



US Army Corps
of Engineers
Seattle District



WASHINGTON STATE
DEPARTMENT OF
E C O L O G Y

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone: (206) 316-3822
ATTN: Andrew Shuckhart,
Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-6068
ATTN: SEA Program,
Federal Permit Coordinator

Public Notice Date: June 27, 2016
Expiration Date: July 27, 2016

Reference No.: NWS-2015-478
Name: O'Hara Corporation (Pier
Replacement and Float Construction)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated March 23, 2015.

The Corps will review the work in accordance with Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to Section 401 of the Clean Water Act (CWA), with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

APPLICANT: O'Hara Corporation
4315 11th Avenue Northwest
Seattle, Washington 98107
Attention: Francis J. O'Hara Jr.
Telephone: (206) 706-4166

AGENT: Waterfront Construction, Inc.
205 Northeast Northlake Way, Suite 230
Seattle, Washington 98105
Attention: Alan D. Foltz
Telephone: (206) 548-9800

LOCATION: In Salmon Bay, Lake Washington Ship Canal, at Seattle, Washington.

WORK: Rehabilitation of a commercial pier to include the removal and replacement of an existing elevated pier structure, and modifications including the installation of a new floating pier with three finger piers, and installation of a new dolphin. Under the proposed action, the existing wooden pier and creosote piling will be removed and replaced with an all new, slightly larger structure with a similar configuration. Detailed project impacts are as follows:

Structure Removal: Removal of 62, 12-inch to 14-inch diameter creosote treated wood piles, and 2,664 square feet of solid decking material. The existing pier is elevated above the Ordinary High Water Mark (OHWM) by two feet, six inches.

NWS-2015-478, O'Hara Corporation

Pier Construction: Installation of 53 16-inch-diameter steel piles with vibratory hammer to support 3,170 square feet of solid concrete-panel decking material on the main pier. Installation of an 851-square-foot float constructed from a main float body and three fingers, fully decked with grated decking. Construction of a dolphin with nine 12-inch-diameter wood piles, two 16-inch-diameter guide piles, and three 20-inch-diameter steel piles. The proposed pier will be elevated above the OHWM by a minimum of two feet, 10 inches, with 95% of the main pier three feet, 10 inches above the OHWM.

PURPOSE: Commercial water access and moorage for a commercial fishing fleet.

MITIGATION: To offset the proposed impacts, the applicant has proposed the following avoidance and minimization measures: Removal of the existing creosote piling and solid decking material; installation of steel piling and grated decking on the float (60% open space); water quality protection measures; a reduction of existing lighting to the aquatic environment with planned lighting minimization measures. The new structure will be super-elevated two feet, 10 inches to three feet, 10 inches above the OHWM. Submerged debris and trash removal from the Salmon Bay area is also proposed as compensatory mitigation.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area. If the Corps determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps' final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

CULTURAL RESOURCES: The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. Historic properties are recorded near the proposed project; however, they do not occur in the permit area. The Corps is assessing the likelihood that the proposed project will impinge on any historic property as a result of removing submerged debris and trash from the Salmon Bay area. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors

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which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

ADDITIONAL EVALUATION: This proposal is the subject of Shorelines Substantial Development Permit No. 3020649 which has been issued by the City of Seattle.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

CORPS COMMENTS: All e-mail comments should be sent to andrew.j.shuckhart@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Andrew J. Shuckhart, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

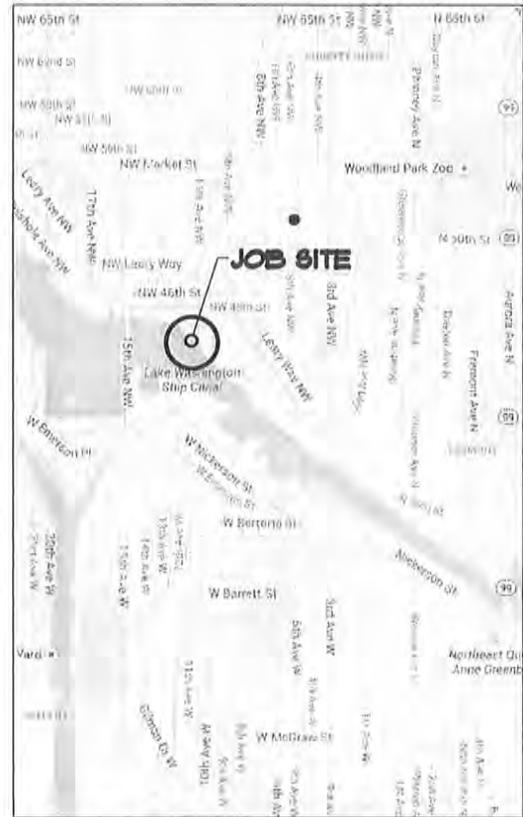
ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to ecyrefedpermits@ecy.wa.gov.

