Appendix

Attach to the Environmental Protection Plan, as an appendix, copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents.

1.8 PROTECTION FEATURES

This paragraph supplements the Contract Clause “Protection of existing vegetation, structures, equipment, utilities, and improvements.” Prior to start of any onsite construction activities, the CONTRACTOR and the OWNER will make a condition survey of the work area as to determine the environmental features requiring protection, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the CONTRACTOR's assigned storage area and access route(s), as applicable. The CONTRACTOR shall protect those environmental features identified and any indicated on the drawings, regardless of interference which their preservation may cause to the work under the contract.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations from the drawings and specifications, requested by the CONTRACTOR and which may have an environmental impact, will not be permitted.

1.10 NOTIFICATION

The ENGINEER will notify the CONTRACTOR in writing of any observed noncompliance with Federal, State or local environmental laws, regulations, or permits. After receipt of such notice, the CONTRACTOR will inform the ENGINEER of the proposed corrective action and take such action when approved by the ENGINEER. No time extensions will be granted or equitable adjustments allowed for any such stopping or suspension of operations necessary for the corrective action.

PART 2 – PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

The following State and Federal regulatory permits have been obtained by the OWNER for the purposes of the work:

- a. State of Connecticut Department of Energy & Environmental Protection (DEEP) Certificate of Permission (COP) #202102766-COP**
- b. US Army Corps of Engineers (ACOE) Permit Number: NAE-2010-02089**

The CONTRACTOR shall comply with permit terms and conditions that are applicable to this contract. Such applicable terms and conditions are specified in the various sections of these specifications and on the contract drawings. The above referenced documents shall not be relied on for contract requirements. In the event a discrepancy is discovered between the reference documents and these specifications or the contract drawings, the CONTRACTOR shall notify the ENGINEER for clarification. The ENGINEER will rely on permit requirements and conditions to resolve perceived conflicts. Copies of this aforementioned permits are included at the end of this specification for reference only.

3.2 LAND RESOURCES

The CONTRACTOR's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the OWNER. Temporary movement or relocations of the CONTRACTOR facilities shall be made only when approved.

3.3 WATER RESOURCES

The CONTRACTOR shall monitor construction activities to prevent pollution of surface and ground waters. All water areas affected by construction activities shall be monitored by the CONTRACTOR.

3.4 AIR RESOURCES

Equipment operation, activities, or processes performed by the CONTRACTOR shall be in accordance with all Federal and State of Connecticut air emission and performance laws and standards.

3.4.1 Particulates

The CONTRACTOR shall maintain work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. The CONTRACTOR shall comply with all State and local visibility regulations.

3.4.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State of Connecticut regulations and/or local ordinances.

3.4.3 Sound Intrusions

The CONTRACTOR shall keep construction activities under surveillance and control to minimize environment damage by noise. The CONTRACTOR shall comply with the provisions of the State of Connecticut rules.

3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

3.5.1 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be in accordance with all Federal, State, and local laws and regulations.

3.6 BIOLOGICAL RESOURCES

The CONTRACTOR shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The CONTRACTOR shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State and local laws and regulations.

3.7 PREVIOUSLY USED EQUIPMENT

The CONTRACTOR shall clean all previously used construction equipment prior to bringing it onto the project site. The CONTRACTOR shall ensure that the equipment is free from soil residuals, egg deposits, plant pests, noxious weeds, and plant seeds. The CONTRACTOR shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.8 MAINTENANCE OF POLLUTION FACILITIES

The CONTRACTOR shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.9 TRAINING OF CONTRACTOR PERSONNEL

The CONTRACTOR's personnel shall be trained in all phases of environmental protection and pollution control. The CONTRACTOR shall conduct environmental protection/pollution control meetings for all CONTRACTOR personnel prior to commencing construction activities. Additional meetings shall be conducted for new

personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their habitat that are known to be in the area.

3.10 POST CONSTRUCTION CLEANUP

The CONTRACTOR shall clean up all areas used for construction. The CONTRACTOR shall, unless otherwise instructed in writing by the OWNER, obliterate all signs of temporary construction facilities such as, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

--END OF SECTION--

SECTION 01 71 23

FIELD ENGINEERING FOR DREDGING

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 Engineering Services

The CONTRACTOR shall furnish the required personnel, equipment, instruments, and transportation, to accomplish all required surveys as deemed necessary by the CONTRACTOR for dredging quality assurance purposes. Reports and other data together with supporting material developed during the prosecution of the work shall be furnished to the OWNER upon request. The CONTRACTOR shall also provide adequate professional supervision and quality control to assure the accuracy, quality, completeness, and progress of the work. The CONTRACTOR shall provide and pay for any such services rendered including:

- a. Hydrographic and other survey work specified or required in execution of this project, except for surveys performed by the ENGINEER, as indicated in these specifications.
- b. Civil, structural or other professional engineering services specified, or required to execute CONTRACTOR's construction methods.

1.2 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referenced in the text by basic designation only. The Army Corps of Engineers references below may be viewed or downloaded free of charge via the Internet (<http://www.hnd.usace.army.mil/techinfo/>).

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 1110-1-1002 (2012) SURVEY MARKERS AND MONUMENTATIONS

EM 1110-2-1003 (2002) HYDROGRAPHIC SURVEYING

1.3 DEFINITIONS

1.3.1 Survey Datum

The contract drawings refer to local **Mean Lower Low Water (MLLW)** datum. The ENGINEER will and the CONTRACTOR shall perform all surveys using the **MLLW** datum.

1.4 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following shall be submitted in accordance with this Section:

Preconstruction Submittals:

a. CONTRACTOR Quality Control Survey Plans; O

The CONTRACTOR shall submit, as part of the Quality Control Plan, a detailed plan describing the survey methods to be used during the work. The plan shall include the equipment to be utilized, tidal data, general site plan map, line designation map, calibration procedures to be used, expected horizontal and vertical accuracies, and pertinent information to describe the methods, and results to be obtained. Field surveys shall not begin until these plans are approved.

b. Layout Plan; O

A complete plan of the dredging areas showing the horizontal layout of all physical and electronic ranges to be used for horizontal control. The drawings shall be drawn at a scale sufficiently large to show all pertinent details. The drawings shall be submitted as blue or black lines on a white background.

c. Charts

Current and tide charts to be used for the areas being dredged shall be submitted.

c. Survey Personnel

Furnish a listing of the personnel who will perform the survey work required by this contract. The listing shall include a brief summary of the hydrographic survey experience of each person. The list shall be submitted prior to the preconstruction conference.

Design Data:

a. CONTRACTOR Surveys - Field Data

Upon request by the ENGINEER, submit field data; depth sounder rolls, corrected for tide, and corresponding boat plots; daily logs; progress surveys; and quantity computations. Submit data sufficient for the ENGINEER to reproduce the CONTRACTOR's survey plot by referring only to this field data.

1.5 GENERAL HYDROGRAPHIC SURVEY REQUIREMENT

- a. All hydrographic surveys for this project shall follow the mandatory criteria given in EM 1110-2-1003 for the "Navigation and Dredging Support Surveys" class of survey as a minimum.
- b. Survey lines may be run either perpendicular or longitudinal to work area in accordance with the criteria given in EM 1110-2-1003 for the "Navigation and Dredging Support Surveys" class of survey as a minimum. The lines shall clearly identify the toe and extend out beyond the toe to a minimum of three times the project depth, or as required to "break daylight", in order to accurately depict the side slope.

1.6 HORIZONTAL POSITIONING PROCEDURES AND ACCURACIES

Vessel positioning systems utilized on this contract shall conform to the allowable horizontal positioning criteria in EM 1110-2-1003. The positioning system used shall be capable of meeting or exceeding the accuracy requirements and shall not exceed the allowable ranges where indicated. The CONTRACTOR shall submit a layout plan and may be required to demonstrate to the ENGINEER that its positioning system is capable of meeting or exceeding the accuracy requirements in EM 1110-2-1003.

1.7 REFERENCE HORIZONTAL CONTROL DATA

At the preconstruction conference, the OWNER will provide project control from which hydrographic surveys may be extended. This control shall be presumed to meet the accuracy requirements in EM 1110-2-1003. The CONTRACTOR shall immediately notify the ENGINEER if existing control points have been disturbed. In the event new station monumentation is required to perform the work, new stations shall be monumented in accordance with EM 1110-1-1002 criteria, and an equitable adjustment will be made to the contract.

1.8 DEPTH MEASUREMENT PROCEDURES AND CALIBRATION

1.8.1 Depth Measurement Precision and Accuracy

Depth measurements including depth observation precision and resolution shall meet the vertical accuracy standards prescribed in EM 1110-2-1003.

1.9 VERTICAL REFERENCE DATUMS

Depth measurements shall be reduced to the specified datum using concurrent staff/gage readings, as described in EM 1110-2-1003. Tide staffs/gages shall be constructed, referenced, maintained, stilled, and read in accordance with the criteria in EM 1110-2-1003.

The ENGINEER reserves the right to record tides using RTK GPS, and will provide the CONTRACTOR with details of the RTK Base Station, and any corrections from the geodetic datum of NAVD88 to the specified reference datum (typically MLLW) used to complete the ENGINEER's survey.

1.10 FIELD DATA RECORDING, REDUCTIONS, ARCHIVING, AND PLOTTING REQUIREMENTS

The data format fields for submitting reduced hydrographic data to the ENGINEER is x y z. The topographic and feature data shall conform to the intergraph general 3D design file formats specified in the reference. Digital data shall be contained on a CD-ROM.

1.11 VOLUME COMPUTATIONS

The CONTRACTOR shall have the capability to compute excavation quantities from work performed under this contract. The CONTRACTOR shall compute volumes using any of the techniques given in Chapter 15 of EM 1110-2-1003. Section drawings shall be made at the horizontal and vertical scales given in EM 1110-2-1003.

1.12 MISCELLANEOUS QUALITY CONTROL PROCEDURES

1.12.1 Automated System Synchronization Checks

Each automated hydrographic survey system shall be checked to insure adequacy of correlation between position and depth. Methods for performing this check are given in EM 1110-2-1003.

PART 2 – PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 CONTRACTOR SURVEYS

3.1.1 Survey Personnel

The CONTRACTOR survey work to be performed under this contract shall be accomplished by, or reviewed and approved by a surveyor familiar with and having personal experience with hydrographic surveys. In addition, the survey

personnel shall also be familiar with and have personal experience with hydrographic surveys.

3.1.2 CONTRACTOR Quality Control Surveys

The CONTRACTOR shall examine his work by conducting hydrographic surveys at no more than 30 calendar day intervals prior to request for progress payment, upon completion of separable portions of the work, and upon completion of the entire work. The use of single-beam equipment is acceptable. CONTRACTOR quality control surveys shall be submitted to the ENGINEER prior to any request for an ENGINEER survey for final acceptance. The CONTRACTOR shall prepare survey maps based on the results of these surveys. These maps shall be used, by the CONTRACTOR, to satisfy himself of the effectiveness of his operations. Attainment of contract depth shall be verified, and a comparison of actual progress and in-place quantities dredged with scheduled progress shall be performed. CONTRACTOR surveys will not be used for final payment or acceptance. See Section 35 20 23 DREDGING for additional CONTRACTOR survey requirements. The CONTRACTOR shall be responsible for clearing the portion of work prior to survey work by the ENGINEER. If it is found by the ENGINEER that the section has not been thoroughly cleared by the CONTRACTOR to the OWNER's satisfaction, a charge will be assessed as specified in subparagraph "Final Examination by the OWNER."

3.1.3 CONTRACTOR Progress Payment Surveys

The CONTRACTOR shall conduct surveys for any periods for which progress payments are requested. The CONTRACTOR will make the computations based on these surveys. All surveys accomplished by the CONTRACTOR shall be conducted under the direction of the ENGINEER, unless the ENGINEER waives this requirement for each specific instance. Promptly upon completing a survey, the CONTRACTOR shall furnish all data relating to the survey to the ENGINEER, who will use the data as necessary to determine the amount of progress payments.

Alternative to the CONTRACTOR conducting progress payments surveys, scow counts may be used for progress payment amounts. The progress payments will then be based on approximate quantities determined by the CONTRACTOR progress payment surveys or scow counts, multiplied by the agreed upon cubic yard contract rate, less 20%.

3.2 ENGINEER SURVEYS

3.2.1 Survey Equipment

- a. The ENGINEER shall use single beam sonar equipment to complete its surveys. Line spacing when using single trace will be no greater than 20 feet

apart. The ENGINEER will make every attempt to use the same equipment for all surveys needed on a project, but it is not guaranteed. Final dredge area clearance will always be based on a contour created from the minimum soundings collected, regardless of the survey method used.

- b. Tides will be recorded either by manual tide gauge(s) or, when vertical accuracy permits, RTK GPS. When using RTK GPS a water surface/tide gauge check will be done daily to verify the accuracy of the RTK data. The reference used for tide readings may be an existing NOAA bench mark(s), NOAA's V-Datum program, or a point(s) established by the ENGINEER. The correction from NAVD88 to the Survey Datum may be a single value or, in dynamic areas, a series of values configured in a "Hypack" KTD file. All vertical reference information and methodology used is available upon request or may be found in the general notes on any set of plans issued by the ENGINEER.
- c. The RTK base station used by the ENGINEER for a particular project may be found in the general notes on any set of plans issued by the ENGINEER. Specific details about the base station are available upon request.

3.2.2 Survey Types

a. **Specification (Spec) Surveys:**

The OWNER will conduct a Spec survey for a particular project which will be used to calculate initial quantities for the purposes of issuing a contract.

b. **Pre-Dredge Survey:**

The OWNER will conduct a Pre-Dredge Survey, reviewed and approved by the ENGINEER, within **14** days of the start of dredging operations. Pre dredge drawings and XYZ files will be provided to the CONTRACTOR upon request. The CONTRACTOR may, at his cost, conduct his own pre dredge survey for verification of the OWNER's Pre-Dredge Survey. It is the CONTRACTOR's responsibility to obtain and review the OWNER's pre dredge information and notify the OWNER of any discrepancies prior to the start of any dredging. Once dredging commences, the OWNER's Pre-Dredge Survey will become the survey of record for initial volume calculations and determining the total amount of material available to be dredged.

c. **Post-Dredge Surveys (Final Examination by the OWNER):**

The OWNER will conduct a Post-Dredge Survey after the CONTRACTOR has verified that the dredging operation is complete by conducting his own Post-Dredge Survey and submitting all survey records to the OWNER and his representatives, including pdf plots and XYZ files. This CONTRACTOR

survey should verify that the project area is at or below the targeted contract depth. Upon submittal of the CONTRACTOR's survey or other substantial data supporting his claim to the completion of the dredging work, and as deemed acceptable by the OWNER, the CONTRACTOR may request a final Post-Dredge Survey be performed by the OWNER. The OWNER will perform the Post-Dredge Survey, to be reviewed and approved by the ENGINEER, no later than 5 calendar days after the completion of the dredging as advised by the CONTRACTOR, and pending weather conditions. The CONTRACTOR will be notified when the OWNER's survey will take place, and should have all equipment removed from the cleared survey area so as not to impede the OWNER survey. If water and/or weather conditions at the project site prevent the survey from being completed safely within 5 days, the survey will be conducted as soon as the OWNER determines that the water and/or weather conditions have improved to the point where the Post-Dredge Survey can be completed safely. The OWNER's Post-Dredge Survey will be used to verify that the targeted contract depth has been achieved. The OWNER shall provide the CONTRACTOR with a copy of the Post-Dredge Survey, and all related files in electronic format, no later than 3 calendar days, pending weather conditions, following completion of the field survey work. The OWNER's first Post-Dredge Survey over a particular area will be performed at no cost to the CONTRACTOR.

If the OWNER's Post-Dredge survey shows the project clear to the targeted depth, it becomes the survey of record and will be compared to the OWNER's Pre-Dredge Survey to determine the amount of material that was removed from the project. This calculation will be used to determine the amount of compensation due to the CONTRACTOR.

If the OWNER's Post-Dredge Survey does not show the project clear to the targeted depth, the CONTRACTOR will be required to re dredge the area that is not to depth. The CONTRACTOR shall then request another OWNER Post-Dredge Survey with a minimum of 5 calendar days' notice. The OWNER will then conduct a Post-Dredge Survey similar to its first requested Post-Dredge Survey (see part "c" above). This entire process will repeat itself until the OWNER Post-Dredge Survey shows the dredge area clear to contract depth. When the OWNER completes a survey that shows the project at or below required contract depth, it becomes the survey of record and will be compared to the OWNER's Pre-Dredge Survey to determine the amount of material that was removed from the project. This calculation will be used to determine the amount of compensation due to the CONTRACTOR. The OWNER may, at its discretion, waive small insignificant shoals from the re dredging process and consider the dredging complete. The decision to waive any shoals that are above the required dredging depth rests solely with the OWNER.

Should more than one Post-Dredge Survey be necessary by the OWNER in a particular area because of shoals disclosed during the OWNER's first Post-Dredge Survey, the cost of such second and any subsequent sounding or sweeping operations will be charged against the CONTRACTOR. The rate for each day in which the OWNER's survey plant is engaged in such sounding or sweeping operations, editing data, is in route to or from the site, or is held, for the CONTRACTOR's convenience at or near the site for these operations, shall be **\$4,500**.

d. Progress Surveys:

The OWNER does not do progress type surveys. The CONTRACTOR should conduct progress surveys on a regular basis to monitor and verify his progress in completing the contract requirements.

3.2.3 Volume Computations

All survey volume computations between Pre- and Post-Dredge Survey surfaces, will be calculated using standard "Average End Area Method" or electronic computation methods approved by the ENGINEER.

A DTM (Digital Terrain Model) dredge footprint design will be generated for each project representing the required dredge depth and area, as well as any allowable over depth, and channel side slopes as shown in the drawings.

A separate DTM surface will be generated from each of the XYZ files created from the Pre- and Post-Dredge Surveys. The Pre-Dredge surface will be compared to the dredge footprint design to calculate the amount of material available for dredging. The Post-Dredge surface will be compared to the dredge footprint design to calculate how much material (if any) remains within the design template. The difference between the two calculations will become the basis for volume payment. Material removed below the allowable over depth will not be included in the payable quantity of material.

For single trace surveys, a XYZ file will be created from all of the soundings, and will be used for the volume computation/generation of the DTM surface.

3.2.4 Final Acceptance by the OWNER

- a. Final acceptance of the whole or any part of the work, and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error, and the acceptance of a complete section of the work shall not change the time of payment of the retained percentages of the whole or any part of the work.

- b. CONTRACTOR shall not demobilize from the site until final examination and acceptance by the OWNER is complete.

--END OF SECTION--

DIVISION 35
WATERWAY & MARINE CONSTRUCTION



SECTION 35 20 23

DREDGING

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)
EM-385-1-1 (2014) Safety and Health Requirements Manual

1.2 RELATED WORK SPECIFIED ELSEWHERE

1.2.1 Environmental Protection Requirements

Provide and maintain during the life of the contract, environmental protective measures. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. See Section 01 57 20 ENVIRONMENTAL PROTECTION.

1.3 DEFINITIONS

1.3.1 Suitable Maintenance Material

Suitable maintenance material is defined as sands, and organic silty sediments, that have accumulated within the areas to be dredged since the last maintenance dredging project, that are suitable for open water disposal. The suitable maintenance material also includes accumulated silty and sandy sediment material that sloughs off the side slopes in the designated areas of suitable dredge material.

1.3.2 Hard/Unsuitable Maintenance Material

Hard/unsuitable maintenance material is defined as rock material that may require drilling and blasting or removal by other mechanical means appropriate for rock, and includes bedrock, boulders, till, or rock fragments too large to be removed in one piece by the dredge.

1.4 SUBMITTALS

OWNER approval is required for submittals with an "O" designation; submittals not having an "O" designation are for information only. The following shall be submitted in accordance with this Section:

1.4.1 Preconstruction Submittals:

1.4.1.1 Work Plan; O

The CONTRACTOR shall submit a work plan for accomplishing the dredging work of this contract. The following items shall be considered, at a minimum, for inclusion in the work plan:

- a. Anticipated plant and equipment.
- b. Expected coordination requirements.
- c. Survey requirements.
- d. Proposed measures to avoid overdredging.
- e. Side slope material removal methodology; side slopes or box cut.

1.4.1.2 Debris Management Plan

A debris management plan shall be developed as specified in this section and submitted to the OWNER for review.

1.4.1.3 Scows

Submit scow cards for each scow to be used for contract work. Scow cards shall have information specified in paragraph "Scows".

1.5 NOTIFICATIONS

1.5.1 Notice of Misplaced Material

The CONTRACTOR shall notify the OWNER and the U.S. Coast Guard Marine Safety Office of any misplaced material.

1.5.2 Notice of Need for Dredging Survey

The CONTRACTOR shall give at least 48 hours notice to the OWNER of the need for an after-dredging survey for final acceptance for each acceptance section.

1.5.3 Relocation of Navigation Aids

The CONTRACTOR shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Coast Guard District Commander, in writing, with a copy to the

OWNER, 30 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate the dredging operation.

1.6 CHARACTER OF MATERIALS

1.6.1 Results of Explorations

Explorations consisting of core samples to determine the character of materials to be removed have been made by the OWNER for selected areas of this project. Grain size analysis are attached at the end the specification. Although the results of such explorations are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local variations in the subsurface materials are to be expected and, if encountered, will not be considered materially different within the purview of the contract.

The material to be removed to accomplish the specified dredging work is anticipated to be deposited sands, silts, clays and organic material.

1.6.2 Debris

All debris removed from the dredging area will be separated and stockpiled for disposal by the CONTRACTOR, in accordance with local, Federal and state laws and regulations, at an upland site supplied by the CONTRACTOR. Disposal shall be the responsibility of the CONTRACTOR and disposal shall be outside of the project limits.

1.6.3 Artificial Obstructions and Other Material

Except for the locations indicated on the contract drawings, the OWNER has no additional knowledge of existing debris, boulders, cables, pipes, or other artificial obstructions or of any wrecks, wreckage, or other material that would necessitate the use of explosives or the employment of additional equipment for economical removal.

1.6 WORK AREA

1.7.1 Public Access

The CONTRACTOR will be permitted to exclude the public from the work area. The work area includes the CONTRACTOR's parking, temporary facilities, and storage and staging areas.

1.7.2 Contractor Access

The CONTRACTOR shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site, mooring areas,

and the disposal areas. The CONTRACTOR shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

1.7.3 Emergency Access

The Contractor shall be responsible for providing and maintaining access necessary for the U.S. Coast Guard, fireboats, and first responders in the event of a fire or emergency.

1.7.4 Protection of Existing Waterways

The CONTRACTOR shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The CONTRACTOR will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the CONTRACTOR's operations, the material must be promptly removed at no additional cost to the OWNER.

1.7.5 Adjacent Property and Structures

The CONTRACTOR shall conduct the dredging operation such that it does not undermine, weaken or otherwise impair existing structures located in or near the areas to be dredged. The CONTRACTOR shall investigate the existing structures at the site and plan the dredging work accordingly.

Damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the CONTRACTOR at his expense. Damage to structures resulting from the CONTRACTOR's negligence will result in suspension of dredging and require prompt repair at the CONTRACTOR's expense as a prerequisite to the resumption of dredging.

1.8 INSPECTION

Inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended purpose. See Section 01 45 00 QUALITY CONTROL.

1.9 MOORINGS AND DOCKS

1.9.1 Active Moorings and Docks

The CONTRACTOR will be responsible for the removal and reinstallation of the marina floating dock system, including gangways and float anchor piles, as

required to facilitate the dredging work. The docks will be removed by the CONTRACTOR prior to the commencement of dredging operations. Docks removed by the CONTRACTOR shall be coordinated with the OWNER for onsite storage.

1.9.1.1 Derelict Moorings

Derelict moorings located by the CONTRACTOR during dredging operations, or otherwise made known to the CONTRACTOR, shall be reported to the OWNER.

1.9.2 Debris Management Plan

A debris management plan shall be developed, reviewed by the OWNER and followed by the CONTRACTOR. Debris removed from the bottom during dredging operations, which is not suitable for disposal at the designated disposal site, shall be collected and removed from the site. Unsuitable materials include large items such as timbers, pilings, sections of piers, and metallic debris. Generally, all floating debris, and bottom debris larger than 12 inches in any dimension, will be considered unsuitable for disposal at the designated disposal site. All objects that become dislodged from the bottom sediments during dredging activities and float to the surface shall be collected, separated and stockpiled for disposal upland. Each day during dredging operations, the CONTRACTOR shall use a boat to collect and remove floating debris resulting from project activities. Containers for temporary storage of the collected debris shall be maintained on the dredge or support barge.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 DREDGING LIMITS

3.1.1 Allowable Overdepth

To cover unavoidable inaccuracies of dredging processes, material removed to the overdepth limit and within the dredging limits will be measured and paid for at full contract price. **Allowable overdepth dredging will be permitted to a depth of not more than 1.0 feet.**

3.1.2 Side Slopes

Material dredged to provide for final indicated side slopes will be measured and paid for at the applicable unit price. The material may be dredged from the original position or by dredging the space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. Payment will not

be made for material in excess of the amount originally lying above the pay slope plane. The limiting amount of side-slope overdepth will be measured vertically.

Dredging on side slopes shall follow, as closely as practicable, the lines indicated on the drawings. An allowance will be made for dredging beyond the lines indicated or specified for side slopes. The allowance will be determined by projecting a line upwards, paralleling the project design side slopes, from the intersection of the overdepth dredging limit (at a point located vertically below the limit of dredging at the top of slope). The amount of material excavated from side slopes will be determined by either cross-sections or computer, or both.

Unless otherwise noted, side slopes shall include the areas adjacent to the dredge toe, projecting upwards at a 1V:3H slope. The above is not to be taken as a guarantee that all slopes will stand on the slopes noted. The Contractor shall make his own determination as to what the angle of repose will be on all side slopes.

The OWNER reserves the right to side slopes by requiring box cuts in areas adjacent to existing infrastructure. Such requirements will be identified on the Pre-Dredge Survey.

3.1.3 Excessive Dredging

Material taken from beyond the limits as extended in the Article "OVERDEPTH AND SIDE SLOPES" above will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side-slope dredging for which payment will not be made.

3.2 DREDGING PLANT AND ASSOCIATED EQUIPMENT

3.2.1 Dredging Plant

All dredging under this contract shall be performed using a mechanical type dredge. Overflow of scows while dredging will not be permitted. Hydraulic dredging will not be permitted.

3.2.2 Tow Boats

All tow boats used for towing to disposal areas shall be equipped with DGPS navigational equipment, radar, corrected compass, marine radio, and depth sounding equipment which is to be maintained in operating condition during each tow. The tow boats utilized by the CONTRACTOR for this purpose shall be of a size adequate for towing in heavy seas and shall have necessary reserve power for maneuvering with scows in rough seas and under emergency conditions as well as for control of scows at the disposal point.

3.2.3 Scows:

- a. Failure to repair leaks or change the method of operation which is resulting in overflow or spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging.
- b. The CONTRACTOR shall provide and maintain markings on all scows clearly indicating the draft of the scow and shall provide scow cards for each scow used on the contract work. The scow cards shall show dimensions and volumes of individual pockets of scows and total volumes for varying depths below coaming or top of pockets. The scow volume estimates are for use in connection with disposal area monitoring studies and are not intended to be used in determining quantities dredged.
- c. Due to the fine-grained nature of the dredged material, the CONTRACTOR shall achieve proper closure and water tightness of pocket doors to eliminate seepage or leakage of material. The use of plastic material to cover cracks in scow pockets will not be allowed. Overflow of scows during transit to the disposal site is not permitted.

3.3 NOTIFICATION OF COAST GUARD

3.3.1 Navigation Aids:

Navigation aids located within or near the areas required to be dredged will be removed, if necessary, by the U.S. Coast Guard in advance of dredging operations. The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid of navigation.

3.3.2 Dredging Aids:

The CONTRACTOR shall obtain approval from the U.S. Coast Guard for all buoys, dredging aid markers to be placed in the water, and dredging aid markers affixed with a light prior to the installation. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids.

3.4 CONDUCT OF DREDGING WORK

3.4.1 Order of Work:

- a. The CONTRACTOR shall prepare and submit to the OWNER for review and approval a progress schedule.

- b. Dredging is subject to the time of year restrictions as specified in Section 01 11 00 SUMMARY OF WORK.

3.2.2 Method of Dredging

All dredging under this contract shall be performed using a mechanical dredge plant.

3.2.3 Method of Disposal

The material dredged shall be transported and disposed of at the **Central Long Island Disposal Site (CLDS)**.

Release the dredged material the location specified in regulatory permits.

All disposals shall be done with the scow at a complete halt. This requirement must be followed except when weather or sea state create unsafe conditions, with the scow moving only fast enough to maintain safe control (generally less than 1 knot will be permitted. Disposal shall not be attempted if the above conditions cannot be met. Anticipated weather conditions shall be determined prior to departing for the disposal site.

3.2.4 Misplaced Material Disposal

Material that is deposited elsewhere than in locations designated or approved by the OWNER will not be paid for and the CONTRACTOR shall be required to remove such misplaced material and deposit it where directed at his expense.

3.2.5 Interference with Navigation

Minimize interference with the use of channels and passages.

3.2.6 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed.

3.2.7 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, pipelines, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging

operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.3 SHOALING

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, re-dredging at contract price, within the limits of available funds may be done if agreeable to both the CONTRACTOR and the OWNER.

3.4 FINAL CLEANUP

Final cleanup shall include the removal of all the CONTRACTOR's plant and equipment.

Failure to promptly remove all plant, equipment, temporary construction facilities, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work.

--END OF SECTION--

SECTION 35 20 24

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SCOW - MONITORING PROFILE

PART 1 - GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM) to monitor the scow's status at all times during the contract, and manage data history.

This performance-based specification section identifies the minimum required output and precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 SUBMITTALS

- a. Dredge Plant Instrumentation Plan Revisions or Addendum, CESAM-OP-J
- b. Data Appropriately Archived e-mail, section 3.2.5
- c. Letter of National Dredging Quality Management Program Certification

1.3 PAYMENT

No separate payment shall be made for installation, operation, and maintenance of the DQM certified system as specified herein for the duration of the dredging operations; all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit prices for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from the DQM for the scow instrumentation system to be used under this contract. Criteria for certification shall be based on the most recent specification posted on the DQM website (<http://dqm.usace.army.mil/Specifications/Index.aspx>), Compliance with these criteria shall be verified by on-site quality assurance (QA) checks conducted by DQM Support Center Data Acquisition and Analysis Team, and by periodic review of the transmitted data. If a system is installed specifically for this contract, the QA checks should take place prior to any material being loaded into the scow to insure that it is capable of transmitting quality data to the DQM database or with prior approval of local district, during the first load for each scow, and subsequent loads as is necessary to verify compliance. A DQM Certification is valid for one year from the date of certification and

is contingent upon the system's ability to meet the performance requirements as outlined in sections 3.3 and 3.5. If issues with data quality are not corrected within 48 hours, the system certification shall be revoked and additional QA checks by the Data Acquisition Team may be necessary.

Annual DQM Certification shall be based on:

- A series of QA checks as described in Section 3.4 "Compliance Quality Assurance Checks"
- Verification of data acquisition and transfer (Section 3.3)
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Section 1.5.

The dredging contractor shall have personnel who are familiar with the system instrumentation and who have the ability to recalibrate the sensors on site during the QA process. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM system to team personnel in a timely manner. The dredging contractor shall also have on site for the QA checks a tug capable of towing the scow. As a general rule, Data Acquisition and Analysis Team personnel will come with PPE consisting of hardhats, steel toe boots, and life jackets. If additional safety equipment is needed, such as eye protection, safety harnesses, work gloves or personal location beacons, these items shall be provided to the team while on site. The Contractor shall submit a test data package to the DQM Database from the system on each scow and have it accepted by the DQM Support Center prior to scow compliance checks. The Contractor shall also submit data collected during the QA Checks from the scow monitoring system to the DQM database and the Data Acquisition Team personnel while on site. It is the dredging contractor's obligation to inform the QA team if the location designated for the QA checks has any site specific safety concerns prior to their arrival on site.

The owner or operator of the scow shall contact DQM at DQM-AnnualQA@rpsgroup.com on an annual basis, or at least three weeks prior to the proposed beginning of dredging, to schedule QA checks. This notification is meant to make the Data Acquisition Team aware of a target date and the permit on which the plant will be used. At least one week prior to the target date, the dredging contractor shall contact the Data Acquisition team and verbally coordinate a specific date and location. The contractor shall then follow-up this conversation with a written e-mail confirmation. The owner/operator shall coordinate the QA checks with all local authorities, including but not limited to, the local USACE permitting officer.

Re-certification is required for any yard work which produces modification to displacement (i.e. change in scow lines, repositioning or repainting hull marks), modification to bin volume (change in bin dimensions or addition or subtraction of structure) or changes in sensor type or location; these changes shall be reported in the sensor log section of the DPIP. A system does not have to be transmitting data between

jobs, however in order to retain certification during this period, the system sensors or hardware should not be disconnected or removed from the scow. If the system is powered down, calibration coefficients shall be retained.

1.5 DREDGE PLANT INSTRUMENTATION PLAN

The Contractor shall have a digital copy of the DPIP on file with the National DQM Support Center. The Contractor shall also maintain a copy of the DPIP on a working dredge on site which is easily accessible to OWNER personnel at all times. This document shall describe the sensors used, configuration of the system, how sensor data will be collected, how quality control on the data will be performed, and how sensors/data reporting equipment will be calibrated and repaired if they fail. A description of computed scow specific data and how the sensor data will be transmitted to the DQM Database shall also be included. The Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan, subsequent to its original submission, prior to start of work.

The DPIP shall include the following as a minimum:
(DPIP must have table of content in the following order)

- 1. Dredging Company**
 - a) Scow Point of Contact
 - b) Telephone Number
 - c) Email address

- 2. Scow Monitoring System Provider**
 - a) Scow Monitoring System Point of Contact
 - b) Telephone Number
 - c) Email address

- 3. Scow Name/ ID**

- 4. Sensor repair, replacement, installation, modification or calibration methods**

- 5. Data reporting equipment**

- 6. Procedure for providing sensor data/computed data to DQM Database via e-mail**

- 7. System Power Supply**

- 8. System Battery Charge Method**

- 9. Documentation on how the contract number will be changed if the system is left on past the end of the contract**

10. System telemetry

11. Dimensioned Drawings of the Scow

- a) A typical plan and profile view of the scow showing:
 - i. Bin cross sections
 - ii. Locations of required sensors referenced to:
 - 1. fore and aft perpendicular
 - 2. bin length, depth, width, zero reference
 - 3. external hull draft markings (latitudinal, longitudinal, keel)
 - 4. each other
 - 5. overall scow dimensions

12. Criteria and method used to increment trip number

13. Description of how the UTC time stamp is collected

14. Positioning system:

- a) Brand name and specifications
- b) Sampling rates for data acquisition (standard vs. disposal)
- c) Instrument used to calculate COG
- d) Any calculation done external to the instrumentation
- e) Certificates of calibration and/or manufacturer certificates of compliance
- f) A description of how scow speed is determined

15. Hull status:

- a) Instrumentation brand name and specifications
- b) Certificates of calibration and/or manufacturer certificates of compliance
- c) Any calculation done external to the instrumentation
- d) Criteria for determining hull open/closed

16. Heading:

- a) Instrumentation brand name and specifications
- b) Certificates of calibration and/or manufacturer certificates of compliance
- c) Any calculation done external to the instrumentation
- d) Criteria used to determine heading

17. Drafts:

- a) Instrumentation brand name and specifications
- b) Certificates of calibration and/or manufacturer certificates of compliance
- c) Any calculation done external to the instrumentation
- d) Criteria used to determine draft

18. Displacement:

- a) Method used by Contractor to calculate displacement based on fore and aft draft

- b) Tables listing (fresh and salt water) displacement as a function of draft provided by a licensed marine surveyor/ naval architect independent of the contractor. The scaling between each interval in the table is determined by the designer of the table (which is determined by the shape of the scow), however units shall be reported, at a minimum, in ft and tenths of ft for draft and long tons for displacement.
- c) These methods and tables must be an accurate reflection of the current configuration and displacement

19. Contractor Data:

- a) Backup frequency
- b) Backup method
- c) Post processing

20. Archive capability

21. Documentation of verification that the reported values are applicable for the sensor and application

22. Quality Control Plan as per section 3.5

- a) Name of Quality Control Systems Manager
- b) Procedures for checking collected data against known values
- c) Procedures for verifying telemetry is functioning

23. Log of sensor performance and modifications

24. Log of Contractor data backup as per Section 3.2.6

Any changes to the computation methods shall be approved by the National Dredging Quality Management Program Support Center prior to their implementation.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1. SPECIFICATIONS FOR REPORTED DATA

The Contractor shall provide, operate and maintain all hardware and software to meet these specifications. The Contractor shall be responsible for replacement, repair and calibration of sensors and other necessary data acquisition equipment needed to supply the required data.

Repairs shall be completed within 48 hours of any sensor failure. Upon completion of a repair, replacement, installation, modification or calibration the Contractor shall notify the Permit Project Manager. The Permit Project Manager may request re-calibration of

sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification and calibration in the on-site copy of the DPIP. The log shall contain a three-year history of sensor maintenance to include: the time of sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems are initiated to provide required data. It shall also contain the name of the person responsible for the sensor work.

Sensors installed shall be capable of collecting parameters within specified accuracies and resolutions indicated in the following subsections.

With the exception of position and any value calculated, reported sensor values should represent a weighted average with the highest and lowest values not included in the calculated average for the given interval. The averaging routine used should be consistent across all event triggers. This information should be documented in the DPIP sections that say “Calculations done external to the instrumentation”.

These data reporting requirements cover the collection of electronic data on a scow through the entire dredging cycle. Disposal events can consist of both open water disposal and offloading. Open water disposal is the placement of material via bottom doors or split hull. Offloading is the placement of material via either hydraulic or mechanical means.

3.1.1. Scow Name

Each scow shall be assigned a unique name that will remain constant from one dredging operation to the next.

3.1.2. Permit Number

The USACE assigned permit number for the project will be reported.

3.1.3. Trip Number

A DQM trip number shall document the end of a disposal event for a given scow.

3.1.3.1. Open Water Disposal

The trip number will be incremented at the completion of each disposal/removal of material from the scow. Each scow shall maintain a separate trip numbering sequence – i.e. each scow will start with a trip number of 1, that will be incremented by 1 each time that scow completes a disposal. The trip number must be calculated and repeatable based on a given logic; it may not

necessarily correspond to the trip number logged aboard the dredge or tug. Efforts shall be made to include logic that avoids false trip number increments, while also not allowing the routine to miss any disposal events.

3.1.3.2. Offloading

The trip number will be incremented at the completion of each disposal/removal of material from the scow. Each scow shall maintain a separate trip numbering sequence – i.e. each scow will start with a trip number of 1, that will be incremented by 1 each time that scow completes a disposal. The trip number must be calculated and repeatable based on a given logic; it may not necessarily correspond to the trip number logged aboard the dredge or tug. Efforts shall be made to include logic that avoids false trip number increments, while also not allowing the routine to miss any disposal events.

