



US Army Corps  
of Engineers  
Seattle District



WASHINGTON STATE  
DEPARTMENT OF  
ECOLOGY

# 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) 764-3482  
ATTN: Jordan Bunch,  
Project Manager

### WA Department of Ecology

SEA Program  
Post Office Box 47600  
Olympia, WA 98504-7600  
Telephone: (360) 407-6076  
ATTN: SEA Program,  
Federal Permit Coordinator

**Public Notice Date:** May 28, 2020

**Expiration Date:** June 27, 2020

**Reference No.:** NWS-2020-145

**Name:** Vigor Shipyards, Inc.

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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 February 2020.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

The Corps will also review the work in accordance with Section 14 of the Rivers and Harbors Act of 1899, as codified at 33 U.S.C. Section 408 (Section 408), for work that may alter a Corps civil works project. An alteration is defined as any action that builds upon, alters, improves, moves, occupies or otherwise affects the usefulness, or the structural or ecological integrity of a Corps federally authorized project. The proposed project may alter the West Waterway Deepening Project.

**APPLICANT:** Vigor Shipyards, Inc.  
Attention: Johnathan Cook  
1801 16<sup>th</sup> Avenue Southwest  
Seattle, Washington 98134  
Telephone: (206) 623-1635

**AGENT:** Floyd Snider  
Attention: Erin Murray  
601 Union Street, Suite 600  
Seattle, Washington 98101  
Telephone: (206) 292-2078

**LOCATION:** In the Duwamish Waterway at 1801 16<sup>th</sup> Avenue Southwest in Seattle, Washington.

**WORK:** The applicant proposes to improve 2.7 acres of subtidal, intertidal, and riparian habitat in an industrially zoned but ecologically important area. The project would reconfigure and improve stormwater conveyance and discharge by cutting, capping, and abandoning (15) existing stormwater outfalls and constructing a new

## **NWS-2020-145, Vigor Shipyards, Inc.**

aboveground stormwater treatment system within the project area. The project would remove a net of 67,000 square feet (SF) of existing overwater, 5,000 creosote-treated piles, and other in-water structures. Portions of existing piers would be reconfigured and reconstructed. The project would also dredge up to 7,000 cubic yards (CY) of contaminated sediment, and 40,000 CY of clean sediment to support in-water habitat creation and for final cleanup of previously capped contaminated sediments. An extra 22,000 CY of excavated clean material from the uplands would also be used for in-water habitat creation. Up to 17,000 CY of habitat substrates, consisting of a range of imported gravel and soil mixtures, based on the location in the habitat, would be placed within the habitat area. Up to 5,000 CY of imported planting soil would be placed within a planted riparian buffer. Earthwork and planting in the project area would be completed and followed-up with maintenance and monitoring through adaptive management actions, as necessary, for 10 years post-construction. A debris barrier consisting of a row of (24) solid composite plastic piles up to 16-inch in diameter would be installed across the West Waterway channel opening to protect the habitat area from damage by large floating debris while providing unimpeded fish passage. The completed habitat area would be protected in perpetuity through establishment of a Washington Department of Natural Resources (DNR) Conservation Easement.

PURPOSE: Create new in-water habitat for juvenile salmonids at the confluence of the Duwamish Waterway and Elliot Bay as a condition of a Natural Resource Damage (NRD) settlement.

### DREDGED MATERIAL MANAGEMENT PROGRAM (DMMP):

Dredged Material Testing: The proposed dredged material has been evaluated under the terms of a National Resource Damages (NRD) settlement and overseen by Trustees including NOAA, EPA, Ecology, the Muckleshoot Indian Tribe, and the Suquamish Tribe. For this project, the Trustees determined that 40,000 cubic yards were suitable for beneficial use as fill for the in-water constructed habitat area. Another 7,000 cubic yards were found unsuitable for open-water disposal. After mechanical removal, this unsuitable material will be loaded onto trucks and transported to an upland disposal area approved by the Washington State Department of Ecology and the King County Department of Health.

Dredging Plan: A dredging plan, sufficient to adequately separate contaminated material from sediments suitable for open-water disposal, will be prepared by the applicant and submitted to the Trustees and regulatory agencies for review prior to dredging. A pre-dredging conference will be held to review quality control plans and procedures for material separation.

ADDITIONAL INFORMATION: The high tide line shown on the project drawings have not yet been verified by the Corps. If the Corps determines the boundaries of the waters are substantially inaccurate a new public notice may be published.

MITIGATION: No mitigation has been proposed for this activity.

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 (USFWS) 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 Corps 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.