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: O'Hara Corporation; NWS-2015-478

Encl: Figures (7)



VICINITY MAP 



AREA MAP 

LEGAL DESCRIPTION:

THAT PORTION OF LOTS 9 THROUGH 16, INCLUSIVE, BLOCK 177, GILMAN PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 3 OF PLATS, PAGE 40, RECORDS OF KING COUNTY, WA., AND OF LOTS 9 THROUGH 12, INCLUSIVE, BLOCK 3, BALLARD TIDELANDS AND OF WEST 44 PLACE AS VACATED BY THE CITY OF SEATTLE ORDINANCE NUMBER 51056, DESCRIBED AS FOLLOWS:

BEGINNING ON THE EAST LINE OF SAID BLOCK 177 AT A POINT WHICH IS S 01°01'52" E, ALONG SAID EAST LINE 226.00 FT. FROM THE N.E. CORNER THEREOF; THENCE S 01°01'52" E, 471.094 FT. TO THE S.E. CORNER OF SAID BLOCK 3; THENCE NORTHWESTERLY ALONG THE SOUTHWESTERLY LINE OF SAID BLOCK 3, A DISTANCE OF 155.326 FT. TO THE SOUTHWESTERLY CORNER OF LOT 11 IN SAID BLOCK 3; THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE SOUTHEAST LINE OF SAID BLOCK 3, A DISTANCE OF 68.911 FT. TO THE WEST LINE OF LOT 12 IN SAID BLOCK 3; THENCE NORTH ALONG SAID WEST LINE 190.199 FT. TO A POINT WHICH IS 200 FEET NORTHEASTERLY FROM, WHEN MEASURED AT RIGHT ANGLES, TO THE SOUTHWESTERLY LINE OF SAID BLOCK 3; THENCE NORTHWESTERLY PARALLEL WITH SAID SOUTHWESTERLY LINE 164.036 FT. TO A POINT WHICH IS 12.5 FT WEST OF THE EAST LINE OF LOT 9 IN SAID BLOCK 3; THENCE N 01°01'52" W, 188 FT. TO A POINT ON A LINE PARALLEL WITH AND 226.00 FT. SOUTH OF THE NORTH LINE OF SAID BLOCK 177; THENCE N 89°00'00" E, ALONG SAID PARALLEL LINE 169.50 FT. TO THE POINT OF BEGINNING.

QSTR: NW 13 25N 3E, WM LAT: 47.660228d N
 PARCEL #: 0467000120 LONC: -122.371091d W

PROJECT DESCRIPTION:

THE PURPOSE OF THESE DOCUMENTS IS TO SHOW THE REMOVAL AND REPLACEMENT OF THE ELEVATED PIER STRUCTURE AND INSTALLATION OF NEW FLOATS.

PROJECT DESIGNED BY:

Waterfront Construction Inc.
 205 N.E. NORTHLAKE WAY
 SUITE #230
 Seattle, Washington 98105

Pacific Engineering
 Technologists


1700 Westlake Avenue North - Suite 100
 Seattle, Washington 98109

USACE Ref #: NWS-2015-478

ADJACENT OWNERS:

- ① & ② WASHINGTON DEPT. OF NATURAL RESOURCES
1111 NW 45TH ST, SEATTLE, WA. 98107
- ③ COMMERCIAL MARINE CONSTRUCTION COMPANY
1121 NW 45TH ST, SEATTLE WA 98107
- ④ MOBILE PROPERTIES, LLC
4401 11TH AVE NW, SEATTLE WA 98107
- ⑤ CITY OF SEATTLE
11TH AVE NW (STREET END) SEATTLE WA 98107
- ⑥ FRED MEYER STORES, INC
915 NW 45TH ST, SEATTLE WA 98107
- ⑦ PBC INVESTMENT COMPANY LLC
4300 11TH AVE NW SEATTLE WA 98107

PROJECT: O'HARA CORPORATION PIER REPLACEMENT AND FLOAT CONSTRUCTION

PROPOSED: REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS

PURPOSE: PROVIDE IMPROVED MOORAGE

SITE ADDRESS: 4315 11TH AVE N.W.
 SEATTLE, WA 98107
 COUNTY: KING
 IN: SALMON BAY / SHIP CANAL

APPLICANT: O'HARA CORPORATION

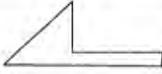
MAIL ADD. MR. AL FOLTZ
 WATERFRONT CONSTRUCTION, INC.
 205 N.E. NORTHLAKE WAY
 SUITE #230
 SEATTLE, WA. 98105

DATUM: COE (OHW = 21.85')

JOB No.: 13165.00 DATE: 23 MARCH, 2015

PAGE: 1 OF 7

**TABLE:
EXISTING PIER AND PILE INFORMATION**

LOCATION	EXISTING PIER AREA TO BE REMOVED	PILE TYPE	PILE SIZE	NUMBER OF PILES TO BE REMOVED
EXISTING PIER 	2664 SF.	BEARING BATTER FENDER	12"-14" 12"-14" 12"-14"	41 2 18

**TABLE:
PROPOSED PIER AND PILE INFORMATION**

LOCATION	PROPOSED AREA	PILE TYPE	PILE SIZE	NUMBER
PIER 	3,170 SF.	BEARING BATTER FENDER	16"φ x Ø5 16"φ x Ø5 12"φ WOOD	32 18 9
FLOAT PIER 	891 SF.	GUIDE	16"φ x Ø5	2
DOLPHIN PILE 		DOLPHIN	(3) 20"φ x Ø5	1

