Applicant Information

Project Address: 5912 E Mercer Way
Mercer Island, WA 98040

Parcel Number: 192405-9136

Applicant: Seaborn Pile Driving Company, 1080 W Ewing St Building B, Seattle, WA 98119
206-236-1700

Property Owner: Bob Seda

Legal Description: POR GL 3 BEG AT PT ON ELY MGN OF E MERCER WAY 1300 FT N OF S LN OF SEC TH E PLW SD S LN 345 FT TH N 01-26-58 E 90 FT TO TPOB TH CONTG N 01-26-58 E 80 FT TH S 88-33-02 E 240 FT M/L TO SHORE OF LAKE WASHTH SLY ALG SH TO PT S 88-33-02 E OF TPOB TH N 88-33-02 W TO TPOB TGW SH LDS ADJ

Description of Work: We propose to demo the existing deck, remove (12) existing piles, drive (18) new 8" steel piles, construct a new pier, demo the existing bulkhead, and construct a new bulkhead with cove.

Job specific comments

Purpose
The proposed dock is to provide for safe boat moorage and safe water recreational activities for a single-family residence.

Habitat Enhancement
The proposed planting plan has been designed to mitigate for the existing and proposed pier.

Water Quality
In order to prevent debris from entering the lake during the demolition stage of the project, a containment boom will surround the crane barge and work area.

Permits

Mercer Island SSDP w/ SEPA Permit:
We are applying for the permit to be reviewed under the:

"Bulkheads and Shoreline Stabilization Structures" per MIMC 19.13050(B)(1)"
"Alternative Development Standards" per MIMC 19.13050(F)(3)"

Mitigation

Shoreline Plantings: The shoreline plantings have been designed to provide the spread of tree and shrub nutrients into the adjacent waters of Lake Washington.

Fully grated deck: The proposed dock will have a fully grated deck to provide light penetration below the dock where there is no light penetration with the existing structure.

Piles: The proposed pier has been designed to maximize the distance between pile bents and minimize the number of piles. The proposed 6" – 8" piles meet local building codes and reduce the pile footprint.

Contractor: Seaborn Pile Driving Company License #: SEABOPD942CG
Address: 1080 W Ewing St. Bldg B. Seattle WA 98119
Office: 206.236.1700 Mobile: 253-459-3267
Contact: Madison Johnson Email: permits@seabornpiledriving.com

Construction Narrative

Mobilization

Mobilize crew, crane barge, supply and debris barges, and materials on site

Pile Removal (dock and mooring)

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Attach a chain to the base of the existing pile.
3. If chain doesn work to remove, use underwater chainsaw and cut pile at mudline
4. Using the crane, pull the pile from the lakebed and place on the debris barge for disposal in an approved upland disposal site.
5. Clean the work area and remove the sediment curtain.

Pile Driving

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Locate the new piles to be driven per the building permit drawings.
3. Using the crane and a vibro-hammer, drive the piles to required refusal.
4. Cut the piles to elevation.
5. Clean the work area and remove the sediment curtain.

Existing pier removal

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Mobilize crew, crane barge, supply and debris barges, and materials to the site.
3. Remove the cleats, fenders and any other accessory to set aside for re-installation after the deck is installed.
4. Demo current dock and load all debris onto the debris barge.

5. Tow the debris barge to the yard and dispose in an approved upland disposal site.
6. Clean the work area and remove the seldiment curtain.

Dock construction (Track Dock)

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Install new piles where applicable.
3. Install new steel I-beam pile caps and attach to the piles by welding.
4. Install metal brackets on edge of cap by welding them to I-beam to support glulam beams.
5. Install dock section made of Glulam Beams and angle iron framing with 2x4 nailers to support the Surestep decking
6. Install electrical conduit and water lines under the deck along the dock. Wiring and re-connection to be completed by others.
7. Install the SureStep grating with epoxy-coated steel screws making sure the screws are aligned and flush with the surface.
8. Install any boat or PWC lifts.
9. Clean the work area and remove the sediment curtain.

