

Waterfront Construction, Inc

Project Description & Construction Sequence

Houtchens, Mark - Dock demo and Rebuild

A. Project Location

The project is located at a single family residence with a personal use pier. The project lot size is 57,175 s/f. The project site is located at 6024 SE 22nd St, Mercer Island, WA 98040. The property is situation in the SE Quarter of Section 24, Township 24, Range 04 at 47.5918 N Latitude and -122.2513 W Long. Tax lot# 243970-0110

B. Project Description

The project is to demolish the existing steel, wood & concrete dock and build a new one using 6x12" glue-lams & molded plastic decking with more than 40% light passthrough. Drive twenty-four (24) steel internal piles per plan set using a vibratory hammer to the point of refusal. All hardware will be galvanized steel, grating will be made by SunWalk, and the new wood material will be treated with Chemonite (ACZA). Existing boat lift to be removed and accessories to be replaced. The first 30' of the walkway will be reduced to 4' wide. The existing pier footprint will be reduced from 1667 s/f to 1294 s/f and elevated to 18" above the OHWL. No treated wood will be used in the water, steel will be epoxy-coated, and no creosote was observed on site.

C. Construction Technique & Sequencing

1. Pre-Fabrication

All construction materials will be loaded onto the crane barge in the contractor's Seattle yard and transported to the site for installation.

2. Site Preparation

This site requires no preparation prior to construction.

3. Onsite Construction

- Remove existing deck structure and load into 20 debris containers on barge for disposal upland;
- Existing thirty-six (36) timber piles will be either pulled or cut at the mudline if extraction is not possible;
- Drive four (4) 4" galvanized steel piles to the point of refusal;
- Drive twenty (20) 8" galvanized steel piles to the point of refusal;
- Install steel cap beams;
- Using a barge crane, hoist dock sections into place and bolt to cap beams;
- Reinstall all accessories per plan set;
- Collect construction debris and place on barge for upland disposal;
- Mobilize to WCI Seattle yard;
- Dispose of demolition debris at an approved upland site.

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4. Equipment used

All construction equipment and materials used in this project will be stationed on the construction barge.

5. Materials used

Cap beams will be galvanized steel. Decking will be molded plastic. Pier decking is treated wood frame with molded plastic grating.

6. Work Corridor

The construction barge will operate offshore to avoid bottom and shoreline disturbances that could occur with ground-based equipment. All staging will take place on the barge.

7. Staging Area

The barge will hold all construction materials during the project and all construction debris will be held in a 20 c/y steel debris container that is secured on the barge for upland disposal later.

8. Running of Equipment During Construction

Equipment will be running off and on during the construction phase, only when required, and only during allowed work hours.

9. Clean-Up

All construction debris will be removed and loaded into a 20 c/y steel debris container secured on the construction barge during construction. Debris is then transported by barge to the contractor's Seattle yard, off-loaded, and shipped to an approved upland disposal site.

10. Project Timing

All proposed construction will take place during daylight hours in approved work windows unless work needs to be coordinated with evening hours to facilitate construction in the approved work window.

11. Duration of Construction

On site construction will take between two and three weeks.