- NOTES:
 1. 16"φ x Ø5 OUTSIDE DIAMETER + 16"
 2. 20"φ x Ø5 OUTSIDE DIAMETER + 20"
 3. AREAS INCLUDE OVERWATER COVERAGE MEASURED FROM OUTSIDE OF RUBBING STRIP OR OUTSIDE OF PIER

USACE Ref #: NWS-2015-478

APPLICANT:	O'HARA CORPORATION
PROJECT:	O'HARA CORP. PIER REPLACEMENT AND FLOAT CONST.
PROPOSED:	REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS
SITE ADDRESS:	4315 11TH AVE N.W. SEATTLE, WA 98107 COUNTY: KING IN: SALMON BAY / SHIP CANAL
JOB NO.:	13165.00
DATE:	23 MARCH, 2015
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BEST MANAGEMENT PRACTICES (BMP's)

IN-WATER WORK

ALL WORK BELOW AND WATERWAYS OF THE EXISTING ORDINARY HIGH WATER (OHW) ELEV. + 1.5' (1.5' NAVD 88 / 1.5' COE) SHALL BE CONDUCTED DURING IN-WATER WORK CONSTRUCTION WINDOWS (OCT. 1st TO APRIL 30th) AS SPECIFIED IN US ARMY CORPS AND WUPU PERMITS.

WATER QUALITY MONITORING AND PROTECTION

WATER QUALITY MONITORING FOR TURBIDITY AND OIL SHEEN SHALL BE COMPLETED DURING PILE REMOVAL AND PILE INSTALLATION ACTIVITIES. WATER QUALITY MONITORING FOR PH SHALL BE COMPLETED DURING ALL USE OF FRESH CONCRETE.

A. TURBIDITY

- TURBIDITY SHALL BE MEASURED EVERY FOUR HOURS WITHIN 150- FEET OF THE ACTIVE WORK AREA AND COMPARED TO A BASELINE SAMPLE COLLECTED IN A CLEAN, UNDISTURBED AREA WITHIN 300- FEET OF THE ACTIVE WORK AREA. WATER SHALL ALSO BE VISUALLY INSPECTED CLOSER TO THE WORK AREA FOR ANY SIGNS OF TURBIDITY. IF TURBID CONDITIONS ARE NOTED, THE PILE DRIVING CONTRACTOR SHALL BE NOTIFIED THAT OPERATIONS MAY NEED TO BE MODIFIED OR PAUSED SHOULD THE TURBIDITY CONTINUE TO SPREAD.
- COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS WILL BE EXCEEDED IF THE WORK AREA SAMPLE IS 5 NTU OVER THE BASELINE SAMPLE WHERE THE BASELINE IS LESS THAN 50 NTU, OR 10 PERCENT ABOVE BASELINE WHERE THE BASELINE IS GREATER THAN 50 NTU.

B. OIL SHEEN

- OIL SHEEN SHALL BE ASSESSED CONCURRENTLY WITH THE TURBIDITY MEASUREMENTS DESCRIBED ABOVE.
- A VISUAL OBSERVATION SHALL BE MADE OF THE AREA SURROUNDING THE WORK TO IDENTIFY ANY EVIDENCE OF SHEEN. COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS WILL BE EXCEEDED IF VISIBLE SHEEN IS OBSERVED.

C. PH

- PH SHALL BE MEASURED ADJACENT TO THE ACTIVE WORK AREA EVERY TWO HOURS DURING FRESH CONCRETE POURING AND AGAIN 2 HOURS AFTER WORK IS COMPLETE. SAMPLING SHALL CONTINUE ON A TWICE DAILY BASIS (IF NEEDED) UNTIL CONDITIONS ARE DOCUMENTED TO BE BELOW PH 8.5.
- COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS REQUIRES PH VALUES TO BE BETWEEN 8.5 AND 8.9, WITH A HUMAN-CAUSED VARIATION WITHIN THE ABOVE RANGE OF LESS THAN 0.2 UNITS.

D. CONTINGENCY MEASURES

IN THE EVENT ANY PARAMETER EXCEEDS THE COMPLIANCE VALUE WITHIN THE WORK AREA, CONTINGENCY MEASURES SHALL BE IMPLEMENTED TO INCLUDE IDENTIFICATION AND CORRECTION OF ALL POTENTIAL CONTRIBUTING FACTORS, AND NOTIFICATION TO THE DEPARTMENT OF ECOLOGY AND CITY OF SEATTLE. ADDITIONALLY, BMP'S MAY NEED TO BE EVALUATED AND ADJUSTED, AND WORK MAY BE SLOWED OR TEMPORARILY PAUSED UNTIL THE NECESSARY MEASURES ARE TAKEN.