3.1.4. Horizontal Positioning

Geographic coordinates of the vessel as indicated by the location of the GPS antenna. All locations shall be obtained using a Positioning System operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.5. Date and Time

The date and time shall be reported to the nearest second and referenced to UTC time based on a 24 hour format; yyyy-mm-dd hh:mm:ss

3.1.6. Hull Status

Hull status is meant to reflect a condition when material could be removed or released from the scow. *For this contract, hull status shall register closed prior to leaving the disposal area.*

3.1.6.1. Open Water Disposal

An open split hull or open bottom door shall be indicated by reporting an “OPEN” value. A closed split hull or closed bottom door of a scow shall be indicated by reporting a “CLOSED” value. Open status shall be indicated as the bin starts to open and a closed status shall be indicated only once the bin is fully closed. For

pocket scows, the Open/Closed status shall correspond to the compartment which is first to open and last to close.

3.1.6.2. Offloading

For non-dumping scows, the “OPEN” value shall indicate that the bin is in the process of being unloaded, either by pumping or mechanical means.

3.1.7. Course

Scow course-over-ground (COG) shall be provided using industry standard equipment. The Contractor shall provide scow course over ground (to the nearest whole degree) with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.8. Speed

Scow speed-over-ground shall be provided in knots using industry standard equipment with a minimum accuracy of 1.0 knots and resolution to the nearest 0.1 knot.

3.1.9. Heading

Scow heading shall be provided using industry standard equipment. The scow heading shall be accurate to within 5 degrees and reported to the nearest whole degree, with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.10. Draft

All reported draft measurements shall be in feet, tenths and hundredths with an accuracy of ± 0.1 foot relative to observed physical draft readings. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Reported forward draft value shall be equal to the sum of the visual forward port and starboard draft mark readings divided by 2. Reported aft draft value shall be equal to the sum of the visual aft port and starboard draft mark readings divided by 2. Forward draft, aft draft and average draft will be reported. Sensors shall be placed at an optimum location on the scow to be reflective of observed physical draft mark readings at any trim or list. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When average draft is calculated for the purpose of determining displacement, significant digits for average draft shall be maintained such that if forward draft was 0.15 and aft draft was 0.1 then the average draft would be 0.125.

3.1.11. Displacement

Scow displacement shall be reported in long tons, based on the most accurate method available for the scow. The minimum standard of accuracy for displacement is interpolation from the displacement table, based on the average draft. For this contract the density of water used to calculate displacement shall be $1027 \text{ kg/m}^3 - 1030 \text{ kg/m}^3$ ($1.027\text{g/cm}^3 - 1.03\text{g/cm}^3$) and shall be used for an additional interpolation between the fresh and salt water tables.

3.2. NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

Contractors DQM system shall be capable of collecting, displaying, and transmitting information to the DQM Database. The parameters which shall be reported to the DQM Database include: trip number, date and time, hull status, scow course, scow speed, scow heading, draft, and displacement. An easily accessible, permanent visual display on the scow shall show in real time the parameters collected by the system in the same units as data submitted to the DQM database. In the event a reported parameter is calculated based on multiple sensors, the sensor values as used in the equation shall be able to be viewed in addition to the required parameter. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be responsible for repairing it within 48 hours of determination of the condition.

3.2.1. Telemetry

The Contractor may select any commercial satellite, cellular phone, or other data communications systems available, as long as it is capable of transmitting real time data, as well as enough additional band width to clear historically queued data when a connection is re-obtained. The telemetry system shall be always available and have connectivity in contract area. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. The data transition process from the scow to the DQM database must be automated. The data may be sent from the scow directly to the DQM database or to a shore based system. Data transmitted to the DQM Database should be raw data; any processing of the data conducted shore side shall be done using repeatable automated software or programming routine. A description of this process shall be included in the DPIP.

3.2.2. Data Reporting Frequency

Disposal activities shall be logged with high temporal and spatial resolution. Data shall be logged as a series of events. Each set of measurements (i.e. time, position, etc...) will be considered an event. All required information in section 3.1 that are not an averaged variable (i.e. draft and ullage) shall be collected within one second of reported time. Data shall be measured with sufficient frequency by the scow system to resolve the events to the accuracy specified in

3.2.3. Data Transmission to Web Service

A Simple Object Access Protocol (SOAP) web service shall be used to report sensor data to the DQM Database. Data shall be transmitted as it is collected in real time and pushed to the DQM web service. If the web service is not available or returns an Error message, the data shall be stored in a queue and transmitted upon re-establishment of the connection, starting with the oldest data in the queue and continuing until real-time transmission is restored. Delays in pushing real time data to the DQM database should not exceed four hours. Exceptions to these requirements may be granted by the DQM center on a case by case basis with consideration for contract specific requirements, site specific conditions, and extreme weather events.

Please contact dqm-support@usace.army.mil to obtain the web service URL and the appropriate Key credentials and communication protocol.

The data transmission method call takes two arguments: a string containing the plant identifier assigned by the DQM Center, and a second string containing the JSON-formatted sensor data. The method returns the string "OK" if data was received. If the data is not received, either the web service or the client application will throw an error.

3.2.4. XML Formatted-Sensor Data String

Each scow event shall be passed as a string on one continuous line of data. The example below is broken up by variable for ease of reading:

```
<?xml version="1.0"?>
<SCOW_DREDGING_DATA version="2.5">
  <SCOW_NAME>AU1994</SCOW_NAME>
  <CONTRACT>W123BA-09-D-0087_RL01</CONTRACT>
  <TRIP_NUMBER>34</TRIP_NUMBER>
  <X_POSITION>-81.670632</X_POSITION>
  <Y_POSITION>41.528987</Y_POSITION>
  <DATE_TIME>2010-08-14 10:50:15</DATE_TIME>
  <SCOW_SPEED>0.0</SCOW_SPEED>
  <SCOW_COURSE>0.0</SCOW_COURSE>
  <HULL_STATUS>OPEN</HULL_STATUS>
  <SCOW_HEADING></SCOW_HEADING>
  <SCOW_FWD_DRAFT></SCOW_FWD_DRAFT>
  <SCOW_AFT_DRAFT></SCOW_AFT_DRAFT>
  <SCOW_AVG_DRAFT></SCOW_AVG_DRAFT>
  <ULLAGE_FWD></ULLAGE_FWD>
  <ULLAGE_AFT></ULLAGE_AFT>
  <ULLAGE_AVG></ULLAGE_AVG>
  <SCOW_BIN_VOLUME></SCOW_BIN_VOLUME>
  <SCOW_DISPLACEMENT></SCOW_DISPLACEMENT>
```



```
<SCOW_LIGHTSHIP></SCOW_LIGHTSHIP>  
<SCOW_TDS></SCOW_TDS>  
<ADDITIONAL_DATA>Some more scow info, if needed</ADDITIONAL_DATA>  
</SCOW_DREDGING_DATA>
```

It should be noted that date values shall be formatted as follows: YYYY-MM-DD HH:MM:SS, as shown above. If for any reason a field has no value, send the enclosing XML tags with nothing between them, e.g. <DRAFT_AFT></DRAFT_AFT>. The web service cannot handle a "null" value or any other indicators of no value collected.

3.2.5. Contractor Backup Data

The Contractor shall maintain an archive of all data sent to the DQM database during the dredging contract. The Permit Project Manager may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the HTML format which would have been transmitted to the DQM database. Data submission shall be via storage medium acceptable to the Permit Project Manager.

At the end of the dredging contract, the Contractor shall contact the National DQM Support Center prior to discarding the data to ensure it has been appropriately archived. The Contractor shall record in a separate section at the end of the scow's on-site copy of the DPIP the following information:

- a) Person who made the call
- b) The date of the call
- c) The DQM representative who gave permission to discard

The same day of the phone call and prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived e-mail" to the local districts Permit Project Manager with the above information, and Cc: the DQM Support Center representative providing permission. In addition to the above information, also include in the e-mail:

- a) Project name and contract number
- b) Scow start and end dates
- c) Name of the scow

3.3. PERFORMANCE REQUIREMENTS

The Contractor's DQM system shall be fully operational at the start of dredging operations and fully certified prior to moving dredge material on the contract (see section 1.4, National Dredging Quality Management Program Certification). To meet contract requirements for operability, in addition to certification, the Contractor's system shall provide a minimum a data string with values for all parameters while operating, as

described within the specifications. Additionally, all hardware shall be compliant with DPIP requirements (Section 1.5). Quality data strings are considered to be those providing values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. If the Contractor fails to report required data within the specified time window for scow measurements (see Section 3.2.2 “Data Measurement Frequency” and 3.2.3 “Data Reporting”), or if the system has not received DQM certification prior to dredging; the system will be declared not in compliance, and the Contractor shall stop dredging or remove problem scow from service, perform necessary repairs or adjustments to the DQM system, and return the DQM system to full compliance with the contract requirements.

3.4. COMPLIANCE QUALITY ASSURANCE CHECKS

Quality assurance checks are required prior to the commencement of dredging, and at the discretion of a Permit Project Manager periodically throughout the duration of the contract. As part of the testing requirements, the dredging contractor shall provide the above personnel an easily accessible visual display of measurements from the scow monitoring system in the same units that are submitted to the DQM database. These measurements shall be provided in real-time on the scow or near real-time on location. The Dredging contractor shall also submit data collected during the QA checks from the scow monitoring system to the DQM database at completion of the checks. Detailed instructions for performing these checks and a spreadsheet for recording the results are available at <http://dqm.usace.army.mil/Certifications/Index.aspx> . Incoming data shall be periodically reviewed to assure compliance with performance requirements outlined in section 3.3.

For annual instrumentation checks and compliance monitoring, the DQM Data Acquisition Team personnel attempt to be as flexible as possible in performing their checks so as not to delay work; however, in order to expedite matters as much as possible, it is necessary that they receive the support and cooperation of the local district and dredging contractor. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM certified system in a timely manner. Calibrations to the sensors should already be performed before DQM personnel arrive on site.

3.4.1. Position Check

During the QA checks, both the static position of the scow and a dynamic tracking of movement through each of the event triggers (section 3.2.2) will be monitored by an independent GPS unit. The Data Acquisition Team GPS data shall be compared to the data that is collected by the DQM certified system for the same period. The data should be provided to the Data Acquisition Team by the system provider while onsite. The Data Acquisition Team will confirm position of the scow, verify that data collection intervals change as each of the scow event triggers change, and will check all data reporting requirements. A

contractor furnished tug will be required to transport the scow during this check. Throughout the contract, the Permit Project Manager will periodically verify reported positions by independently measuring with other equipment to verify locations.

3.4.2. Hull Status Check

The Permit Project Manager will document the angle at which the hull status sensor registers “OPEN” and “CLOSED”.

3.4.3. Draft and Displacement Check

The Permit Project Manager shall periodically verify the accuracy of the fore and aft system reported draft values by comparing the vessel hull draft marks to the corresponding sensor readings indicated on the DQM screen. The vessel’s hull draft reading shall be viewed from a contractor supplied auxiliary vessel circling the dredge. The Permit Project Manager shall review the difference between averaged drafts recorded by the instruments and those estimated from the draft marks to insure that the system is operating within the acceptable accuracy of approximately ± 0.1 ft. in calm seas conditions. Reported draft values will be verified light, loaded, and at other intervals at the discretion of the Permit Project Manager. If sensors responsible for collecting draft values are not located on centerline, verification may be required under different trim and list conditions. If values are outside the acceptable range, the Contractor shall re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each system provided fore and aft draft, an average draft value will be calculated during the draft check, and the corresponding displacement will be verified longhand using the supplied draft/displacement tables.

3.5. CONTRACTOR QUALITY CONTROL

Dredging contractor shall designate a quality control systems manager (QCSM), who shall develop and maintain daily procedures to ensure the contractor’s quality control (CQC) of the DQM system. These methods shall include a procedure by which data being collected is checked against known values and telemetry is verified to be functioning. The Contractor Quality Control Plan which describes these methods and procedures shall be included in the DPIP as per section 1.5. This is the only section which shall be submitted to the local district and is a required submittal prior to the start of the contract. CQC Reports may be required at the discretion of the QAR daily. Annotations shall be made in the CQC Report documenting all actions taken on each day of work including all deficiencies found and corrective actions taken.

3.6. LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP	Sec 1.5 Dredge Plant Instrumentation Plan
DQM SYSTEM	
Sensor Instrumentation	Sec. 3.1 Specifications for Reported Data
SCOW DATA	
Event documentation	Sec. 3.2.2 Data Measurement Frequency
Data reports	Sec. 3.2.3 Data Reporting
QA EQUIPMENT ON DREDGE	
Clear and accurate draft marks	

--END OF SECTION--

APPENDIX A
USACE Condition Survey of Guilford Harbor

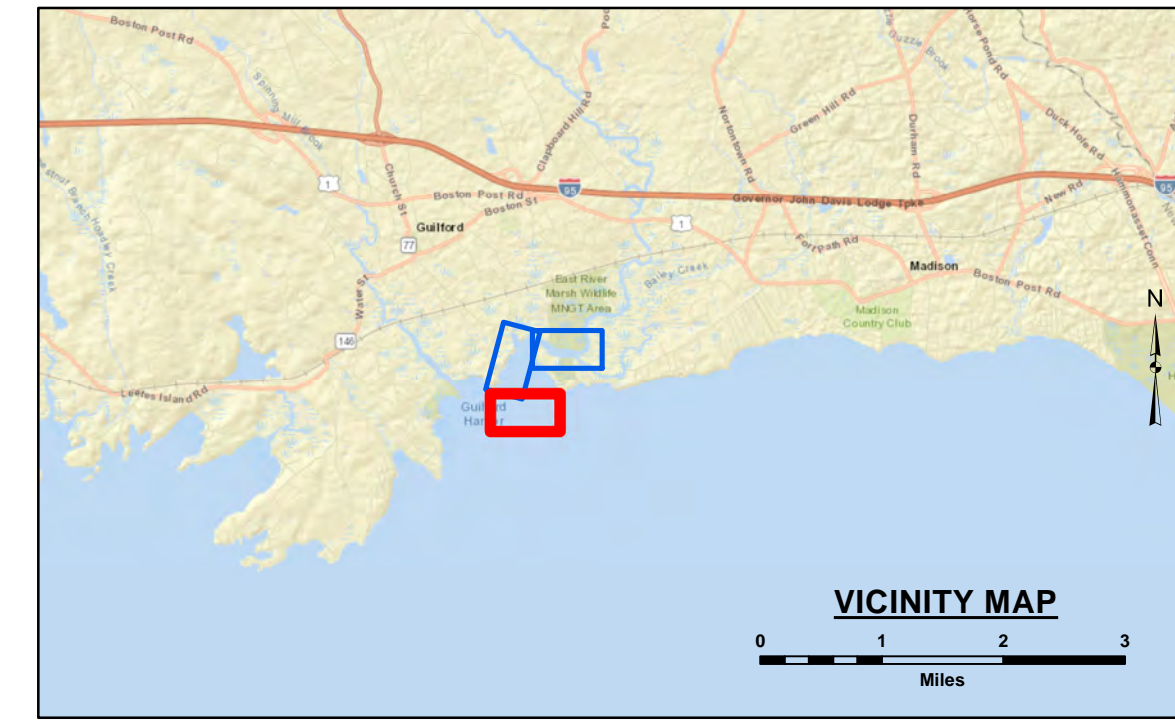
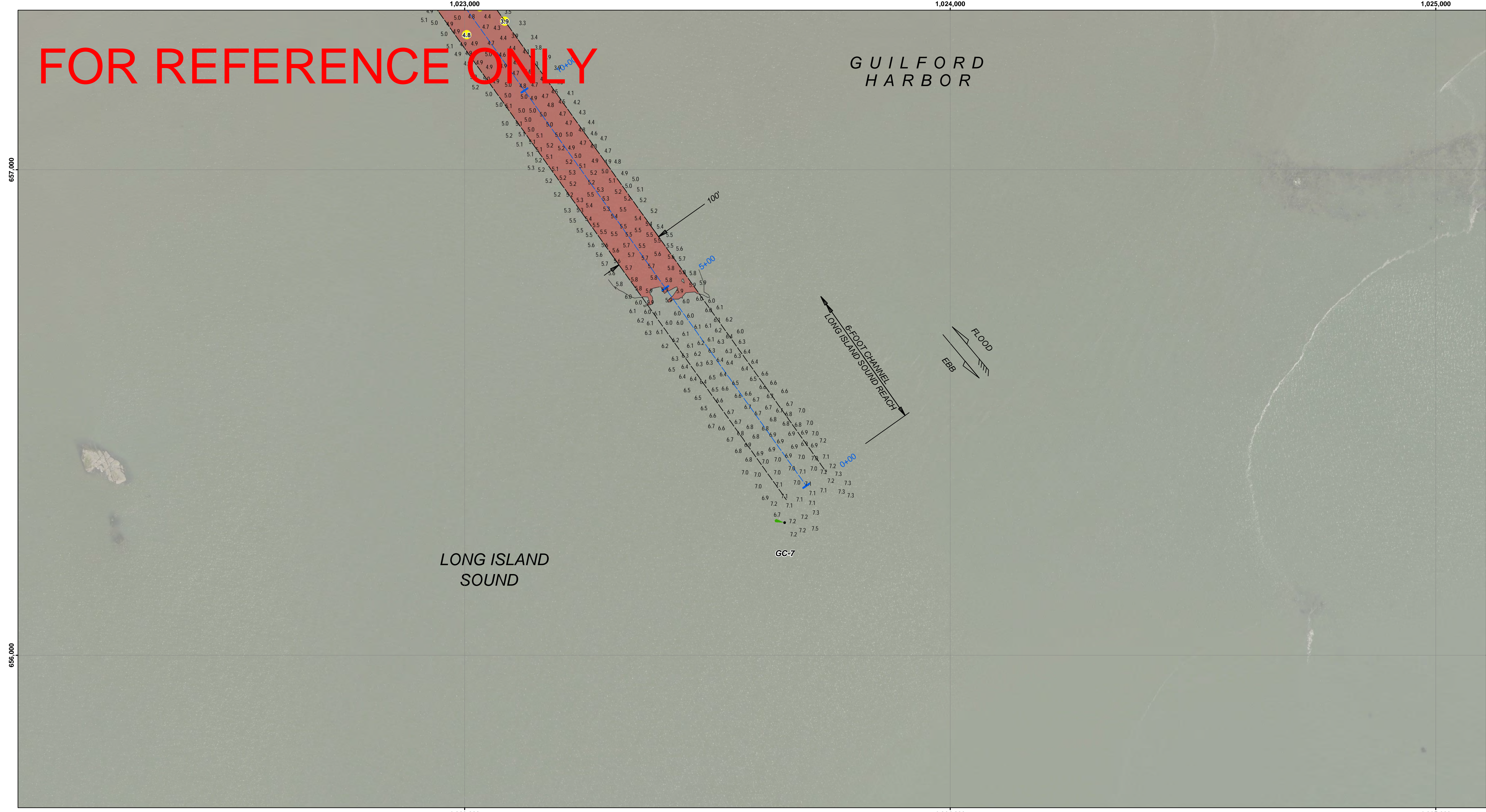


FOR REFERENCE ONLY

GUILFORD HARBOR

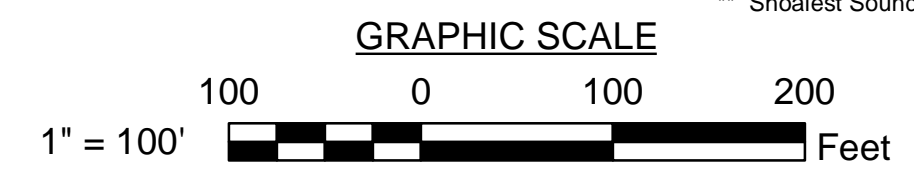
LONG ISLAND SOUND

GC-7

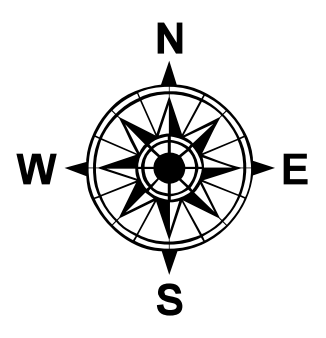


LEGEND

--- Federal Navigation Channel	✱ Fixed Navigation Aids
..... Cable or Pipeline Area	🚩 Red Navigation Buoy
— Channel Centerline	🟢 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
	● Shoalest Sounding**



** Shoalest Sounding per Quarter per Reach



Notes:
 Horizontal Datum: Connecticut, CT-0600 NAD 83
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: RS Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 kHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 5005
 Survey No.: CT_16_GUL_20200309_CS_009
 Reference NOAA Chart No.: 13229

The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during March 2020. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagery is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
 Lidar data included with sounding data.

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 correction used for this project is 3.11 feet. This correction is referenced from NOAA's V-Datum Model Version 3.9, NY/CT/RI Region Version 2.2, in the vicinity of Guilford Harbor, Guilford, Connecticut. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.



Access Constraints: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the United States Government makes no warranty, express or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the data. The recipient is responsible for its intended use, content, time and accuracy of the data. The recipient is responsible for its intended use, content, time and accuracy of the data. The recipient is responsible for its intended use, content, time and accuracy of the data.

U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	
SUBMITTED BY: Zachary McAvoy	CHECKED BY: ZSM
APPROVED BY: NAE Survey	ISSUE DATE: 3/24/2020
SIZE: ARS/D	NAV DOCUMENT: CT_16_GUL_20200309_CS_009

**GUILFORD HARBOR
GUILFORD, CONNECTICUT
CONDITION SURVEY
6-FOOT CHANNELS AND ANCHORAGE**

SHEET IDENTIFICATION
 Guilford Harbor
 Sheet 1 of 3

1,022,000

659,000

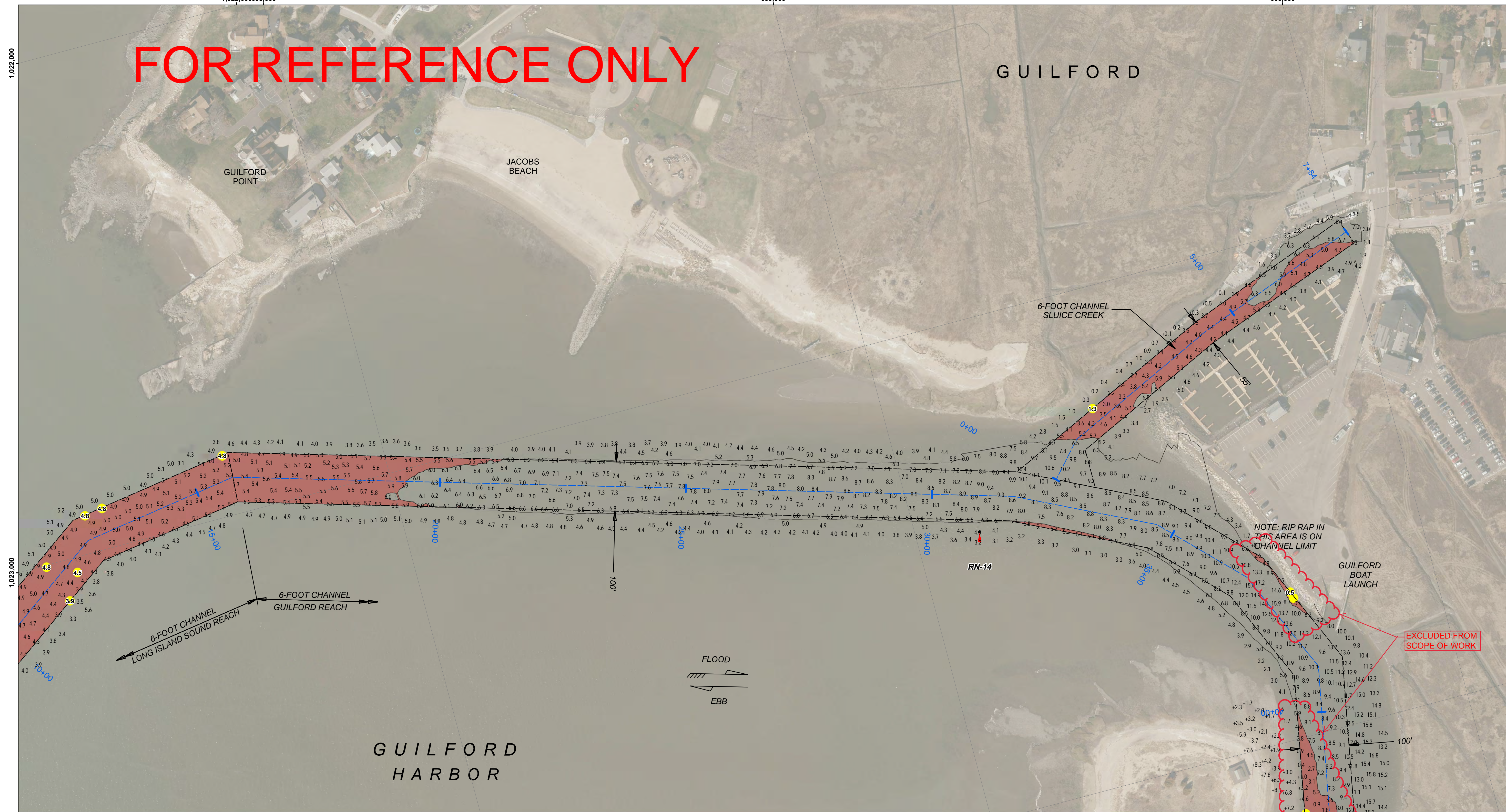
660,000

FOR REFERENCE ONLY

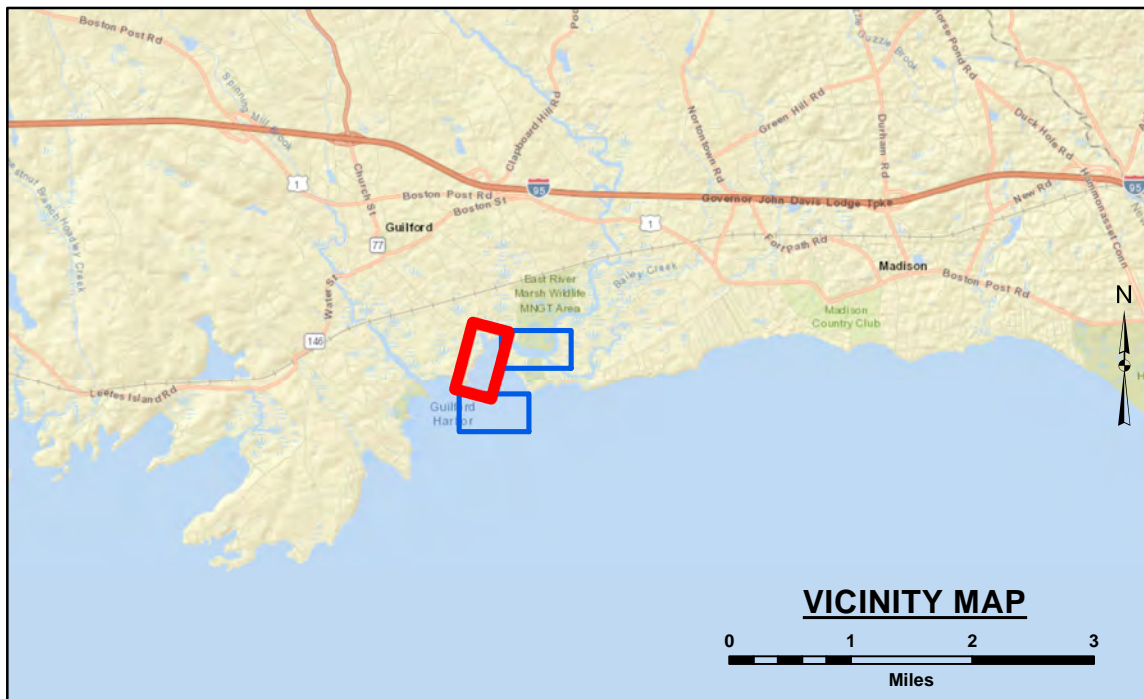
GUILFORD POINT

JACOBS BEACH

GUILFORD

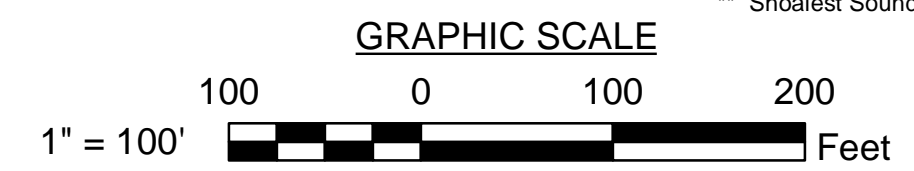


GUILFORD HARBOR

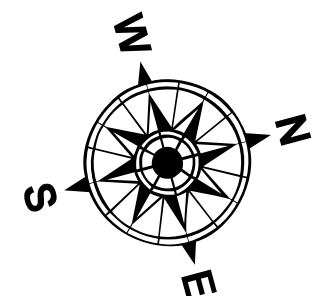


LEGEND

--- Federal Navigation Channel	✱ Fixed Navigation Aids
..... Cable or Pipeline Area	🚩 Red Navigation Buoy
— Channel Centerline	🟢 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
	● Shoalest Sounding**



** Shoalest Sounding per Quarter per Reach



Notes:
 Horizontal Datum: Connecticut, CT-0600 NAD 83
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: R2 Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 kHz
 Survey Method: RTK GPS Tides
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 5005
 Survey No.: CT_16_GUL_20200309_CS_009
 Reference NOAA Chart No.: 13229

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during March 2020. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagnery is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
 Lidar data included with sounding data.

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 correction used for this project is 3.11 feet. This correction is referenced from NOAA's V-Datum Model Version 3.9, NYC/CT/RI Region Version 2.2, in the vicinity of Guilford Harbor, Guilford, Connecticut. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.



DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the Government makes no warranty, express or implied, as to the accuracy, completeness, reliability, suitability or availability for any particular purpose of the information furnished. The user is responsible for the use of the information for any purpose other than that for which it was furnished. The user is responsible for the use of the information for any purpose other than that for which it was furnished. The user is responsible for the use of the information for any purpose other than that for which it was furnished.

SUBMITTED BY: Zachary McAvoy	SURVEYED BY: MAV	CHECKED BY: ZSM	ISSUE DATE: 3/24/2020
	APPROVED BY: NAE Survey		
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT		NAE DOCUMENT CT_16_GUL_20200309_CS_009	
SIZE: ANSI D			

**GUILFORD HARBOR
 GUILFORD, CONNECTICUT
 CONDITION SURVEY
 6-FOOT CHANNELS AND ANCHORAGE**

File Name: CT_16_GUL_20200309_CS_009

SHEET IDENTIFICATION
 Guilford Harbor
 Sheet 2 of 3

APPENDIX B

Regulatory Permits



Connecticut Department of Energy and Environmental Protection License*

Certificate of Permission

Licensee(s): Town of Guilford

Licensee Address(s): 31 Park Street
Guilford, CT 06437

License Number(s): 202102766-COP

Municipality: Town of Guilford

Project Description: Conduct maintenance dredging with open water disposal for marine commercial use

Project Address/Location: Assessor's Map 029, lots 101 & 106 at the end of Whitfield Street

Waters: Guilford Harbor and Sluice Creek

Authorizing CT Statute(s) and/or Federal Law: CGS Section 22a-359 to 363g; Section 401 CWA (33 USC 1341); CGS Section 22a-90 to 112

Applicable Regulations of CT State Agencies: 22a-426-1 to 9

Agency Contact: Land & Water Resources Division,
Bureau of Water Protection & Land Reuse, 860-424-3019

License Expiration: Five (5) years from the date of issuance of this license.

Project Site Plan Set: Ten sheets of plans dated November 30, 2020

License Enclosures: Land Record Filing; LWRD Compliance Certification Form; LWRD Dredging Report; LWRD Dredging and General Conditions; LWRD Work Commencement Form; Site Plan Set

Authorized Activities:

The Licensee is hereby authorized to conduct the following work as described in application # 202102766-COP and as depicted on any site plan sheets / sets cited herein:

Conduct maintenance dredging within three previously authorized footprints as follows:

*Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law . . ."

- I. Guilford Federal Navigational Channel—maintenance dredge an area covering approximately 163,700 SF to a depth of -6.0' MLLW plus 1' overdredge allowance and dispose approximately 13,370 CY of silty material at the Central Long Sound Disposal Site.
- II. Sluice Creek Federal Channel—maintenance dredge an area covering approximately 47,300 SF to a depth of -6.0' MLLW plus 1' overdredge allowance and dispose approximately 3,000 CY of silty material at the Central Long Sound Disposal Site.
- III. Marina Basin— maintenance dredge an area covering approximately 61,000 SF to a depth of -6.0' MLLW plus 1' overdredge allowance and dispose approximately 6,000 CY of silty material at the Central Long Island Disposal Site.


Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.

This license is subject to the following Terms and Conditions:

- 1. **License Enclosure(s) and Conditions.** The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.
- 2. **Time-of Year Restrictions.** Unconfined in-water excavation, dredging, filling or removal of debris or other material is prohibited between February 1st and June 1st, inclusive, of any year, and between July 1st and August 31st, inclusive, of any year, unless otherwise authorized in writing by the Commissioner. The specific closure dates are as follows: February 1st through May 15th in order to protect winter flounder reproduction; April 1st through June 1st in order to protect alewife spawning migration; and from July 1st through August 31st in order to protect spawning shellfish.

Issued under the authority of the Commissioner of Energy and Environmental Protection on:

March 31, 2021
Date



Brian P. Thompson
Division Director
Bureau of Water Protection & Land Reuse

LWRD Dredging and General Conditions

1. **Time-of-Year Restriction.** Unless otherwise noted in the License, unconfined in-water excavation, dredging, filling or removal of debris or other material is prohibited, inclusive, in any year from June 1 through September 30 in order to protect spawning shellfish in the area unless otherwise authorized in writing by the Commissioner.
2. **Dredging Report.** Not later than two (2) weeks subsequent to the completion of any dredging activity authorized herein, the Licensee shall submit to the Commissioner a completed Dredging Report. A separate form shall be submitted by the Licensee for each distinct dredging activity conducted pursuant to this license.
3. **Bottom Disturbance.** Dragging the bottom with a spoil barge, scow, vessel, beam or similar equipment outside of any authorized area is prohibited.
4. **Material Handling.** Sidecasting or in-water rehandling of dredged or excavated material is prohibited.
5. **Barge Control.** Spoil scows or barges shall be loaded and navigated in a manner which prevents uncontrollable motion or spillage and washout of dredged or excavated materials.
6. **Sale of Sediment.** Sediment dredged pursuant to the license shall not be sold nor shall any fee for its use be charged without the express prior written authorization of the Commissioner and payment of a \$4.00 per yard royalty to the state of Connecticut Department of Energy & Environmental Protection, pursuant to CGS section 22a-361(e).
7. **Sediment Disposal.** The Licensee shall dispose of aquatic sediments in accordance with the terms and conditions of the license.
8. **Submission of As-Dredged Plans.** On or before ninety (90) days after completion of the work authorized herein, the Licensee shall submit to the Commissioner an “as-dredged” survey of the work area showing contours, bathymetries, tidal datums and structures, as applicable. Such survey shall be the original one and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut.

Open Water Disposal, if authorized in Project Description

1. **Material Disposal.** The Licensee shall dispose of dredged or excavated material in accordance with the requirements of the United States Army Corps of Engineers-New England District, except that if the authorized disposal site is modified, the Licensee shall submit a request for modification of the location to the Commissioner and shall not dispose of the material until such location modification has been approved in writing by the Commissioner.

2. **Disposal Site / Use Modification.** The Commissioner may modify the authorized disposal site and direct dredged sediment to an alternate site for use as cap material, provided that no modification will take effect if such modification imposes uncompensated additional costs solely attributable to such modification on the Licensee.
3. **Disposal Monitoring.** The Licensee shall not dispose of dredged or excavated material unless said disposal is supervised and witnessed by an on-board inspector or documented by an automated disposal monitoring program approved by the United States Army Corps of Engineers-New England District.
4. **Barge Navigation.** Spoil scows or barges used by the Licensee for disposal of dredged or excavated material shall travel to and from the authorized disposal site utilizing sea lanes defined by the United States Army Corps of Engineers-New England District.
5. **Point Dumping.** The Licensee shall point-dump dredged or excavated materials at a specified buoy or set of coordinates identified by United States Army Corps of Engineers-New England District within the authorized disposal site.

LWRD General Conditions

1. **Land Record Filing.** The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance. If a Land Record Filing form is not enclosed and the work site is not associated with an upland property, no filing is required.
2. **Contractor Notification.** The Licensee shall give a copy of the license and its attachments to the contractor(s) who will be carrying out the authorized activities prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Licensee's contractor(s) shall conduct all operations at the site in full compliance with the license and, to the extent provided by law, may be held liable for any violation of the terms and conditions of the license. At the work site, the contractor(s) shall, whenever work is being performed, have on site and make available for inspection a copy of the license and the authorized plans.
3. **Work Commencement.** Not later than two (2) weeks prior to the commencement of any work authorized herein, the Licensee shall submit to the Commissioner, on the Work Commencement Form attached hereto, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
 - For water diversion activities authorized pursuant to 22a-377(c)-1 of the Regulations of Connecticut State Agencies, the Licensee shall also notify the Commissioner in writing two weeks prior to initiating the authorized diversion.
 - For emergency activities authorized pursuant Connecticut General Statutes Section

22a-6k, the Licensee shall notify the Commissioner, in writing, of activity commencement at least one (1) day prior to construction and of activity completion no later than five (5) days after conclusion.

4. **License Notice.** The Licensee shall post the first page of the License in a conspicuous place at the work area while the work authorized therein is undertaken.
5. **Unauthorized Activities.** Except as specifically authorized, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not conduct work within wetlands or watercourses other than as specifically authorized, unless otherwise authorized in writing by the Commissioner. Tidal wetlands means “wetland” as defined by section 22a-29 and “freshwater wetlands and watercourses” means “wetlands” and “watercourses” as defined by section 22a-38.
6. **Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and managed in a manner which prevents additional impacts to wetlands and watercourses.
7. **Best Management Practices.** The Licensee shall not cause or allow pollution of any wetlands or watercourses, including pollution resulting from sedimentation and erosion. In constructing or maintaining any authorized structure or facility or conducting any authorized activity, or in removing any such structure or facility, the Licensee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. For purposes of the license, “pollution” means “pollution” as that term is defined by CGS section 22a-423. Best Management Practices include, but are not limited, to practices identified in the *Connecticut Guidelines for Soil Erosion and Sediment Control* as revised, *2004 Connecticut Stormwater Quality Manual*, Department of Transportation’s *ConnDOT Drainage Manual* as revised, and the Department of Transportation Standard Specifications as revised.
8. **Work Site Restoration.** Upon completion of any authorized work, the Licensee shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.
9. **Inspection.** The Licensee shall allow any representative of the Commissioner to inspect the project location at reasonable times to ensure that work is being or has been conducted in accordance with the terms and conditions of this license.
10. **Change of Use. (Applies only if a use is specified within the License “Project Description”)**
 - a. The work specified in the license is authorized solely for the purpose set forth in the license. No change in purpose or use of the authorized work or facilities as set forth in the license may occur without the prior written approval of the Commissioner. The Licensee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this license, request permission from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.

b. A change in the form of ownership of any structure authorized herein from a rental/lease commercial marina to a wholly-owned common interest community or dockominium may constitute a change in purpose as specified in paragraph (a) above.

11. De Minimis Alteration. The Licensee shall not deviate from the authorized activity without prior written approval from the Commissioner. The Licensee may request a de minimis change to any authorized structure, facility, or activity. A de minimis alteration means a change in the authorized design, construction or operation that individually and cumulatively has minimal additional environmental impact and does not substantively alter the project as authorized.