## **NWS-2020-145, Vigor Shipyards, Inc.**

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. A historic properties investigation has been conducted within the permit area. No historic properties determined eligible for or listed on the National Register of Historic Places were found to exist within the permit 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 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.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

**SOURCE OF FILL MATERIAL:** The source of the fill material will be clean dredged sediment and excavated material, riprap, and habitat mix sourced from dredging the basin between Pier 1 and Pier 3, including dredging the slope below Pier 2P. No contaminated sediments would be disposed of in-water.

**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

**NWS-2020-145, Vigor Shipyards, Inc.**

deny a Section 401 Water Quality Certification and /or Coastal Zone Management consistency for the proposed project.

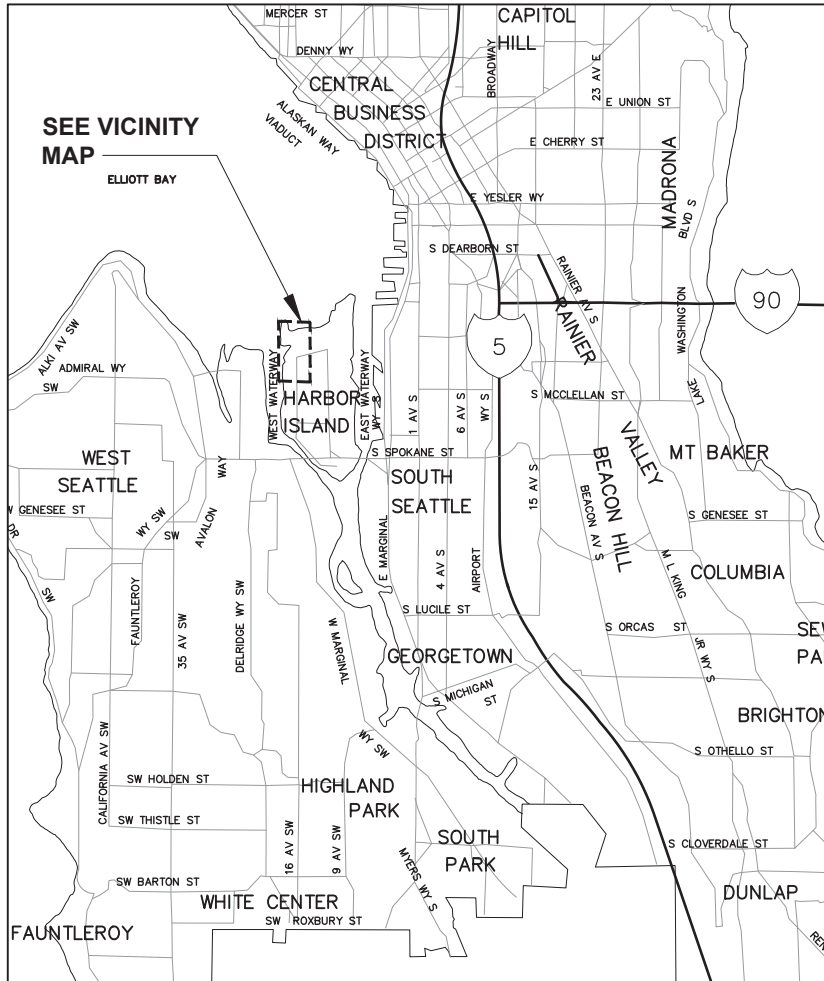
COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from 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 [jordan.a.bunch@usace.army.mil](mailto:jordan.a.bunch@usace.army.mil). Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Jordan Bunch, 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](mailto:ecyrefedpermits@ecy.wa.gov).