PILE REMOVAL, DISPOSAL AND INSTALLATION

THE FOLLOWING BEST MANAGEMENT PRACTICES (BMP'S) ARE ADAPTED FROM EPA PILE REMOVAL AND DISPOSAL BMP'S (2007), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) METHODS AND WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES (WSA DNR) STANDARD PRACTICE FOR THE USE AND REMOVAL OF TREATED WOOD AND PILING ON AND FROM STATE-OWNED AQUATIC LANDS (2008). ADDITIONAL CONSERVATION MEASURES WILL BE INCLUDED IN PERMITS FOR THE PROJECT TO BE ISSUED BY THE CITY OF SEATTLE, ARMY CORPS OF ENGINEERS, AND WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE (WDFW).

THE PURPOSE OF THE FOLLOWING BMP'S IS TO CONTROL TURBIDITY AND SEDIMENTS RE-ENTERING THE WATER COLUMN DURING PILE REMOVAL, AND PRESCRIBE DEBRIS CAPTURE AND DISPOSAL OF REMOVED PILES AND DEBRIS.

PILE REMOVAL

VIBRATORY EXTRACTION SHALL BE THE PREFERRED METHOD TO BE UTILIZED FOR PILE REMOVAL. AN OIL CONTAINMENT BOOM SHALL BE EMPLOYED COMPLETELY AROUND THE WORK AREA DURING THE CREOSOTE PILE REMOVAL ACTIVITIES. THE BOOM WILL SERVE TO COLLECT ANY FLOATING DEBRIS THAT MAY RESULT FROM PILE REMOVAL. OIL ABSORBENT MATERIALS SHALL BE EMPLOYED IF SHEEN IS OBSERVED. THE BOOM SHALL REMAIN IN PLACE UNTIL ALL OILY MATERIAL AND FLOATING DEBRIS HAVE BEEN COLLECTED AND SHEENS DISSIPATE. USED ABSORBENT MATERIALS SHALL BE DISPOSED IN AN APPROPRIATE UPLAND FACILITY.

A. VIBRATORY EXTRACTION

- THE VIBRATORY EXTRACTION METHOD SHALL BE UTILIZED FOR PILE REMOVAL UNLESS THE PILE BREAKS.
- THE VIBRATORY HAMMER IS A LARGE MECHANICAL DEVICE (5-16 TONS) THAT IS SUSPENDED FROM A CRANE BY A CABLE. THE HAMMER IS ACTIVATED TO LOOSEN THE PILING BY VIBRATING AS THE PILING IS PULLED UP. THE HAMMER IS SHUT OFF WHEN THE END OF THE PILING REACHES THE MUD LINE.
- CRANE OPERATOR SHALL BE TRAINED TO REMOVE PILE SLOWLY. THIS WILL MINIMIZE TURBIDITY IN THE WATER COLUMN AS WELL AS SEDIMENT DISTURBANCE.

B. CLAMHELL OR CHOKER REMOVAL

- BROKEN AND DAMAGED PILING THAT CANNOT BE REMOVED WITH THE VIBRATORY HAMMER SHALL BE REMOVED WITH EITHER A CLAMHELL BUCKET, OR CHOKER CHAIN.
- A MAJOR CREOSOTE RELEASE TO THE ENVIRONMENT MAY OCCUR IF EQUIPMENT (BUCKET, STEEL CABLE, VIBRATORY HAMMER) PINCHES THE CREOSOTED PILING BELOW THE WATER LINE. THEREFORE, THE EXTRACTION EQUIPMENT MUST BE KEPT OUT OF THE WATER.

C. CUTTING

- CUTTING SHALL BE IMPLEMENTED IF THE PILE BREAKS OFF AT OR NEAR THE EXISTING SUBSTRATE AND CANNOT BE REMOVED USING ANY OTHER MEANS.
- BROKEN PILE SHALL BE CUT OFF BELOW THE MUD LINE.

D. FILL HOLES

ANY HOLES LEFT IN THE SUBSTRATE AFTER REMOVAL OR CUTTING OF PILES SHALL BE FILLED TO THE ADJACENT GRADE WITH CLEAN SAND.

BARGE OPERATIONS, WORK SURFACE CONTAINMENT

A. BARGE GROUNDING SHALL NOT BE PERMITTED.

B. WORK SURFACE ON BARGE DECK OR PIER SHALL INCLUDE A CONTAINMENT BASIN FOR PILE AND ANY SEDIMENT REMOVED DURING PULLING.

- CONTAINMENT BASIN SHALL BE CONSTRUCTED OF DURABLE PLASTIC SHEETING OR OTHER IMPERVIOUS MATERIAL WITH SIDEWALLS SUPPORTED BY HAY BALES OR SUPPORT STRUCTURE TO CONTAIN ALL SEDIMENT. CLEAN WATER RUN OFF CAN RETURN TO THE LAKE.
- WORK SURFACE ON BARGE DECK SHALL BE CLEANED BY DISPOSING OF SEDIMENT OR OTHER RESIDUES ALONG WITH CUT OFF PILING AS DESCRIBED IN DISPOSAL OF PILING, SEDIMENT AND CONSTRUCTION RESIDUE BELOW.
- CONTAINMENT BASIN SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH SECTION BELOW OR IN ANOTHER MANNER COMPLYING WITH APPLICABLE FEDERAL AND STATE REGULATIONS.
- UPON REMOVAL FROM SUBSTRATE THE PILE SHALL BE MOVED EXPEDITIOUSLY FROM THE WATER INTO THE CONTAINMENT BASIN. THE PILE SHALL NOT BE SHAKEN, HOSED-OFF, LEFT HANGING TO DRIP OR ANY OTHER ACTION INTENDED TO CLEAN OR REMOVE ADHERING MATERIAL FROM THE PILE.