- For diversion activities authorized pursuant to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, a de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.

12. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to the Commissioner at least thirty (30) days prior to the license expiration. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. It shall be the Commissioner's sole discretion to grant or deny such request.

13. No Work After License Expiration. Work conducted after the license expiration date is a violation of the license and may subject the licensee to enforcement action, including penalties, as provided by law.

14. License Transfer. The license is not transferable without prior written authorization of the Commissioner. A request to transfer a license shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Licensee's obligations under the license shall not be affected by the passage of title to the license site to any other person or municipality until such time as a transfer is approved by the Commissioner.

15. Document Submission. Any document required to be submitted to the Commissioner under the license or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:

Regulatory Section
Land & Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
860-424-3019

16. Date of Document Submission. The date of submission to the Commissioner of any document required by the license shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under the license, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the

Commissioner, whichever is earlier. Except as otherwise specified in the license, the word “day” as used in the license means calendar day. Any document or action which is required by the license to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.

17. Certification of Documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under the license shall be signed by the Licensee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows: “I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense.”

18. Accuracy of Documentation. In evaluating the application for the license, the Commissioner has relied on information and data provided by the Licensee and on the Licensee’s representations concerning site conditions, design specifications and the proposed work, including but not limited to representations concerning the commercial, public or private nature of the work or structures, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, the license may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.

19. Limits of Liability. In granting the license, the Commissioner has relied on all representations of the Licensee, including information and data provided in support of the Licensee’s application. Neither the Licensee’s representations nor the issuance of the license shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.

20. Reporting of Violations. In the event that the Licensee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this license or of any document incorporated into the license, the Licensee shall immediately notify the agency contact specified within the license and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the agency contact, the Licensee shall provide, for the agency’s review and written approval, a report including the following information:

- a. the provision(s) of the license that has been violated;
- b. the date and time the violation(s) was first observed and by whom;
- c. the cause of the violation(s), if known;
- d. if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;

- e. if the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- g. the signatures of the Licensee and of the individual(s) responsible for actually preparing such report.

If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the Commissioner.

- 21. Revocation/Suspension/Modification.** The license may be revoked, suspended, or modified in accordance with applicable law.
- 22. Other Required Approvals.** License issuance does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
- 23. Rights.** The license is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.
- 24. Condition Conflicts.** In the case where a project specific special condition listed on the license differs from, or conflicts with, one of the general conditions listed herein, the project specific special condition language shall prevail. It is the licensee's responsibility to contact the agency contact person listed on the license for clarification if needed prior to conducting any further regulated activities.

MAINTENANCE DREDGING PROJECT
GUILFORD TOWN MARINA & FEDERAL NAVIGATION CHANNEL
GUILFORD, CONNECTICUT

DRAWING LIST

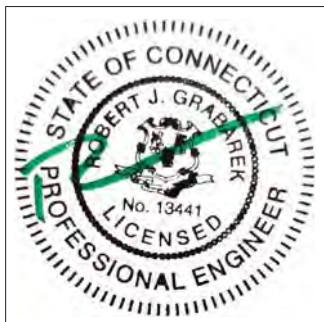
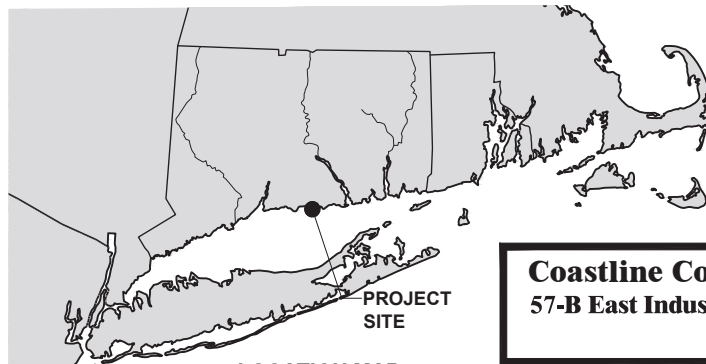
SHEET NO.	SHEET TITLE	ORIGINAL DATE	REVISION DATE	NOTES
1 OF 10	TITLE SHEET	11-30-2020		
2 OF 10	USGS TOPOGRAPHIC QUADRANGLE MAP	11-30-2020		
3 OF 10	DISPOSAL SITE - CENTRAL LONG ISLAND SOUND	11-30-2020		
4 OF 10	TAX ASSESSOR'S MAP	11-30-2020		
5 OF 10	SITE INDEX MAP	11-30-2020		
6 OF 10	EXISTING & PROPOSED CONDITIONS PLAN	11-30-2020		
7 OF 10	EXISTING & PROPOSED CONDITIONS PLAN	11-30-2020		
8 OF 10	EXISTING & PROPOSED CONDITIONS PLAN	11-30-2020		
9 OF 10	EXISTING & PROPOSED CONDITIONS PLAN	11-30-2020		
10 OF 10	PROJECT CROSS SECTIONS	11-30-2020		

PROJECT NOTES

- REFERENCE IS MADE TO THE FOLLOWING MAPS:
 - "HYDROGRAPHIC SURVEY, NAVIGATION CHANNELS & MARINA BASIN, GUILFORD, CONNECTICUT" SHEETS 1-3, DATED SEPTEMBER 18, 2019, SCALE 1" = 60' AND PREPARED BY COASTLINE CONSULTING & DEVELOPMENT, LLC, (TIMOTHY MCCARTHY, CERTIFIED HYDROGRAPHER #296).
 - "NFIP, FLOOD INSURANCE RATE MAP, MIDDLESEX COUNTY, CONNECTICUT", MAP NUMBER 09007C0344J, MAP REVISED FEBRUARY 6, 2013, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- HYDROGRAPHIC SOUNDINGS ARE REFERENCED TO THE MEAN LOWER LOW WATER DATUM.
- THE C.JL (COASTAL JURISDICTION LINE) ELEVATION OF 4.0' NAVD88 IS THE VALUE FOR GUILFORD, CT AS ESTABLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

GENERAL NOTES

- THESE DRAWINGS WERE PREPARED FROM RECORDED RESEARCH, FIELD OBSERVATIONS, DRAWINGS NOTED HEREON, AND OTHER SOURCES.
- THESE DRAWINGS ARE FOR PLANNING AND PERMITTING PURPOSES ONLY AND NOT INTENDED FOR STRUCTURAL DESIGN, BID DOCUMENTS, OR CONSTRUCTION.
- THE FEMA FLOOD LINES ARE DIGITIZED FROM A REFERENCE MAP NOTED HEREON, SHOWN TO SATISFY PERMIT REQUIREMENTS, AND NOT INTENDED FOR INSURANCE OR ELEVATION CERTIFICATE PURPOSES. BASE FLOOD ELEVATIONS ARE IN NAVD88.
- SITE MAY BE SUBJECT TO AND/OR TOGETHER WITH CERTAIN LITTORAL, RIPARIAN, OR OTHER RIGHTS AS PER THE RECORD MAY APPEAR. ANY UNDERGROUND AND/OR UNDERWATER UTILITY, STRUCTURE, AND FACILITY LOCATIONS DEPICTED AND/OR NOTED HEREON MAY HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE LOCATIONS OF WHICH ARE UNKNOWN TO COASTLINE CONSULTING & DEVELOPMENT, LLC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION. CALL BEFORE YOU DIG: 1-800-922-4455.



Coastline Consulting & Development
57-B East Industrial Road, Branford, CT 06405
(203) 433-4486

TITLE SHEET
MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

11-30-2020 JOB NO. 19-060 SHEET 1 OF 10



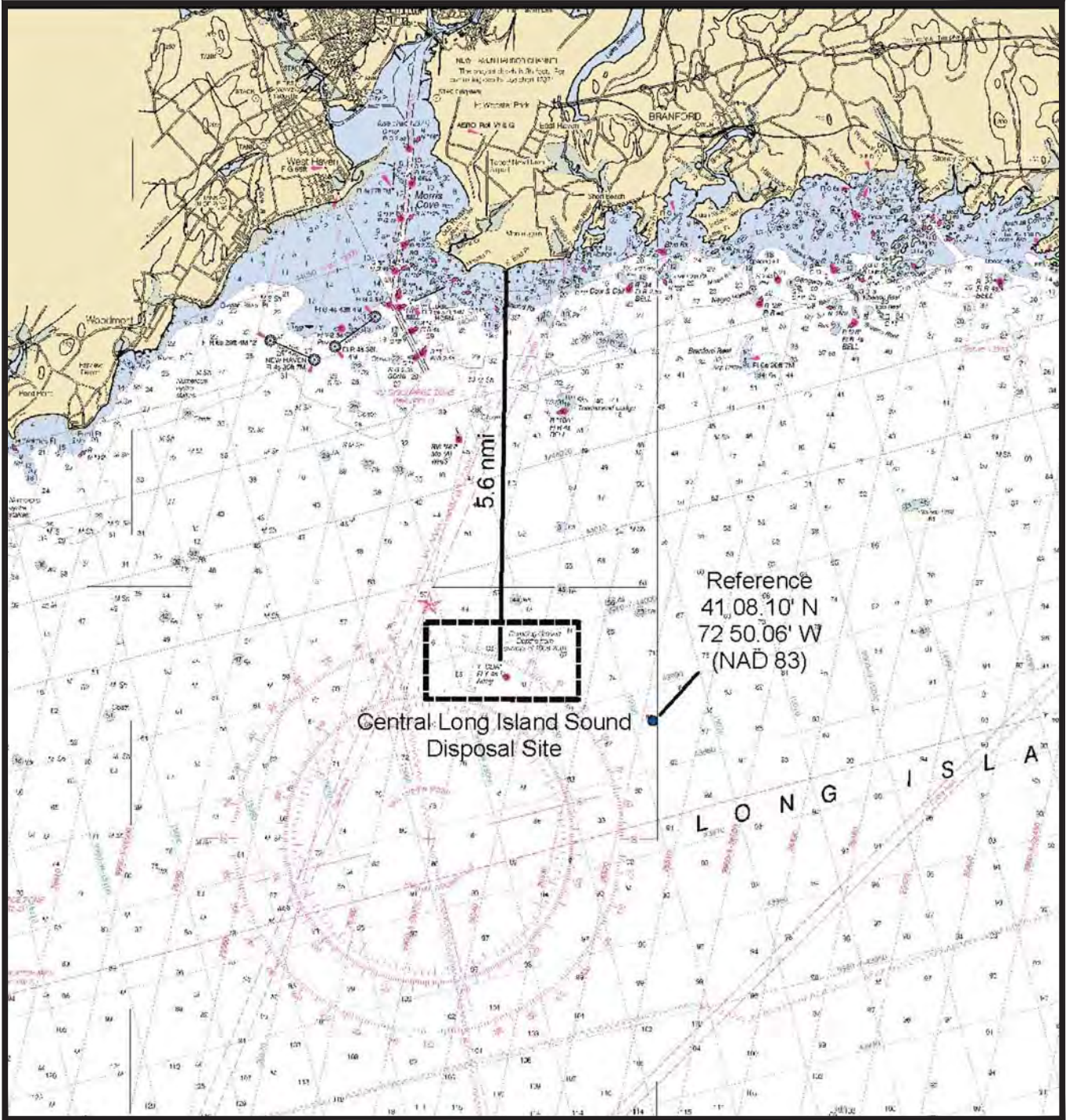
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 (203) 433-4486

USGS TOPOGRAPHIC QUADRANGLE MAP
 MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

MAP TAKEN FROM TOPO, INC. 7.5 MINUTE USGS TOPOGRAPHIC MAPS OF THE GUILFORD, CONNECTICUT QUADRANGLE, 1960 (PHOTO INSPECTED 1976, PHOTO REVISED 1984).

11-30-2020	SCALE: 1:24,000	SHEET 2 OF 10
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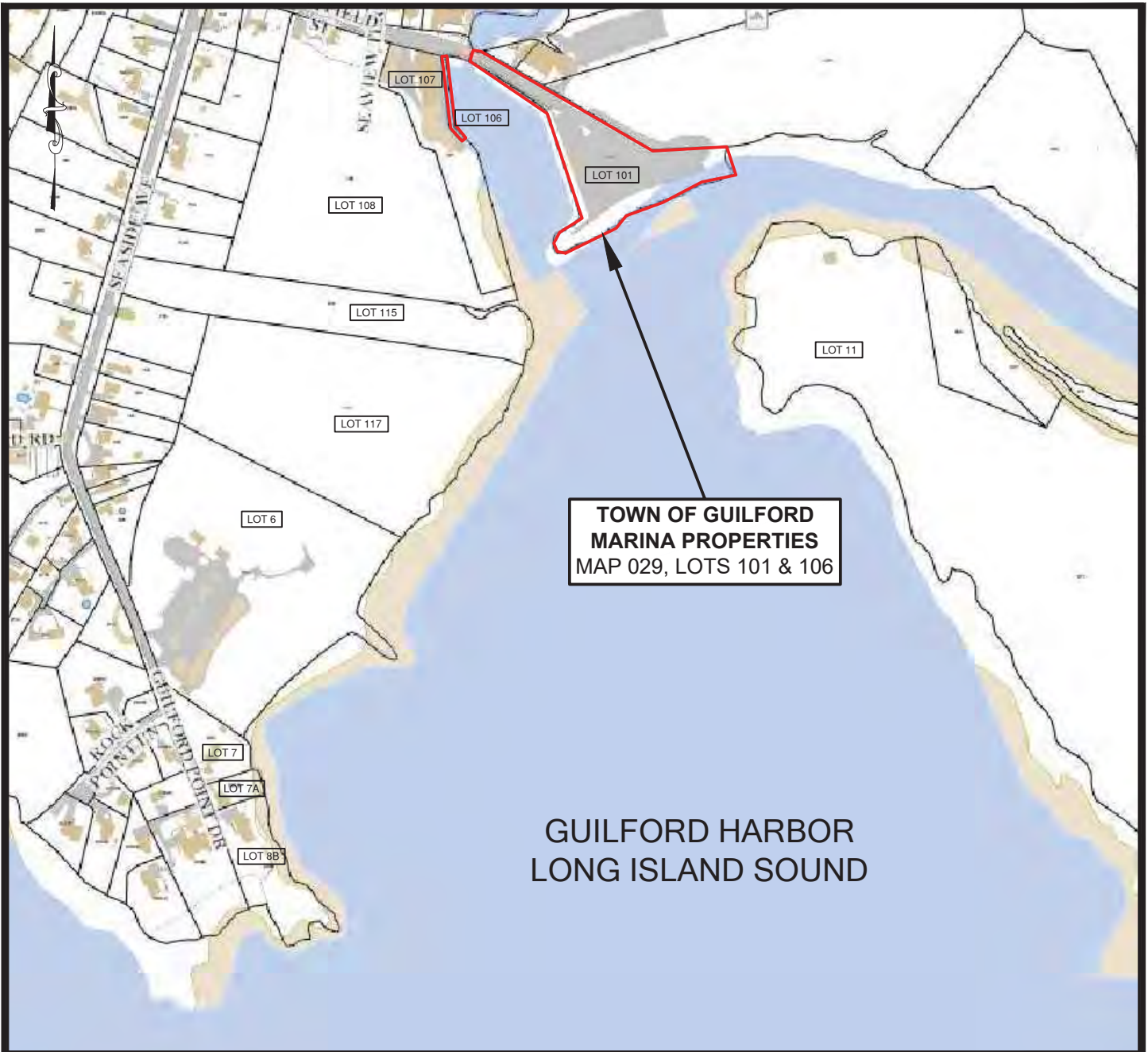
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 (203) 433-4486

DISPOSAL SITE
 CENTRAL LONG ISLAND SOUND
 MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

MAP TAKEN FROM NOAA CHART US4NY1GM, LONG ISLAND SOUND
 EASTERN PART.

11-30-2020 SCALE: 1:175,000 SHEET 3 OF 10

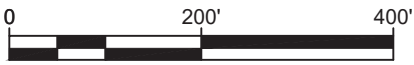


**GUILFORD HARBOR
LONG ISLAND SOUND**

**TOWN OF GUILFORD
MARINA PROPERTIES
MAP 029, LOTS 101 & 106**

ADJACENT WATERSIDE PROPERTY OWNERS			
LOT #	PROPERTY OWNER	PROPERTY ADDRESS	MAILING ADDRESS
#107	505 WHITFIELD LLC	505 WHITFIELD STREET GUILFORD, CT 06437	201 SAW MILL ROAD GUILFORD, CT 06437
#108	OCEANCO LLC	485 WHITFIELD STREET GUILFORD, CT 06437	530 WHITFIELD STREET GUILFORD, CT 06437
#115	TOWN OF GUILFORD	SEASIDE AVE GUILFORD, CT 06437	31 PARK STREET GUILFORD, CT 06437
#117	117 SEASIDE AVENUE LLC	SEASIDE AVE GUILFORD, CT 06437	74 SEASIDE AVENUE GUILFORD, CT 06437
#6	TOWN OF GUILFORD JACOBS BEACH	140 SEASIDE AVENUE GUILFORD, CT 06437	31 PARK STREET GUILFORD, CT 06437
#7	JAMES M. GLASS & JOYCE M. GLASS	2 GUILFORD POINT DRIVE GUILFORD, CT 06437	2 GUILFORD POINT DRIVE GUILFORD, CT 06437
#7A	HENRY W. CRISCUOLO C/O ROBERT CRISCUOLO	4 GUILFORD POINT DRIVE GUILFORD, CT 06437	3013 DIXWELL AVENUE HAMDEN, CT 06518
#8B	DIEGO D. TOMASI	6 GUILFORD POINT DRIVE GUILFORD, CT 06437	PO BOX 58653 HOUSTON, TX 77258
#11	TOWN OF GUILFORD	NECK ROAD GUILFORD, CT 06437	31 PARK STREET GUILFORD, CT 06437

REFERENCE IS MADE TO OLD
GUILFORD GIS MAPPING TAKEN FROM
<https://guilford.mapxpress.net/>.



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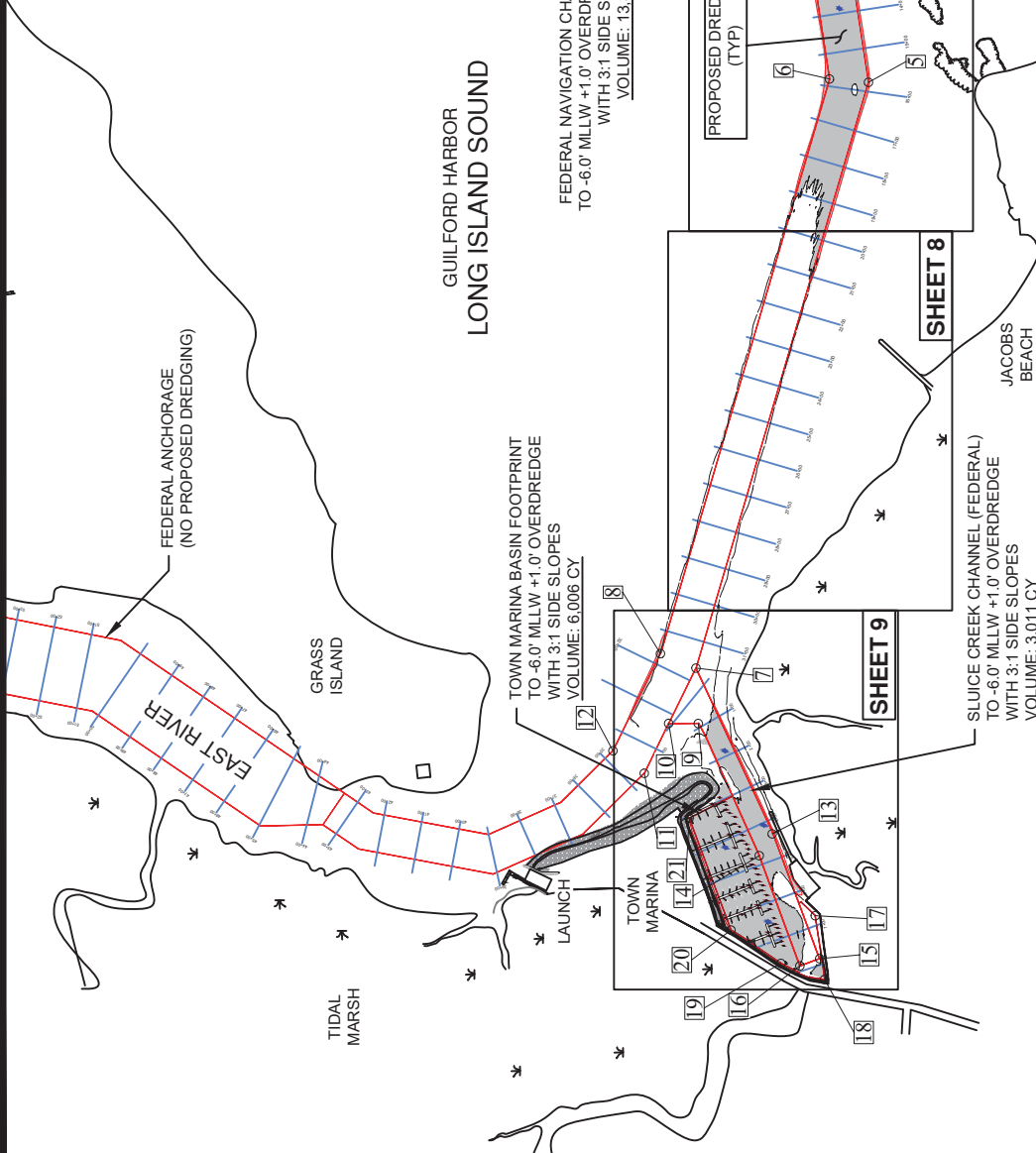
TAX ASSESSOR'S MAP
MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
NAVIGATION CHANNELS
GUILFORD, CONNECTICUT



COORDINATES

#	EASTING	NORTHING
1	1023662.6	656320.2
2	1023744.2	656378.0
3	1022955.7	657354.2
4	1023021.0	657392.8
5	1022874.1	657694.2
6	1022976.3	657687.3
7	1023327.2	659232.9
8	1023419.6	659192.9
9	1023320.1	659378.3
10	1023399.0	659378.3
11	1023463.1	659509.3
12	1023545.4	659450.1
13	1023125.2	659666.6
14	1023161.0	659725.6
15	1023003.2	659996.3
16	1023054.8	660015.2
17	1023013.9	659883.3
18	1022989.5	660050.9
19	1023104.0	660008.6
20	1023235.5	659921.1
21	1023344.8	659626.6



REFER TO NOTES ON SHEET 1.

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 57-B East Industrial Road, Branford, CT 06405
 (203) 433-4486

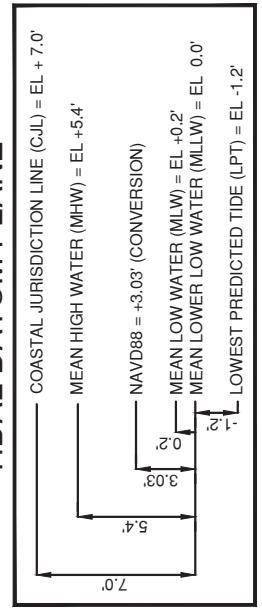
SITE INDEX MAP
 MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

11-30-2020 SCALE 1" = 100' SHEET 5 OF 10

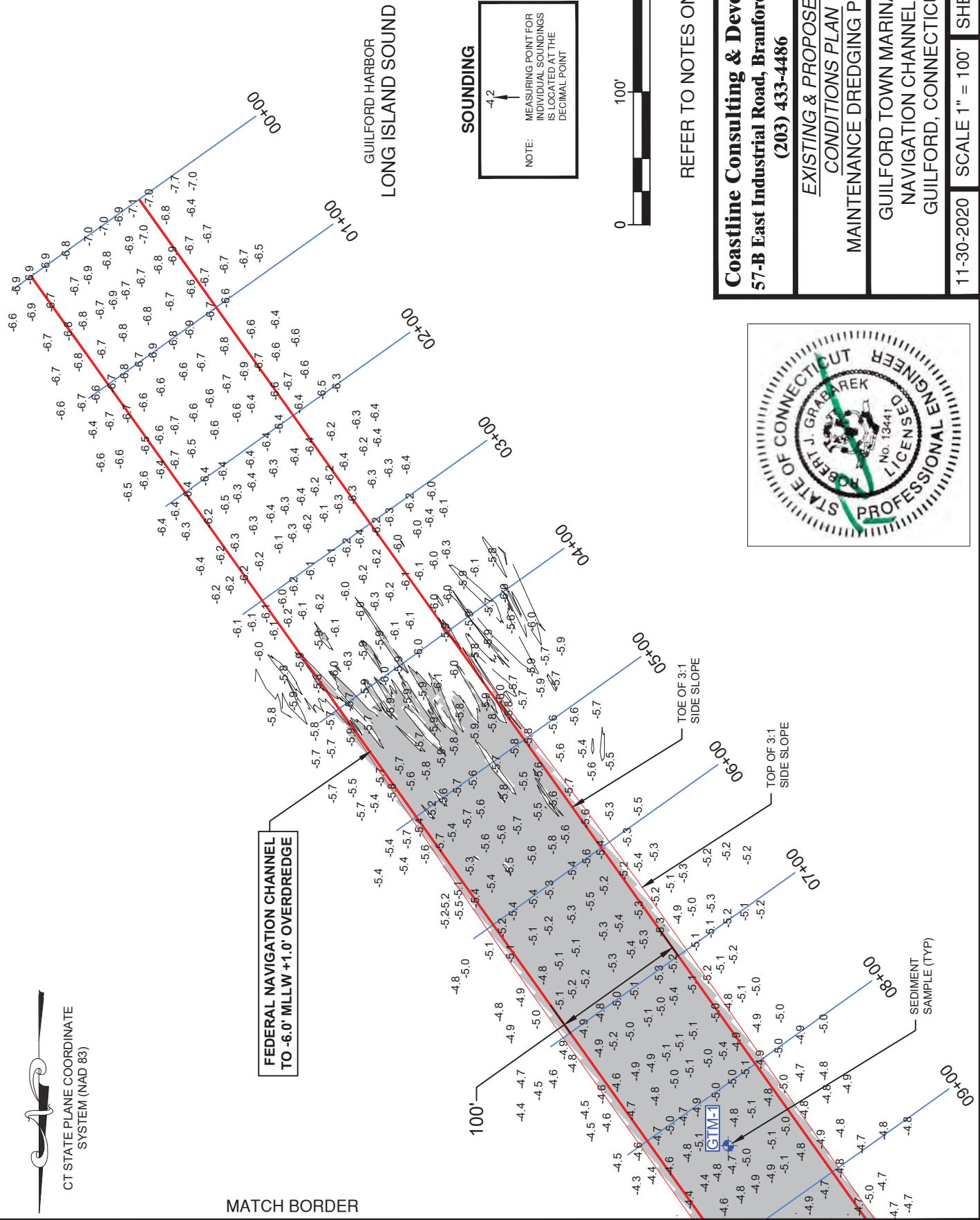


TIDAL DATUM PLANE



CT STATE PLANE COORDINATE SYSTEM (NAD 83)

MATCH BORDER



**FEDERAL NAVIGATION CHANNEL
TO -6.0' MLLW +1.0' OVERDREDGE**

100'

SOUNDING
NOTE: MEASURING POINT FOR INDIVIDUAL SOUNDINGS IS LOCATED AT THE DECIMAL POINT



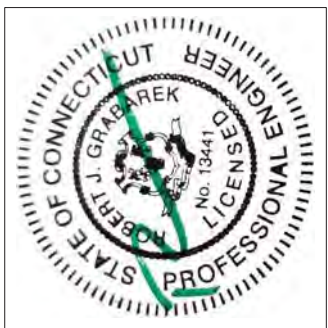
REFER TO NOTES ON SHEET 1.

Coastline Consulting & Development
57-B East Industrial Road, Branford, CT 06405
(203) 433-4486

EXISTING & PROPOSED
CONDITIONS PLAN
MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
NAVIGATION CHANNELS
GUILFORD, CONNECTICUT

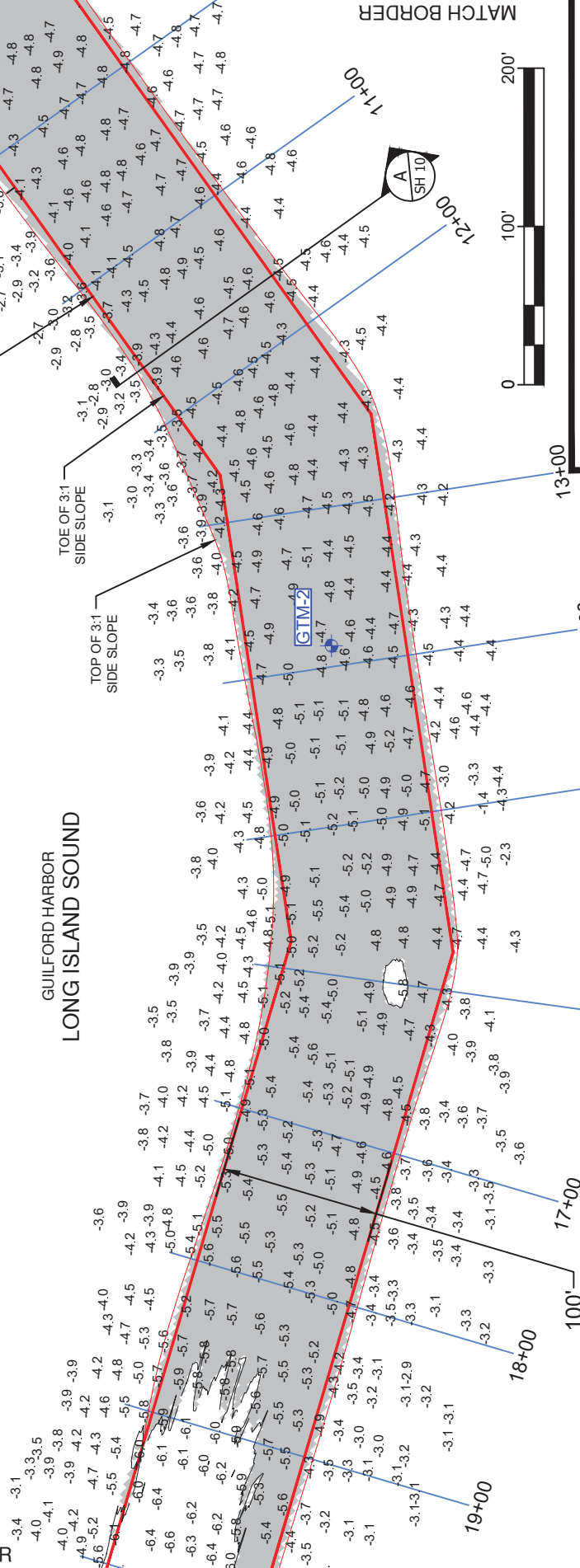
11-30-2020 SCALE 1" = 100' SHEET 6 OF 10





CT STATE PLANE COORDINATE SYSTEM (NAD 83)

MATCH BORDER



Coastline Consulting & Development
 57-B East Industrial Road, Branford, CT 06405
 (203) 433-4486

**EXISTING & PROPOSED
 CONDITIONS PLAN**

MAINTENANCE DREDGING PROJECT

**GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS**
 GUILFORD, CONNECTICUT

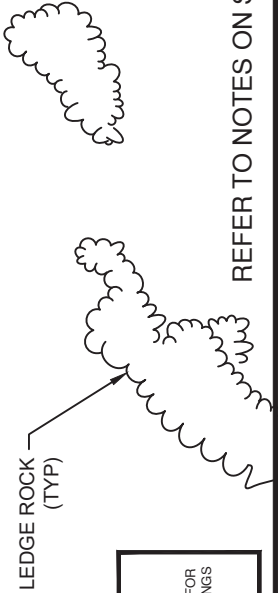
11-30-2020 SCALE 1" = 100' SHEET 7 OF 10



SOUNDING

-4.2

NOTE: MEASURING POINT FOR INDIVIDUAL SOUNDINGS IS LOCATED AT THE DECIMAL POINT



REFER TO NOTES ON SHEET 1.

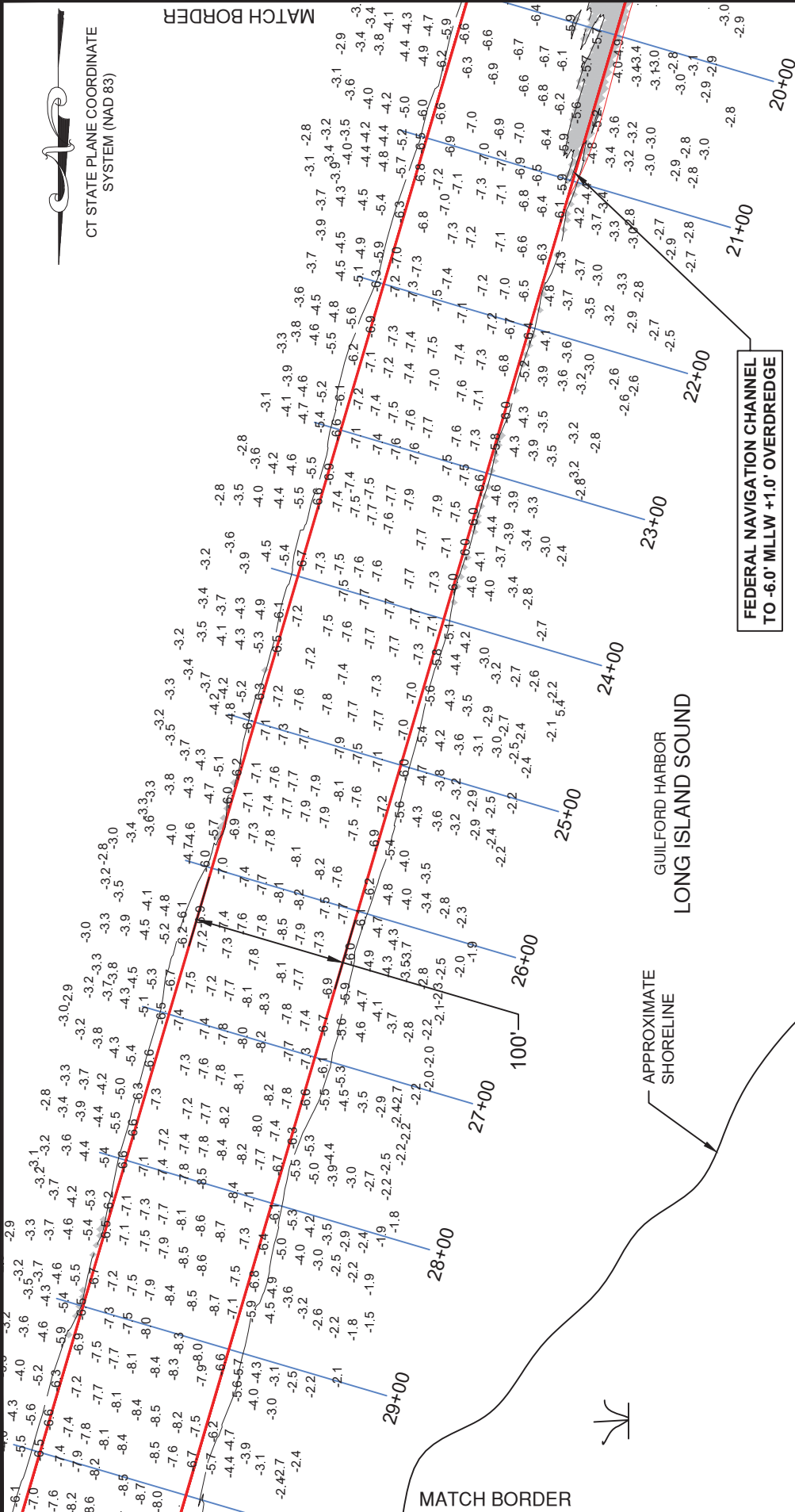


MATCH BORDER



CT STATE PLANE COORDINATE SYSTEM (NAD 83)

MATCH BORDER

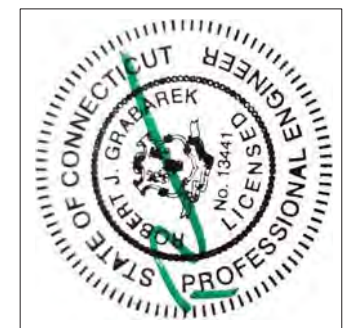


MATCH BORDER

Coastline Consulting & Development
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 (203) 433-4486

EXISTING & PROPOSED
CONDITIONS PLAN
 MAINTENANCE DREDGING PROJECT
 GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

11-30-2020 SCALE 1" = 100' SHEET 8 OF 10



SOUNDING

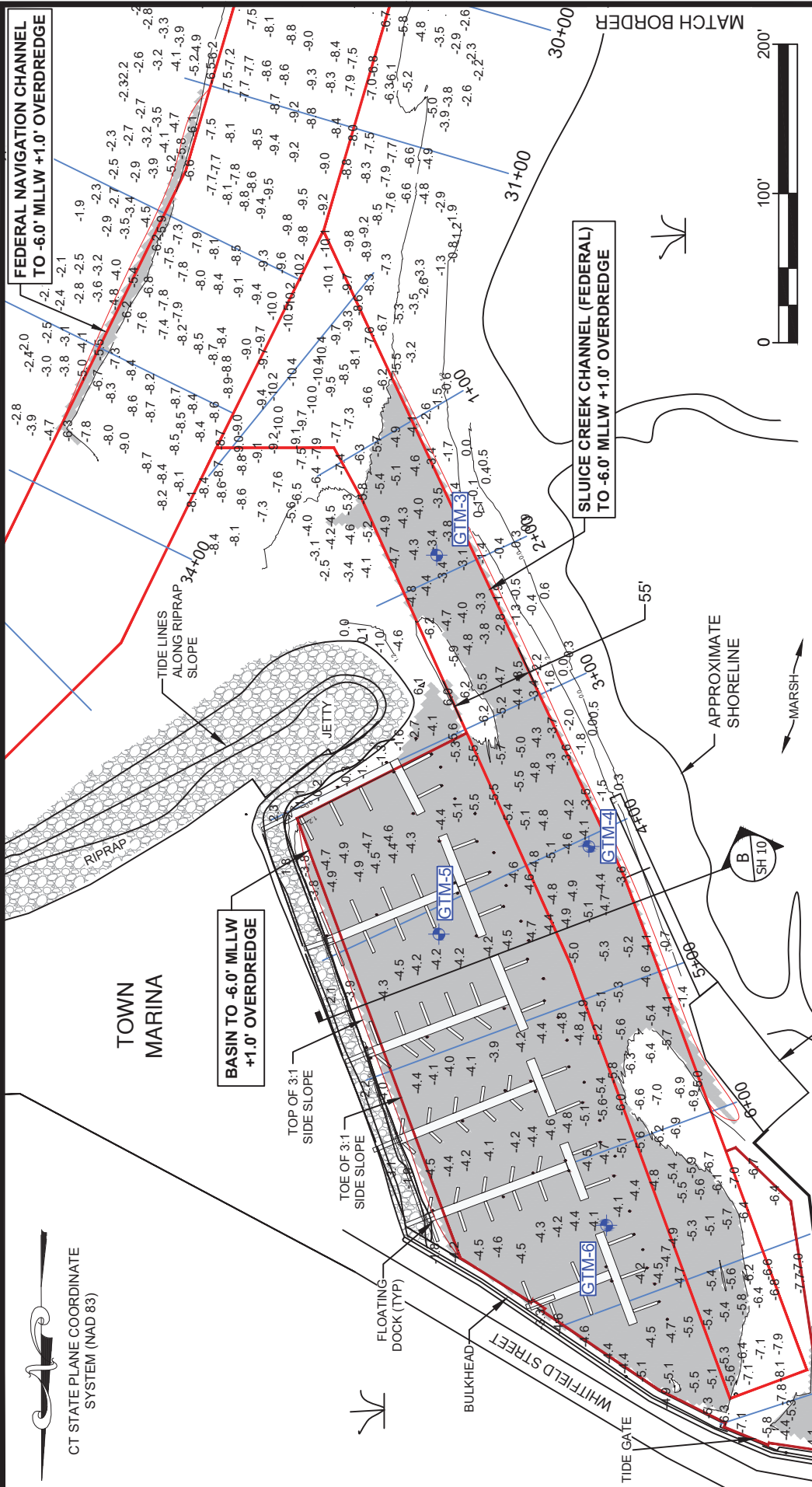
↑ -4.2

NOTE:
 MEASURING POINT FOR
 INDIVIDUAL SOUNDINGS
 IS LOCATED AT THE
 DECIMAL POINT



REFER TO NOTES ON SHEET 1.