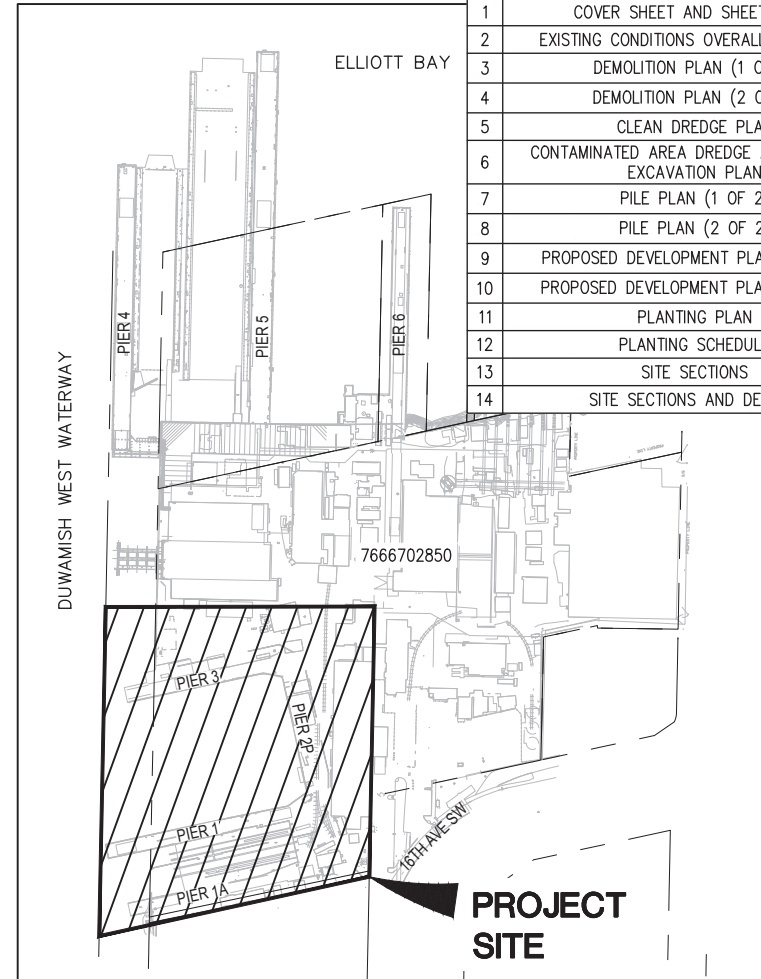
To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Vigor Shipyards, LLC; NWS-2020-145

Encl: Figures (14)



## LOCATION MAP

SCALE: NTS



### VICINITY MAP

SCALE: 1"=500'



## SHEET INDEX

1	COVER SHEET AND SHEET INDEX
2	EXISTING CONDITIONS OVERALL SITE PLAN
3	DEMOLITION PLAN (1 OF 2)
4	DEMOLITION PLAN (2 OF 2)
5	CLEAN DREDGE PLAN
6	CONTAMINATED AREA DREDGE AND HABITAT EXCAVATION PLAN
7	PILE PLAN (1 OF 2)
8	PILE PLAN (2 OF 2)
9	PROPOSED DEVELOPMENT PLAN (1 OF 2)
10	PROPOSED DEVELOPMENT PLAN (2 OF 2)
11	PLANTING PLAN
12	PLANTING SCHEDULE
13	SITE SECTIONS
14	SITE SECTIONS AND DETAILS