PILE REMOVAL, DISPOSAL AND INSTALLATION (cont.)

DISPOSAL OF PILING, SEDIMENT AND CONSTRUCTION RESIDUE

- PULLED PILES SHALL BE PLACED IN THE CONTAINMENT BASIN TO CAPTURE ANY ADHERING SEDIMENT. THIS SHALL BE DONE IMMEDIATELY AFTER THE PILE IS INITIALLY REMOVED FROM THE WATER.
- PILING SHALL BE CUT INTO 4-FOOT LENGTHS WITH STANDARD CHAINSAW. ALL SAWDUST AND CUTTINGS SHALL BE CONTAINED.
- CUT UP PILING, SEDIMENTS, CONSTRUCTION RESIDUE AND PLASTIC SHEETING FROM CONTAINMENT BASIN SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.

DEBRIS CAPTURE IN WATER

- A FLOATING SURFACE BOOM SHALL BE INSTALLED TO CAPTURE FLOATING SURFACE DEBRIS. DEBRIS SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.
- THE FLOATING SURFACE BOOM SHALL BE EQUIPPED WITH ABSORBENT PADS TO CONTAIN ANY OIL SHEENS. ABSORBENT PADS ARE TO BE DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.

RE-SUSPENSION/TURBIDITY

- CRANE OPERATOR SHALL REMOVE PILE FROM SEDIMENT SLOWLY.
- REMOVED PILES SHALL BE PLACED IN A CONTAINMENT FACILITY.
- SEDIMENTS SPILLED ON WORK SURFACES SHALL BE CONTAINED AND DISPOSED OF WITH THE PILE DEBRIS AT PERMITTED UPLAND DISPOSAL SITE.

PROJECT OVERSIGHT

THE CONTRACTOR SHALL HAVE A PROJECT MANAGER OR OTHER ASSIGNED PERSONNEL ON SITE. OVERSIGHT RESPONSIBILITIES SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- WATER QUALITY MONITORING TO ENSURE TURBIDITY LEVELS REMAIN WITHIN REQUIRED PARAMETERS.
- ENSURE WORK FOLLOWS BMP'S.
- ENSURE WORK IS IN COMPLIANCE WITH CONTRACT AND PERMIT REQUIREMENTS.
- ENSURE CORRECT STRUCTURES ARE REMOVED.
- MAINTAIN CONTACT WITH REGULATORY AGENCIES SHOULD ISSUES OR EMERGENCIES ARISE AND FULFILL REPORTING REQUIREMENTS OF PROJECT PERMITS.

PILE DRIVING

PILES SHALL BE INSTALLED WITH A VIBRATORY HAMMER TO THE MAXIMUM EXTENT POSSIBLE, WITH LIMITED IMPACT PILE DRIVING AS NECESSARY TO PROOF THE PILES. IF IMPACT PILE DRIVING IS REQUIRED, A SOUND ATTENUATION DEVICE SUCH AS A 6-INCH THICK BLOCK OF WOOD BETWEEN THE PILE AND THE PILE DRIVER AND/OR UTILIZATION OF A BUBBLE CURTAIN AROUND THE PILE BEING INSTALLED SHALL BE EMPLOYED.