CT STATE PLANE COORDINATE SYSTEM (NAD 83)



Coastline Consulting & Development
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 (203) 433-4486

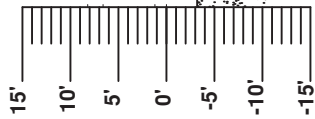
EXISTING & PROPOSED
CONDITIONS PLAN
 MAINTENANCE DREDGING PROJECT
 GUILFORD TOWN MARINA &
 NAVIGATION CHANNELS
 GUILFORD, CONNECTICUT

11-30-2020 SCALE 1" = 100' SHEET 9 OF 10

SOUNDING
 -4.2
 NOTE: MEASURING POINT FOR INDIVIDUAL SOUNDINGS IS LOCATED AT THE DECIMAL POINT

REFER TO NOTES ON SHEET 1.





100'
FEDERAL NAVIGATION CHANNEL

CULVERT = 7.0'
MHW = 5.4'
MLLW = 0.0'
LPT = -1.2'

TOP OF 3:1
SIDE SLOPE
TOE OF 3:1
SIDE SLOPE

DREDGE
TO -6.0' MLLW

+1.0' OVERDREDGE

A PROJECT CROSS SECTION
SCALE 1" = 20'

55'
SLUICE CREEK
FEDERAL CHANNEL

133'
GUILFORD TOWN MARINA BASIN



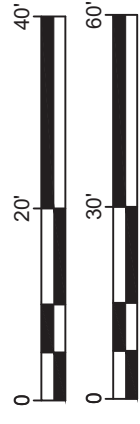
CULVERT = 7.0'
MHW = 5.4'
MLLW = 0.0'
LPT = -1.2'

TOE OF 3:1
SIDE SLOPE
TOP OF 3:1
SIDE SLOPE

DREDGE
TO -6.0' MLLW

+1.0' OVERDREDGE

B PROJECT CROSS SECTION
SCALE 1" = 30'



Coastline Consulting & Development
57-B East Industrial Road, Branford, CT 06405
(203) 433-4486

PROJECT CROSS SECTIONS
MAINTENANCE DREDGING PROJECT

GUILFORD TOWN MARINA &
NAVIGATION CHANNELS
GUILFORD, CONNECTICUT

11-30-2020 SCALE AS NOTED SHEET 10 OF 10

REFER TO NOTES ON SHEET 1.



Compliance Certification Form

The following certification must be signed by the licensee working in consultation with a Connecticut-licensed design professional and must be submitted to the address indicated at the end of this form within ninety (90) days of completion of the authorized work.

1. Licensee Name: <u>Town of Guilford</u> DEEP License Number(s): <u>202102766-COP</u> Municipality in which project is occurring: <u>Guilford</u>	
2. Check one: (a) <input type="checkbox"/> "I certify that the final site conditions and / or structures are in general conformance with the approved site plans". Identify and describe any deviations and attach to this form. (b) <input type="checkbox"/> "The final site conditions and / or structures are not in general conformance with the approved site plans. The enclosed "as-built" plans note the modifications".	
3. "I understand that any false statement in this certification is punishable as a criminal offence under section 53a-157b of the General Statutes and under any other applicable law."	
_____ Signature of Licensee	_____ Date
_____ Name of Licensee (print or type)	
_____ Signature of CT-Licensed Design Professional	_____ Date
_____ Name of CT-Licensed Design Professional (print or type)	
_____ Professional License Number (if applicable)	Affix Stamp Here <div style="border: 1px solid black; width: 150px; height: 100px; display: inline-block; vertical-align: middle;"></div>
<ul style="list-style-type: none"> As-built plans shall include: elevations or tidal datums, as applicable, and structures, including any proposed elevation views and cross sections included in the approved license plans. Such as-built plans shall be the original ones and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut. The Licensee will be notified by staff of the Land and Water Resources Division (LWRD) if further compliance review is necessary. Lack of response by LWRD staff does not imply compliance. 	
Submit this completed form to : Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127	



LWRD DREDGING REPORT
(To be completed by Licensee)

License No(s): 202102766-COP
Licensee Name: Town of Guilford
Address of Dredging Activity: Assessor's Map 029, lots 101 & 106 at the end of Whitfield Street

Dredging Contractor Information:

Name: _____
Mailing Address: _____
Business Phone: _____
Contact Person: _____
E-mail: _____

Dates Dredged: _____
Total Volume Dredged during this period: _____
Disposal Volume(s) and Location(s): _____

**If any portion of the dredged materials was used in a beneficial manner, please identify the beneficial use type (i.e. beach nourishment, habitat restoration, landfill cap, construction materials...), volume of dredged material utilized and the location of beneficial usage.

Document Certification:

“I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense.”

Signature of Licensee Date _____

If you have any questions pertaining to this form, please contact the Land & Water Resources Division at 860-424-3034.

Return to:
Land & Water Resources Division
State of Connecticut Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127



LWRD Work Commencement Form

To: Regulatory Section
Department of Energy and Environmental Protection
Land & Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

Licensee Name: Town of Guilford
Municipality in which the project is occurring: Guilford
DEEP License No(s): 202102766-COP

CONTRACTOR(s):

1 Name: _____
Address: _____
Telephone: _____
E-mail: _____

2 Name: _____
Address: _____
Telephone: _____
E-mail: _____

3 Name: _____
Address: _____
Telephone: _____
E-mail: _____

Date Contractor(s) received a copy
of the license and approved plans: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

LICENSEE: _____
(Signature) (Date)

Land Record Filing*

To: DO NOT FILE

Signature and

NOTE: Due to the electronic delivery of this license and the legal requirement to have a live signature on this document, the “Land Record Filing” as detailed in General Condition #1 will be sent to the Licensee via U.S. Mail for the Licensee to file with the city/town clerk.

Date:

Subject: _____
License # _____

If you have any questions pertaining to this matter, please contact the Land & Water Resources Division at 860-424-3019.

~~Return to:~~

~~Land & Water Resources Division
State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127~~

*The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance.



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD MA 01742-2751

April 20, 2022

Regulatory Division
File Number: NAE-2010-02089
CT DEEP File Number: 202102766-COP

Town of Guilford
Attn: Rod McLennan
31 Park Street
Guilford, Connecticut 06437
info@guilfordtownmarina.com

Dear Mr. McLennan:

We have reviewed your request to reverify your previous authorization, dated August 19, 2021, to mechanically maintenance dredge the following areas:

1. Federal Channel: Approximately 13,365 CY of material from an area of approximately 163,712 SF to a depth of -6' MLLW.
2. Sluice Creek Federal Channel: Approximately 3,011 CY of material from an area of approximately 47,300 SF to a depth of -6' MLLW.
3. Marina Basin: Approximately 6,006 CY of material from an area of approximately 61,000 SF to a depth of -6' MLLW.

A total amount of approximately 22,382 CY will be dredged from approximately 272,012 SF and disposed of at the Central Long Island Sound Disposal Site. The work is shown on the enclosed plans titled "MAINTENANCE DREDGING PROJECT, GUILFORD TOWN MARINA & NAVIGATION CHANNELS, GUILFORD, CONNECTICUT" in ten sheets, dated "11-30-2020".

Based on the information you have provided, we verify that the activity is authorized under General Permit # 7 of the enclosed December 15, 2021 Federal permit known as the Connecticut General Permits (GPs). This verification is subject to the attached special conditions outlined in the attached document entitled, "Regulatory Special Conditions."

Also, since it has been determined that the activities authorized do not impair the usefulness of the USACE Navigation project and is not injurious to the public interest, this permit also constitutes your approval under Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408). In order to comply with the permission to alter the Guilford Harbor Federal Navigation Project, the permittee shall comply with all the terms and conditions outlined in the attached document entitled, "General Conditions and Special Conditions for Inclusion in the Department of the Army (DOA) Section 10 permit."

Please review the enclosed GPs and general conditions carefully to be sure that you and whoever does the work understand its requirements. A copy of the GPs and this verification letter shall be available at the project site throughout the time the work is underway. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with any special condition(s) provided above or all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization expires on December 15, 2026, unless the GPs are modified, suspended, or revoked before then. You must commence or have under contract to commence the work authorized herein by December 15, 2026, and complete the work by December 15, 2027. If not, you must contact this office to determine the need for further authorization before beginning or continuing the activity. We recommend that you contact us *before* this permit expires to discuss a permit reissuance. If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

For projects with open water or ocean disposal, intervening events such as an oil or chemical spill, storm event, or an upstream dam removal may supersede and subsequently invalidate the prior testing data resulting in the need for additional testing. If a project site is located in an area with a higher potential for incremental contamination such as industrial harbors or densely populated watersheds, then confirmatory data may need to be collected and evaluated before a Dredge and Disposal Approval Letter is issued.

Disposal operations must not begin or resume until you submit the enclosed Disposal Request Form and USACE issues an Open-Water Disposal Approval Letter that provides a specified set of coordinates for dredged material release within the disposal site. See the attached special conditions.

This authorization does not obviate the need to obtain other Federal, state, or local authorizations required by law.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Please contact Christopher L. Veinotte, of my staff, at (978) 318-8495 if you have any questions.

Sincerely,



for Tammy R. Turley
Chief, Regulatory Division

Enclosures

cc:

Jen Thalhauser, Chief, USACE Navigation, Jenifer.E.Thalhauser@usace.army.mil

Chris Boelke, NMFS, Gloucester, MA; christopher.boelke@noaa.gov

Susan Jacobson, Chief, Land & Water Resources West Division, Susan.Jacobson@ct.gov

Kristal Kallenberg, CT DEEP, Kristal.Kallenberg@ct.gov

Mark Jackson, Coastline Consulting & Development, mark@coastlineconsulting-ct.com

Regulatory Special Conditions

1. There shall be **no dredging or disposal February 1 through September 30** inclusive of any year, in order to minimize adverse impact to fisheries resources at the dredge and disposal sites.
2. At least ten working days in advance of the start date, the First Coast Guard District, Aids to Navigation Office, (617) 223-8355, and Department of Homeland Security, U. S. Coast Guard – Sector Long Island Sound, Chief Warrant Officer Zambrana at (203) 468-4454, shall be notified of the location and estimated duration of the dredging and disposal operations.
3. A pre- and post-dredge survey shall be submitted to the Corps within 60 days of the completion of dredging. The survey must have the authorized and actual dredged areas outlined and must show a calculation of the volume of material removed, based on the pre- and post-dredge surveys.
4. National Dredging Quality Management (DQM) Program Requirements
 - a. Discharges of dredged material involving open-water disposal and confined aquatic disposal cells require monitoring by the contractor, which must be performed using the DQM system software and hardware system developed by the Corps. Please address questions regarding certification to the Corps New England District DQM contact (see contact information below).
 - b. You are required to follow the DQM specifications, including the DQM information transfer protocol, located at <http://dqm.usace.army.mil>. The Corps must have certified each disposal vessel used for this project within a year of the disposal activity and you must send the DQM Certification and the Annual System Quality Assurance Verification to the Corps with the Dredge and Disposal Request Form. You are responsible for ensuring that the DQM system is operational throughout the project and that project data are submitted to the National DQM Support Center in accordance with the specifications provided at the aforementioned website. Disposal may not take place if any component of the DQM system is inoperable unless otherwise authorized by the Corps New England District DQM contact (see contact information below). An alternative recording of the absent data stream must be maintained if any of the DQM-certified telemetry ceases operation during a disposal trip. The breakdown of any DQM-certified telemetry must be reported to the DQM contact and repaired within 48 hours to keep the scow fully compliant with permit conditions. Unless weather, safety or sea state conditions prevent it, the hull doors must be fully closed on split hull scows before the vessel leaves the disposal site.
 - c. The DQM system used by the permittee must be capable of providing the information necessary for the Scow Monitoring Profile Specification. The permittee must provide the Corps with a: i) “Weekly Summary Report Form” at the end of each week that dredging and disposal activities are conducted for the duration of the project; and ii) “Seasonal/Final Completion of Dredging with Open-Water Disposal Report Form” upon completion of dredging and disposal for the season and project. These will be provided to you with the Dredge and Disposal Approval Letter that authorizes the initiation or

Regulatory Special Conditions

continuation of disposal operations. You must make the data collected by the DQM system available to the Corps upon request.

- d. Prior to the initial dredge/disposal action, or any time dredging/disposal resumes after ceasing for 30 days or more, you or your representative must submit the enclosed Dredge and Disposal Request Form at least 10 working days before dredging or disposal is expected to begin or resume. You must contact us (see contact information below) as early as possible to request an extension if you anticipate not completing dredge or disposal operations before the approved end date.
5. Unless otherwise stated, all submittals related to these special conditions for dredging and disposal shall be emailed to the DQM contact at charles.n.farris@usace.army.mil, christopher.l.veinotte@usace.army.mil, and cenae-r-pats@usace.army.mil. If it is necessary to provide a paper copy of any submittal, please also provide a digital copy or communicate with our staff if this is not possible. Please send paper copies to: a) MAIL: PATS Branch - Regulatory Division, Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751; or b) FAX: (978) 318-8303. Direct dredge related questions to (978) 318-8336 or (978) 318-8495. Documents which are not addressed in this manner may not reach their intended destination and do not comply with the requirements of this authorization.
6. Open-water disposal of more than 25,000 cubic yards of dredged material in Long Island Sound requires review under the Marine Protection and Sanctuaries Act (Section 103). This permit authorizes disposal of dredged material under Section 404 of the Clean Water Act only. Hence, disposal of more than 25,000 cubic yards of dredged material in Long Island Sound under this permit authorization is a violation of the Marine Protection and Sanctuaries Act and could result in substantial penalties.
7. For projects with open water or ocean disposal, intervening events such as an oil or chemical spill, storm event, or an upstream dam removal may supersede and subsequently invalidate the prior testing data resulting in the need for additional testing. If a project site is located in an area with a higher potential for incremental contamination such as industrial harbors or densely populated watersheds, then confirmatory data may need to be collected and evaluated before a Dredge and Disposal Approval Letter is issued.

General Conditions and Special Conditions for Inclusion in the Department of the Army (DOA) Section 10 permit

General Conditions

Limits of the Authorization

1. This permission only authorizes you, the requester, to undertake the activity described herein under the authority provided in Section 14 of the Rivers and Harbors Act of 1899, as amended (33 USC 408). This permission does not obviate the need to obtain other federal, state, or local authorizations required by law. This permission does not grant any property rights or exclusive privileges, and you must have appropriate real estate instruments in place prior to construction and/or installation.
2. The time limit for completing the S408 work authorized ends concurrently with the expiration of the Department of the Army General Permits for the State of Connecticut. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
3. Without prior written approval of the USACE, you must neither transfer nor assign this permission nor sublet the premises or any part thereof, nor grant any interest, privilege, or license whatsoever in connection with this permission. Failure to comply with this condition will constitute noncompliance for which the permission may be revoked immediately by USACE
4. The requester understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the work herein authorized, or if, in the opinion of the Secretary of the Army or an authorized representative, said work will cause unreasonable conditions and/or obstruction of USACE project authorized design, the requester will be required upon due notice from the USACE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim can be made against the United States on account of any such removal or alteration or which the permission may be revoked immediately by USACE.

Indemnification and Hold Harmless

5. The United States will in no case be liable for:
 - a. any damage or injury to the structures or work authorized by this permission that may be caused or result from future operations undertaken by the United States, and no claim or right to compensation will accrue from any damage; or
 - b. damage claims associated with any future modification, suspension, or revocation of this permission.

General Conditions and Special Conditions for Inclusion in the Department of the Army (DOA) Section 10 permit

6. The United States will not be responsible for damages or injuries which may arise from or be incident to the construction, maintenance, and use of the project requested by you, nor for damages to the property or injuries to your officers, agents, servants, or employees, or others who may be on your premises or project work areas or the federal project(s) rights-of-way. By accepting this permission, you hereby agree to fully defend, indemnify, and hold harmless the United States and USACE from any and all such claims, subject to any limitations in law.
7. Any damage to the water resources development project or other portions of any federal project(s) resulting from your activities must be repaired at your expense.

Reevaluation of Permission

8. The determination that the activity authorized by this permission would not impair the usefulness of the federal project and would not be injurious to the public interest was made in reliance on the information you provided.
9. This office, at its sole discretion, may reevaluate its decision to issue this permission at any time circumstances warrant, which may result in a determination that it is appropriate or necessary to modify or revoke this permission. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. you fail to comply with the terms and conditions of this permission;
 - b. the information provided in support of your application for permission proves to have been inaccurate or incomplete; or
 - c. significant new information surfaces which this office did not consider in reaching the original decision that the activity would not impair the usefulness of the water resources development project and would not be injurious to the public interest.

Conduct of Work Under this Permission

10. You are responsible for implementing any requirements for mitigation, reasonable and prudent alternatives, or other conditions or requirements imposed as a result of environmental compliance.
11. Work/usage allowed under this permission must proceed in a manner that avoids interference with the inspection, operation, and maintenance of the federal project.
12. In the event of any deficiency in the design or construction of the requested activity, you are solely responsible for taking remedial action to correct the deficiency.

General Conditions and Special Conditions for Inclusion in the Department of the Army (DOA) Section 10 permit

13. The right is reserved to the USACE to enter upon the premises at any time and for any purpose necessary or convenient in connection with government purposes, to make inspections, to operate and/or to make any other use of the lands as may be necessary in connection with government purposes, and you will have no claim for damages on account thereof against the United States or any officer, agent or employee thereof.
14. You must provide copies of pertinent design, construction, and/or usage submittals/documents. USACE may request that survey and photographic documentation of the alteration work and the impacted project area be provided before, during, and after construction and/or installation.
15. You may be required to perform an inspection of the federal project with the USACE, prior to your use of the structure, to document existing conditions.
16. USACE shall not be responsible for the technical sufficiency of the alteration design nor for the construction and/or installation work.

Special Conditions

17. Work associated with this permit shall not cause undue obstructions to navigation. Any material, large object(s), construction machinery or equipment that is lost, dumped, thrown into, or otherwise entering the waterway shall be removed immediately. The Guilford Harbormaster shall be informed about the nature of the object and location of the object entering the waterway at. If immediate removal is impractical and the object entering the waterway is, or could become, an obstruction or hazard to navigation, the object shall be suitably marked to protect navigation and the U.S. Coast Guard, Waterways Management Section, First Coast Guard District, Sector Long Island Sound, Waterways Management Division shall be notified immediately at (203) 468-4432.
18. The dredge is required to shift or move and/or interrupt dredging operations to accommodate the movement or passage of vessels and floating equipment utilizing the channel. The dredge shall comply with all requests for passage or to move or interrupt dredging for a reasonable period of time to accommodate navigation in the channels.

Pre-Construction

19. In order to ensure that the existing Federal Navigation Project (FNP) is not compromised, pre- and post-construction electronic surveys of the FNP covering the entire area of the proposed work shall be performed for each maintenance dredging event.
 - a. To ensure that the proposed method of surveying is acceptable, a detailed description of the method and the equipment to be employed shall be furnished to the United States Army Corps of Engineers (USACE) (see address below) at least 30 days prior

General Conditions and Special Conditions for Inclusion in the Department of the Army (DOA) Section 10 permit

to the start of each survey. For hydrographic surveying techniques and information, refer to the USACE Hydrographic Manual (EM 1110-2-1003) (view this at www.nae.usace.army.mil/Missions/Regulatory/UsefulLinks.aspx)

- b. Surveys shall be done only during daylight hours.
 - c. Survey data shall be submitted in an xyz or csv file format, and include at least two data files that are sorted to 3'x3' average depth and 3'x3' minimum depth.
 - d. The USACE may assign a government representative to accompany the survey party during performance of the sweep surveys. The permittee shall notify the USACE Survey Section Chief a minimum of ten working days prior to the start of each survey at (978) 318-8527 or "Survey Section Chief, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751."
 - e. Plans adequately showing the results of the pre- and post-construction surveys along with a written description of how they were performed, copies of all field books and notes shall be submitted to the USACE (see address below) for review and acceptance no later than 30 days after completion of the authorized work.
20. All submittals to the USACE shall be marked with the words "Permit No. NAE- 2010-02089." Send USACE submittals to: a) PATS Branch - Regulatory Division, Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742- 2751; or cenae-r@usace.army.mil. Documents which are not marked and addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.



**US Army Corps
of Engineers**®
New England District

DREDGE AND DISPOSAL REQUEST FORM

Complete and send this form to: (978) 318-8303 (fax), cenae-r@usace.army.mil or:

Policy and Technical Support Branch
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751

Submittal Date	
Corps File Number	NAE-2010-02089

Permittee's Information

Name	
Street	
City/State/Zip	
Contact Person	
Phone Number	
Email	

Contractor's Information

Name	
Street	
City/State/Zip	
Contact Person	
Phone Number	
Email	

Captain's Information (This is not required to submit this form, but is required as soon as possible before transportation of dredged material begins.)

Name	
Phone Number	
Email	

Complete the following for all projects except upland disposal and beach nourishment:

Dredge Information

Dredge site name and address	
Disposal site name and address (if available)	
Start and end dates	
List any Corps provided time of year restrictions	
Is this initial or continuing work?	
Previous volume dredged	CY
Estimated volume remaining	CY
Permitted total volume	CY
Project dredge depth	

Vessel Information

Disposal vessel name	Vessel Capacity	Date vessel certified in DQM	Required (1) DQM Certification; and (2) Annual System Quality Assurance Verification for this vessel are attached (yes or no)

I have read and understand the dredging special conditions in this permit:

PERMITTEE'S NAME	PERMITTEE'S SIGNATURE	DATE
CONTRACTOR'S NAME	CONTRACTOR'S SIGNATURE	DATE
CAPTAIN'S NAME	CAPTAIN'S SIGNATURE	DATE

**DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMITS FOR THE
STATE OF CONNECTICUT**

The New England District of the U.S. Army Corps of Engineers (USACE) hereby issues twenty-three (23) regional general permits (GPs), listed in Appendix A, for activities subject to USACE jurisdiction in waters of the United States (U.S.), including navigable waters within the State of Connecticut, adjacent ocean waters to the seaward limit of the outer continental shelf, and tribal lands¹. These GPs are issued in accordance with USACE regulations at 33 CFR 320 - 332 [see 33 CFR 325.5(c)(1)] and authorize activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts while providing protection to the aquatic environment and the public interest.

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GENERAL CRITERIA

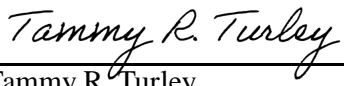
For activities to qualify for these GPs, they must meet the terms, eligibility criteria and stipulations listed in Appendix A – General Permits, the general conditions (GCs) in Appendix B, and any special conditions included in verification letters that are deemed necessary to protect aquatic resources.

Under these GPs, projects may qualify for the following:

- **Self-Verification (inland):** A Self-Verification Notification Form (SVNF) and supporting materials are required
- **Self-Verification (coastal):** An SVNF is not required, except for GP 12. USACE relies on Connecticut Department of Energy and Environmental Protection (CT DEEP) and applicant/agent submittals.
- **Pre-Construction Notification (PCN):**
 - **Inland:** Application to, and written approval from, USACE is required.
 - **Coastal:** Notification to USACE provided by CT DEEP or by applicants as necessary. Written approval from USACE is required.

¹ Tribal reservation lands are considered a sovereign nation and are therefore acknowledged separately from the State of Connecticut.

If an activity is not eligible for Self-Verification (SV), a PCN is required to allow USACE an opportunity to thoroughly review a proposed GP activity to ensure that the proposed activity qualifies for GP authorization. If the proposed activity does not qualify for GP authorization, USACE will inform the applicant and advise them on the process for seeking an Individual Permit. The thresholds for activities eligible for SV and PCN are stated in Appendix A. A number of terms and conditions can be found throughout the GPs and Appendices, including the General Conditions in Appendix B, which apply to all projects. These GPs do not affect the USACE Individual Permit review process or activities exempt from USACE regulation. The USACE does not intend to exclude projects from utilizing the SV process where Section 7 ESA, MSA (EFH), or Section 106 NHPA consultation is required and completed by another lead Federal agency; provided the scope of those actions sufficiently encompass the USACE Regulatory action.



Tammy R. Turley
Chief, Regulatory Division

December 15, 2021
Date

SECTION 1

REVIEW CATEGORIES AND APPLICATION PROCEDURES FOR ACTIVITIES WITHIN NON-TIDAL WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT AND TRIBAL LANDS

I. JURISDICTION AND ACTIVITIES COVERED:

Authorizations are required for activities that will involve the discharge of dredged or fill material and certain discharges associated with excavation into waters of the U.S., including wetlands. These activities are regulated by USACE under Section 404 of the Clean Water Act (CWA), see 33 CFR 323 (see GC 2).

II. REVIEW PROCESS

1. State and Local Approvals - Water Quality Certification (WQC)

Section 401(a)(1) of the Clean Water Act (33 USC Sec.1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is CT DEEP or the U.S. Environmental Protection Agency (EPA) on Indian reservation lands. The CT DEEP has granted WQC for all activities authorized under these CT GPs provided those activities meet the criteria as contained in these General Permits.

A written determination of concurrence of eligibility for Section 401 WQC prior to the start of construction from the CT DEEP Commissioner is required for all PCN activities. Applicants seeking a written concurrence of eligibility for PCN activities must apply to the CT DEEP on such form as the Commissioner may prescribe and with such information as the Commissioner deems necessary to fulfill the purposes of Section 401 of the Federal CWA. Upon completion of the review and evaluation of such application, the Commissioner will issue either a written concurrence of eligibility determination of Section 401 Certification upon such terms, limitations or conditions as the Commissioner deems necessary, or a written determination that an individual (regular) Section 401 WQC is required for the proposed activity.

The EPA granted WQC for activities located on lands within the boundaries of an Indian Reservation.

2. Self-Verification Review Category

a. Notification: An application to the USACE is not required. However, submittal of a SVNF and required accompanying materials to USACE and CT DEEP in accordance with Section 2(c) below, at least two weeks prior to commencement of work authorized by these GPs, is required.

b. Eligibility Criteria: Activities in Connecticut and tribal lands that meet the following criteria are eligible under SV of this GP if they:

- Are subject to USACE jurisdiction (see Appendix B, GC 2);
- Meet the SV criteria in Appendix A - General Permits;
- Meet the requirements of the applicable GCs in Appendix B;
- Meet all other applicable terms and conditions of these GPs; and
- Result in no more than minimal impacts to the aquatic environment.

Project proponents seeking authorization under these GPs by qualifying for SV must comply with all GCs and other relevant federal laws such as the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Consequently, applicant consultation with USACE and outside experts such as the Connecticut State Historic Preservation Office (SHPO), which is the Connecticut Department of Economic and Community Development in Connecticut, Connecticut Native American Indian tribes (see Appendix D) and the National Park Service, is required for SV eligible activities when there is a likelihood of the presence of resources of concern and the proposed work has the potential to affect these resources. Federal agencies should follow their own procedures for complying with the above requirements and shall provide USACE with the appropriate documentation to demonstrate compliance with those requirements for both SV and PCN review.

c. How to Obtain Self-Verification Verification: Prospective permittees must:

(1) Confirm that the activity meets all the applicable SV eligibility criteria, terms and conditions stated in 2(b) above;

(2) Notify the CT SHPO and the State of Connecticut federally recognized Indian tribes and/or Tribal Historic Preservation Officers (THPOs) listed in Appendix D and GC 11 for submission requirements;

(3) Obtain an Official Species List of federally threatened and endangered species that may occur in the activity's action area (see GC 12); and

(4) Submit the SVNF and its required accompanying materials (see Appendix E) to USACE and CT DEEP at least two-weeks prior to start of project construction. Digital submittals by email (preferred), CD/DVD or USB flash drive are strongly encouraged. Please communicate with USACE staff if you are unable to provide a digital copy as allowances will be made. See <https://www.nae.usace.army.mil/Missions/Regulatory/Submitting-Electronic-Correspondence> for information about our electronic submittal process.

Email: cenae-r-ct@usace.army.mil

Mail: Regulatory Division - Branch B, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751

Email: DEEP.LWRDRegulatorySubmittals@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

(5) If the activity is eligible for SV, you will receive a written verification from USACE. If it is determined that the work is not eligible for SV, you will be notified within 14-days of receipt of the SVNF.

3. PCN Review Category

a. Notification: For activities that are not eligible for SV or when it is stated that a PCN is required, an application to, and written verification from, USACE is required. No work requiring a PCN may proceed until written verification from USACE has been received.

b. Eligibility Criteria: Activities in Connecticut and tribal lands that meet the following criteria may be eligible for authorization under these GPs:

- Are subject to USACE jurisdiction (see Appendix B, GC 2);
- Meet the criteria of PCN in Appendix A – General Permits;
- Meet the requirements of the applicable GCs in Appendix B;
- Meet all other applicable terms and conditions of these GPs;
- Result in no more than minimal impacts to the aquatic environment, as determined by USACE in conjunction with the interagency review team which consists of Federal and State resource agencies. In some instances, this may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal; and
- Receive written concurrence of eligibility with the 2021 GP WQC from CT DEEP before start of work.

c. Applying for authorization through the PCN process: Applicants must submit a PCN to USACE. See Section 3 for a full list of PCN requirements. Digital submittals by email (preferred), CD/DVD or USB flash drive are strongly encouraged. Please communicate with USACE staff if you are unable to provide a digital copy as allowances will be made. See <https://www.nae.usace.army.mil/Missions/Regulatory/Submitting-Electronic-Correspondence> for information about our electronic submittal process. USACE staff will notify you if a paper copy or large-scale drawings are required for the evaluation.

Email: cenae-r-ct@usace.army.mil

Mail: Regulatory Division - Branch B, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751

Email: DEEP.LWRDRegulatorySubmittals@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

In addition to submitting a PCN to USACE, applicants must concurrently submit an LWRD Transmittal Form and Application Form L to CT DEEP, which can be found at: [Land and Water Resource Division LWRD Applications \(ct.gov\)](http://www.ct.gov/landwater/LWRD/Applications) or <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>. Follow the application submission instructions on these forms.

Email: DEEP.LWRDRegulatorySubmittals@ct.gov

Mail: State of Connecticut, Department of Energy & Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127

4. Emergency Procedures: Written authorization under these emergency procedures is required. Contact USACE immediately in the event of an emergency to obtain information on the verification process and coordination requirements. USACE regulation at 33 CFR 325.2(e)(4) states that an “emergency” is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.” Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise, an Individual Permit shall be required. Upon notification, USACE will determine if a project qualifies for emergency procedures under the GPs and whether work may proceed prior to submittal of an application. Where an application is required, USACE staff will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

5. Individual Permit Procedures: Work that is **NOT** eligible for authorization under the GPs as defined in Appendix A – General Permits and applicable GCs, or that does not meet the applicable terms and conditions of the GPs, will require review under USACE Individual Permit procedures (see 33 CFR 325.1). Applicants shall submit the appropriate application materials to USACE. General information and the application form can be obtained at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>.

Water Quality Certification for Individual Permits: Section 401(a)(1) of the CWA (33 USC 1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is CT DEEP in Connecticut or the EPA on Indian reservation lands. If the proposed work includes a discharge of fill or dredged material in waters of the U.S. and will require an Individual WQC from the CT DEEP, an applicant must submit a certification pre-filing meeting request to that agency at least 30-days prior to submitting the 401 WQC certification request. The CT DEEP is not obligated to respond to the pre-filing meeting request or to grant the meeting, but the agency may choose to grant one where early joint interagency and applicant coordination has the opportunity to promote efficiency in the Section 401 decision making process. A 401 WQC certification request must be submitted simultaneously to the certifying pollution control agency (CT DEEP or EPA) and USACE. Information pertaining to the Federal regulation is available at <https://www.epa.gov/CWA-401> and state-specific information can be found at the CTDEEP website <http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNavGID=1643>. These links are also available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>.

SECTION 2

REVIEW CATEGORIES & APPLICATION PROCEDURES FOR ACTIVITIES WITHIN TIDAL, COASTAL AND NAVIGABLE WATERS AND WETLANDS WITHIN THE STATE OF CONNECTICUT

I. JURISDICTION AND ACTIVITIES COVERED

1. CT DEEP

a. Jurisdiction: In the tidal, coastal, *or* navigable waters of Connecticut waterward of the coastal jurisdiction line (CJL), CT DEEP regulates dredging; the erection of structures; the placement of fill; and work incidental thereto pursuant to Connecticut General Statutes (CGS) Section 22a-359. Activities within tidal wetlands are regulated pursuant to CGS Section 22a-32. Your activity may be regulated by both CGS Sections 221-359 and 22a-32.

One of the following regulatory limits will apply to the activity:

- CJL: For activities not within tidal wetlands, the CJL is the upland limit of state regulatory jurisdiction, CGS Section 22a-359(c).
- Mean High Water Mark (MHW): For projects located upstream of a tide gate, dam, or weir, use MHW. The use of MHW would not apply to areas where a culvert, pipe, or narrow channel is causing a restriction as the purpose and function of such devices are not to modify the flow of tidal water (their purpose is to convey water).
- Tidal Wetland Boundary: Use the tidal wetland boundary if tidal wetland vegetation is located landward of CJL or MHW. The upland limit of tidal wetlands is one foot above local extreme high water, CGS Section 22a-29(2). Local extreme high water is defined in Section 22a-30-2(h) of the Tidal Wetlands Regulations as the elevation of the one-year frequency tidal flood at a particular location as shown on the most recently adopted U.S. Army Corps of Engineers tidal flood profile (<https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/TidalFloodProfiles.pdf>).

b. Authorizations:

Water Quality Certification (WQC): Section 401(a)(1) of the Clean Water Act (33 USC Sec. 1341) requires that applicants obtain a WQC or waiver from the state water pollution control agency (CT DEEP) or EPA for Indian reservation lands to discharge dredged or fill material into waters of the U.S.

Coastal Zone Management (CZM) Consistency: Concurrence under Section 307 of the Federal CZM Act of 1972, as amended. Section 307(c) of the CZM of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEEP, Land and Water Resources Division that the activity complies with the state's CZM program for activities affecting a state's Coastal Area.

Projects involving dredging/excavation and associated disposal within the Byram River must

also coordinate with NY Department of State (NYDOS) directly to obtain a certification or waiver that the activity complies with NYDOS' CZM program. Also, all projects with disposal within any of the Long Island Sound disposal sites require NY DOS CZM consistency. See <https://dos.ny.gov/coastal-consistency-review-for-additional-information>.

2. USACE

a. Jurisdiction:

- Work and structures that are located in, under or over any navigable water of the U.S. (defined at 33 CFR 329) that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing material in navigable waters, the Connecticut River has been determined to be a navigable water of the United States. (Regulated by USACE under Section 10 of the Rivers and Harbors Act of 1899).
- The discharge of dredged or fill material into waters of the U.S. (defined at 33 CFR 328), which is regulated by USACE under Section 404 of the CWA
- The transportation of dredged material for the purpose of disposal in the ocean. The USACE regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.
- Use or alteration of a Civil Works project by another party is subject to approval by USACE under Section 408 of the Rivers and Harbors Act of 1899 after determining that the alteration proposed will not be injurious to the public interest and will not impact the usefulness of the Civil Works project.

b. Authorizations:

1. Self-Verification (SV): Applicants should submit a copy of their state permit application package directly to USACE and not submit Appendix E of the CT GPs to USACE unless specifically required (see GP 12). CT DEEP, Land and Water Resources Division, will forward copies of their approvals to USACE. If USACE determines that a project meets SV, USACE will forward verification of eligibility to the applicant.

SV Eligibility Criteria

Activities in Connecticut and lands located within the boundaries of an Indian reservation may proceed without application or notification to the Corps if they:

- are subject to Corps jurisdiction
- meet the definition of Self-Verification in **Appendix A - General Permits**, and
- meet the **Appendix B -General Conditions** of the GPs

Note: Activities subject to Corps jurisdiction that are NOT regulated by the CT DEEP will be subject to the Pre-Construction Notification (PCN) screening requirements of the GPs as noted below.

Project proponents seeking eligibility under the SV category must comply with the General Conditions of the GPs and other federal laws such as the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act (WSRA).

Therefore, consultation with the Corps and/or outside experts such as the State Historic Preservation Office and any appropriate Indian tribes is recommended when there is a likelihood of the presence of resources of concern.

2. Regional General Permit Pre-Construction Notification (PCN) (notification/application and written authorization required)

Projects not eligible under the SV category of the GPs may be reviewed under PCN category, provided they meet the criteria.

PCN Eligibility Criteria

Activities in Connecticut and lands located within the boundaries of an Indian reservation that meet the following criteria **require written approval from the Corps**:

- are subject to Corps jurisdiction,
- meet the definition of PCN in this Section and meets the criteria in **Appendix A - General Permit Activities**
- meet the **Appendix B - General Conditions** of the GPs

3. PCN process for each of the following CT DEEP approvals:

a. CT DEEP, Land and Water Resources Division regulated activities

Structures and Dredging Permit Applications: Applicants/agents shall submit to the Corps, a copy of the LWRD License Application Pre-Submission Consultation Form – U. S. Army Corps of Engineers along with project plans. The Corps will then coordinate this information with the interagency review team (see **4. Review Procedures** on the next page) and then return the form to applicants/agents for their submission to DEEP. This form can be found at:

https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/consultUSACEpdf.pdf

Certificates of Permission (COPs), General Permits (GPs) and Modifications:

Applicants/agents shall submit to the Corps copies of application packages and approvals. If a project is determined to meet any of the PCN activities and is complete, the Corps will coordinate these projects with the interagency review team. If the Corps determines that an Individual permit or additional information is required, the Corps will coordinate directly with the applicant/agent.

For a full list of PCN requirements, see Section 3.

NOTE: For projects which involve dredging and open water disposal - Applicants/agents must submit requests for sampling plans to CT DEEP and the Corps simultaneously, along with other required information specific to dredging/open water disposal, a detailed open water disposal site alternative analysis, and a completed New York State, Department of State (NYS DOS) Federal Consistency Assessment Form found at

https://dos.ny.gov/system/files/documents/2020/09/fcaf_fillable.pdf.

The information needed to develop a sampling and analysis plan can be found at:

https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/NAE_SAP_Checklist.pdf?ver=YjOLbfZYTyHnt3Vc9QJpyg%3d%3d

Please see our website at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit/> for more information.