Rock Bulkhead Construction

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Dig a keyway into the substrate to set the first row of rocks.
3. Install filter fabric into the keyway and backfill with 2” – 4” cleaned crushed rock.
4. Install the largest rocks into the keyway.
5. Install the remaining rows of rocks to complete the bulkhead, then envelope with the filter fabric.
6. Finish with 10” – 12” of topsoil and blend into the existing elevation.
7. Clean the work area and remove the silt fence/boom.

Rock Bulkhead and Beach Construction

1. Set out a Sediment Containment Curtain around the work area waterward of the bulkhead to contain any silt and debris that may be generated during construction.
2. Excavate proposed beach area onto debris barge and dispose in an approved upland disposal site.
3. Dig a keyway into the substrate to set the first row of rocks.
4. Install filter fabric into the keyway and backfill with 2” – 4” cleaned crushed rock.
5. Install the largest rocks into the keyway.
6. Install the remaining rows of rocks to complete the bulkhead, then envelope with the filter fabric.
7. Finish with 10” – 12” of topsoil and blend into the existing elevation.
8. Backfill into the cove with 5/8” minus clean washed fish friendly gravel.
9. Backfill the back of the cove with clean sand.
10. Clean the work area and remove the silt fence/boom.

Structural Notes

General

- All materials, workmanship, design, and construction shall conform to the submitted drawings and the International Building Code.
- The contractor will be responsible for all safety precautions and methods and processes to perform the designated work.

Design Criteria

- The existing design and construction meets the live load specification of a minimum of 40 PSF. (60psf in Kirkland / Bellevue)

Materials

All materials used in the construction of the dock will be for use on the water and of the highest quality available on the market. All materials will conform to the International Building Code.

For example:

- Wood piles and pile stubs. The proposed wood pile will be Class B (12" @ 3' from Butt) – 40' Douglas Fir pilings per ASTM D-25.
- Steel piles/ Sleeves – ASTM A53 GrB with Devran 261QC low temperate cure epoxy (16 mils) finish coated full length.
- Structural Lumber – All lumber will be graded and marked in conformance with WCLIB standard grading rules.
- Fasteners – All fasteners, bolts, nuts and nails will be epoxy-coated.
- Decking – The decking will consist of Surestep fiberglass grating which is pet and children friendly and will provide years of safe and comfortable use.

Preservatives

- All wood preservatives to be state approved and will be applied and fully cured prior to installation over the water.
- All hardware and fasteners to be epoxy-coated.

Best Management Practices

1. **Above the Water Line Work**

    1. Seaborn Pile Driving Company will employ one crane barge, one supply and one debris barge to complete the scope of work. A tug will tow the barges on and off the job site.

    2. Seaborn Pile Driving Company personnel working in, near or over the water will at all time wear either USCG approved life vests or work vest as well as hard hats and safety glasses.

2. **Material Handling**

    1. While at the job site, a floating containment boom will completely surround the work area.
    2. All removed piles and the existing dock structure will be placed on the debris barge where they will be contained and kept out of the lake.

3. **Hazardous Materials**
    - No hazardous materials will be mixed or stored in or near the water. No cleaning of materials will be performed in or near the water.

4. **Polluting Materials in Water**

    - Seaborn Pile Driving Company will take extra precautions to ensure materials don't fall into or pollute the water. Any material that enters the water will be removed immediately. Any hazardous material such as oily rags will not be handled near or over the water.
    - A spill kit will be employed on the barges at the job site.
    - If any pollutants enter the water, Seaborn Pile Driving Company will contact the appropriate agencies and report the spill immediately.

5. **Materials Disposal**

    - Seaborn Pile Driving Company will dispose of the rotten wood and pile sections in an approved legal disposal site in accordance with all applicable laws and permit requirements.