CONCRETE CONTAINMENT

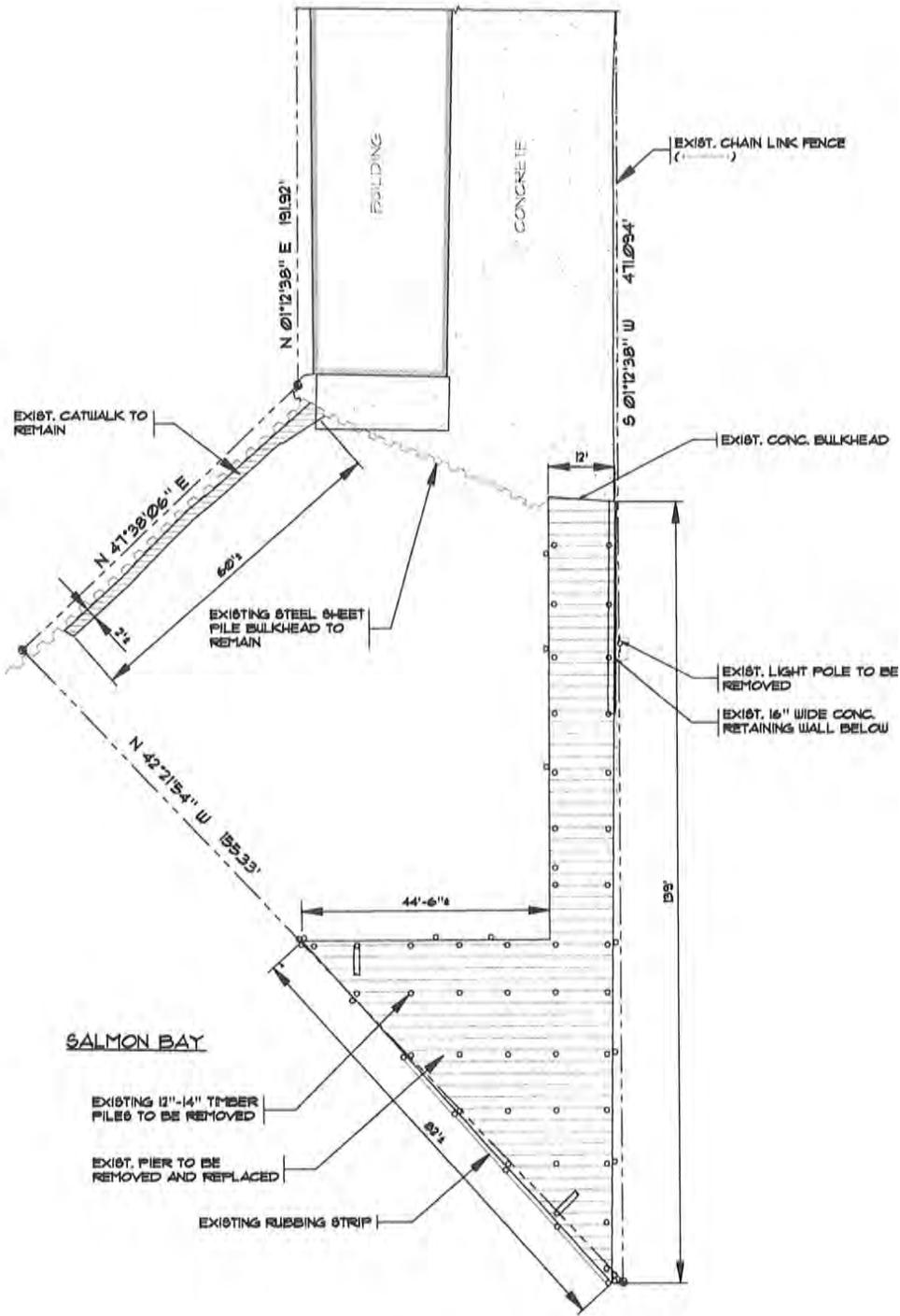
- WATER QUALITY MONITORING FOR PH SHALL BE COMPLETED DURING ALL USE OF FRESH CONCRETE.
- CONCRETE CONTAINMENT SYSTEMS SHALL BE REVIEWED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
- NO CONCRETE SHALL BE Poured BELOW THE OHW. ALL FRESH CONCRETE WORK SHALL BE ISOLATED FROM CONTACT WITH LAKE UNION OR RAINFALL. IMPERVIOUS BARRIERS SHALL BE PLACED BETWEEN THE WORK AND THE WATER LINE TO PREVENT ANY SPILLAGE FROM REACHING THE WATER. CONCRETE TRUCKS SHALL BE STAGED ON THE ADJACENT SHORELINE OR AN AREA OF THE NEW DOCK WHERE SPILLAGE CAN BE CONTAINED. NEW CONCRETE SHALL BE COVERED IN THE CASE OF INCLEMENT WEATHER TO PREVENT RAIN FROM CONTACTING FRESH CEMENT WITHIN THE FIRST SEVEN (7) DAYS FOLLOWING PLACEMENT.
- FOR TOOLS AND/OR EQUIPMENT CLEANUP ON-SITE, A TEMPORARY SUMP, ECO-PANS, OR OTHER METHOD DESIGNED TO PREVENT RELEASE OF CONTAMINATED WATER OR SLURRIES TO SURFACE WATER SHALL BE IMPLEMENTED.
- REMOVE MATERIAL FROM SUMP AFTER CLEANUP IS COMPLETE. WATER AND SLURRIES FROM THE SUMP SHALL BE DISPOSED OF OFF-SITE.
- CONTAIN AND REMOVE ANY EXCESS MATERIALS, SUCH AS CHEMICALS AND/OR CONCRETE.

IN-WATER EXCAVATION/DREDGING

- NO DREDGING OR OTHER SIGNIFICANT DISTURBANCE OF IN-WATER BEDDENT SHALL TAKE PLACE FOR THIS PROJECT.
- DISTURBANCE TO SUBMERGED SEDIMENT SHALL ONLY OCCUR WITHIN A SMALL AREA AROUND EACH PILE TO BE ADDED/REMOVED, AND AS NECESSARY TO REMOVE IN-WATER TRASH AND OTHER DEBRIS ASSOCIATED WITH THE MITIGATION EFFORTS.