Please also note for dredging projects, CT DEEP requires a completed Pre-Submission Consultation form, LWRD Application Pre-Submission Consultation Form, found at: https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/consultdredgingpdf.pdf to be submitted with any license application to DEEP. For further guidance on the CT DEEP consultation process please refer to the following document, “Reference for Coastal/Tidal Dredging” found at: https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/referencedredgingpdf.pdf

b. Aquaculture activities regulated by the Connecticut Department of Agriculture

This refers to marine and land-based aquaculture activities, including associated structures regulated by the Department of Agriculture, Bureau of Aquaculture (DA/BA), Connecticut General Statutes Section 22-11h.

Applicants should apply directly to the DA/BA using the Joint Application for Aquaculture form found at: http://www.nae.usace.army.mil/reg/Permits/CT_AquacultureApplication.pdf. The DA/BA will forward a copy of the aquaculture application package to the Corps, CT DEEP’s Boating Division, Marine Fisheries Division, and CT DEEP, Inland Water Resources Division (IWRD) for activities impacting inland waters.

These application packages for marine-based activities will be screened by the Corps, the Federal resource agencies, and the CT DEEP with input from CT DEEP Boating and Marine Fisheries Divisions. Screening will also initiate review of the application by CT DEEP for Coastal Zone Management consistency concurrence. CT DEEP will make a determination on the completeness of the application for CZM consistency review and/or the eligibility of the activity for state aquaculture permit exemption within 30 days from the date of the screening meeting.

4. Review Procedures:

The Corps will coordinate review of all PCN activities with federal and state agencies as necessary. To be eligible and subsequently authorized, an activity must meet the eligibility criteria listed above and result in no more than minimal impacts to the aquatic environment as determined by the Corps. This may require project modifications involving avoidance, minimization, and/or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. Applicants are responsible for applying for the appropriate state and local approvals. Authorizations under these GPs are not valid until all required CT DEEP authorizations are granted.

Emergency Procedures: “Written approval to proceed” under these emergency procedures is required. Contact the Corps immediately in the event of an emergency to obtain information

on the verification process and coordination requirements. Corps regulation at 33 CFR 325.2 (e) (4) states that an “emergency” is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.” Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise, an Individual Permit shall be required. Upon notification the Corps will determine if a project qualifies for emergency procedures under the GPs and whether work may proceed prior to submittal of an application. Where an application is required, Corps staff will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

Individual/Standard Permit Procedures: Work that is not eligible under PCN activities as described therein or that does not meet the terms and general conditions of the GPs, will require the submission of an application to the Corps for an Individual Permit (see 33 CFR Part 325.1). The applicant should submit all the appropriate application materials, including the Corps ENG 4345 application form. General information and application can be obtained at our website at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx> or by calling us. Individual WQC and CZM consistency concurrence are required, when applicable, from the State of Connecticut before Corps issuance of an individual permit. Individual Water Quality Certification must be obtained from EPA for activities on lands located within the boundaries of an Indian reservation. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

Water Quality Certification for Individual Permits: Section 401(a)(1) of the Clean Water Act (33 USC Sec. 1341) requires that applicants proposing to discharge dredged or fill material into waters of the U.S. obtain a WQC or waiver from the certifying state water pollution control agency, which is the (CT DEEP) or the EPA on Indian reservation lands. If the proposed work includes a discharge of fill or dredged material in waters of the U.S. and will require an Individual WQC from CT DEEP, an applicant must submit a certification pre-filing meeting request to that agency at least 30-days prior to submitting the 401 WQC certification request. CT DEEP is not obligated to respond to the pre-filing meeting request or to grant the meeting, but the agency may choose to grant one where early joint interagency and applicant coordination can promote efficiency in the Section 401 decision making process. A 401 WQC certification request must be submitted simultaneously to the 401 certifying pollution control agency (CT DEEP) and the Corps. Information pertaining to the federal regulation is available at <https://www.epa.gov/CWA-401> and state-specific information can be found at the CTDEEP web site at http://www.ct.gov/deep/cwp/view.asp?a=2709&q=324168&depNav_GID=1643.

SECTION 3

CONTENT OF PRECONSTRUCTION NOTIFICATION

I. INFORMATION REQUIRED FOR ALL PROJECTS

- The USACE application form ([ENG Form 4345](#)) is required for all inland activities. The form can be obtained electronically at www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit. The CT DEEP LWRD Structures, Dredging & Fill or Certificate of Permission applications can be substituted for the USACE application form for activities in coastal waters provided it includes all the information required below. Submit a copy of the CT DEEP application directly to USACE.
- All anticipated direct, indirect, and secondary impacts, both permanent and temporary, to waters of the U.S. (in wetlands, and waterward of OHW in inland waters and the HTL in coastal waters) in square feet, acres, or linear feet (for stream and bank impacts), and cubic yards or other appropriate units of measure. The USACE New England District's Compensatory Mitigation Standard Operating Procedures document is a resource for assessing secondary impacts (<https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation>).
- For any activity that will alter or temporarily or permanently occupy or use a USACE Federally authorized Civil Works project, the PCN must include a statement confirming that the project proponent has submitted a written request for Sec. 408 permission from USACE. See GC 8(c) and (d).
- Information on historic properties (see GC 11), including a copy of the CT SHPO form found at: https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf
- Information on Federal threatened or endangered species present at the site including a copy of the USFWS IPAC Official Species List, the NOAA Section 7 Species List (see GC 12) and the email address of the person who generated the list.
- If applicable, a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see GC 17).
- Photographs of wetland and/or waterway to be impacted. Photos at low tide are preferred for work in coastal waters.
- Provide any historic information available that you may have for the project area, e.g., existing USACE permit/file numbers, the names under which the permits were obtained if the permit/file numbers are unknown, construction dates and proof of prior existence (aerials, photos, town hall records, affidavits, state, or local permits, etc.) to verify "grandfathering."
- If the project is in the Federal Emergency Management Agency designated floodplain or floodway, state whether the project will adversely affect the hydraulic characteristics of these features or existing floodplain storage capacity (see GC 5).

Information required for dredge activities shall also include:

- Sampling plan requests – submit completed Dredged Material Evaluation checklist found at [Dredged Material Evaluation Checklist, Sampling and Analysis Plan Requirements from Applicant \(army.mil\)](#)
- Whether the work is new, improvement or maintenance dredging and the method of handling/transporting the dredged material.
- Grain-size of material to be dredged (e.g., silty sand). Provide any existing sediment grain size and ~~h~~sediment chemistry data from the proposed project, previous dredging at the site, or from nearby projects.
- Information on any recent spills of oil and/or other hazardous materials and/or nearby outfalls.

Document the information source, e.g., EPA database, the harbormaster or fire chief.

- Total footprint of the dredged area when characterizing impact to resources.
- Provide an alternatives analysis to open-water disposal.

II. Plans for all projects shall include:

- Drawings, sketches, or plans that are legible, reproducible (color is encouraged, but features must be distinguishable in black and white), drawn to scale, and no larger than 11”x17”. Numeric and graphic/bar scales must agree, and plan details must be measurable using a standard engineer’s scale on printed plans. Reduced plans are not acceptable. Show the north arrow and wetland and waterway area impacts. Provide a color locus map and, if necessary, a plan overview of the entire property with a key index to the individual impact sheets.
- Datum in plan and elevation views.
 - The horizontal datum shall be in the NAD 83 Connecticut State Plane Coordinate System (Long Island Sound) in U.S. survey feet.
 - The vertical data in coastal projects shall be referenced to either MLLW or the North American Vertical Datum of 1988 (NAVD 88). Both the distance and depth units shall be U.S. survey feet. See <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/VerticalDatumLetter.pdf>
- Existing and proposed conditions, and plan views and cross sections for all work.
- Limits and area (SF) of temporary and permanent fill to be placed in any wetlands or waterway, including construction access and work areas, cofferdams, bedding, and backfill. Show delineation of all wetlands including salt marsh; other special aquatic sites (vegetated shallows, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges); other waters, such as lakes, ponds, vernal pools, and perennial, intermittent, and ephemeral streams; on the project site. Use Federal delineation methods and include USACE wetland delineation data sheets (see GC 2) for all wetlands. Vegetated shallow survey guidance is located at <https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/>. Maps of vegetated shallows in Connecticut can be obtained online from CT ECO at <https://cteco.uconn.edu/viewer/index.html?viewer=advanced>
- Copies of NRCS Topographic Map (identify the quad name and year) or NOAA Navigation chart (identify chart number) if in coastal waters marked to show the project location and/or site boundaries.
- Ebb and flood in tidal waters and direction of flow in non-tidal waters.
- Indicate the relationship of the proposed work site to waters of the U.S., i.e., adjacent wetlands, tidal influence or hydraulic connectivity through culverts, or other conveyances, etc.
- Total plan of development, including the proposed use of dependent upland and wetland areas.
- Names or numbers of all roads in the site’s vicinity.
- Name and addresses of adjoining property owners on the plan view.
- For typical pipeline cross-sections, the details of the bedding and backfill to be used in wetlands and waters. Show proposed trench dams and detail for inland projects.
- Adjacent Federal navigation project (FNP) (anchorage or channel) and/or state/local navigation projects, distance to them, the authorized depths of the FNP, and state plane coordinates of the seaward end(s) of structures near an FNP.
- The 100, 500-year and regulatory floodway boundaries as shown on the community’s current FEMA National Flood Insurance Program maps, if applicable.
- Include plans for any temporary water handling systems.
- Include appropriate plans for any phase construction sequencing.
- A statement regarding how the project proponent has determined the absence or presence of vegetated shallows, mudflats, or riffles and pools, e.g., personal visual observation, divers, online maps, conversations with local officials, etc. Note: a submerged aquatic vegetation survey may be

required.

- Presence or absence of shellfish beds near the site and how such was determined, e.g., personal visual observation, divers, online maps, conversations with local officials, etc. Note: a shellfish survey may be required.

1. Plans for projects involving structures shall also include:

- The MLLW, MHW and HTL elevations in tidal waters, and OHW in non-tidal navigable waters.
- Water depths around the project in all views.
- Dimensions of the existing and proposed structures. Show the location and dimensions of existing bulkheads and/or shoreline stabilization on adjacent properties and, if applicable, how the proposed work will tie into existing structures.
- For piers and other structures, the minimal height of structures frame above the marsh.
- For floats, the methods of securing them (piles, bottom anchors) and for keeping them off substrate (skids, stops) at low water.
- Any existing structures and moorings in waters adjacent to the proposed activity, their dimensions, and the distance to the limits and coordinates of any proposed mooring field, reconfiguration zone or aquaculture activity. Provide the coordinates for all corners based on the Connecticut State Plane Coordinate System. Specify the maximum number of slips and/or moorings within proposed reconfiguration zones. If no structures exist or are proposed, state this on the project plans.
- The dimensions of the structure or work and extent of encroachment waterward of MHW and from a fixed point on the shoreline or upland.
- Shoreline of adjacent properties and property boundary offset for structures.
- In narrow waterbodies, the distance to opposite shoreline, waterway width, and structures across from proposed work.
- For reconfiguration zones, the coordinates of the corners and specify the maximum number of slips and/or moorings within the zone.
- A description of the type of vessels that would use the facility, and any plans for sewage pump-out facilities, fueling facilities and contingency plans for oil spills.

2. Plans for projects involving fill shall also include:

- All locations of discharges of dredged or fill material waterward of the HTL or OHW.
- Describe historic permanent fill previously authorized by USACE, if known, and the date of authorization.
- The MLLW, MHW and HTL elevations in tidal waters, and OHW elevation in lakes and non-tidal streams.
- Structures, if any, proposed to be erected on the fill.
- Limits of wetlands (label: wetland boundary) and waterways (labels: OHW or HTL) on all views.
- Limits of temporary and permanent fill to be used in any wetland or waterway, including construction access and work areas, cofferdams, bedding, and backfill.
- Provide a description of the federal wetlands and aquatic habitats at the site and provide a map of their locations within the project area. Provide an assessment of the impacts expected from the project on the wetlands and aquatic resource functions. For wetlands include the Corps of Engineers Wetland Determination Data Form – Northcentral and Northeast Region consistent with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region and include the federal wetland boundary keyed to paired transect plots on the project's existing condition plan(s). See

<https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands/Wetland-Delineation-Manual> for more information.

- Description (length, width, flow character, water quality and streambed condition) of any streams at the project site
- Area (SF) of each fill that is waterward of the OHW in non-tidal waters, waterward of the HTL in tidal waters, and in wetlands. State if the fill is permanent or temporary.
- Disposal site of the excess excavated material. If necessary, submit an additional sheet showing the location of the proposed disposal site. Provide quantity of excess excavated material.
- Existing and proposed ground or waterway contours or spot elevations on all views.
- A statement describing how impacts to waters of the U.S. are to be avoided and minimized. For the remaining impacts, include a statement describing how aquatic resource function is being replaced through compensatory mitigation or explain why compensatory mitigation should not be required for the proposed impacts. Mitigation areas clearly identifying each area and showing the boundaries and SF of each area.
- Summary of any proposed mitigation (see <https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/> for the USACE 2020 Compensatory Mitigation Standard Operating Procedures).
- Total plan of development, including the proposed use of dependent upland and wetland areas.
- The CT DEEP Inland Water Resource Impact Table, Attachment 16 at https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/waterresourceimpactpdf.pdf, if required by CT DEEP.

Completed CT SHPO Project Notification Form with verification of transmittal to the CT SHPO. The form is available on the CT SHPO website under Historic Preservation – Environmental Review or at https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf

3. Plans for activities involving dredging shall also include:

- The area (SF) and volume (CY) of material to be dredged waterward of MHW for each dredge location.
- Dredge boundaries, including side slopes.
- Bathymetry for existing, proposed, and historical (include dates and USACE permits) dredge depths
- The likely final angle of repose of the side cuts based on the physical characterization of the material to be dredged and based upon the high/ medium/low, wave or current energy of the location.
- Whether the dredging is new, maintenance, improvement, or a combination.
- A description of the area to be dredged, i.e., open water, existing channel, wetlands, uplands, etc.
- Location of the disposal site (include location sheet).
- The methods and areas used to retain or prevent dredged material from running back into the wetland or waterway. Provide the capacity of the storage area and points of runback, including the overflow route, into the aquatic system.
- For beach nourishment, identify the disposal footprint, existing and proposed nourishment profiles (multiple profiles are appropriate if the site is more than 150 feet long or non-contiguous), total fill area (SF) and volume (CY), fill area and volume waterward of the HTL, and delineation of dunes, banks, existing beach vegetation, and contours. Also identify the substrate type (fine sand, sand, cobble, boulder) and/or grain-size of existing material.
- Show the finished top elevation of the disposal site.
- For open-water disposal, explain why inland or beneficial reuse sites are not practicable.
- Identification and description of any potential impacts to Essential Fish Habitat and threatened or endangered species.

Note: For projects proposing open water, nearshore disposal, or beach nourishment, contact USACE as early as possible for sampling and testing protocols. Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing may be required. Sampling and testing of sediments without such contact should not occur and if done, will be at the applicant's risk. The information needed to develop a sampling and analysis plan can be found at: <https://www.nae.usace.army.mil/Missions/Regulatory/Dredged-Material-Program/>.

II. Information that may also be required:

- Purpose and need for the proposed activity.
- Alternatives analysis.
- Schedule of construction activity.
- Location and dimensions of adjacent structures.
- Prospective permittees may be required to describe and identify potential adverse effects of the project on Essential Fish Habitat (refer to the NOAA Fisheries' EFH Mapper found at www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper).
- Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area.
- Whether work will occur behind a temporary cofferdam or whether silt curtains will be deployed during project construction.
- Number and type (drill barge, work boat, tugboat, etc.) of temporary work vessels to be used.
- Number of permanent recreational vessels associated with a coastal structure.
- Number, size (diameter) and type (timber, steel, cement, combination, other) of pilings associated with a project in tidal waters and installation method (vibratory hammer, impact hammer, combination) for such pilings.
- Description of how the project will maintain aquatic organism passage during and after construction.
- An Invasive Species Control Plan (see GC 27). For sample control plans, see www.nae.usace.army.mil/missions/regulatory/invasive-species.
- Wetlands functions and values assessment (see [Highway Methodology Workbook Supplement](#))

APPENDIX A - GENERAL PERMITS FOR THE STATE OF CONNECTICUT & TRIBAL LANDS

All Self-Verification and Pre-Construction Notification activities must comply with all applicable terms, general conditions, and any additional eligibility requirements below.

“**INLAND**” as written in this appendix refers to non-tidal and non-navigable waters and wetlands, which are defined as waters that are regulated under Section 404 of the CWA, including rivers, streams, lakes, ponds, and wetlands. These resource areas exclude Section 10 Navigable Waters of the U.S, which are defined in Appendix F. The jurisdictional boundaries are the ordinary high water mark (OHW) in the absence of adjacent wetlands; beyond OHW to the limit of adjacent wetlands when adjacent wetlands are present; and the wetland limit when only wetlands are present.

“**COASTAL**” as written in this appendix refers to tidal, coastal & navigable waters of the U.S. These waters, subject to Section 10 of the Rivers and Harbors Act of 1899, are those waters subject to the ebb and flow of the tide in addition to the non-tidal portions of the Connecticut River from Long Island Sound to the Massachusetts state border. The jurisdictional limits are the mean high water mark (MHW) in tidal waters and OHW in non-tidal portions of the federally-designated navigable rivers. For the purposes of these GPs, fill placed in the area between MHW and the high tide line (HTL), in the bordering and contiguous wetlands to tidal waters, are also reviewed in the “coastal” sections below. Work in these waters that includes a discharge of dredged or fill material is regulated under Section 404 of the CWA seaward of HTL.

GP Activity #	Category of Activity
GP 1	Aids to navigation & temporary recreational structures (<i>Coastal only</i>)
GP 2	Repair or maintenance of existing currently serviceable, authorized, or grandfathered structures & fills and removal of structures (<i>Coastal and Inland</i>)
GP 3	Moorings (<i>Coastal only</i>)
GP 4	Pile-supported structures & floats, including boat lifts/hoists & other miscellaneous structures & work (<i>Coastal only</i>)
GP 5	Boat ramps and marine railways (<i>Coastal and Inland</i>)
GP 6	Utilities including lines, outfall and intake structures and appurtenant features (<i>Coastal and Inland</i>)
GP 7	Dredging, transport & disposal of dredged material, beach nourishment & rock removal and rock relocation (<i>Coastal only</i>)
GP 8	Discharges of dredged or fill material incidental to the construction of bridges (<i>Coastal only</i>)
GP 9	New shoreline and bank stabilization projects and Living Shorelines (<i>Coastal and Inland</i>)
GP 10	Aquatic habitat restoration, establishment, and enhancement activities (<i>Coastal and Inland</i>)
GP 11	Fish and wildlife harvesting activities (<i>Coastal and Inland</i>)
GP 12	Oil spill and hazardous material response operations (<i>Coastal and Inland</i>)
GP 13	Cleanup of hazardous and toxic waste and removal of contaminated soil (<i>Coastal and Inland</i>)
GP 14	Scientific measurement and monitoring devices (<i>Coastal and Inland</i>)
GP 15	Survey and exploratory survey activities (<i>Coastal and Inland</i>)
GP 16	Aquaculture & Mariculture Activities (<i>Coastal only</i>)
GP 17	New and expansion of recreational, residential, institutional, and commercial developments (<i>Inland only</i>)
GP 18	Wetland crossings for linear transportation projects (<i>Inland only</i>)
GP 19	Stream river and brook crossings (not including wetland crossings) (<i>Coastal and Inland</i>)
GP 20	Energy generation and renewable energy facilities and hydropower projects (<i>Coastal and Inland</i>)
GP 21	Temporary fill not associated with a regulated General Permit activity (<i>Inland only</i>)
GP 22	Modification and Improvement of Existing Minor drainage features and Mosquito Control (<i>Coastal only</i>)
GP 23	Agricultural Activities (<i>Inland only</i>)

GP 1. AIDS TO NAVIGATION & TEMPORARY RECREATIONAL STRUCTURES (Section 10: navigable waters of the U.S.)

The placement of aids to navigation and regulatory markers that are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66) and/or requirements of the CT DEEP Boating Division (see Connecticut General Statutes Section 15-121 and the corresponding Regulations of Connecticut State Agencies). The installation of temporary buoys, markers, floats, or similar structures solely for recreational use or short-term events such as water-skiing competitions, fireworks display or seasonal swim floats.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 1(A) INLAND	Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.	Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.
GP 1(B) COASTAL A Self-Verification Notification Form (SVNF) is not required.	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Aids to Navigation/temporary structures in submerged aquatic vegetation (SAV). • Aids to Navigation/temporary structures in USACE Federal navigation projects (FNPs). FNPs are comprised of Federal channels, anchorages and turning basins. Please click on the link below for more information: http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/ on the limits of these Federal projects. • Temporary structures in place longer than one season and/or not removed within 30 days after use is discontinued. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Aids to navigation and regulatory markers (both permanent and temporary) approved by the U.S. Coast Guard (USCG) and/or State of Connecticut Boating Division that are not located within FNPs. • Temporary buoys, markers, floats, etc. for recreational use during specific seasonal or short-term events, provided they are not located within USACE FNPs, are in place no longer than the defined seasonal timeframe and are removed within 30 days after use is discontinued. 	<p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Aids to Navigation/temporary structures in SAV. • Aids to Navigation/temporary structures in FNPs. FNPs are comprised of Federal channels, anchorages and turning basins. • Temporary structures in place longer than one season and/or not removed within 30 days after use is discontinued.

GP 2. REPAIR OR MAINTENANCE OF EXISTING CURRENTLY SERVICEABLE, AUTHORIZED OR GRANDFATHERED STRUCTURES & FILLS, REMOVAL OF STRUCTURES (Section 10 & 404; tidal and non-tidal waters of the U.S.)

Repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction technique requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Includes removal of structures and fill and accumulated sediment/debris. Stream, river, brook, or other watercourse crossings are not eligible under GP 2 (see GP 19). Maintenance dredging, beach nourishment or beach restoration are not eligible under GP 2 (see GP 7).

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 2(A) INLAND</p> <p>An SVNF is required.</p> <p>Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent fill >1,000 SF. • Temporary fill >5,000 SF. • Additional riprap beyond the existing, previously authorized footprint. • Unconfined fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). • Fill in riffle and pool complexes and non-tidal vegetated shallows with <i>Vallisneria americana</i> (also known as water celery, American eelgrass or tapegrass), or a vernal pool depression that is located within waters of the U.S. • Unconfined work in streams with diadromous fish occurring between April 1 and June 30. (see Appendix H) <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent fill ≤1,000 SF. • Temporary fill ≤5,000 SF. • Replacement of existing riprap is permitted if it does not extend beyond the previously authorized footprint or that which is required to key in the toe. • Drawdown of impoundment for dam/levee repair provided it does not exceed 18 months and one growing season (April through September). • Stream channel modification is limited ONLY to the minimum necessary to complete repair, rehabilitation, or replacement of the serviceable structure or fill. • Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary discharges, such as sandbag cofferdams, access fills, etc. are necessary for construction activities or dewatering of construction sites. • Temporary fill must consist of materials that minimize impacts to water quality and be placed in a manner, that will not be eroded by expected high flows. Upon completion of work all temporary fill must be removed in their entirety and the affected area(s) returned to pre-construction elevation, condition, and re-vegetated as appropriate. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent fill > 5,000 SF. • New permanent discharges of fill for modification of existing culverts in streams that will adversely affect the hydraulic characteristics of a waterway or a FEMA designated floodplain. • New riprap fill that exceeds the minimum necessary to protect the existing fill/structure. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent fill ≤ 5,000 SF. • Temporary fill ≤ 10,000 SF (except for construction mats). • Additional riprap beyond the existing, previously authorized footprint • Removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap, minimum necessary to protect the structure. • The removal of accumulated sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built but cannot extend farther than 200 feet in any direction from the structure. Excavated materials must be deposited and retained in an area that has no waters of the U.S. <p>Note: Any bank stabilization measures not directly associated with the existing structure requires a separate authorization under GP 9.</p>

<p>GP 2(B) COASTAL Repair or Maintenance of Existing Currently Serviceable, Authorized or Grandfathered Structures & Fills, Removal of Structures</p> <p>An SVNF is not required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New fill (temporary or permanent) • Impacts (structures or work) in special aquatic sites (SAS)* – also refer to 40 CFR 230.3 and Subpart E and definitions herein. • Unconfined fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC 12 for a hyperlink to the NOAA ESA maps). <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Bulkhead replacement via installation of new bulkhead within 18” of existing bulkhead & associated backfill. • Work to previously authorized and currently serviceable tide gates with a USACE-approved operation and maintenance plan and structural repair (no fill) for tide gates that will not change the hydraulic regime (e.g., modify existing flow, periodicity, or circulation of waters), solely convey stormwater and/or that convey authorized National Pollution Discharge Elimination System discharges. <p>* SAS includes mud flats, saltmarsh, vegetated shallows (submerged aquatic vegetation), sanctuaries and refuges, coral reefs, and riffle and pool complexes.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • New fill (temporary or permanent) > 5,000 SF in waters and wetlands • Impacts (structures or work) > 1,000 SF in tidal SAS (other than vegetated shallows), and shellfish beds. • Impacts (structures or work) and fill > 100 SF in tidal vegetated shallows (e.g., eelgrass & widgeon/turtlegrass). <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Fill and impacts (structures or work) ≤ 5,000 SF in waters and wetlands • Removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) • Removal of bridge structures subject to USCG jurisdiction are covered under GP 8, provided the USCG issues a bridge permit. • Any bank stabilization measures not directly associated with the structure requires a separate authorization under GP 9. • The removal of accumulated sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built but cannot extend farther than 200 feet in any direction from the structure. Excavated materials must be deposited and retained in an area that has no waters of the U.S. <p>Note: Grandfather dates include work performed and structures installed before 1968 and fill placed before 1975 for USACE purposes only.</p>
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GP 3. MOORINGS (Section 10; navigable waters of the U.S.)

New private, non-commercial, non-rental, single-boat moorings & temporary moorings including moorings to facilitate construction or dredging; minor relocation of previously authorized moorings and mooring field expansions, boundary reconfigurations or modifications of previously authorized mooring fields and maintenance and replacement of moorings.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 3(A) INLAND	<p>Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>	<p>Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.</p>
<p>GP 3(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New moorings located in FNPs, including anchorages • New moorings located in tidal SAV • New moorings within 1000 SF of SAS (except tidal SAV) • New moorings located in shellfish beds. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Private, non-commercial, non-rental, single-boat moorings as well as temporary moorings needed to facilitate construction or dredging. • Minor relocation of previously authorized moorings provided no impact to SAS or shellfish beds. • Must receive local harbor master or municipal commission authorization. • Replacement of existing moorings within SAS (e.g., eelgrass) with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides, helical anchors, or equivalent SAS protection systems. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Moorings in Federal Navigation Channels <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • New moorings, including expansion of existing mooring fields, that are associated with an existing or proposed boating facility*. • Private moorings without harbor master or local approval. • Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Anchorage. The buffer zone is equal to 3 times the authorized depth of that channel. • New individual moorings in SAS, including eelgrass. Locating moorings in SAS should be avoided to the maximum extent practicable. If SAS cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides, helical anchors, or equivalent SAS protection systems, where practicable. <u>USACE may require an eelgrass survey to document presence or absence of SAS to determine the appropriate type and amount of compensatory mitigation for impact to SAS.</u> • Temporary and permanent impacts to >1000 SF of SAS (except tidal SAV) or intertidal habitats. • Temporary and permanent impacts to: (1) >100 SF of tidal SAV; or (2) ≤100 SF of tidal SAV if compensatory mitigation isn't required. <p>*Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockominiums, etc.</p>

GP 4. PILE-SUPPORTED STRUCTURES & FLOATS, INCLUDING BOAT LIFTS/HOISTS & OTHER MISCELLANEOUS STRUCTURES & WORK

(Section 10 and 404; navigable waters of the U.S.) New, expansions, reconfigurations, or modifications of structures for navigation access including floats, stairs/pads, and boat/float lifts as well as other miscellaneous structures.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 4(A) INLAND	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 2) do not require USACE authorization, unless there is a discharge of dredged or fill material.</p>	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization, unless there is a discharge of dredged or fill material.</p>
<p>GP 4(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New structures or floats associated with a boating facility.* • Structures located over, or within 25-feet of SAV. • Structures or floats located within the buffer zone (3x the authorized depth of the FNP) of the horizontal limits of FNPs. • Pile-supported structures within Shellfish Concentration Areas as designated by CT DEEP, Coastal Area Management Program by CGS Sec. 22a-90. • Hammered steel piles. • Wooden piles > 12 inches in diameter. • Structures or floats that extend across >25% of the waterway width at mean low water (MLW). <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Private residential piers/floating docks/miscellaneous structures with a length limit not to exceed 40 feet beyond MHW and to a depth of 4 feet MLW and limited to 4 feet in width. • The fixed pier component of the dock located in tidal wetlands shall be constructed such that the lowest horizontal member of the fixed pier is no lower than 5' off the surface of any underlying wetland. • Wooden piles for a single and complete project ≤ 25 piles. • Floats and lifts must be supported at least 18 inches above the intertidal and shallow sub-tidal substrate during all tidal cycles. • Private boat lifts. • Letter of no objection from riparian property owner is required for new structures within 25 feet of riparian property line extensions. • Reconfiguration of existing authorized structures, both private or commercial, provided those structures do not extend beyond the existing footprint** of the facility or extend further waterward of MHW, or encroach into SAS or shellfish beds. • Access stairs. • Temporary structures not in FNPs such as scaffolding to facilitate activities covered by another GP 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent structures in a Federal Navigation Channel or in the buffer zone • New structures associated with an existing boating facility that are located beyond the existing footprint of the facility. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Wave attenuation structures and timber groins. • New structures within an existing boating facility, provided those structures do not extend beyond the existing footprint of the facility. • Structures that are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. If not, USACE may require a letter of no objection from the abutter(s). • Structures or work in or affecting coastal waters (as defined on Appendix A, Page 1) that are not defined under any other GP activity. <p>* Boating Facility: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockminiums, etc. ** Footprint is defined as the limit of structures, such as docks, pilings, piers, or platforms, at an established marina or docking facility.</p>

GP 5. BOAT RAMPS & MARINE RAILWAYS (Sections 10 & 404; tidal and non-tidal waters of the U.S.)

Activities required for the construction of boat ramps & marine railways, including associated excavation & discharges of fill. Dredging in coastal waters of the U.S. is not eligible under GP 5 (see GP 7).

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 5(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Unconfined fill or excavation discharges in waterways identified as a habitat for Atlantic sturgeon and shortnose sturgeon, including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA) • Fill or excavation discharges in vegetated shallows with <i>Vallisneria americana</i> (also known as water celery, American eelgrass or tapegrass). • Boat ramps located within 25 feet of riparian property line extensions <u>unless</u> the properties are owned by the same owner or a letter of no objection from the abutter is provided. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Ramp construction with ≤5,000 SF of temporary & permanent impact • Ramps constructed in inland waters that support a nademous fish (see Appendix H) provided construction occurs during low (at or below the normal water elevation) or no-flow condition and/or behind a cofferdam between July 1 and March 31. The cofferdam shall be constructed of non-erodible materials (steel sheets, aqua barriers, or geotextile liner; earthen cofferdams are not permissible). 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill >1/2 acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill ≤1/2 acre • Boat ramps located within 25 feet of an abutting riparian property line with a letter of no objection from the abutter(s).
<p>GP 5(B) COASTAL</p> <p>Note: If boat ramps are located within 25 feet of a riparian property line and the property is not held by the same owner, USACE may require a letter of no objection from the abutter(s) or require an appropriate buffer if one is needed.</p>	<p>These activities are not eligible for SV</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1/2 acre of waters and wetlands. • Permanent and temporary impacts >1000 SF in tidal SAS, other than vegetated shallows. • Impacts >100 SF in SAV. <p><u>Eligible for PCN:</u></p> <ul style="list-style-type: none"> • Boat ramps and marine railways in coastal waters and/or impacting tidal wetlands. • Boat ramps are located within 25 feet of riparian property line extensions unless the properties are owned by the same owner. • Permanent and temporary impacts ≤1/2 acre of waters and wetlands. • Permanent and temporary impacts ≤1000 SF in tidal SAS, other than vegetated shallows. • Impacts ≤100 SF in tidal vegetated shallows.

GP 6. UTILITIES INCLUDING LINES, OUTFALL AND INTAKE STRUCTURES AND APPURTENANT FEATURES (Sections 10 & 404; tidal & non-tidal waters of the U.S.): Activities required for: (a) The construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) The construction, maintenance or expansion of utility line substation facilities associated with a power/utility line in waters of the U.S.*; and (c) The construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project, does not cause the permanent loss of greater than 1/2 acre of waters of the U.S. Impacts resulting from mechanized pushing, dragging, temporary side-casting of excavated material or other similar activities that redeposit excavated soil material shall be figured into the area limit determination. Access roads used solely for the construction of the utility project (i.e., not used for maintenance) must be removed upon completion of the work. Utility line activities that are not regulated by USACE, but involve temporary fill within USACE jurisdiction, should be evaluated under GP 21.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 6(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Outfalls. • New riprap beyond the existing previously authorized footprint. • Fill in riffle and pool complexes and non-tidal vegetated shallows with <i>Vallisneria americana</i> (also known as water celery, American eelgrass or tapegrass) or a vernal pool depression that is located within waters of the U.S. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and over-wintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps) • Unconfined work or silt producing activities in streams with diadromous fish between April 1 and June 30. (See Appendix H) <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Cumulative permanent and temporary impacts of $\leq 5,000$ SF of fill for each single and complete project (see GC 5) provided none of the individual single and complete linear project impact areas for the entire project exceed the threshold for the SV ($\leq 5,000$ SF). • Dry streambed installation of utility lines or mains with bypass diversion that conveys a seasonal minimum flow downstream. See also GC 21 for instream flow maintenance and aquatic connectivity requirements. • No permanent change to preconstruction contour or loss of streambed. • Backfill of the trench over the pipe and to the ground surface shall occur with native materials, to the extent practicable for industry standard and may not facilitate wetland or waterway drainage below, or on the ground surface. Trench plugs shall be installed to prevent drainage of waters and wetlands. • Activities may not intentionally or unintentionally impound waters, including wetlands. • Intake structures such as dry hydrants, if located within a stream, intake must be equipped with an appropriately sized mesh screen to prevent entrainment and the intake velocity must not exceed 0.5 foot-per-second to prevent impingement of aquatic organisms. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill $> 1/2$ acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill $\leq 1/2$ acre. • Utility activities including excavation and trench backfill with impact to riffle and pools or vegetated shallows. • New outfalls and/or intakes. • New riprap armoring for utility-related structures and scour protection. • Temporary utility access roads for construction (see GPs 18 and 19 for permanent maintenance access roads) • Streambed installation of utility lines or mains via open-cut trench excavation in flowing waters or dam and pump diversion. • Temporary fills necessary to conduct the utility work is allowed, provided the utility line activity is within USACE jurisdiction and the cumulative impact of both permanent and temporary fill for each single and complete project (see GC 6) wetland and/or waterway crossing does not exceed the 1/2 acre “single and complete” project threshold for PCN. • Material resulting from trench excavation may be temporarily side cast into waters of the U.S. for no more than three months, provided the material is properly stabilized and not placed in such a manner that it is dispersed by currents or other forces or alters flow and circulation patterns. • Temporary fill, including fill for construction access roads, must be removed upon completion of work and the area shall be completely restored to pre-construction elevation and condition, and re-vegetated with native species as appropriate.

<p>GP 6A. INLAND (continued)</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<ul style="list-style-type: none"> • Construction occurs during low (at or below the normal water elevation) or no-flow condition between July 1 and March 31 in streams with diadromous fish (see Appendix H) or work conducted behind a cofferdam at any time. The cofferdam shall be constructed of non-erodible materials (steel sheets, aqua barriers, sandbag, or geotextile liner; earthen cofferdams are not permissible). • Material resulting from trench excavation may be temporarily side cast into waters of the U.S. for no more than 30-days, provided the material is properly stabilized and is not placed in such a manner that it is dispersed by currents or other forces or alters flow and circulation patterns. • Temporary fill, including fill for construction access roads, must be removed upon completion of work and the area shall be completely restored to pre-construction elevation and condition, and re-vegetated with native species as appropriate. • Pad/foundations are the minimum size necessary and are configured as a separate footing for each tower leg (rather than a larger single pad). • Impacts in waters or wetlands resulting from mechanized pushing or dragging, and temporary side cast of excavated material from trenches shall be figured into the <5,000 SF “single and complete” project category threshold. 	<ul style="list-style-type: none"> • Pad/foundations are the minimum size necessary and is configured as a separate footing for each tower leg (rather than a larger single pad). • Impacts in waters or wetlands resulting from mechanized pushing or dragging, and temporary side cast of excavated material from trenches shall be figured into the 1/2 acre “single and complete” project category threshold.
<p>GP 6(B) COASTAL Utilities including lines, outfall and intake structures and appurtenant features.</p>	<p>These activities are not eligible for SV.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill >1/2 acre of waters and wetlands. • Permanent and temporary fill >1000 SF in tidal SAS other than vegetated shallows. • >100 SF in tidal SAV. • New tide gates that are not affiliated with a permitted storm water discharge or a authorized National Pollutant Discharge Elimination system. • Work that includes blasting. <p><u>Eligible for PCN:</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill ≤1/2 acre of waters and wetlands. • Permanent and temporary fill ≤1000 SF in tidal SAS other than vegetated shallows. • ≤100 SF in tidal vegetated shallows. • Overhead utility lines constructed over Section 10 waters and submarine utility lines that are routed in or under such waters. • Storm water outfalls. • New intake structures. • Trench excavation, bedding and backfill. • Staging of equipment in wetlands during construction.

