



## Introduction

The subject property is located at 4 Mill Point Road in Harwich and resides along the waterfront of Herring River. The property has a single-family dwelling.

## Project Description

The proposed project is to construct a new private dock at the referenced property along Herring River. The Herring River is hydraulically connected to and tidally influenced by Nantucket Sound and experiences an average tidal swing of approximately 3.73 feet (according to NOAA Tidal Profile for Saquatucket Harbor). Existing site conditions such as the topography, bathymetry, location of wetland resource areas, and location of existing site features have been determined from topographic and hydrographic surveys completed by Coastal Engineering Company (CEC) and are represented on the accompanying plans titled "Proposed Dock and Concrete Seawall Improvements". As shown on the plans, there are several wetland resource areas on the site relevant to the project which include: Land Subject to Coastal Storm Flowage, Land Under the Ocean, Land Containing Shellfish, Salt Marsh, Coastal Beach, Coastal Bank, and Riverfront.

The proposed dock is intended for single-family use and includes a pier, seasonal ramp, and seasonal float as shown on the accompanying plans. The layout and dimensions of the pier, ramp, and float were designed to meet both town and state regulations. The governing regulations were key factors in the location and design of the dock.

The pier is four (4) feet wide and a total of 77 feet long and is located 6.5' above mean high water (MHW) to provide public access underneath the pier (deck elevation is 11.2). At the terminal end of the walkway, a three (3) foot-wide, 22-foot-long gangway attaches and connects to the float. The float is 15' long by 8' wide with a surface area of 120 square feet. The seasonal portion of the pier system will be removed and stored in the upland area of the property and not within any wetland resources.

The concrete seawall will be reinforced with an FRP toe sheet installed just seaward of the existing wall with a minimum embedment of 10 feet. A concrete cap will be placed over the toe of the existing wall and the top of the FRP sheet, tying them together and creating added stability. The concrete cap will be covered with toe stones for scour protection against wave action.

The proposed access for this project is from Mill Point Road to the owner's driveway and over the owner's property and Herring River by barge. Construction equipment and materials will be brought in through the owner's property.



The following table shows the general performance standards for all piers from the Town of Harwich Conservation Commission Wetland Protection Regulations (08/20/2021) and how the design meets the required criteria:

| <b>HARWICH WETLAND PROTECTION REGS</b>  |   |               |
|---|---|---------------|
| <b>REGULATION</b>                       | <b>REQUIREMENT</b>                      | <b>DESIGN</b> |
| FLOAT SIZE                              | 200 S.F. MAX                            | 120 S.F.      |
| WATER DEPTH                             | 2.5' (MIN)                              | 3.5'          |
| SEAWARD EXTENTS                         | 80' FROM MHW (MAX)                      | 79.6'         |
| CHANNEL                                 | MAX 50' INTO DEEP WATER CHANNEL         | 10'           |
| OFFSET TO ADJACENT STRUC.               | 65' MIN                                 | 96.2'         |
| <b>2003 DEP SMALL DOCKS &amp; PIERS</b> |   |               |
| SEAWARD EXTENT                          | 25% WIDTH OF WATERWAY                   | 15%           |
| PROPERTY LINE                           | 25' MIN                                 | 26'           |
| PIER HEIGHT                             | 5' ABOVE MHW (MIN)                      | 6.5'          |
| DEPTH                                   | 1.5' (BELOW FLOAT OR ALONG END OF PIER) | 3.5'          |
| PIER WIDTH                              | 4' MAX                                  | 4.0'          |
| DEPTH (FOR SHELLFISH AREAS)             | 2.5' FROM BOT. OF FLOAT @ MLW           | 3.0'          |

The design of the proposed dock has been thoroughly researched and engineered to meet the needs of the client while also meeting the Harwich Wetland Regulations requirements.