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SALMON BAY

EXISTING 12"-14" TIMBER PILES TO BE REMOVED

EXIST. PIER TO BE REMOVED AND REPLACED

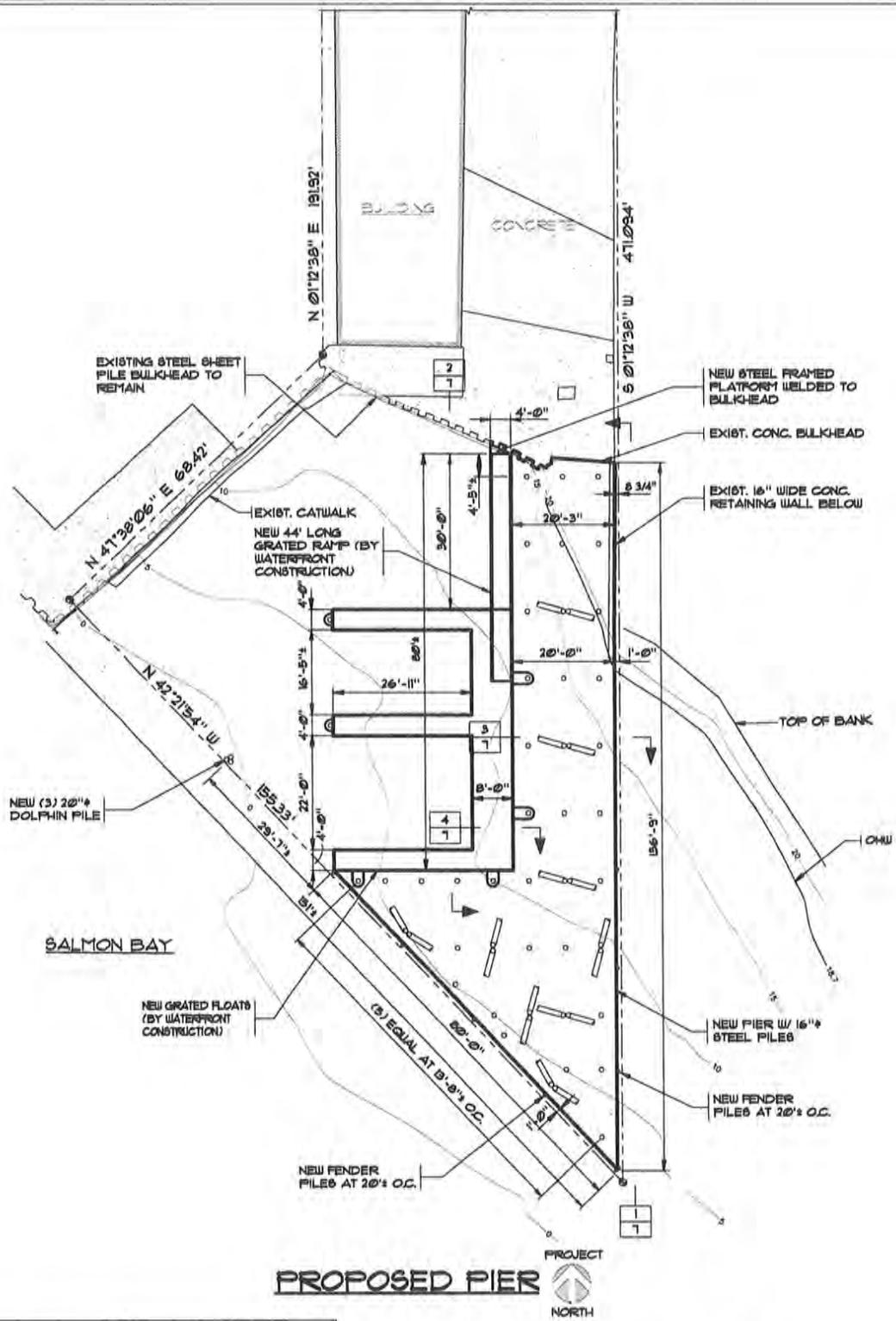
EXISTING RUBBING STRIP

EXISTING PIER



USACE Ref #: NWS-2015-478

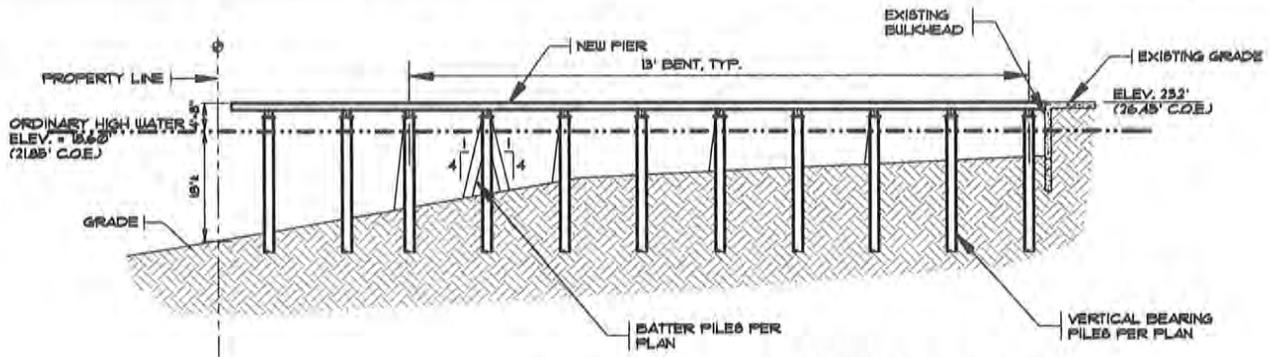
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KEY	
---**---	LAKE UNION LAKE BED ELEVATION FROM CHADWICK & WINTERS TOPOGRAPHIC SURVEY - DATUM NAVD88
---	EXISTING BULKHEAD
XX	PROPERTY LINE
o	VERTICAL BEARING PILE
o	FENDER PILE
o	GUIDE PILE
o	BATTER PILE