GP 7. DREDGING (Section 10; navigable waters of the U.S.), TRANSPORT & DISPOSAL OF DREDGED MATERIAL (Sections 10, 404 & 103; tidal waters of the U.S.), BEACH NOURISHMENT (Sections 10 & 404; tidal waters of the U.S.); ROCK REMOVAL (Section 10, navigable waters of the U.S.) & ROCK RELOCATION (Sections 10 & 404; tidal waters of the U.S.) New, improvement* and maintenance** dredging, including: (a) Disposal of dredged material at a confined aquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site, provided USACE finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Beach grading or raking and (d) Rock removal and relocation for navigation.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 7(A) INLAND	Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.	Not Applicable These activities in inland waters (as defined in Appendix A, Page 1) do not require USACE authorization.
GP 7(B) COASTAL An SVNF is not required.	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Maintenance dredging with >100 SF of impacts to tidal SAV or with >1000 SF of impacts to tidal SAS (except tidal SAV), intertidal habitats, natural rocky habitats, or shellfish areas. • Work in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC 12 for a hyperlink to the NOAA ESA maps and waterway descriptions). • Beach nourishment and beach grading. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Maintenance dredging (any yardage amount) with contained upland disposal provided work occurs between October 1 and January 31 of the calendar year. • Dredge area is >100 feet away from tidal SAV • Dredge impacts are <1000 SF of tidal SAS (except tidal SAV), intertidal habitats, natural rocky habitats, or shellfish areas. • Proper siltation controls are used and maintained to prevent inadvertent runback into adjacent waterway or wetland. • Rock/boulder relocation with ≤200 SF of impact to subtidal bottom and no impact to SAV or shellfish beds. • Beach grooming or raking between November 1 and January 31. <p>*Improvement is dredging to deeper depths in areas previously dredged after being authorized by USACE.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • New dredging (not previously authorized) with >1000 SF of impacts to intertidal areas or tidal SAS • Maintenance dredging and/or disposal with >1/2 acre of impacts to tidal SAS other than vegetated shallows (saltmarsh, mud flats). • New dredging for the primary purpose of mining or borrowing sand for beach nourishment. • Rock removal and relocation for navigation with impacts >1/2 acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • New dredging (not previously authorized) with ≤1000 SF of impacts to intertidal areas or tidal SAS • Work with ≤100 SF of impact to SAV. • Maintenance dredging and/or disposal with ≤1/2 acre of impacts to tidal SAS other than vegetated shallows (saltmarsh, mud flats). • New and improvement* dredging. • Dredged material disposal including open water disposal, confined aquatic disposal cells (CAD cells), near-shore disposal or beach nourishment. • Beach nourishment and beach grading. • Beach grooming or raking not eligible for SV. • Rock removal mechanically or by blasting (see below for additional criteria) • For work that includes blasting, a blasting plan must be submitted and approved by USACE, CT DEEP and National Marine Fisheries Service (NMFS). <p>**Maintenance dredging includes areas and depths previously dredged after being authorized by USACE.</p>

GP 8. DISCHARGES OF DREDGED OR FILL MATERIAL INCIDENTAL TO THE CONSTRUCTION OF BRIDGES (Sections 10 & 404; navigable waters of the U.S.)

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams, abutments, foundation seals, piers, approach fills, and temporary construction and access fills provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 8(A) INLAND	<p>GP 8 is not applicable to bridges over inland waters or wetlands that are not tidally influenced or regulated as navigable under Section 10 (see definitions on Appendix A, Page 1 and at 33 CFR Part 329; Definition for Navigable Waters of the U.S.</p> <p>For projects that are not subject to USCG regulations see eligibility criteria for GPs 2, 18 or 19.</p>	<p>GP 8 is not applicable to bridges over inland waters or wetlands that are not tidally influenced or regulated as navigable under Section 10 (see definitions on Appendix A Page 1 and at 33 CFR 329; Definition for Navigable Waters of the U.S.</p> <p>For projects that are not subject to USCG regulations see eligibility criteria for GPs 2, 18 or 19.</p>
<p>GP 8(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Construction of causeways and approach fills. • Fill in SAS or shellfish beds. • Discharges of dredged or fill material in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon, including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the freshwater tidal segments of the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC 12 for a hyperlink to the NOAA ESA maps and waterway descriptions). <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent or temporary discharges of dredged or fill material incidental to the construction and/or modification of bridges. • Pier foundations. • Cofferdam and water handling facilities. • Bridges authorized by the USCG under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws including 2002 transfer of authorities to Secretary of Homeland Security under 6 U.S.C. 552(d). 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill >1 acre of waterways. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill ≤1 acre of waterways. • Permanent and temporary fill ≤1000 SF in tidal SAS, other than SAV. • Permanent and temporary fill ≤100 SF in SAV.

GP 9. NEW SHORELINE & BANK STABILIZATION PROJECTS AND LIVING SHORELINES (Sections 10 & 404; tidal and non-tidal waters of the U.S.)

Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, estuarine and ocean waters, and any other open waters. Includes bulkheads, seawalls, riprap, revetments, or slope protection & similar structures, specifically for the purpose of shoreline protection. Also includes vegetative planting, soil bioengineering or alternative techniques that rely on a substantial biological component (e.g., fringe wetland, shellfish reef) or include discharges associated with planned shoreline retreat to maintain, restore, or enhance the natural continuity of the land-water interface and natural ecological processes. See GP 2 for replacement of existing bank stabilization structures/fills.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 9(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Stream, river, or brook bank stabilization projects >60 linear feet (LF) (total for more than one stream bank), not including living shorelines. • Living shorelines >100 LF (total length including both stream banks). • Vertical stone structures or embankments angled steeper than 1 V: 1H. • New bulkheads & retaining walls. • Fill beyond the toe of slope within the streambed other than necessary to secure the toe of slope (see definition). • The use of grouted riprap, poured/unformed concrete/asphalt, or a asphalt pieces. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps) <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Stream, river, or brook bank stabilization projects ≤60 LF (total for more than one stream bank). • Living shorelines ≤100 LF (total for more than one stream bank). • Work conducted “in-the-dry” (i.e., work that occurs when the stream is waterward of the activity and work occurs behind an installed cofferdam). • Unconfined instream work for installation & removal of cofferdams in waters that support diadromous fish (see Appendix H), occurs between July 30 and September 30. Work occurring behind a cofferdam may occur at any time (See Appendix H). • Soft biodegradable (see definition) stabilization measures such as bioengineered fiber roll revetments or equivalent, shall be used wherever practicable. • Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. • After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Bank stabilization >300 LF (total length including both stream banks). • Living shorelines >500 LF (total length including both stream banks). • Stream channelization or relocation activities. • The use of grouped riprap, poured/unformed concrete, poured asphalt or asphalt pieces. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Bank stabilization ≤300 LF (total length including both stream banks). • Living shorelines ≤500 LF (total length including both stream banks). • Utilize rock only in lower portion or toe of the riprap and woody structures/features, biodegradable fabric, etc. in the upper portions • Incorporate soil in the upper portions of the project with appropriate woody (usually willow) plantings as near a average water elevations as possible and herbaceous plantings elsewhere • Provide a temporary or permanent buffer strip (streamside area where protection promotes growth and sustenance of woody vegetation) along the project length to provide for vegetation stability where grazing or recreational use may impact plant growth. Preferably, plantings should be on slopes of 3:1 or flatter and irrigated, if possible. <p>NOTES: The elevation at which the mean annual flow occurs is the division between “upper” and “lower.” As built drawings are required for bank stabilization under PCN.</p>

**GP 9(B) COASTAL
New shoreline &
bank stabilization
projects**

An SVNF is not
required.

Not eligible for SV:

- Shoreline bank stabilization and living shoreline projects >100 LF.
- >1 cubic yard of fill per linear foot placed between HTL and MLW.
- Discharges of fill material within SAS, including mud flats, tidal wetlands, SAV and/or shellfish beds.
- Vertical stone structures or embankments angled steeper than 1 V: 1 H.
- New bulkheads.
- Work in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC #12 for a hyperlink to the NOAA ESA maps and waterway descriptions)
- Unconfined in-water work from May 1 through September 30

Eligible for SV:

- Shoreline, bank stabilization and living shoreline projects \leq 100 LF.
- <1 cubic yard of fill per linear foot placed between the HTL and MLW.
- Living shoreline sill material (see definition) such as coir logs, coir mats, native oyster shell, native wood debris, native rounded rock and cobble (cannot include angular riprap) and other structural materials must be adequately anchored, of sufficient weight, or installed in a manner that prevents relocation in most wave action or water flow conditions, except for extremely severe storms, and must be properly maintained.
- Sand fill placed landward of the living shoreline sill shall consist of coarse sand or native cobble consistent with the existing site and may not raise the elevation of the shoreline above the elevation of adjacent tidal wetland.
- As built drawings are required for coastal shoreline, bank stabilization and living shorelines under this category.

Not eligible for PCN (Individual Permit required):

- Shoreline & bank stabilization projects >300 LF.
- Living shorelines >1,500 LF in length.
- New breakwaters, groins, and jetties.
- Discharge of fill material >1,000 sf within SAS, including mud flats, tidal wetlands, or shellfish beds and >100 sf in vegetated shallows/SAV.

Eligible for PCN (includes work not eligible for SV):

- Living shorelines \leq 1,500 LF
- Shoreline & bank stabilization projects \leq 300 LF.

NOTES: As built drawings are required for bank stabilization under PCN.

GP 10. AQUATIC HABITAT RESTORATION, ESTABLISHMENT & ENHANCEMENT ACTIVITIES (Sections 10 & 404; tidal & non-tidal waters of the U.S.)

Activities in waters of the U.S. associated with the restoration, enhancement & establishment of wetlands & riparian areas, including invasive, non-native or nuisance species control; restoration & enhancement of non-tidal streams & waters including removal of artificial features & stream obstructions (dams, culverts, berms, weirs, walls); vegetative enhancement; installation of fish ladders, rock ramps & in-stream natural habitat features; relocation or conversion of non-tidal waters & associated wetlands for reestablishment of natural stream morphology & reconnection of the floodplain; removal of agricultural drainage tile & filling of drainage ditches; restoration & enhancement of native shellfish, finfish & wildlife habitat where it currently exists or once existed & rehabilitation or enhancement of tidal streams, tidal wetlands & tidal open waters provided that state & federal agencies concur that the activities will result in net increase to aquatic resource functions & services; modification to existing tide gates that are not eligible under GP 2 if they will change the hydraulic regime where state & federal agencies concur that such changes will be ecologically beneficial; activities for enhancement of existing wildlife impoundments where state & federal agencies concur that management practices will not adversely affect existing ecological diversity or work will have a net increase in overall aquatic resource functions & services. Baseline survey & hydraulic analysis may be required to demonstrate eligibility.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 10(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent & temporary fill >1/2 acre of waters and/or wetlands. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). • New drainage ditch discharges or deepening (including side-casting of excavated material in wetland) to eliminate mosquito breeding habitat (see GP 22). • Stream channelization or channel reconstruction and alignment. • Aquatic habitat conversion. • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • ≤5,000 SF of permanent & temporary fill and/or excavation discharges. • Placement of boulders clusters, woody debris clumps, log vanes or deflectors in waters for fish habitat restoration. • Temporary fill and excavation in stream discharges associated with mechanical removal of small relict dams (≤4-ft high and 15-ft. long) • Fill and excavation discharges are authorized provided the activity is supported in writing by a state or non-USACE Fed. environmental resource management agency • Relict small-dam removals may not result in hydraulic modification or loss (upland conversion) of wetland habitat upstream of the structure and no permanent fill/discharges other than in situ gravel, cobble, or stone for stream bed restoration. • Work must occur “in-the-dry” (behind cofferdams). See Appendix H for time of year restrictions for work in waterways (including installation of cofferdams) for streams with diadromous fish. Unconfined in stream work, including installation and removal of cofferdams in streams that do not possess diadromous fish is limited only from July 1 through September 30. • Removal of non-native invasive, exotic or nuisance vegetation. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Conversion of wetland to open water. • New wildlife, waterfowl impoundments or fish ponds. • Stream channelization. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Pond or lake restoration or enhancement for water quality or ecological habitat renovation. • Dam removals not eligible for SV. • Stream channel reconstruction, relocation, realignment, and stream bed modification • Installation of fish ladders • Management of existing wildlife or waterfowl impoundments.

<p>GP 10(B) COASTAL Aquatic habitat restoration, establishment & enhancement activities.</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent fill in, or conversion of, tidal wetland. • Work in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC 12 for a hyperlink to the NOAA ESA maps). • New or improvement dredging (deepening) discharges (including side-casting of excavated material from ditching) to eliminate mosquito breeding habitat. (see GP 23). • Thin layer deposition for saltmarsh restoration. • Seed shellfish, spat shell or cultch placed in submerged aquatic vegetation and may not result in degradation of habitat for other aquatic resources. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • SAS planting and transplanting ≤ 100 SF. • Placement of seed shellfish, spat shell, or cultch in tidal waters for the restoration or enhancement of existing, publicly managed, recreational shellfish beds (native seed stock only). • Removal of non-native invasive, exotic or nuisance vegetation. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Conversion of wetland to open water, except for new salt pannes. • New wildlife, waterfowl impoundments or fish ponds. • New tide gate installation. • Artificial reefs. • Permanent and temporary impacts >1/2 acre in tidal waters. • Permanent and temporary impacts >1000 SF in tidal SAS, other than vegetated shallows. • Permanent and temporary impacts >100 SF of tidal SAV <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Integrated Marsh Management in tidal waters and wetlands for combined wetland enhancement, mosquito control and reduction which may include draining of ponded dieback areas through excavation of runnels with handheld tools or low-impact ground equipment; blocking or unclogging of historic mosquito ditches or tidal creeks to restore tidal flushing and natural salinity levels; excavation of new salt pannes to increase shorebird and waterfowl foraging habitat and larvivorous fish habitat. • Pro-active saltmarsh restoration with thin layer discharge completed by the State of Connecticut Wetland Habitat and Mosquito Management program provided there is no net loss of wetland area. These thin layer discharge activities are excluded from the 1/2 acre threshold limit of permanent and temporary direct and indirect disturbance if the work is completed by the State of Connecticut Wetland Habitat and Mosquito Management program and the state and federal agencies concur that the work will not adversely affect existing ecological diversity or will have a net increase in overall aquatic resource functions and services. • Permanent and temporary impacts ≤ 1/2 SF in tidal waters unless project meets above bullet. • Permanent and temporary impacts ≤ 100 SF of tidal SAV • Permanent and temporary impacts ≤ 1000 SF in tidal SAS, other than vegetated shallows.
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GP 11. FISH & WILDLIFE HARVESTING ACTIVITIES (Sections 10 and 404; tidal waters of the U.S.)

Activities in tidal waters of the U.S. associated with fish and wildlife harvesting and harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.).

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 11(A) INLAND</p> <p>An SVNF is required.</p>	<p>GP 11 is not applicable to inland waters or wetlands that are not tidally influenced or navigable under Section 10 (see definitions on Appendix A Page 1 and 33 CFR Part 329; Definition for Navigable Waters of the U.S.</p>	<p>GP 11 is not applicable to inland waters or wetlands that are not tidally influenced or navigable under Section 10 (see definitions on Appendix A Page 1 and 33 CFR Part 329; Definition for Navigable Waters of the U.S.</p>
<p>GP 11(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New fish nets or traps in the Connecticut and Housatonic Rivers • Permanent impacts to SAS, including intertidal mud flats, salt marshes and SAV. • Placement in FNPs or interference with navigation. FNPs are comprised of Federal Channels, anchorages and turning basins. More information on the limits of these FNPs can be found at: http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/ • Fish harvesting activities in SAS. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Activities associated with fish and wildlife harvesting devices including pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging and dredging, small fish aggregating and attraction devices such as open water fish concentrators (sea kites, etc.). • All gear, except for permanent mooring tackle shall be removed when not in use and stored at an upland location above MHW and outside of wetland, including saltmarsh. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Artificial Reefs, impoundment(s) or semi-impoundment(s) of water • >1/2 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV >100 SF. • Permanent fill or excavation in other SAS >1000 SF. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • ≤1/2 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV ≤100 SF • Permanent fill or excavation in other SAS ≤1000 SF • Devices (structures) proposed to be used or located in tidal SAS, including salt marsh, mud flats and SAV.

GP 12. OIL SPILL & HAZARDOUS MATERIAL RESPONSE OPERATIONS (Sections 10 and 404; tidal and non-tidal waters of the U.S.) (a) Activities conducted in response to a discharge or release of oil & hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup & mitigation efforts, provided activities are done under either: (i) The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; (ii) The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or (iii) Any approved existing State, regional or local contingency plan provided that the Regional Response Team concurs with the proposed response efforts or does not object to the response effort; (b) Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761; (c) Booms placed in tidal waters; & (d) Use of structures & fills for spill response training exercises. SAS must be restored in place to pre-impact elevations. **Notes:** (1) For activities listed under a. or b. above that require SV, permittees have up to two weeks following commencement of these activities to submit the SV; & (2) For activities in waters identified as habitat for Atlantic sturgeon & shortnose sturgeon & coastal waters of Long Island Sound, the permittee must contact USACE at (978) 318-8338 & cenae-r-ct@usace.army.mil as soon as possible after the work under GP 12(a)-(c) begins so USACE can address effects of the activities under the Federal Endangered Species Act.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 12(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Temporary waterway and wetland fill and associated secondary impacts, conducted in accordance with a. or b. above (no acreage limit) provided SAS are restored in place to pre-impact elevation • Temporary fill for spill response training exercises provided no impacts to SAS, vernal pool depressions located within waters of the U.S. or not located in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC #12 for a hyperlink to the NOAA ESA.) 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • >1 acre of permanent waterway and/or wetland fill and associated secondary impacts. • Establishment of new sites for disposal of hazardous/toxic waste. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • ≤1 acre of permanent waterway and/or wetland fill & secondary impacts to include impacts for spill response training exercises. • The activity is planned/scheduled, not an emergency response & will cause turbidity or sediment resuspension or deposition waters or wetlands.
<p>GP 12(B) COASTAL</p> <p>An SVNF may be required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Training activities with impacts to tidal SAS, including SAV, natural rocky habitats and/or shellfish beds. • Clean up activities are planned, scheduled, or not conducted during the initial emergency response. • Training activities in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC #12 for a hyperlink to the NOAA ESA maps). <p><u>Eligible for SV without SV notification:</u></p> <ul style="list-style-type: none"> • Booms placed in navigable waters of the U.S. for oil and hazardous substance containment, absorption, and prevention, provided they are removed upon completion of the cleanup. <p><u>Eligible for SV with SV notification:</u></p> <ul style="list-style-type: none"> • Temporary fill or impacts for spill response training exercises with ≤1000 SF of impact to tidal waters and temporary structures with no impacts to SAS and in place for ≤30 days. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Activities that will have more than minimal individual or cumulative adverse environmental effects. See GC 4. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • The activity is planned or scheduled, not an emergency response, and will not cause turbidity or sediment resuspension or deposition in waters or wetlands. • Permanent structures or impacts for spill response training exercises.

GP 13. CLEANUP OF HAZARDOUS & TOXIC WASTE (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Specific activities to affect the containment, stabilization, or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements which are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA, are not required to obtain permits under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 13(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Stream channelization, relocation, or loss of streambed including impoundments. • Establishment of new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste. • Permanent discharges in, or conversion of, SAS or a vernal pool depression that is located within waters of the U.S. • Fill in waters identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. See GC 12 for a hyperlink to the NOAA ESA maps). <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • ≤5,000 square feet (SF) of permanent or temporary waterway and/or wetland fill and, associated secondary impacts. • SAS must be restored in place and at pre-impact elevation, to the maximum extent practicable. <p>Note: Permittees have up to two weeks following commencement of these activities to submit the SVNF.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • >1/2 acre of permanent or temporary waterway and/or wetland fill and associated secondary impacts. • Establishment of new disposal sites or expansion of existing sites for the disposal of hazardous or toxic waste. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • ≤1/2 acre of permanent or temporary waterway and/or wetland fill and associated secondary impacts, and temporary fills. • SAS must be restored in place and at pre-impact elevation, to the maximum extent practicable.
<p>GP 13(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Fill in waters or wetlands. • All cleanup activities except for the use of booms <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Booms placed in waters for containment, absorption, and prevention, provided they are removed upon completion of the cleanup. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Activities that will have more than minimal individual or cumulative adverse environmental effects. See GC 4. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts to include waterway or wetland fill and associated secondary impacts,

GP 14. SCIENTIFIC MEASUREMENT AND MONITORING DEVICES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Also eligible are small temporary weirs and flumes constructed primarily to record water quantity and velocity provided the discharge is less than 25 cubic yards. Upon completion of the use of the installed device it, and any other structures of fill associated with the device (e.g., foundations, anchors, buoys, lines, etc.), must be removed and the site restored to preconstruction elevation and condition, to the greatest extent practicable.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 14(A) INLAND</p> <p>An SVNF is required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1,000 SF • Fill in inland waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). • Fill in a vernal pool depression that is located within waters of the U.S. • Biological sampling devices. • Weirs and flumes. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts are ≤1,000 SF • Devices do not restrict or concentrate movement of aquatic organisms. Upon completion of use, the device and any associated fill material shall be removed in their entirety. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >5,000 SF <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤5,000 SF
<p>GP 14(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent impacts to tidal SAV or natural rocky habitats. • Fill in waters and wetlands. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC #12 for a hyperlink to the NOAA ESA maps) • Interference with navigation or encroachment into an FNP. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Non-fill temporary or permanent impacts ≤1,000 SF of tidal SAS (except SAV). • Devices in tidal waters that do not restrict or concentrate movement of aquatic organisms and will not adversely affect the course, condition, or capacity of a waterway. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >5,000 SF. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤5,000 SF.

GP 15. SURVEY AND EXPLORATORY SURVEY ACTIVITIES (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory type bore holes, exploratory trenching (mechanical land clearing of the upper soil profile to expose bedrock or substrate for the purpose of mapping or sampling the exposed material) and historic resources surveys.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 15(A) INLAND</p> <p>An SVNF may be required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent fill >5,000 SF • Drilling and discharge of excavated material from test wells for oil and gas exploration. • Exploratory trenching in waterways. • Blasting. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV with SV notification:</u></p> <ul style="list-style-type: none"> • Temporary impacts ≤5,000 SF in non-tidal waters and wetlands. • Exploratory trenching in wetland ≤1,000 SF provided that the excavated organic topsoil is set aside from dug subsoil for restoration purposes. The trench must be restored to its preconstruction elevation upon completion of the work and shall not facilitate wetland or waterway drainage on, or below, the ground surface. Backfill of the trench shall occur with native subsoil from the trench and the stockpiled organic topsoil will be restored to the wetland surface. • Discharges for drill entry and exit pits and drilling mud recovery. <p><u>Eligible for SV without SV notification:</u></p> <ul style="list-style-type: none"> • Wetland delineation, soil surveys, sampling plots, historic resource surveys. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent structures or drilling and discharge of excavated material from test wells for oil and gas exploration. • Permanent and temporary fill >1/2 acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary fill ≤1/2 acre. • Seismic surveying. • Exploratory trenching
<p>GP 15(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent or temporary fill or permanent structures • Drilling & discharge of excavated material from test wells for oil & gas exploration and seismic exploration. • Exploratory trenching and silt producing activities. • Temporary structures or work in SAS (including SAV). • Temporary structures or work with >100 SF impact to natural rocky habitats or >1,000 to intertidal areas. • Blasting. • Interference with navigation. • Biological sampling devices. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1/2 acres; >1,000 SF in SAS, other than SAV; or >100 SF in SAV <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤1/2 acres; ≤1000 SF in SAS, other than SAV; or ≤100 SF in SAV.

**GP 15(B) COASTAL
(continued)
Survey and
Exploratory Survey
Activities**

- Work in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. This includes, but is not limited to, the Housatonic River, Naugatuck River, Quinnipiac River, Connecticut River, Salmon River, Thames River and Yantic River (See GC #12 for a hyperlink to the NOAA ESA maps)

Eligible for SV:

- Temporary structures $\leq 1,000$ SF removed when survey is concluded.
- Sampling plots, resource surveys, soil borings, and core sampling.

GP 16. AQUACULTURE AND MARICULTURE ACTIVITIES (Section 10; navigable waters of the U.S.)

The installation of buoys, floats, racks, rafts, trays, predator nets, lines, tubes, posts, or other structures in navigable waters for the containment and cultivation of indigenous species of shellfish and seaweed/kelp. Also authorized are anchored upweller floats, spat-collection structures, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation such as the placement of shellfish seed, cultch, or spatting-shell on bottom or “brushing of the flats.” Depth of cultch or spatting-shell must comply with the Special Conditions in Section 5, Part (h), items (1) through (7) of the CT DEEP “General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02)”, which is also located at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>, and must not result in visible degradation of habitat for other aquatic resources. All structures must be permitted by State of Connecticut Navigation Safety/Boating Access Unit and marked in conformance with applicable State or USCG Aids to Navigation.

NOTE: All facilities must be installed and operated in compliance with Appendix C – Standard Aquaculture Terms and Conditions.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 16(A) INLAND	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 2) do not require USACE authorization.</p>	<p>Not Applicable</p> <p>These activities in inland waters (as defined in Appendix A, Page 2) do not require USACE authorization.</p>
<p>GP 16(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • New aquaculture activities within 100 feet of SAV. • Permanent impacts to natural rocky habitat >100 SF. • Structures in or within three times the authorized depth of an FNP. • Depth of cultch or spatting-shell does not comply with the Special Conditions in Section 5, Part (h), items (1) through (7) of CT DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02), will result in visible degradation of habitat for other aquatic resources and/or will impact natural shellfish beds. • Culture of non-indigenous species or aquatic nuisance species.** • Kelp/seaweed or finfish aquaculture. • Attendant features such as docks, piers, or boat ramps (see GP 4 or GP 5). • Structures in established danger zones or restricted areas designated in 33 CFR part 334. • Aquaculture activities that will result in conversion of habitat type (soft bottom to hard, or vice versa). • Intertidal aquaculture (gear between MHW and mean lower low water). 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • New or expansion of existing impoundment(s) or semi-impoundment(s) of water for the culture of holding of motile aquatic organisms. • Structures and work for finfish culture. • Aquaculture activities that may obstruct navigation or has the potential for greater than minimal impact on navigation or other existing public uses. • Structures for the culture of non-indigenous species that are not present in the waterbody. • Aquaculture activities with $\geq 2,500$ SF SAV. <p><u>Eligible for PCN (includes work not eligible for SV)*:</u></p> <ul style="list-style-type: none"> • Activities with in-water ropes, lines and chains including, but not limited to, vertical drop lines, horizontal longlines or suspended gear for the rearing of shellfish or seaweed. • Cages, racks, trays, predator netting or other structures on the ocean bottom or floating on the water surface to contain, cultivate or depurate shellfish or other indigenous aquatic organisms. • Activities that involve a change from authorized gear for bottom culture to floating or suspended gear. • Structures for the culture of non-indigenous species that have been nativized or have been previously cultured in the waterbody. • Temporary, seasonal structures for aquaculture including, but not limited to, cages, trays, racks, or floating bags with impact to <2,500 SF tidal submerged aquatic vegetation or SAV habitat.***

**GP 16(B) (continued)
Aquaculture and
Mariculture
Activities**

Eligible for SV:

- Placement of seed shellfish, spatted-shell, or cultch for commercial shellfish aquaculture on leased grounds when performed in compliance with the conditions in Section 5h of the CT DEEP General Permit for Coastal Maintenance (DEEP-OLISP-GP-2015-02).
- Temporary (<6 months) structures including cages, bags, upwellers or other aquatic organism containment devices for research, educational or experimental aquaculture in water depths ≤ 10 feet mean lower low water (MLLW) providing the gear area is $\leq 1,000$ SF and the project is under the direct supervision of the CT Dept. of Agriculture, Bureau of Aquaculture.
- Suspended cages or bags located wholly below and within the footprint of an existing authorized fixed or floating structure in water depths ≤ 10 -feet MLLW provided no loose lines and there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLLW.
- Land-based shellfish hatchery or nursery intake and/or outlet provided diameter is ≤ 3 inches and properly screened to prevent entrainment or impingement of aquatic organisms.
- Shellfish upweller floats ≤ 160 sf in area with a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLLW.

**The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defined: (a) nonindigenous species as “any species or other viable biological material that enters an ecosystem beyond its historic range, including any such organism transferred from one country into another”; and (b) aquatic nuisance species as “a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent upon such waters.”

*See “A Guide for Marine Aquaculture Permitting in Connecticut” for application materials at <https://shellfish.uconn.edu/commercial/>.
*** A survey of SAV boundaries at the project site may be required. Survey guidance is provided at: <https://www.nae.usace.army.mil/Missions/Regulatory/Jurisdiction-and-Wetlands>.

GP 17. NEW AND EXPANSION OF RECREATIONAL, RESIDENTIAL, INSTITUTIONAL AND COMMERCIAL DEVELOPMENTS (Section 404 – Inland, Non-Tidal Waters of the U.S.)

Discharges of dredged or fill material for the construction or expansion of residences and residential subdivisions; commercial and institutional buildings or subdivisions; recreational facilities such as playing fields, bikeways, trails, etc.; and attendant features including but not limited to roads, parking lots, garages, yards, and utilities. This GP authorizes attendant features if they are necessary for the use of the project purpose. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. See GPs 18 & 19 for crossings in inland waters and/or wetlands.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 17(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >5,000 SF • Impacts in SAS, other wetlands. • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps) • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤5,000 SF 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1 acre • Detention or retention of stormwater in non-tidal waters, wetlands or watercourses including any watercourse or wetland crossing that by design or default functions to provide stormwater detention, and any construction of a stormwater detention or retention basin in non-tidal waters or wetlands. • New road and driveway crossings. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤1 acre • Impacts in non-tidal SAS.
<p>GP 17(B) COASTAL</p>	<p>These activities are not eligible for SV.</p>	<p>These activities are not eligible for PCN (Individual Permit required).</p>

GP 18. WETLAND CROSSINGS FOR LINEAR TRANSPORTATION PROJECTS (Section 404; non-tidal waters of the U.S.)

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 18(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >5,000 SF • Work in SAS other than wetlands. • Slip lining or culvert relining that changes invert elevation. • Work that results in flooding (impoundment) or impedes wetland drainage from the upgradient side of the wetland crossing • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤5,000 SF • Permanent wetland crossings shall be constructed in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road or fill feature. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1 acre <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤1 acre • Work in SAS. • Slip lining or culvert relining that changes invert elevation; or • Or if screened and determined eligible by interagency CT DEEP and USACE agreement.
<p>GP 18(B) COASTAL</p>	<p>These activities are not eligible for SV.</p>	<p>These activities not eligible for PCN (Individual Permit required).</p>

GP 19. STREAM, RIVER, AND BROOK CROSSINGS (NOT INCLUDING WETLAND CROSSINGS (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, bikeways, trails, airport runways, and taxiways) and attendant features, if work is performed in accordance with Connecticut General Permit Stream Crossing Best Management Practices to the extent practicable (see Appendix G). See GP 18 for wetland crossings. Note: Flood frequency requirements below are derived from Connecticut DOT Drainage Manual and CT Flood Management Act - Section 25-68b-d of the Connecticut General Statutes & 25-68h-1 thru h-3 of the Regulations of Connecticut State Agencies.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 19(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent & temporary impacts >5,000 SF. • Stream relocations; dams, dikes; culvert crossings at new locations within perennial streams. • Slip lining or culvert relining that changes invert elevation. • Open trench excavation in flowing waters. • <u>Riprap beyond the minimum necessary to protect the structure</u> • Fill in waterways identified as habitat for Atlantic sturgeon and shortnose sturgeon including designated critical habitat, foraging, and overwintering areas. (See GC 12 for a hyperlink to the NOAA ESA maps). See Appendix H for time of year restrictions. • Fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤5,000 SF for crossings provided: • All drainage culverts and bridges shall be designed to pass the appropriate flood frequency to the extent practicable. • Drainage Area less than 1 square mile shall pass the 50-year flood frequency. • Drainage Area greater than 1 square mile but less than 10 square miles shall pass the 100-year flood frequency with 1 foot of freeboard. Freeboard is the vertical difference from the design water surface to the low point of the overlying road. • Drainage Area greater than 10 square miles but less than 1,000 square miles shall pass the 100-year with 2 feet of freeboard. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts >1 acre. • Wetland crossings (see GP 18). <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Permanent and temporary impacts ≤1 acre. • Or if screened and determined eligible by interagency CT DEEP and USACE agreement.

<p>GP 19(A) INLAND (continued)</p>	<ul style="list-style-type: none"> • Bridges and culverts along stocked watercourses and watercourses which support fish shall be designed to allow passage of fish as recommended by the Department of Environmental Protection Fisheries and Wildlife Divisions. • The location of new bridges and culverts shall minimize the relocation of watercourses. • Where applicable, rigid structural floors at bridges and culverts should be depressed below the normal streambed, to allow an alluvial streambed to form over them, and shall anticipate if the streambed is degrading. • The use of solid parapet walls at bridges and culverts located in the sag part of vertical curves is discouraged. • Debris barriers shall be used upstream of structures prone to blockage by debris. • The use of a single culvert or bridge opening is required to the extent practicable over the use of multiple small openings. • Unconfined, in-stream work, not including installation and removal of cofferdams, is limited to the low-flow period, July 1 through September 30 unless the agencies require a different resource-driven time of year restriction. Work occurring behind a cofferdam may occur at any time (See Appendix H). • Or if screened and determined eligible by interagency CT DEEP and USACE agreement. 	
<p>GP 19(B) COASTAL Stream, River and Brook Crossings (not including Wetland Crossings)</p>	<p>These activities are not eligible for SV.</p>	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Permanent impacts that are >1/2 acre in tidal waters. • Permanent impacts that are >1000 SF in tidal SAS other than vegetated shallows. • Permanent impacts that are >100 SF in tidal vegetated shallows. • Temporary impacts >1 acre in tidal waters. <p><u>Eligible for PCN:</u></p> <ul style="list-style-type: none"> • Permanent impacts that are ≤1/2 acre in tidal waters of the U.S. • Permanent impacts that are ≤1000 SF in tidal SAS other than vegetated shallows. • Permanent impacts that are ≤100 SF in tidal vegetated shallows • Temporary impacts ≤1 acre in tidal waters

GP 20. ENERGY GENERATION AND RENEWABLE ENERGY AND HYDROPOWER PROJECTS (Sections 10 and 404; tidal and non-tidal waters of the U.S.)

Structures and work and discharges of dredged or fill material into waters of the U.S. for the construction, expansion, modification, or removal of: (a) land-based renewable energy production facilities (e.g., solar and wind) and their attendant features; (b) water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and (c) discharges of dredged or fill material associated with hydropower projects. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 20(A) INLAND	This activity is not eligible for SV.	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Projects with >1 acre of permanent and/or temporary impact in waters and wetlands. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • Projects with ≤1 acre of permanent and/or temporary impact in waters and wetlands <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p> <p>Mechanical clearing of areas within USACE jurisdiction without grubbing or other soil disturbance >1 acre as a secondary impact may still be eligible for PCN at the discretion of USACE.</p>
GP 20(B) COASTAL	This activity is not eligible for SV.	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • Projects with >1 acre of permanent and/or temporary impacts waters and wetlands. <p><u>Eligible for PCN:</u></p> <ul style="list-style-type: none"> • Projects with ≤1 acre of permanent and/or temporary impacts in waters and wetlands. • Temporary and/or permanent fill or excavation in ≤1,000 SF of SAV • Permanent fill or excavation in ≤5,000 SF in SAS (except for SAV)

GP 21. TEMPORARY FILL NOT ASSOCIATED WITH A REGULATED GENERAL PERMIT ACTIVITIES (Section 404; non-tidal waters of the U.S.)

Temporary discharges, such as sandbag/earth cofferdams, access fills, etc., necessary for construction activities or dewatering of construction sites.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
<p>GP 21(A) INLAND</p> <p>An SVNF is required.</p> <p>Note: Construction mats of any area necessary to conduct activities do not count towards the impact thresholds and should be removed as soon as work is completed.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none">• Temporary impacts >5,000 SF not associated with construction mats.• Temporary fill in a vernal pool depression that is located within waters of the U.S. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none">• Construction mats of any area necessary to conduct activities.• Construction mats must be removed as soon as work is completed (See GC 17 Temporary Fill)	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none">• Temporary impacts >1 acre. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none">• Temporary impacts ≤ 1 acre.
<p>GP 21(B) COASTAL</p>	<p>These activities are <u>not eligible for SV</u>.</p>	<p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none">• Temporary impacts ≤ 1 acre.

GP 22. MODIFICATION AND IMPROVEMENT OF EXISTING MINOR DRAINAGE FEATURES AND MOSQUITO CONTROL (SECTION 10 & 404)

Discharges to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in waters of the U.S., for the purpose of improving water quality by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. Also authorized are mosquito reduction activities that do not meet GP 10 (integrated marsh management). See GP 2 for repair, rehabilitation, or replacement of authorized fills or repairs with no change in overall configuration of modification in use.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 22(A) INLAND	These activities are <u>not eligible for SV</u> .	These activities are <u>not eligible for PCN</u> (Individual Permit required)
<p>GP 22(B) COASTAL</p> <p>An SVNF is not required.</p>	<p><u>Not eligible for SV:</u></p> <ul style="list-style-type: none"> • Construction of new ditches or relocation of existing drainage ditches. • New fill (temporary or permanent) discharges including side-casting or stockpiling in wetlands. • Impacts (structures or work) in SAS refer to 40 CFR 230.3 and Subpart E and definitions herein. • Activities where the reshaping of the drainage ditch will increase drainage capacity beyond the original as-built capacity or expand the area drained by the drainage ditch as originally constructed (i.e., the capacity of the drainage ditch must be the same as originally constructed and it cannot drain additional wetlands or waters). • Impacts to SAV. • Impacts to natural rocky habitat >100 SF. • Impacts to intertidal or shellfish areas >1,000 SF. <p><u>Eligible for SV:</u></p> <ul style="list-style-type: none"> • Impacts to SAS within areas ≤1,000 SF. • The location of the centerline of the reshaped drainage ditch shall be approximately the same as the location of the centerline of the original drainage ditch. 	<p><u>Not eligible for PCN (Individual Permit required):</u></p> <ul style="list-style-type: none"> • >1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV >1,000 SF. • Permanent fill or excavation in other SAS >5,000 SF. <p><u>Eligible for PCN (includes work not eligible for SV):</u></p> <ul style="list-style-type: none"> • ≤1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV ≤1,000 SF. • Permanent fill or excavation in other SAS ≤5,000 SF.

GP 23. AGRICULTURAL ACTIVITIES (Section 404; non-tidal and non-navigable waters of the U.S.)

Regulated discharges of dredged or fill material in waters of the U.S. for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include: (a) installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches; and similar activities; (b) construction of farm ponds, excluding perennial streams, provided the farm pond is used solely for agricultural purposes; and (c) discharges of dredged or fill material to relocate existing serviceable drainage ditches constructed in non-tidal streams.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
GP 23(A) INLAND	These activities are <u>not eligible for SV</u> .	<u>Not eligible for PCN (Individual Permit Required):</u> <ul style="list-style-type: none">• Construction of aquaculture ponds.• >0.50 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. <u>Eligible for PCN:</u> <ul style="list-style-type: none">• ≤0.50 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts
GP 23(B) COASTAL	These activities are <u>not eligible for SV</u> .	These activities are not eligible for PCN (Individual Permit required).

APPENDIX B - GENERAL CONDITIONS

1. Other Permits. Authorizations provided by these GPs do not obviate the need for project proponents to obtain other Federal, State, or local permits, approvals, or authorizations required by law. Applicants are responsible for applying and obtaining all such permits, approvals or authorizations. Work that is not regulated by the State, but subject to USACE jurisdiction, may be still be eligible for these GPs.

2. Federal Jurisdiction

a. Applicability of these GPs shall be evaluated with reference to federal jurisdictional boundaries (e.g., mean high water mark (MWH), high tide line (HTL), ordinary high water mark (OHW), and wetland boundary). Activities shall be evaluated with reference to “waters of the U.S.” under the Clean Water Act (33 CFR 328) and “navigable waters of the U.S.” under Section 10 of the Rivers and Harbors Act of 1899 (33 CFR 329). Prospective permittees are responsible for ensuring that the boundaries satisfy the federal criteria defined at 33 CFR 328 – 329. These sections prescribe the policy, practice, and procedures to be used in determining the extent of USACE jurisdiction.

b. Permittees shall identify the following aquatic resources on project plans: wetlands and other special aquatic sites (SAS) including vegetated shallows (also known as submerged aquatic vegetation (SAV)), riffle and pool complexes, sanctuaries and refuges, coral reefs, and mudflats; and other waters such as lakes and ponds; and perennial and intermittent streams on the project site. Wetlands shall be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual and its applicable regional supplement.

3. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)

a. Activities shall be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site). Consideration of mitigation (avoiding, minimizing, rectifying, reducing, or compensating) is required to the extent necessary to ensure that the adverse effects to the aquatic environment are no more than minimal.

b. Applicants should consider riparian/forested buffers for stormwater management and low impact development (LID) best management practices (BMPs) to reduce impervious cover and manage stormwater to minimize impacts to the maximum extent practicable.

c. Compensatory mitigation¹ for unavoidable impacts to waters of the U.S., including direct, secondary and temporal², will generally be required for projects with permanent impacts that exceed the SV area limits, and may be required for temporary impacts that exceed the SV area limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.

Note: The USACE Connecticut In-Lieu Fee Program allows USACE permittees, as compensation for their project impacts to aquatic resources of the U.S. in Connecticut to make monetary payment *in-lieu* of permittee-responsible mitigation. Information is provided at <https://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/In-Lieu-Fee-Programs/CT/>. This only applies to USACE required mitigation and additional CT DEEP mitigation may be required.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, USACE retains discretionary authority to require an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever USACE determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative adverse environmental effects that are more than minimal, or if there is a special resource or concern

¹ Compensatory mitigation sites proposed to offset losses of aquatic resource function must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Standard Operating Procedures at <http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation.aspx>

² Temporal loss: The time lag between the losses of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

associated with a particular project. Whenever USACE notifies an applicant that an Individual Permit may be required, authorization under these GPs is voided and no work may be conducted in waters of the U.S. until a USACE Individual Permit is obtained or until USACE notifies the applicant that further review has demonstrated that the work may be reviewed under these GPs.

5. Fills Within 100-Year Floodplains. The activity shall comply with applicable Federal Emergency Management Agency (FEMA)-approved State of Connecticut or local floodplain management requirements. Permittees should contact FEMA and/or the State of Connecticut regarding floodplain management requirements.

6. Single and Complete Projects. The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. The GPs shall not be used for piecemeal work and shall be applied to single and complete projects.

a. For non-linear projects, a single and complete project must have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed, even if the other phases were not built, can be considered as separate single and complete projects with independent utility.

b. Unless USACE determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project.

c. For linear projects such as power lines or pipelines with multiple crossings, a “single and complete project” is all crossings of a single water of the U.S. (i.e., single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately. If any crossing requires a PCN review or an individual permit review, then the entire linear project shall be reviewed as one project under PCN or the individual permit procedures.

7. Use of Multiple General Permits. The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. For example, if a road crossing over waters is constructed under GP 19, with an associated utility line crossing authorized by GP 6, if the maximum acreage loss of waters of the U.S. for the total project is ≥ 1 acre it shall be evaluated as an IP.

8. USACE Property and Federal Projects

a. USACE projects and property can be found at: www.nae.usace.army.mil/Missions/Civil-Works

b. In addition to any authorization under these GPs, proponents must contact the USACE Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting USACE properties and/or USACE-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on USACE properties and/or USACE-controlled easements until they have received any required USACE real estate documents evidencing site-specific permission to work.

c. Any proposed temporary or permanent modification or use of a Federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, seawall, bulkhead, jetty, wharf, pier or other work built but not necessarily owned by the United States), or any use which would obstruct or impair the usefulness of the Federal project in any manner, and/or would involve changes to the authorized Federal project’s scope, purpose, and/or functioning, is not eligible for SV and will also require review and approval by USACE pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408) (Section 408)

d. A PCN is required for all work in, over, under, or within a distance of three times the authorized depth of a USACE Federal Navigation Project (FNP) and may also require permission under Section 408.

e. Any structure or work that extends closer than a distance of three times the project’s authorized depth to the horizontal limits of any FNP shall be subject to removal at the owner’s expense prior to any future USACE dredging or the performance of periodic hydrographic surveys.

f. Where a Section 408 permission is required, written verification for the PCN will not be issued prior to the decision on the Section 408 permission request.

9. National Lands. Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, or any area administered by the National Park Service, U.S. Fish and Wildlife Service (USFWS) or U.S. Forest Service are not eligible for SV and require either a PCN or Individual Permit.

10. Wild and Scenic Rivers

a. The following activities in designated rivers of the National Wild and Scenic River (WSR) System, or in a river designated by Congress as a “study river” for possible inclusion in the system, require a PCN or IP unless the National Park Service (NPS) has determined in writing to the proponent that the proposed work will not adversely affect the WSR designation or study status:

(1) Activities that occur in WSR segments, in and 0.25 mile up or downstream of WSR segments, or in tributaries within 0.25 miles of WSR segments;

(2) Activities that occur in wetlands within 0.25 mile of WSR segments; or

(3) Activities that have the potential to alter free-flowing characteristics in WSR segments. The

District Engineer will coordinate the application with the NPS or its designee with direct management responsibility for that river.

b. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

c. As of 2021, designated rivers in Connecticut include: the West Branch of the Farmington River from Colebrook to Canton (designated river); the Eightmile River and tributaries in Salem, Lyme, and East Haddam (designated river); the Lower Farmington River from Canton to Windsor (study river – including its tributary Salmon Brook) and the Wood & Pawcatuck Rivers. Additional information can be found at:

<http://www.rivers.gov/connecticut.php>.

11. Historic Properties

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) to properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places³, including previously unknown historic properties within the permit area, unless USACE or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) and the National Register of Historic Places can assist with locating information on:

(1) Previously identified historic properties; and

(2) Areas with potential for the presence of historic or cultural resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants or tribal entities in consultation with USACE and the SHPO and/or THPO(s).

b. For activities eligible for SV, proponents must document that the activity will not cause effects as stated in 11(a). To comply with this condition, both SV and PCN prospective permittees shall notify the CT SHPO and THPOs for projects in close proximity to tribal lands or with potential impacts to tribal lands and request their identification of historic properties and cultural resources. The notification shall consist of the project location, plans, and brief narrative and state that a federal permit is required. Documentation of the notification to the SHPO/THPO shall be included with the SV or PCN submittal and dated. If no response is received within 30-days from the SHPO/THPO notification, the Corps may proceed to a permit decision on an SV or PCN. A PCN or IP is required if any activity may have an adverse effect on a historic property or cultural resource.

³ Many historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with USACE and the SHPO and/or THPO(s).

c. Proponents must submit a PCN to USACE as soon as possible if the authorized activity may cause effects as stated in 11(a) to ensure that USACE is aware of any potential effects of the permitted activity on any historic property or cultural resource so that the consultation requirements of Section 106 of NHPA can be satisfied.

d. All PCN (inland projects) submittals shall:

1) show notification to the SHPO and applicable THPO(s) for their identification of historic properties or cultural resources (https://portal.ct.gov/-/media/DECD/Historic-Preservation/01_Programs_Services/Environmental-Review/ProjectNotificationForm_2021.pdf). If no response is received within 30-days from the SHPO/THPO notification, the Corps may proceed to a permit decision on an SV or PCN.

2) state which historic properties or cultural resources may be affected by the proposed work or include a vicinity map indicating the location of them, and

3) include any available documentation from the SHPO or THPO(s) indicating that there are, or are not, historic properties or cultural resources affected. Starting consultation early in project planning can save proponents time and money.

e. If you discover any previously unknown historic, cultural, or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

f. Federal agencies should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Along with the application, Federal permittees shall provide USACE with the appropriate documentation to demonstrate compliance with those requirements.

g. Federal and non-federal applicants should coordinate with USACE before conducting any onsite archeological work (reconnaissance, surveys, recovery, etc.) requested by the SHPO or the THPOs, as USACE will determine the permit area for the consideration of historic properties based on 33 CFR 325 Appendix C. This is to ensure that work done is in accordance with USACE requirements.

12. Federal Threatened and Endangered Species

a. No activity is authorized by these GPs which:

(1) Is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat or proposed critical habitat of such species.

(2) “May affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(3) Is “likely to adversely affect” a listed species or critical habitat unless Section 7 consultation has been completed by USACE or another lead action agency in coordination with USACE.

(4) Violates the ESA.

b. All prospective permittees shall attach to their SVNF or PCN an Official Species List obtained from the U.S. Fish and Wildlife Service’s Information for Planning and Consultation (IPaC) found at: <https://ecos.fws.gov/ipac> and provide the email address of the person who generated the list.

c. For proposed activities in waters with tidal influence, prospective permittees shall also refer to the National Oceanic and Atmospheric Administration (NOAA) Fisheries’ Section 7 Mapper for federally-listed species found at: <https://noaa.maps.arcgis.com/apps/webappviewer/index.html>.

Several tidal freshwater waterways in Connecticut have been identified as foraging and overwintering areas, or designated as critical habitat, for the endangered Atlantic sturgeon and shortnose sturgeon. The extent of these waterways is highlighted below. The list of waters below does not include higher salinity coastal tidal creeks and brackish waterways which also possess habitat for these species, so it is strongly recommended that applicants refer to the NOAA Section 7 mapper (link above) for all work in waterways that may have tidal influence:

- Mainstem Housatonic River from Long Island Sound (LIS) to the upstream limit of the Derby Dam in Shelton, CT (Atlantic sturgeon critical habitat; migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
 - Naugatuck River confluence with the Housatonic River up to the Naugatuck River Reservoir dam in Ansonia, CT.
- Quinnipiac River from LIS to the bridge/intersection of Quinnipiac Street and River Road, Wallingford, CT (migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
- Mainstem Connecticut River from LIS to the Massachusetts Border (Atlantic sturgeon critical habitat; spawning, migrating, and foraging for Atlantic sturgeon; overwintering, migrating, and foraging for shortnose sturgeon).
 - Salmon River confluence at Connecticut River to the dam at Powerhouse Road, Leesville, CT
 - Farmington River confluence with the Connecticut River to Tunxis Road, Tariffville, CT
 - Pattaconk Brook confluence with the Connecticut River to North Quarter Park, Chester, CT
 - Confluence of Hamburg Cove with the Connecticut River to Eightmile River at Joshuatown Road/Old Hamburg Road, Hamburg, CT.
 - Lord Creek confluence with the Connecticut River to Coult's Hole and Mack Creek to Lord Hill Lane, Lyme, CT.
 - North Cove confluence with Connecticut River and Falls River confluence in North Cove to River Road, Essex, CT.
 - Mattabassett River confluence at the Connecticut River to Rt. 3, northeast of Newfield Street in Middletown, CT.
 - Coginchaug River confluence with the Mattabassett River to Johnson Street north of the Providence & Worcester Railroad.
 - Selden Creek, Lyme, CT.
- Mainstem of the Thames River to Norwich, Connecticut (migrating and foraging habitat for Atlantic sturgeon and shortnose sturgeon).
 - Shetucket River confluence with Thames River up to Greenville Dam, Greenville, CT
 - Yantic River confluence with the Thames River to Yantic Falls, Norwich, CT.
 - Horton Cove confluence with the Thames River to Stony Brook and Mohegan Brook, Montville, CT.
 - Poquetanuck Cove confluence with the Thames River to Poquetanuck Brook at Shingle Road, Poquetanuck, CT.

d. A PCN is required if a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat (all hereinafter referred to as “listed species or habitat”), as identified under the ESA, may be affected by the proposed work, unless consultation is completed by another lead Federal agency, in which case, an application can be SV. An activity may remain eligible for SV if the only listed species affected is the northern long-eared bat (*Myotis septentrionalis*), and only after Section 7 consultation has been completed by USACE under the 4(d) Rule Streamlined Consultation.

e. Federal agencies shall follow their own procedures for complying with the requirements of the ESA while ensuring that USACE and any other federal action agencies are included in the consultation process.

f. Non-federal representatives designated by USACE to conduct informal consultation or prepare a biological assessment shall follow the requirements in the designation document(s) and the ESA. Non-federal representatives shall also provide USACE with the appropriate documentation to demonstrate compliance with those requirements. The USACE will review the documentation and determine whether it is sufficient to address ESA compliance for the GP activity, or whether additional ESA consultation is necessary.

g. The requirements to comply with Section 7 of the ESA may be satisfied by a programmatic agreement (PA) or programmatic consultation (PC) with USACE, the New England District, or another federal agency. New England District PAs and PCs are found at: <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Connecticut-General-Permit>.

13. Pile Installation and Removal and Related Time of Year Restrictions

- a. Derelict, degraded, or abandoned piles and sheet piles in the project area shall be removed in their entirety as practicable and properly disposed of in an upland location and not in wetlands or other waters of the U.S. In areas of fine-grained substrates, piles/sheets shall be removed by direct, vibratory, or clamshell pull method to minimize potential turbidity and sedimentation impacts. If removal is not practicable, said piles/sheets shall be cut off or driven to a depth of, at least, one foot below substrate.
- b. Work involving pile installation and/or removal should occur “In-the-dry” or adhere to the applicable waterbody’s time-of-year restrictions in Appendix H.

14. Navigation

- a. No activity may cause more than a minimal adverse effect on navigation.
- b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.
- c. Any structure or work that extends closer to the horizontal limits of any USACE FNP than a distance of three times the project’s authorized depth shall be subject to removal at the owner’s expense prior to any future USACE dredging or the performance of periodic hydrographic surveys. This is applicable to SV and PCN.
- d. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.
- e. The permittee understands and agrees that if future U.S. operations require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from USACE, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.
- f. A PCN is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A. as the work may also require a Section 408 permit.

15. Federal Liability. In issuing these permits, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; and/or (e) damage claims associated with any future modification, suspension, or revocation of these permits.

16. Heavy Equipment in Wetlands. Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained, or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as “construction mats”) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on construction mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written USACE authorization. Similarly, the permittee may request written authorization from USACE to waive use of mats during frozen or dry conditions. An adequate supply of spill containment equipment shall be maintained on site. Construction mats should be managed in accordance with the following construction mat BMPs:

- Mats should be in good condition to ensure proper installation, use and removal.

- Where feasible, mats should be carried and not dragged unless they are being used as a grading implement.
- Where feasible, place mats in a location that would minimize the amount needed for the wetlands crossing.
- Minimize impacts to wetland areas during installation, use, and removal.
- Install adequate erosion & sediment controls at approaches to mats to promote a smooth transition to, and minimize sediment tracking onto, swamp mats.
- In most cases, construction mats should be placed along the travel area so that the individual boards are resting perpendicular to the direction of traffic. No gaps should exist between mats. Place mats far enough on either side of the resource area to rest on firm ground.
- Provide standard construction mat BMP details to work crews.
- Construction mats shall be thoroughly cleaned before re-use to minimize spread of invasive species.

17. Temporary Fill

a. Temporary fill, including but not limited to construction mats and corduroy roads shall be entirely removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.

b. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill must be placed in a manner that will prevent it from being eroded by expected flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g., washed stone, stone, etc.).

d. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

e. Construction debris and/or deteriorated materials shall not be located in waters of the U.S.

18. Restoration of Inland Wetland Areas

a. Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix D in the “New England District Compensatory Mitigation Guidance” found at

<http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/CompensatoryMitigationGuidance.pdf>.

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If swamp or timber mats are to be used, they shall be thoroughly cleaned before re-use.

c. In areas of authorized temporary disturbance, if trees are cut, they shall be cut at or above ground level and not uprooted to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

d. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering, and vegetation schemes are approximately the same, unless otherwise authorized.

19. Coastal Bank Stabilization. Projects involving construction or reconstruction/maintenance of bank stabilization structures within USACE jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. For more information, go to the USACE Coastal Engineering Manual (supersedes the Shore Protection Manual) located at <https://www.nae.usace.army.mil/Missions/Regulatory/Useful-Documents-Forms-and-Publications/>. Select “Products/ Services,” “Publications.” Part 5, Chapter 7-8, a (2) c.

20. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below OHW or HTL, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the U.S. during periods of low-flow or no-flow, or during low tides.

21. Aquatic Life Movements & Management of Water Flows

a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity’s primary purpose is to impound water. Unless otherwise stated, activities impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies (e.g., streams, wetlands) shall be:

(1) Suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and

(2) Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the culvert. Permanent and temporary crossings of wetlands shall be suitably culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity between the wetlands on either side of the road.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.

c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

d. Refer to Appendix G for Stream Crossing BMPs.

22. Discharge of Pollutants. All activities involving any discharge of pollutants into waters of the U.S. authorized under these GPs shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (applicable only to the Section 404 activity).

23. Spawning, Breeding, and Migratory Areas

a. Jurisdictional activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities in jurisdictional waters that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for obtaining any “take” permits required under the USFWS’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such “take” permits are required for a particular activity.

24. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above MHW and not in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

25. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes any adverse impacts on existing fish, wildlife, and the environmental functions to the extent practicable. The permittee will discourage the establishment or spread of plant species identified as non-native invasive species by any federal or state agency.

26. Vernal Pools.

a. A PCN is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.

b. GC 26(a) above does not apply to projects that are within a municipality that meets the provisions of a USACE-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

27. Invasive Species

a. The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work shall be avoided. Hence, swamp and timber mats shall be thoroughly cleaned before reuse.

b. Unless otherwise directed by USACE, all applications for PCN inland projects proposing fill in USACE jurisdiction shall include an Invasive Species Control Plan. Additional information can be found at www.nae.usace.army.mil/missions/regulatory/invasive-species and <https://cipwg.uconn.edu/>

28. Permit/Authorization Letter On-Site. For PCN projects, the permittee shall ensure that a copy of these GPs and the accompanying authorization letter are at the work site (and the project office) whenever work is being performed, and that all personnel with operational control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of all contracts and sub-contracts for work that affects areas of USACE jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term “entire permit authorization” means these GPs, including GCs and the authorization letter (including its drawings, plans, appendices, and other attachments) and includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire authorization letter, and no contract or sub-contract shall require or allow unauthorized work in areas of USACE jurisdiction.

29. Inspections. The permittee shall allow USACE to make periodic inspections at any time deemed necessary to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. To facilitate these inspections, the permittee shall complete and return to USACE the Work-Start Notification Form and the Compliance Certification Form when either is provided with a verification letter. The USACE may also require post-construction engineering drawings for completed work or post-dredging survey

drawings for any dredging work.

30. Maintenance. The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A – General Permit #7 as well as any conditions included in a written USACE authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a)(2).

31. Property Rights. Per 33 CFR 320.4(g)(6), these GPs do not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

32. Transfer of GP Verifications. If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to this office to validate the transfer. A copy of the GP verification must be attached to the letter, and the letter must contain the following statement and signature:

When the structures or work authorized by this general permit are still in existence at the time the property is transferred, the terms and conditions of this general permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this general permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ (Transferee)
_____ (Date)

33. Modification, Suspension, and Revocation. These GPs and any individual authorization issued thereof may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

34. Special Conditions. The USACE may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEEP or a Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties and/or restoration.

35. False or Incomplete Information. If USACE decides regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the authorization will not be valid, and the U.S. government may institute appropriate legal proceedings.

36. Abandonment. If the permittee decides to abandon the activity authorized under this General Permit, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of USACE.

37. Enforcement cases. These GPs do not apply to any existing or proposed activity in USACE jurisdiction associated with an on-going USACE or EPA enforcement action, until such time as the enforcement action is resolved or USACE determines that the activity may proceed independently without compromising the enforcement action.

38. Previously Authorized Activities

a. Completed projects that received prior authorization from USACE (via SV or PCN), shall remain authorized in accordance with the original terms and conditions of those authorizations, including their terms, general conditions, and any special conditions provided in a written verification.

b. Activities authorized pursuant to 33 CFR Part 330.3 (“Activities occurring before certain dates”) are not affected by these GPs.

39. Duration of Authorization

a. These GPs expire five years from the date issued as listed at the top of the cover sheet. Activities authorized by these GPs that have either commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to USACE satisfaction that the project had commenced or was under contract by the expiration date of these GPs. If work is not completed within the one-year extended timeframe, the permittee must contact USACE. The USACE may issue a new authorization provided the project meets the terms and conditions of the CT GPs in effect at the time.

b. Activities authorized under these GPs will remain authorized until the GP expires, unless discretionary authority has been exercised on a case-by-case basis to require an Individual Permit in accordance with 33 CFR 325.2(e)(2), or the authorization is modified, suspended, or revoked in accordance with 33 CFR 325.7. Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

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STANDARD AQUACULTURE TERMS AND
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Aquaculture activities authorized under GP 16 in Appendix A are subject to the applicable conditions and requirements of the Connecticut GPs in addition to the following Standard Aquaculture Terms and Conditions:

1. The permittee shall ensure that a copy of the project authorization (including its drawings, plans, appendices, and other attachments) is present on the vessel that attends the work site (and the project office), and that all appropriate personnel performing work at the site are fully aware of its terms and conditions.
2. All gear, including buoys shall be marked and maintained in a manner that will make it identifiable to the specific aquaculture project/lease.
3. Before the authorized structures are installed the project proponent **must** contact the CT DEEP Boating Division, Navigation Safety/Boating Access Unit, P.O. Box 280, 333 Ferry Road, Old Lyme, CT 06371-0280 to either obtain a waiver as to the need to install gear-area boundary marker buoys or submit a permit application and receive authorization for Regulatory Markers ([Link to Regulatory Marker Permit](#)). If the CT DEEP boating regulation does not apply, the applicant shall contact the U.S. Coast Guard (USCG), First District; Sector Long Island Sound, 120 Woodward Avenue, New Haven, CT 06512 (203-468-4401) or SECLISSPWSMarineEvent@uscg.mil to coordinate the proper buoy markers per 33 CFR 64. The permittee shall install and maintain lights, markings, and other features as the CT DEEP/USCG requires. *Note:* Documentation of this coordination will be necessary for existing operations that seek reconfigurations and/or new approvals for structures from the Department of Army and for authorizations from the CT DA/BA.
4. If the authorized gear is inadvertently shifted to a location outside of the bounds of the approved perimeter (as a result of adverse environmental conditions, breakage, or other unforeseen event), the permittee must submit the enclosed Aquaculture Gear Recovery Form to the Dept. of Agriculture, Bureau of Aquaculture within 48 hours of discovery (phone: 203-874-0696; facsimile: 203-783-9976; email: lori.scianna@ct.gov) and submit a courtesy copy to USACE (phone: 978-318-8338 facsimile: 978-318-8303 or via email: cenae-r-ct@usace.army.mil). This condition is to facilitate notification of marine safety police and regulatory agencies so that the public can be alerted to the presence of free-floating gear and to prompt mitigating action before the lost gear becomes a threat to either navigation, marine animals or the environment, either individually or cumulatively.
5. Gear may not be located over or within beds of submerged aquatic vegetation (SAV) such as eelgrass or turtle grass, and coastal wetlands (salt marsh), nor shall such beds or vegetated marsh areas be damaged or removed. Routine lease activity including cage maintenance, washing etc. shall not occur within 25 feet of the edge of beds of SAV.
6. All gear shall be designed and deployed in such a manner as to limit, to the greatest extent practicable, negative impacts on avian resources such as, but not limited to, shore birds, wading birds, or members of the waterfowl group. This is meant to include nesting, feeding or resting activities by migratory birds identified at 50 CFR 10.13.
7. To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable

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regional/Connecticut aquatic nuisance species management plan (see https://www.fws.gov/anstaskforce/State%20Plans/CT_ANS_Plan.pdf).

8. Installation of structures, their mooring tackle and lines and any attendant vessels shall not create a hazard or interfere with existing navigation uses in the waterway, and structures shall be set back from the Federal Navigation Project (FNP) a distance of at least 200 feet. A list of Connecticut FNP projects can be obtained from the U.S Army Corps of Engineers <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>.
9. The right of the public to traverse or utilize the waters not physically occupied by authorized structures and/or moored vessels within the areal limits of the authorized gear perimeter shall not be impeded.
10. The placement of cultch shall comply with all special conditions in Section 5, part (h), items (1) through (7) of the Connecticut DEEP, General Permit for Coastal Maintenance (DEEP-OLISP-GP2015-02) as listed below:
- Such placement of cultch shall only be conducted by a licensed shellfish operator in beds or areas designated for shell fishing under section 26-194 or section 26-242 of the General Statutes.
 - Such placement of cultch shall be conducted only in appropriate locations for colonization by oysters, based upon factors of salinity, water quality, water circulation patterns and substrate composition.
 - Such placement of cultch shall not be conducted in areas of tidal wetlands or submerged aquatic vegetation beds.
 - (Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains all required authorizations from the Department of Agriculture Bureau of Aquaculture and Laboratory and the local shellfish commission, as applicable.
 - Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains permission in writing from the owner or lessee of such shellfish bed or area.
 - Such placement of cultch shall be conducted in such a manner that it does not exceed a layer of cultch on the seafloor greater than 12” in depth.
 - Such placement of cultch shall be conducted such that the placement does not exceed 1,500 bushels per acre of seafloor.
11. The permittee shall be responsible to remove all gear and associated equipment within the leased or designated shellfish area if the operator surrenders or loses the right to its use.
12. The subject aquaculture activity shall not discernibly interfere with natural sedimentation and erosion processes.
13. Suspended cages or nets for the rearing or grow out of shellfish are permitted as Self Verification, provided they are located wholly below and within the footprint of an existing, authorized fixed or floating structure and provided there is a vertical clearance of at least 2 feet between the bottom of the gear and the sea floor at MLW. The structures that the gear will be adhered to must be in conformance with the structures permit for that “site.”
14. Aquaculture projects authorized herein shall not interfere with public shore access at or below MHW or interfere with the access to any riparian or littoral property.
15. The following may be required as special conditions of an authorization to protect Federally-listed species:

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a. In season, the gear site shall be visited by an attendant surface vessel at least once a week, site conditions permitting. During the off season the vertical mooring lines will be visited bi-weekly. Any noticeable difference in surface buoy or line tension such as any gaps in the horizontal line or movement of vertical lines will prompt an investigation into the tension of that line. If a problem is identified, it will be corrected that day. This condition has been included to ensure that if an entanglement or other issue related to the stability of the system arises, that it will be expeditiously addressed by the permittee.

b. Seasonal gear including cages, lines and buoys shall be removed during the offseason or when not in use. The gear shall be stored in upland areas to minimize the effects of habitat exclusion, loss, or alteration.

c. Any in-water lines, ropes, or chains must be made of materials and installed in a manner to minimize or avoid the risk of entanglement by using thick, heavy, and taut lines that do not loop or entangle.

d. For lines that are suspended in the water column, the permittee shall maintain all project equipment, including vertical mooring lines, to ensure that constant tension is kept on the line at all tides. This requirement for counterweight on the vertical lines is intended to minimize the likelihood that the lines will entangle as they will hang straight down and will be less likely to wrap around appendages of endangered marine sea turtles/mammals.

e. On-board staff will maintain a vigilant watch for protected resources (sea turtles, whales, sturgeon, or marine mammals). during all transit vessel speeds shall be kept to a minimum and operate below a speed limit of 10 knots, where feasible.

f. Each sighting of a federally listed threatened or endangered sea turtle or fish shall be recorded and the following information shall be provided:

- (1) Date, time, coordinates of vessel
- (2) Visibility, weather, sea state
- (3) Vector of sighting (distance, bearing)
- (4) Duration of sighting
- (5) Species and number of animals
- (6) Observed behaviors (feeding, diving, breaching, etc.)
- (7) Description of interaction with aquaculture facility

g. If any listed species of sea turtle is observed to be entangled or otherwise interacting with the facility's structure, the permittee (or onboard staff) shall immediately contact NOAA Stranding Hotline at (866) 755-NOAA (6622) and email incidental.take@noaa.gov. The permittee should also contact the NOAA Fisheries Protected Resources Division, Gloucester, MA at (978) 281-9328. This condition is included to ensure that the proper authorities will be consulted in case of gear interaction with protected resources.

APPENDIX D - CONTACTS

1. FEDERAL

U.S. Army Corps of Engineers
New England District, Regulatory Division
696 Virginia Road
Concord, Massachusetts 01742-2751
(800) 343-4789 or (978) 318-8335
(978) 318-8303 (fax)
cenae-r-ct@usace.army.mil (email preferred)

Wild and Scenic Rivers
National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203

Federal Endangered Species
U. S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
(603) 223-2541

Federal Endangered Species &
Essential Fish Habitat
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930
(978) 281-9102
(978) 281-9301 (fax)

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109
(617) 918-2000

2. STATE OF CONNECTICUT

Department of Energy & Environmental Protection
<https://portal.ct.gov/DEEP/Permits-and-Licenses/Permits-and-Licenses>

Land and Water Resource Division (LWRD)
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3034

<https://portal.ct.gov/DEEP/Permits-and-Licenses/Land-and-Water-Resource-Division-LWRD-Applications>

Aquaculture Projects
Connecticut Department of Agriculture
Bureau of Aquaculture & Laboratory
PO Box 97
Milford, CT 06460
(203) 874-0696

State Endangered Species
Bureau of Natural Resources
Wildlife Division
Natural Diversity Data Base
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3011

3. HISTORIC RESOURCES

Tribal Historic Preservation Officers

Mashantucket Pequot Tribal Nation
Marissa Turnbull, THPO
550 Trolley Line Boulevard
P. O. Box 3202
Mashantucket, Connecticut 06338-3202
(860) 396-6887
(860) 396-6914 (fax)

Mohegan Tribe of Indians of Connecticut
James Quinn, Tribal Historic Preservation Officer
13 Crow Hill Rd.
Uncasville, CT 06382
(860) 862-6393
(860) 862-6395 (fax)

Archaeological Information

State Historic Preservation Office
Department of Economic and Community Development
Mary Dunne, State Historic Preservation Officer
45 Columbus Boulevard, Suite 5
Hartford, Connecticut 06103
(860) 256-2800 (main)
(860) 256-2764 (direct)

Office of State Archaeology

Sarah Sportman, CT State Archaeologist
354 Mansfield Road, Unit 1176
Storrs, Connecticut 06269
860-486-5248

4. ORGANIZATIONAL WEBSITES

U. S. Army Corps of Engineers – New England District	www.nae.usace.army.mil/missions/regulatory.aspx
U. S. Army Corps of Engineers Headquarters	www.usace.army.mil (click “Regulatory Permits”)
U.S. Environmental Protection Agency	www.epa.gov/owow/wetlands/
National Marine Fisheries Service	www.nmfs.noaa.gov
U.S. Fish and Wildlife Service	www.fws.gov
National Park Service	www.nps.gov/rivers/index.html/
Federal Emergency Management Agency	www.fema.gov
Connecticut Dept. of Energy & Environmental Protection	http://www.ct.gov/deep/site/default.asp
U.S. EPA, Region 1 – Urban Runoff: Low Impact Development	https://www.epa.gov/nps/urban-runoff-low-impact-development
U.S. Environmental Protection Agency – Green Infrastructure website	www.epa.gov/greeninfrastructure



**US Army Corps
of Engineers**®
New England District

Appendix E: Self-Verification Notification Form

This form is required for all inland projects in Connecticut, but it is not required if work is done within boundaries of Mashantucket Pequot or Mohegan Tribal Lands. At least two weeks before work commences, complete all fields (write “none” if applicable) below, send this form, Official Species List (see GC 12), documentation of THPO and SHPO notifications if applicable, site location map, project plans (not required for projects involving the installation of construction mats only) and any State or local approval(s) to:

Regulatory Division, Branch B
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
or cenae-r-ct@usace.army.mil

and

CT DEEP
79 Elm Street
Hartford, CT 06106-5127
or DEEP.LWRDRegulatorySubmittals@ct.gov

State Permit Number: _____ Date of State Permit: _____

Permittee: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Agent: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Contractor: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Project Name: _____
Project Location (provide detailed description & locus map):
Address, City, State & Zip: _____
Lat. ° N, Long ° (Decimal Degrees): _____
Waterway Name: _____

Proposed Work Dates: Start: _____ Finish: _____

Work will be done under the following GPs (circle all that apply):

2	5	6	9	10	11	12	13	14	15	17	18	19	21
---	---	---	---	----	----	----	----	----	----	----	----	----	----

Area of Wetland Impacts (SF): Permanent: _____ Temporary: _____

Area of Waterway Impacts (SF): Permanent: _____ Temporary: _____

TOTAL Project Impact (SF): Permanent: _____ Temporary: _____

Describe the specific work that will be undertaken in waters and wetlands: _____

Have the THPOs and the CT SHPO been notified of the proposed work per the procedures in GC 11? If so, attach any responses received to this form.

Yes _____ date contacted _____ No _____

Are there Federally listed endangered/threatened species, other than the northern long-eared bat, present? (see GC 12) Yes _____ No _____

Confirm no SAVs are present or will be impacted: Yes _____ No _____

Applicable to GPs:

2	5	6	9	10	11	12	13	14	15	17	18	19	21
---	---	---	---	----	----	----	----	----	----	----	----	----	----

Confirm no unconfined work with impact to diadromous fish (see App. H): Yes _____ No _____

Applicable to GPs:

2	5	6	9	10	19
---	---	---	---	----	----

Confirm work complies with Stream Crossing BMPs (see App. G): Yes _____ No _____

Applicable to GPs:

2	6	17	19
---	---	----	----

If GP 19 and work does not comply with Appendix G, identify date of Interagency Meeting where waiver was granted: Date of Meeting: _____

Identify interagency participants: CT DEEP: _____ USACE: _____

Will your project include any secondary effects? (Secondary effects include, but are not limited to, non-tidal waters or wetlands drained, flooded, fragmented, or mechanically cleared resulting from a single and complete project. See Appendix F - Definitions.) If YES, describe here:

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Connecticut GPs.

Permittee Signature: _____ **Date:** _____

APPENDIX F - DEFINITIONS

Artificial or Living Reef: A structure that is constructed or placed in waters for the purpose of enhancing fishery resources and commercial and recreational fishing opportunities.

Biodegradable: A material that decomposes into elements found in nature within a reasonably short period of time and will not leave a residue of plastic or a petroleum derivative in the environment after degradation. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Examples of biodegradable materials include jute, sisal, cotton, straw, burlap, coconut husk fiber (coir) or excelsior. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation. Photodegradable, UV degradable or Oxo-(bio)degradable plastics are not considered biodegradable under this GP.

Boating facilities: These provide, rent, or sell mooring space, such as marinas, boat/yacht clubs, boat yards, dockminiums, town facilities, dockminiums, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Confined Aquatic Disposal (CAD): The process of disposing dredged material, sometimes determined to be unsuitable for unconfined disposal in an aquatic environment in a manner to sequester it from the overlying water column. When this disposal takes place into a natural or constructed depression on the seafloor, it is referred to as a CAD cell.

Construction mats: Construction, swamp and timber mats (herein referred to as “construction mats”) are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. This definition does not include “corduroy roads”.

Corduroy roads: Roads made from cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures.

Cumulative effects: The changes in an aquatic ecosystem that are attributable to the collective effect of several individual 1) discharges of dredged or fill material, or 2) structures. Although the impact of a particular discharge may constitute a minor change, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. See 40 CFR 230.11(g).

Currently serviceable: Useable as is or with some minor maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Dredged material & discharge of dredged material: These are defined at 33 CFR 323.2(c) and (d). The term dredged material means material that is excavated/dredged from waters of the United States.

Dredging:

- **Improvement Dredging:** For the purposes of these GPs, this is dredging deeper than previously authorized by the Corps or dredged.
- **Maintenance Dredging:** For the purposes of these GPs, this is dredging from an area previously authorized by the Corps or dredged. The Corps may require proof of authorization and dredging. Maintenance dredging typically refers to the routine removal of accumulated sediment to maintain the design depths of serviceable navigation channels, harbors, marinas, boat launches and port facilities. Maintenance dredging is conducted for navigational purposes and does not include any expansion of

the previously dredged area. The Corps may review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS, shellfish, etc.

- **New Dredging:** For the purposes of these GPs, this is dredging of an area that has never been authorized by the Corps and dredged, including expansion of previously dredged areas. New dredging may also include those activities that do not meet the definition of maintenance dredging, as determined by the Corps.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Expansions: Work that increases the footprint of fill, depth of basin or drainage feature, structures, or floats, or slip capacity.

Footprint (boating facility): The limit of structures, such as docks, pilings, piers, or platforms, at an established marina or docking facility.

Fill material & discharge of fill material: These are defined at 33 CFR 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

Federal navigation projects (FNPs): These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Corps Federal anchorages, Federal channels and Federal turning basins. Information, including the limits, is provided at <http://www.nae.usace.army.mil/Missions/Navigation.aspx>

FNP buffer zone: The buffer zone of a Corps FNP is equal to three times the authorized depth of the FNP. For additional information see <http://www.nae.usace.army.mil/Missions/Navigation/Connecticut-Projects/>

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along the shore objects, a continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

In the dry: Work that is done under dry conditions, e.g., work behind cofferdams or when the stream or tide is waterward of the work.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable.

Individual Permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Living shoreline: Living shorelines stabilize banks and shores in coastal waters along shores with small fetch and gentle slopes that are subject to low-to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural “soft” elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) to dissipate wave energy and to collect naturally deposited sediment for added protection and stability.

Maintenance:

a. The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – “Activities occurring before certain dates,” provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.

- Minor deviations in the structure’s configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized.
- Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.
- No seaward expansion for bulkheads or any other fill activity is considered SV maintenance.
- Only structures or fills that were previously authorized and comply with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the SV or PCN thresholds in Section V.

b. The state’s maintenance provisions may differ from the Corps and may require reporting and written authorization from the state.

c. Contact the Corps to determine whether stream crossing replacements require a PCN.

d. Exempted Maintenance. In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: “Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design.”

Navigable waters of the United States: Navigable waters of the U.S. are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The Connecticut River has been determined to be a Navigable water of the United States. Refer to Title 33 CFR Part 329.

Ordinary High Water Mark (OHW): A line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas. See 33 CFR 328.3(e).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: reestablishment and rehabilitation.

Secondary effects: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are: a) aquatic areas drained, flooded, fragmented, or mechanically cleared, b) fluctuating water levels in an impoundment and downstream associated with the operation of a dam, c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

Shellfish dredging/harvesting: Shellfish dredging typically consists of a net on a frame towed behind a boat to capture shellfish and leave the sediment behind. Dredges may skim the surface, utilize hydraulic jets, toothed rakes or suction apparatus.

Special aquatic sites: These include inland and saltmarsh wetlands, mud flats, vegetated shallows (submerged aquatic vegetation), sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230.3 and listed in 40 CFR 230 Subpart E.

Stream bed: The substrate of the stream channel between the OHW marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the streambed, but outside of the OHW marks, are not considered part of the streambed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the U.S.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Submerged aquatic vegetation: Submerged aquatic vegetation (SAV) such as eelgrass is known to play a critical ecosystem role. The U.S. Environmental Protection Agency (EPA) has designated SAV (referred to as vegetated shallows in the Section 404(b)(1) Guidelines), including eelgrass, as "special aquatic sites" under the 404(b)(1) Guidelines due to its important role in the marine ecosystem for nesting, spawning, nursery cover and forage areas for fish and wildlife. Furthermore, the MAFMC has designated SAV, including eelgrass as a Habitat Area of Particular Concern (HAPC) for summer flounder EFH and the NEFMC has designated SAV as part of the nearshore juvenile Atlantic cod HAPC.

Seagrasses provide important ecological services including fish and shellfish habitat, and shorebird feeding habitats, nutrient and carbon cycling, sediment stabilization, and biodiversity (Thayer et al 1984, Fonseca and Cahalan 1992, Fonseca et al., 1998, Kenworthy et al 1998, Orth et al., 2006). In many

locations along the east coast, eelgrass coverage has declined by fifty percent or more since the 1970's (Thayer et al. 1975, Short et al. 1993, Short and Burdick 1996). Loss of eelgrass is attributed to reduced water quality and clarity resulting from elevated inputs of nutrients or other pollutants such as suspended solids and disturbances such as dredging (Kemp et al. 1983, Short et al. 1993, Short and Burdick 1996, Orth et al. 2006). Eelgrass may also be adversely affected through shading and burial or smothering resulting from turbidity and subsequent sedimentation (Deegan and Buchsbaum 2005, Duarte et al. 2005, Johnson et al. 2008). In Massachusetts, surveys from 1995 to 2007 have shown statewide declines in seagrass cover in 90% of the embayments where it was studied (Costello and Kentworthy, 2010). In New Hampshire, eelgrass distribution throughout the entire Great Bay Estuary has declined precipitously since 1996, with a loss of 76% in the Great Bay and extirpation of nearly all beds in the Piscataqua River during that time (Short 2013). Given the widespread decline in eelgrass beds in New England, any additional loss to this habitat will likely significantly affect the resources that depend on these meadows. Successful compensatory mitigation for impacts to SAV can be costly and difficult to implement, making this habitat especially vulnerable to permanent loss.

Temporary impacts: Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity and restored to preconstruction contours and elevations upon completion of construction.

Tide gates: Structures such as duckbills, flap gates, manual and self-regulating tide gates, etc. that regulate or prevent upstream tidal flows.

Utility Line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, data, and telegraph messages, and radio and television communication. The term utility line does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows: Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass and widgeon grass (*Rupia maritima*) in marine systems (doesn't include salt marsh) as well as several freshwater species in rivers and lakes. Note: These areas are also commonly referred to as submerged aquatic vegetation (SAV).

Vernal pools (VPs): For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish. VP areas are:

- Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),
- Envelope (area within 0-100 feet of the VP depression's edge), and
- Critical terrestrial habitat (area within 100-750 feet of the VP depression's edge).

The envelope and critical terrestrial habitat protect the water quality of the breeding site (e.g., providing shade, leaf litter, and coarse woody material) and support the non-larval life-cycle stages of amphibian species. **Note:** The Corps may determine that a waterbody should not be designated as a VP based on available evidence.

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

Waters of the United States.: Waters of the U.S. are defined in 33 CFR 328. These waters include more than navigable waters of the U.S. and are the waters where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the CWA. Waters of the U.S. include jurisdictional wetlands.

CT DEEP WQC Definitions:

Special Wetlands: Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands that provide habitat for threatened or endangered species or species of special concern as designated by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this GP:

Calcareous Seepage Swamp: A forested wetland characterized by the discharge of groundwater with a chemistry influenced by an underlying limestone geology.

Cedar Swamp: A forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.

Fen: A peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.

Spruce Swamp: A forested wetland characterized by the presence of Red or Black Spruce.

Vernal Pool: An often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles, and invertebrates. Vernal pools lack breeding populations of fish. **All vernal pools are subject to the jurisdiction of the CT DEEP under Connecticut Water Quality Standards.**

Threatened, Endangered or Special Concern Species; Significant Natural Communities/Critical Habitats: Species listed by CT DEEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. General locations of threatened and endangered species and species of special concern, and significant natural communities/critical habitats are identified on maps published by the Connecticut Department of Energy and Environmental Protection entitled “Natural Diversity Data Base Areas” and on the CTECO Interactive Map Viewers at www.cteco.uconn.edu.

Adverse Effect to Hydraulic Characteristics: An adverse effect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood low conveyance in a manner that would impact upstream, downstream, or adjacent property.

APPENDIX G – STREAM CROSSING BEST MANAGEMENT PRACTICES (BMPs)

Design and construction guidance may be found in the U.S. Forest Service stream simulation manual, “Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings”¹. Section 5.3.3 Headcutting Potential and 6.2 Design of the Stream-Simulation Channel Bed are particularly relevant. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction. Chapter 6.1 is relevant for proper alignment and construction to prevent bank erosion or streambed scour.

Permanent Crossings in Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Match the velocity, depth, cross-sectional area, and substrate of the existing stream outside the crossing, if it exists, and size crossings such that they do not restrict tidal flow over the full natural tide range seaward of the crossing. The Corps will typically require a low-lying property analysis to ensure flooding is not a concern.
2. Construct crossings in dry conditions.

Permanent Crossings in Non-Tidal Streams

These are relevant for new and replacement crossings and culvert extensions.

1. Span² streams or size culverts or pipe arches such that they are wider than bankfull width (BFW). Single span structures are required to the extent practicable as they avoid or minimize disruption to the streambed and avoid entire streambed reconstruction and maintenance inside the culvert or pipe arch (see 4, 5 & 7 below), which may be difficult in smaller structures. The span width of bridges, box culverts and arches at bankfull elevation should be ≥ 1.2 times BFW where practicable. In many cases bankfull width is not necessarily interchangeable with the elevation of ordinary high water.³
2. Embed culverts or pipe arches below the grade of the streambed. This is not required when ledge/bedrock and/or utilities prevents embedment, in which case spans are preferred. The following depths are recommended to prevent streambed washout, and ensure compliance and long-term success:
 - a. $\geq 1-2$ feet for box culverts and pipe arches⁴, or
 - b. $\geq 1-2$ feet and at least 25% for round pipe culverts.
3. Match the culvert gradient (slope) with the stream channel profile.
4. Construct crossings carrying normal flows with a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks (mobility, slope, stability, confinement, grain and rock size) at the time of construction and over time as the structure has had the opportunity to pass substantial high flow events.

¹ www.nae.usace.army.mil/missions/regulatory.aspx >> “[Stream and River Continuity](#).”

² For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream. The use of bridge piers or similar supports, where necessary, does not prevent a structure from being considered as a span.

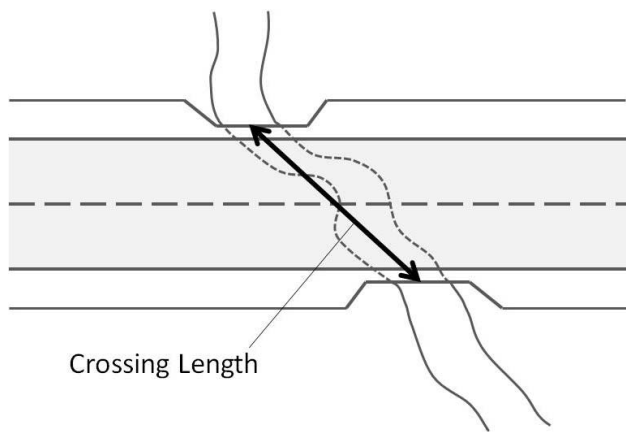
³ BFW corresponds with “bankfull stage” and this should be field delineated in accordance with the U.S. Forest Service also found at <https://www.nae.usace.army.mil/Missions/Regulatory/Stream-and-River-Continuity/>

⁴ For 2(a) and 2(b), deeper embedment depths may be needed if there are elements of the constructed stream bed that are greater than 15 inches in diameter.

5. Construct crossings with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows at the time of construction and over time. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed (sometimes including a low flow channel) or replicate or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (4) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

6. *Openness > 0.82 feet (0.25 meters)*

Openness is the cross-sectional area of a structure opening divided by its crossing length when measured in consistent units (e.g. feet). For a box culvert, openness = (height x width) / length.



For crossing structures with multiple cells or barrels, openness is calculated separately for each cell or barrel. At least one cell or barrel must meet the appropriate openness standard. The embedded portion of a culvert is not included in the calculation of cross-sectional area for determining openness.⁵

Openness > 0.82 feet is recommended to make the structure more likely to pass small, riverine wildlife such as turtles, mink, muskrat and otter that may tend to

avoid structures that appear too constricted. This openness standard is too small to accommodate large wildlife such as deer, bear, and moose. Structures that meet this openness standard are much more likely than traditional culverts to pass flood flows and woody debris that would otherwise obstruct water passage. It is likely that most structures that meet all the other general standards will also meet this openness standard. However, for some very long structures it may be impractical or impossible to meet this standard.

7. Construct banks on each side of the stream inside the span that match the horizontal profile of the existing stream and banks outside the span. To prevent failure, all constructed banks should have a height to width ratio of no greater than 1:1.5 (vertical:horizontal) unless the stream is naturally incised. Tie the banks into the up and downstream banks and configure them to be stable during expected high flows. Use materials that match the up and downstream banks (avoid the use of angular riprap and armored slopes, except where necessary for structural reasons, in which case they should be top-dressed with natural stream bed material). Construct a wildlife shelf on at least one of the banks. The constructed banks (with a wildlife shelf) will allow for terrestrial passage for wildlife and prevent flow from being focused to one side and scouring the bed, especially against the structure's sidewall which may undermine the footings in the case of spans.

⁵ An Openness Ratio Spreadsheet shows how to calculate the open area for embedded pipe culverts to meet the 0.82 standard for openness. See www.nae.usace.army.mil/missions/regulatory.aspx >> Stream and River Continuity.

Temporary Crossings in Non-Tidal Streams

Temporary crossings shall consist of spans, culverts, construction mats or fords designed and constructed as follows:

1. All temporary crossings:
 - a. Impacts to the streambed or banks require restoration to their original condition (see U.S. Forest Service stream simulation manual referenced on page 1 of this document for stream simulation restoration methods). Use geotextile fabric or other appropriate bedding for stream beds and approaches where practicable to ensure restoration to the original grade.
 - b. Avoid excavating the stream or embedding crossings.
2. Culverts:
 - a. Install energy dissipating devices downstream if necessary, to prevent scour.
3. Stream fords: Equipment may ford streams when: it is not feasible to construct a span or culvert (e.g., streams having no or low banks, emergency situations); the natural stream bed and banks consist of ledge, rock or sand that prevents disturbance and turbidity; and there is a stable, gradual approach.
4. Spans: Anchor spans where practicable so they do not wash out during high water.
5. Construction mats: Build construction mat stream crossings in accordance with the Construction Mat BMPs, specifically the Wetland/Stream Channel Crossing section. See www.nae.usace.army.mil/missions/regulatory.aspx>> [State General Permits](#) >> Connecticut General Permit Documents.

APPENDIX H
DIADROMOUS FISH IN CONNECTICUT

2021 Connecticut General Permit

DIADROMOUS FISH IN CONNECTICUT

Diadromous fish are a type of fish that move between salt and fresh water, usually for feeding or reproduction. Anadromous fish are a subset of diadromous fish that spend most of their lives in the coastal waterway as adults, but then migrate to fresh water to breed. Thus, young anadromous fish begin their life in freshwater, swim to the sea to feed and mature, then return to the rivers of their birth to reproduce. Diadromous fish are some of the more ecologically and economically important fish species in the region.

ANADROMOUS FISH IN CONNECTICUT:

Blueback herring (<i>Alosa aestivalis</i>)	Gizzard shad (<i>Dorosoma cepedianum</i>)
Alewife (<i>Alosa pseudoharengus</i>)	Striped bass (<i>Morone saxatilis</i>)
American shad (<i>Alosa sapidissima</i>)	Sea lamprey (<i>Petromyzone marinus</i>)

HOW TO DETERMINE IF ANY OF THE ANADROMOUS FISH ABOVE ARE AT MY PROJECT SITE

To see if any of the fish species above may be in the waterway affiliated with your project go to the Fisheries Division, Migratory-Fish-Runs-of-Connecticut webpage at <https://portal.ct.gov/DEEP/Fishing/Fisheries-Management/Migratory-Fish-Runs-of-Connecticut>.

ENDANGERED STURGEON IN CONNECTICUT:

Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>)
--	--

The shortnose sturgeon and shortnose sturgeon populations that are present in Connecticut are both listed under the Endangered Species Act. Critical habitat for Atlantic sturgeon was designated in the Connecticut River and the Housatonic River in 2012. Species presence and designated critical habitat can be viewed by going to <https://noaa.maps.arcgis.com/apps/webappviewer/index.html>. See General Condition 11 of these CT GPs for more information and conditional requirements.

CATADROMOUS FISH IN CONNECTICUT

American eel (*Anguilla rostrata*)

Catadromous fish spend most of their adult life in fresh water, then migrate to salt water where they return to the Sargasso Sea to reproduce. The only catadromous fish in Connecticut is the American eel, which are found in all waterbodies in Connecticut except for the following locations:

- East Branch Farmington River and tributaries upstream of the Saville Dam in Barkhamsted.
- West Branch Farmington River and tributaries upstream of the Goodwin Dam in Hartland.
- Shepaug River and tributaries upstream of the Shepaug Reservoir Dam in Warren.

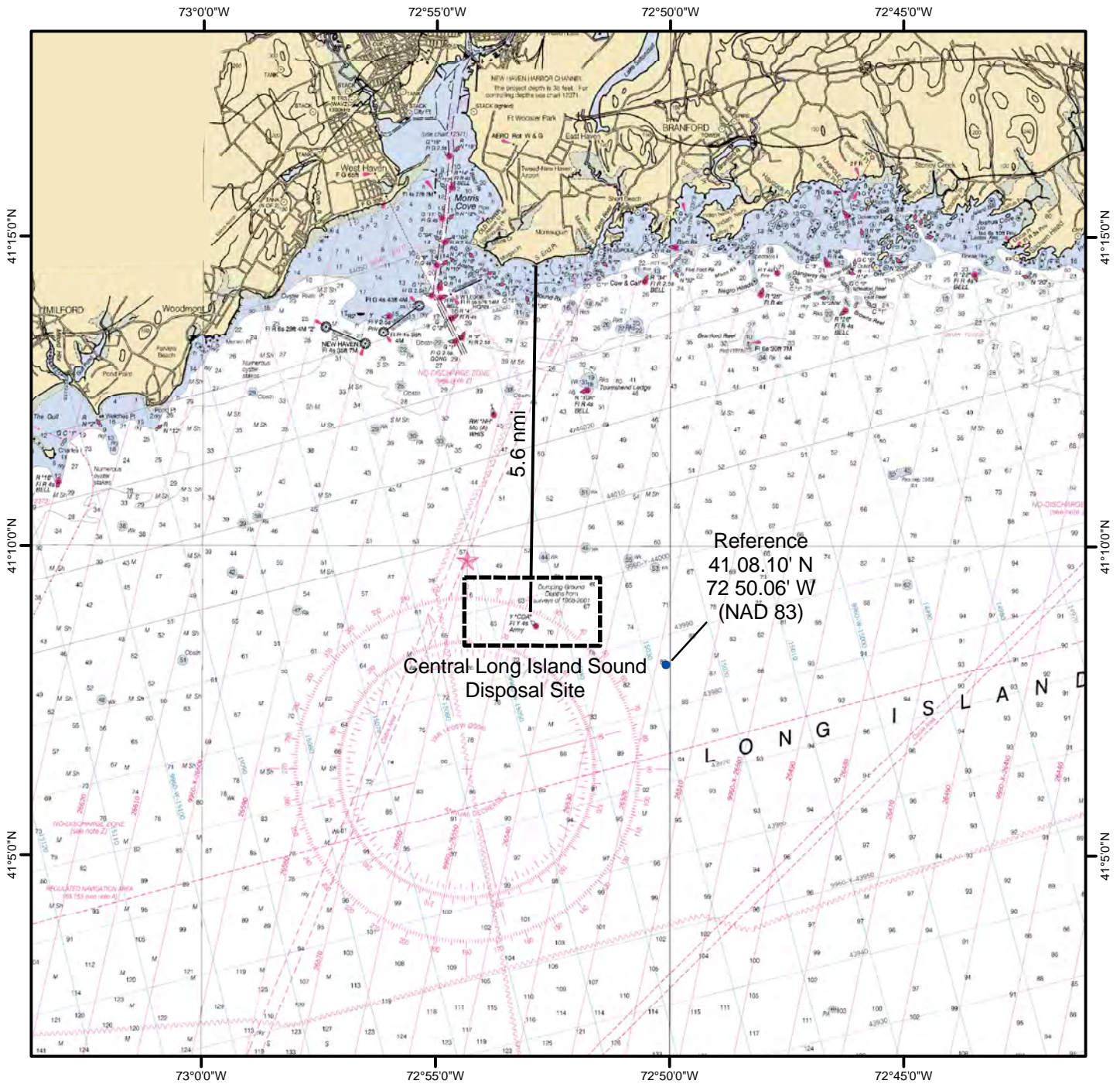
CONDITIONS AND TIME OF YEAR RESTRICTIONS (TOYRS) TO PROTECT ANADROMOUS FISH

These GPs use conservation recommendations to minimize adverse impact to anadromous fish in Connecticut waterways. **The following conditions are required for work under Self-Verification:**

- Unconfined, in-stream work, not including installation and removal of cofferdams, is limited to the low-flow period, July 1 – September 30 unless the agencies require a different resource-driven time of year restriction.
- In-water work is prohibited from April 1 to June 30 unless it occurs behind a cofferdam (see above).
- In non-tidal streams, controls shall only be installed and removed during the approved window for work (July 1 – March 31) and must not encroach >25% of the stream width measured from OHW during the prohibited work window.

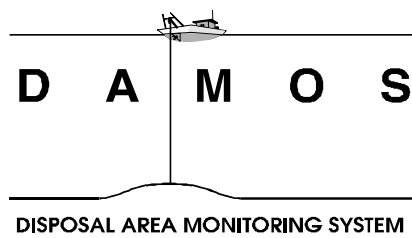
APPENDIX C
Central Long Island Sound Disposal Site
Location Map



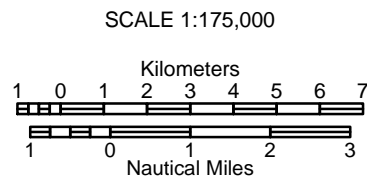


CENTRAL LONG ISLAND SOUND DISPOSAL SITE

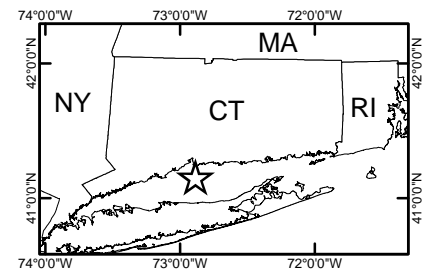
Description: The Central Long Island Sound Disposal Site (CLDS) is one of four regional dredged material disposal sites located in the waters of Long Island Sound. CLDS covers a 11.04 km² (3.2 nmi²) area and is centered at 41° 08.95' N, 72° 52.95' W (NAD 83). It is located approximately 10.89 km (5.6 nmi) south of South End Point, East Haven, Connecticut. Since 1977, the management strategy at CLDS has entailed the controlled placement of small to moderate volumes of sediment to form individual disposal mounds on the seafloor. The authorized disposal point (within the overall disposal area) is specified for each dredging project in other project documents.



DISPOSAL AREA MONITORING SYSTEM



NOTE: This chart is not intended for use in navigation.



APPENDIX D
2014 USACE Marina Plans



N.I.C. - FOR REFERENCE ONLY



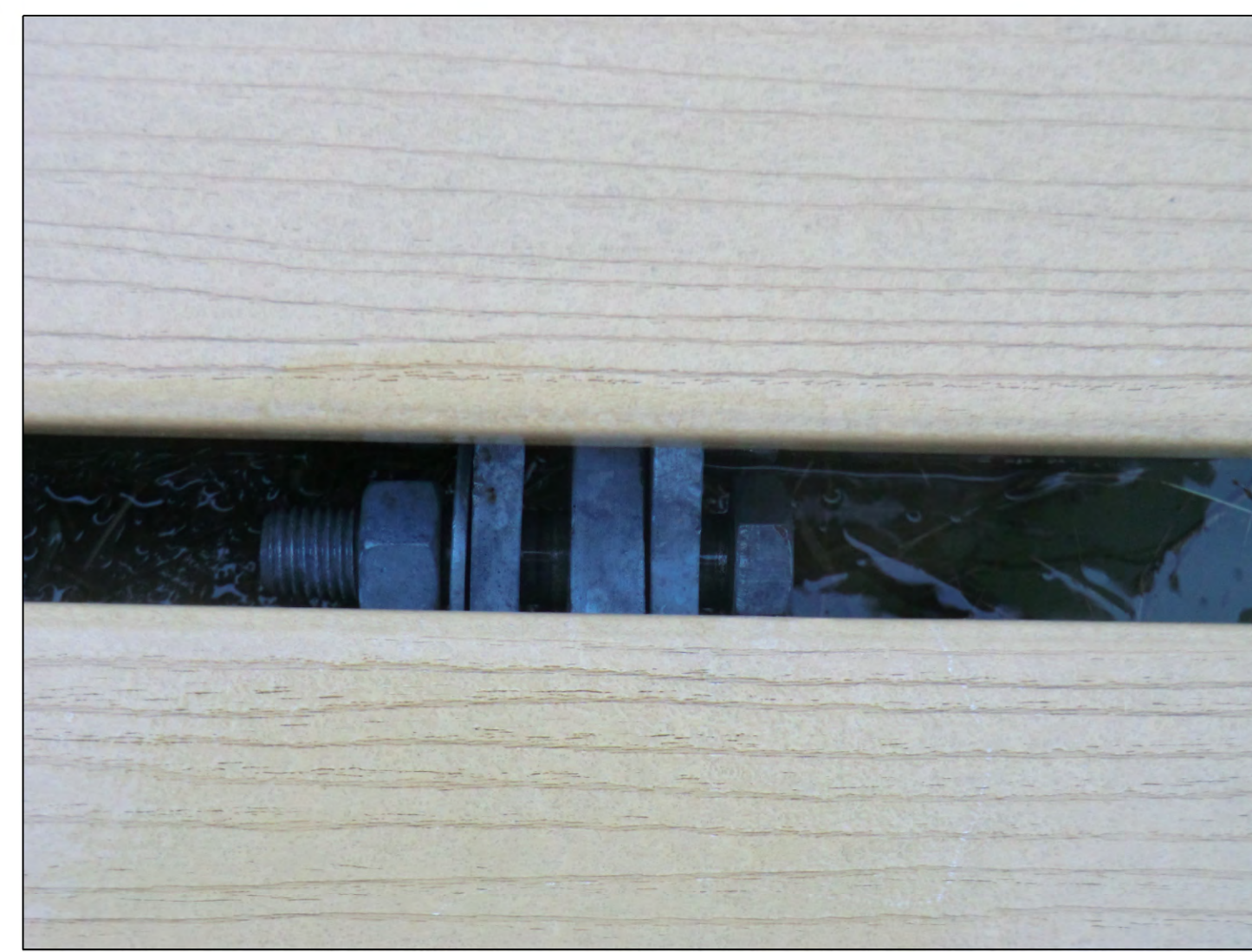
TYPICAL ACCESS RAMP BOLT CONNECTION
NTS



TYPICAL DIAGONAL PIER HINGE CONNECTION
NTS



TYPICAL STRAIGHT PIER HINGE PIN CONNECTION
NTS



TYPICAL DOCK HINGE PIN CONNECTION
NTS

PILE LOCATIONS: CT STATE PLANE FEET, NAD 83			
PILE 1	E 1,023,186	N 659,956	
PILE 2	E 1,023,135	N 659,938	
PILE 3	E 1,023,138	N 659,928	
PILE 4	E 1,023,120	N 659,966	
PILE 5	E 1,023,099	N 659,964	
PILE 6	E 1,023,103	N 659,950	
PILE 7	E 1,023,104	N 659,939	
PILE 8	E 1,023,112	N 659,928	
PILE 9	E 1,023,115	N 659,916	
PILE 10	E 1,023,120	N 659,906	
PILE 11	E 1,023,121	N 659,892	
PILE 12	E 1,023,255	N 659,890	
PILE 13	E 1,023,207	N 659,881	
PILE 14	E 1,023,187	N 659,865	
PILE 15	E 1,023,163	N 659,864	
PILE 16	E 1,023,166	N 659,857	
PILE 17	E 1,023,133	N 659,867	
PILE 18	E 1,023,134	N 659,853	
PILE 19	E 1,023,142	N 659,844	
PILE 20	E 1,023,143	N 659,830	
PILE 21	E 1,023,279	N 659,837	
PILE 22	E 1,023,234	N 659,829	
PILE 23	E 1,023,206	N 659,810	
PILE 24	E 1,023,186	N 659,810	
PILE 25	E 1,023,188	N 659,803	
PILE 26	E 1,023,154	N 659,818	
PILE 27	E 1,023,163	N 659,793	
PILE 28	E 1,023,153	N 659,803	
PILE 29	E 1,023,164	N 659,777	
PILE 30	E 1,023,299	N 659,780	
PILE 31	E 1,023,296	N 659,787	
PILE 32	E 1,023,258	N 659,774	
PILE 33	E 1,023,210	N 659,748	
PILE 34	E 1,023,206	N 659,755	
PILE 35	E 1,023,169	N 659,762	
PILE 36	E 1,023,179	N 659,750	
PILE 37	E 1,023,181	N 659,734	
PILE 38	E 1,023,190	N 659,722	
PILE 39	E 1,023,191	N 659,710	
PILE 40	E 1,023,196	N 659,697	
PILE 41	E 1,023,326	N 659,706	
PILE 42	E 1,023,293	N 659,692	
PILE 43	E 1,023,225	N 659,705	
PILE 44	E 1,023,238	N 659,677	
PILE 45	E 1,023,240	N 659,670	
PILE 46	E 1,023,250	N 659,642	
PILE 47	E 1,023,207	N 659,686	
PILE 48	E 1,023,206	N 659,672	
PILE 49	E 1,023,216	N 659,663	
PILE 50	E 1,023,213	N 659,650	
PILE 51	E 1,023,224	N 659,642	
PILE 52	E 1,023,224	N 659,625	
PILE 53	E 1,023,240	N 659,615	
PILE 54	E 1,023,354	N 659,624	
PILE 55	E 1,023,318	N 659,606	
PILE 56	E 1,023,268	N 659,624	
PILE 57	E 1,023,281	N 659,596	
PILE 58	E 1,023,286	N 659,589	
PILE 59	E 1,023,248	N 659,604	
PILE 60	E 1,023,249	N 659,595	
PILE 61	E 1,023,255	N 659,583	
PILE 62	E 1,023,266	N 659,574	

EXISTING CONDITION NOTES:

- CONTOURS SHOWN ON THIS SHEET WERE GENERATED FROM 2012 USACE POST HURRICANE SANDY TOPOGRAPHIC LIDAR: COASTAL CONNECTICUT. 16 NOV 2012. SURVEY DATA IS IN FEET AND REFERENCES THE PLANE OF MLLW.
- LOW PORTIONS OF THE TOWN MARINA PARKING LOT FREQUENTLY FLOOD DURING MOON TIDES.
- NUMBER AND LOCATIONS OF ALL STRUCTURES AND UTILITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF WORK.
- BOAT RAMP SHALL BE MADE ACCESSIBLE TO THE PUBLIC AT ALL TIMES.
- DOCK/PIER INVENTORY:
DOCK FLOAT SECTION (6'X20') 43 EA
FINGER PIER (2'X13' DIAGONAL) 19 EA
FINGER PIER (2'X17' STRAIGHT) 39 EA
STEEL ACCESS RAMP 6 EA
- EXISTING PILE INVENTORY:
40' LONG TIMBER PILES 12 EA
20-30' LONG TIMBER PILES 50 EA
- UTILITIES:
WATER AND ELECTRIC UTILITIES SERVICE EACH DOCK.
DOCK'S A-E HAVE TWO ELECTRICAL EQUIPMENT ENCLOSURES.
DOCK F HAS ONE ELECTRICAL EQUIPMENT ENCLOSURE. EACH DOCK HAS ONE WATER SERVICE LINE.

DEMOLITION NOTES:

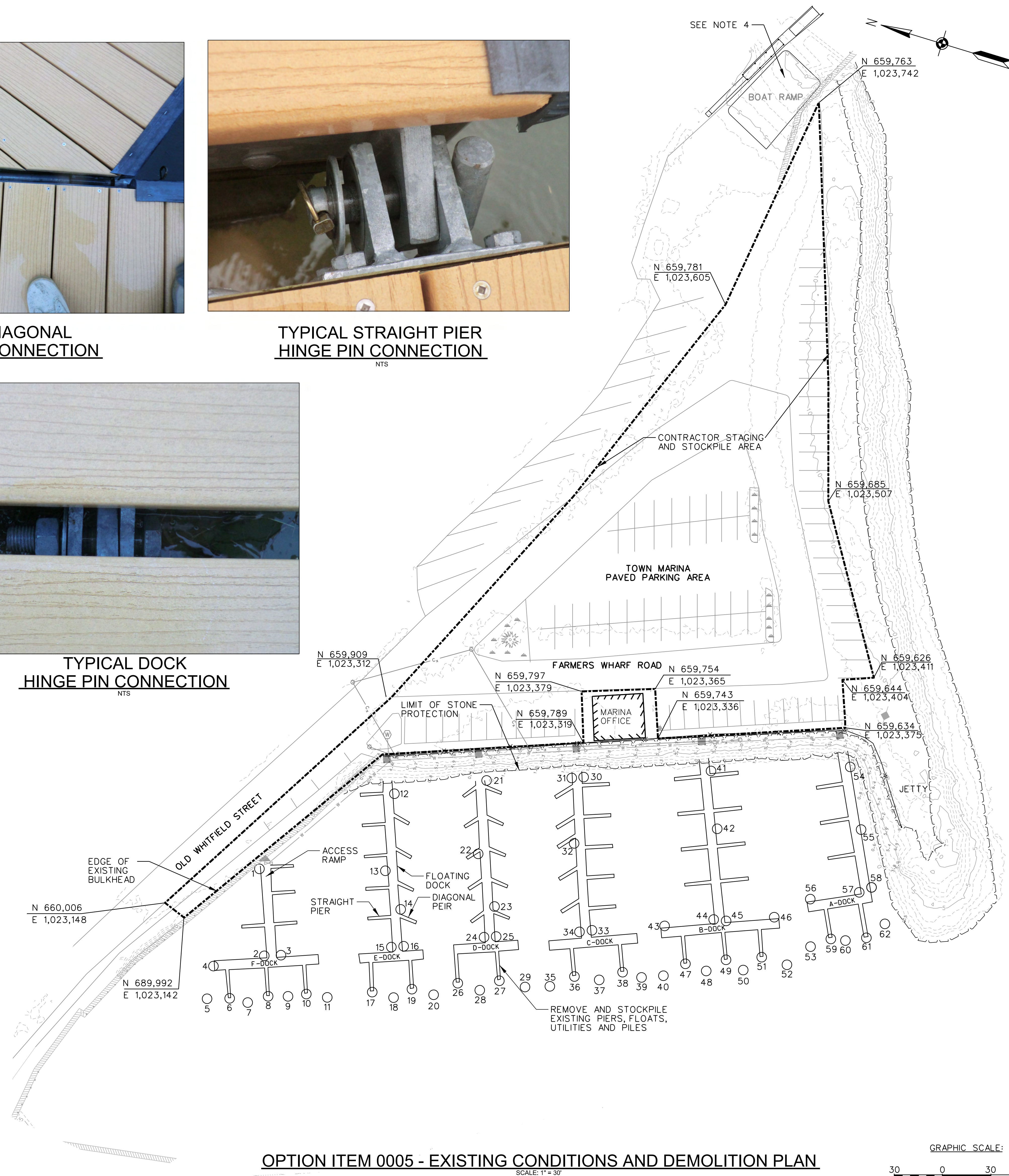
- THE CONTRACTOR SHALL DISCONNECT EXISTING WATER AND ELECTRIC UTILITIES LOCATED ALONG PIER. EQUIPMENT SHALL BE PROPERLY STOCKPILED FOR RE-INSTALLATION. ALL MATERIALS REMOVED SHALL BE SAVED FOR RE-INSTALLATION.

TO SAFELY DISCONNECT EXISTING ELECTRIC SYSTEMS, THE CONTRACTOR SHALL COORDINATE WITH THE GUILFORD HARBOR DOCKMASTER TO LOCK OUT/TAG OUT THE POWER SOURCE FOR THE GUILFORD MARINA DOCKS. THE ELECTRICAL FEEDS FOR EACH DOCK SHALL THEN BE DISCONNECTED AT THE ELECTRICAL DISTRIBUTION BOX.
- CONTRACTOR SHALL DETACH ALL EXISTING PIERS AND FLOATS. ALL FLOATS AND PIERS SHALL BE STOCKPILED FOR RE-INSTALLATION. ALL HARDWARE SHALL BE SAVED FOR RE-INSTALLATION.
- CONTRACTOR SHALL REMOVE TIMBER PILES SUCH THAT THE FOLLOWING WILL BE AVAILABLE FOR RE-INSTALLATION:

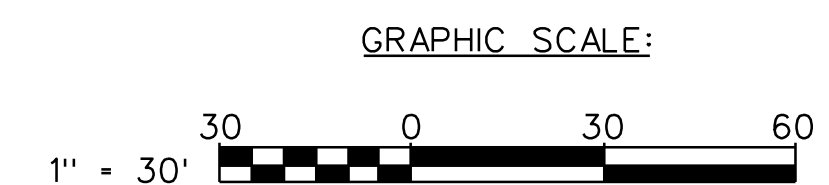
PULL AND STOCKPILE ALL EXISTING 40' LONG PILES.

PULL AND STOCKPILE 20 BEST QUALITY 20-30' LONG PILES (QUALITY TO BE DETERMINED BY COR).

PULL AND DISPOSE OF 30 20-30' LONG PILES NOT SELECTED FOR RE-INSTALLATION BY COR.



OPTION ITEM 0005 - EXISTING CONDITIONS AND DEMOLITION PLAN



DATE	DESCRIPTION	DATE	APPROVAL

DATE: JUL 2014	DESIGNATION NO.:	CONTRACT NO.:
DRAWN BY: M. CULLEN	DESIGNED BY: M. CULLEN	
CHECKED BY: M. CULLEN		

MAINTENANCE DESIGN AND CONSTRUCTION OF 6-FOOT CHANNELS AT GUILFORD HARBOR, GUILFORD, CONNECTICUT
OPTION ITEM 0005 GUILFORD MARINA EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET IDENTIFICATION
C-202
SHEET 6 OF 8

N.I.C. - FOR REFERENCE ONLY



US Army Corps of Engineers
New England District

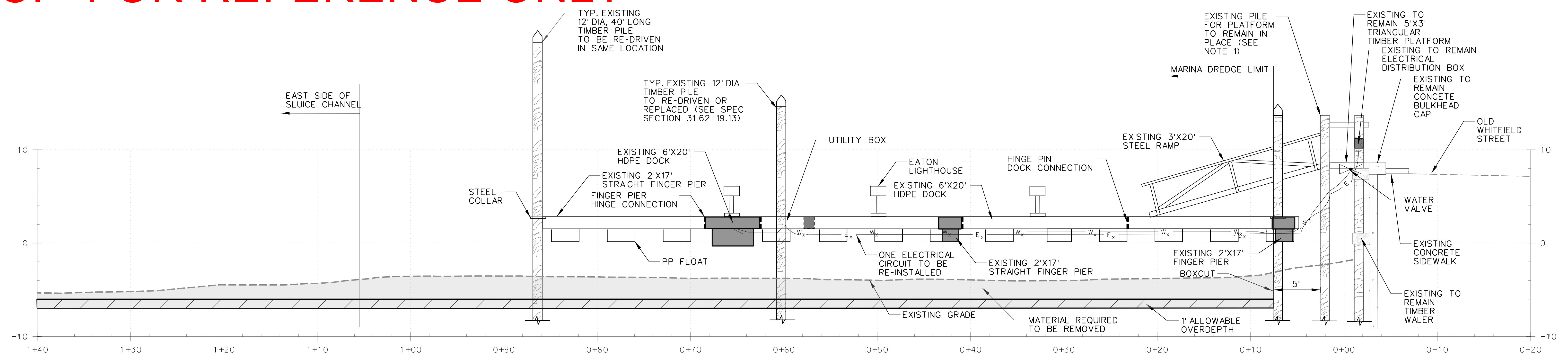
DATE	DESCRIPTION	APPROVED

DATE	DESCRIPTION	APPROVED

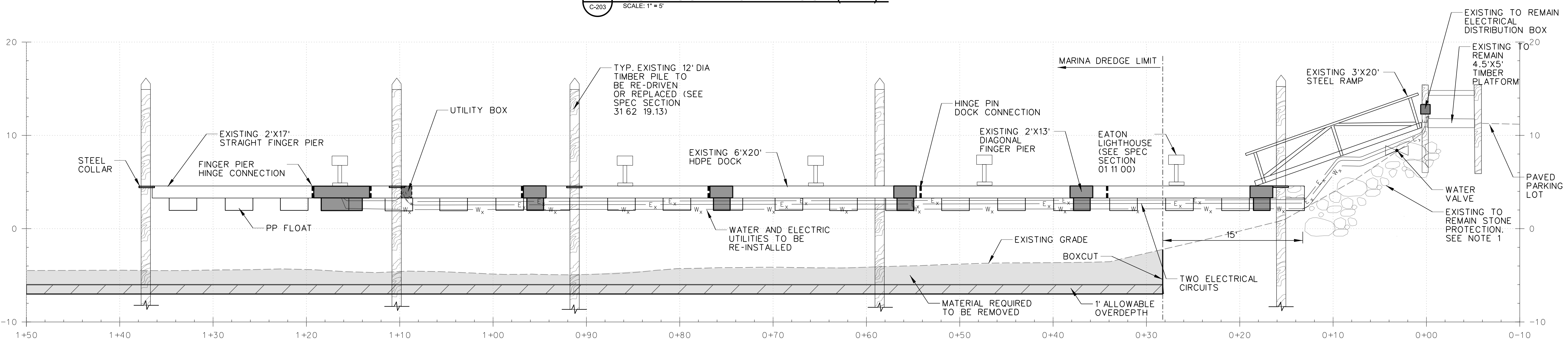
DATE: JUL 2014	DESIGNED BY: M. CULLEN	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG
CONTRACT NO.:	DRAWN BY: M. CULLEN	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG
CONTRACT NO.:	SUBMITTED BY: MATTHEW TESSIER	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG
CONTRACT NO.:	PLOT SCALE: 1" = 5'	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG
CONTRACT NO.:	FILE NAME: GULFORD_CFG.dwg	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG
CONTRACT NO.:	ANSI:	CONTRACT NO.:	DRAWING CODE: GULFORD_MARINA_CFG

MAINTENANCE DREDGING AND MARINA
6-FOOT CHANNELS IN GULFORD HARBOR
GULFORD, CONNECTICUT
OPTION ITEMS 0005, 0006, 0007
GULFORD MARINA
CONFIGURATION SECTIONS

SHEET IDENTIFICATION
C-301
SHEET 5 OF 8



EXISTING MARINA DOCK CONFIGURATION: F-DOCK (TYP)
SCALE: 1" = 5'



EXISTING MARINA DOCK CONFIGURATION: D-DOCK (TYP)
SCALE: 1" = 5'

- NOTES:**
- CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND FEATURES. CONTRACTOR SHALL NOT DREDGE WITHIN 5 FEET OF BULKHEADS AND FIXED PILES. CONTRACTOR SHALL NOT DREDGE WITHIN 15 FEET FROM THE TOE OF EXISTING STONE PROTECTION.
 - REFER TO NOTE 1 ON SHEET C-203 FOR MARINA CONFIGURATION.



STEEL COLLAR (TYP)



FINGER PIER (TYP)



STEEL RAMP AND UTILITIES (TYP)



UTILITY BOX