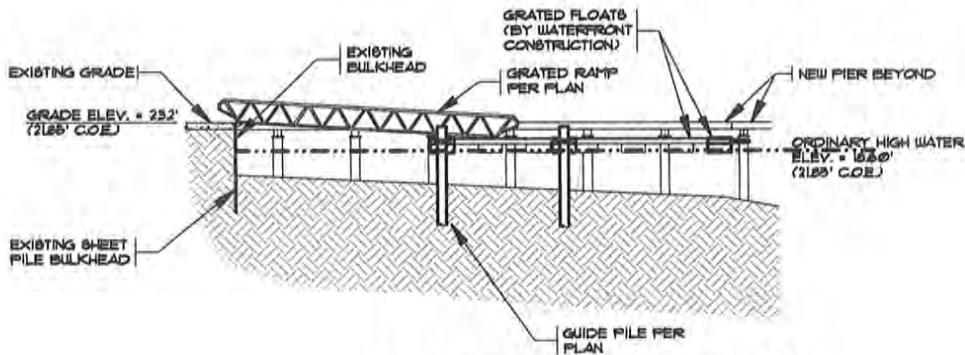
USACE Ref #: NWS-2015-478

APPLICANT:	O'HARA CORPORATION	
PROJECT:	O'HARA CORP. PIER REPLACEMENT AND FLOAT CONST.	
PROPOSED:	REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS	
SITE ADDRESS:	4315 11TH AVE N.W. SEATTLE, WA 98107 COUNTY: KING IN: SALMON BAY / SHIP CANAL	
JOB NO.:	13165.00	DATE: 23 MARCH, 2015
PAGE:	6	OF: 7

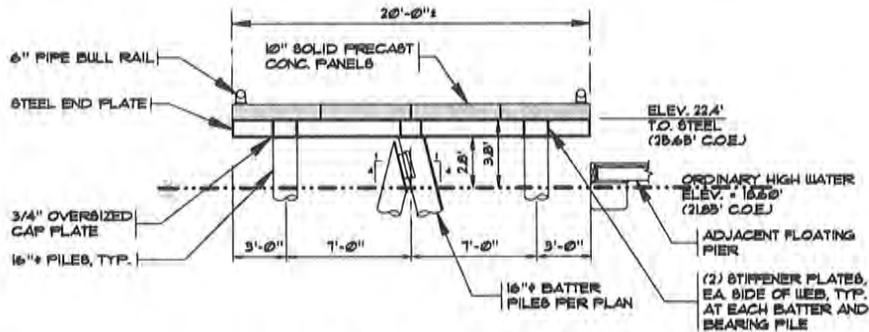


PIER ELEVATION 1

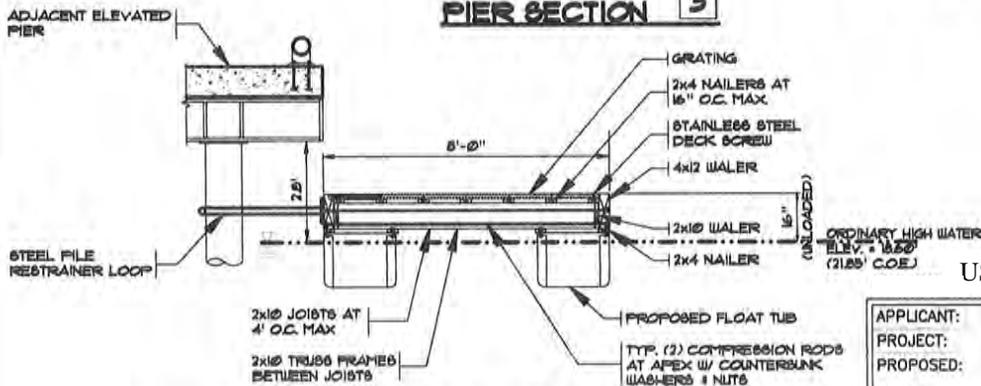
NOTE:
FENDER PILES NOT SHOWN FOR CLARITY



FLOAT PIER ELEVATION 2



PIER SECTION 3



FLOAT PIER SECTION 4

NOTE:
THIS SECTION IS PROPRIETARY PROPERTY OF WATERFRONT CONSTRUCTION INC., AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF WATERFRONT CONSTRUCTION INC.

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