**IN:** ELLIOTT BAY, PUGET SOUND

**AT:** 1801 16TH AVENUE SW

**CITY:** SEATTLE

**COUNTY:** KING

STATE: WASHINGTON

**PARCEL #:** 7666702850

**APPLICATION BY:** VIGOR SHIPYARDS

**DATUM:** MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

**SECTION: 7 AND 12**

**TOWNSHIP:** 24N

**RANGE:** 4E AND 3E

**LAT:** 47° 35' 15" N

**LONG:** 122° 21' 26" W

**VIGOR SHIPYARDS  
NRD SETTLEMENT SW YARD PROJECT**

**TITLE:**  
COVER SHEET AND  
SHEET INDEX

**DATE:** FEBRUARY 2020

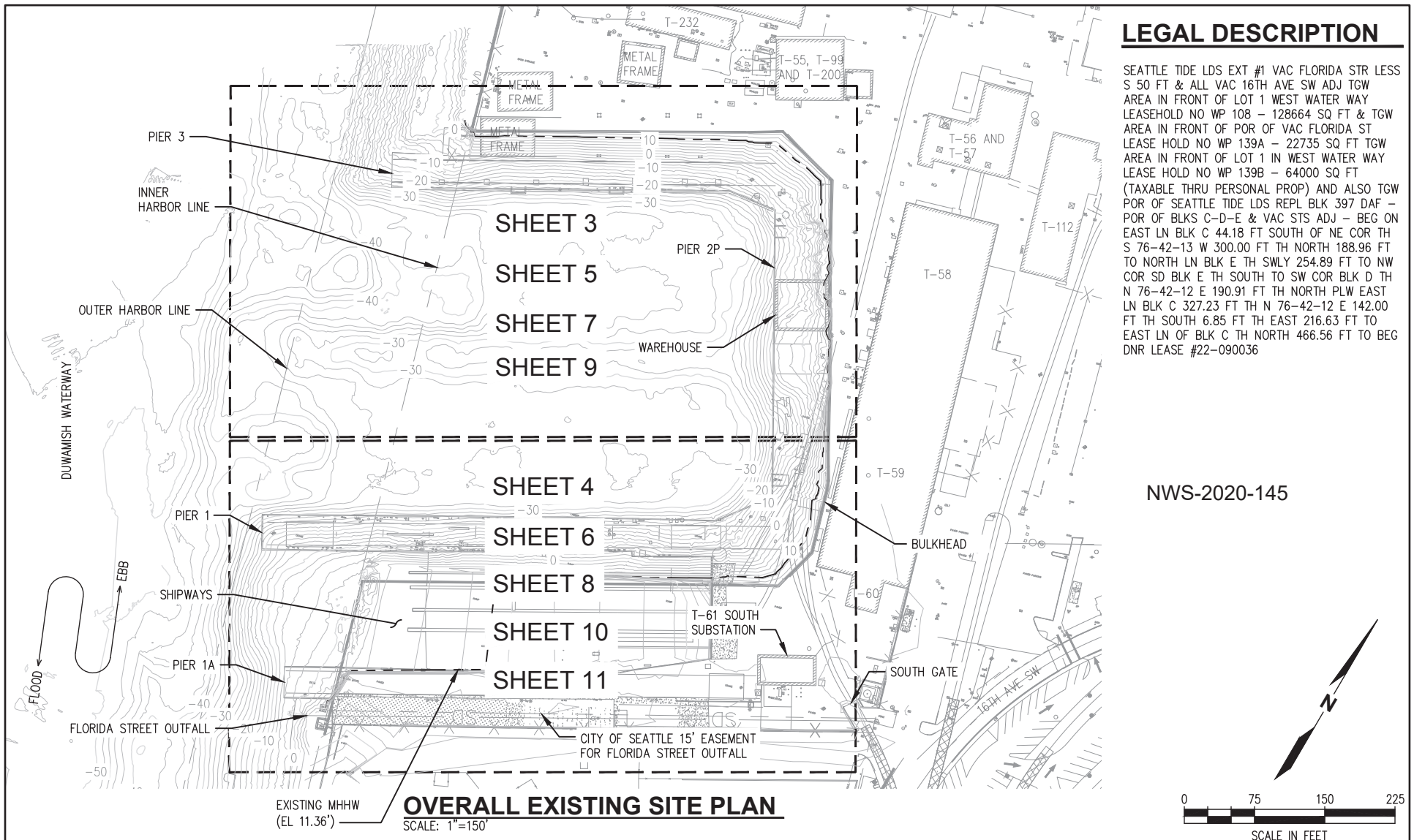
REVISION DATE:

**SHEET: 1 OF 14**

**LEGAL DESCRIPTION**

SEATTLE TIDE LDS EXT #1 VAC FLORIDA STR LESS S 50 FT & ALL VAC 16TH AVE SW ADJ TGW AREA IN FRONT OF LOT 1 WEST WATER WAY LEASEHOLD NO WP 108 - 128664 SQ FT & TGW AREA IN FRONT OF POR OF VAC FLORIDA ST LEASE HOLD NO WP 139A - 22735 SQ FT TGW AREA IN FRONT OF LOT 1 IN WEST WATER WAY LEASE HOLD NO WP 139B - 64000 SQ FT (TAXABLE THRU PERSONAL PROP) AND ALSO TGW POR OF SEATTLE TIDE LDS REPL BLK 397 DAF - POR OF BLKS C-D-E & VAC STS ADJ - BEG ON EAST LN BLK C 44.18 FT SOUTH OF NE COR TH S 76-42-13 W 300.00 FT TH NORTH 188.96 FT TO NORTH LN BLK E TH SWLY 254.89 FT TO NW COR SD BLK E TH SOUTH TO SW COR BLK D TH N 76-42-12 E 190.91 FT TH NORTH PLW EAST LN BLK C 327.23 FT TH N 76-42-12 E 142.00 FT TH SOUTH 6.85 FT TH EAST 216.63 FT TO EAST LN OF BLK C TH NORTH 466.56 FT TO BEG DNR LEASE #22-090036

NWS-2020-145

**IN:** ELLIOTT BAY, PUGET SOUND**AT:** 1801 16TH AVENUE SW**CITY:** SEATTLE**COUNTY:** KING**STATE:** WASHINGTON**PARCEL #:** 7666702850**APPLICATION BY:** VIGOR SHIPYARDS**DATUM:** MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUYAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

**SECTION:** 7 AND 12**TOWNSHIP:** 24N**RANGE:** 4E AND 3E**LAT:** 47° 35' 15" N**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
EXISTING CONDITIONS  
OVERALL SITE PLAN

**DATE:** FEBRUARY 2020**REVISION DATE:****SHEET:** 2 OF 14



## LEGEND








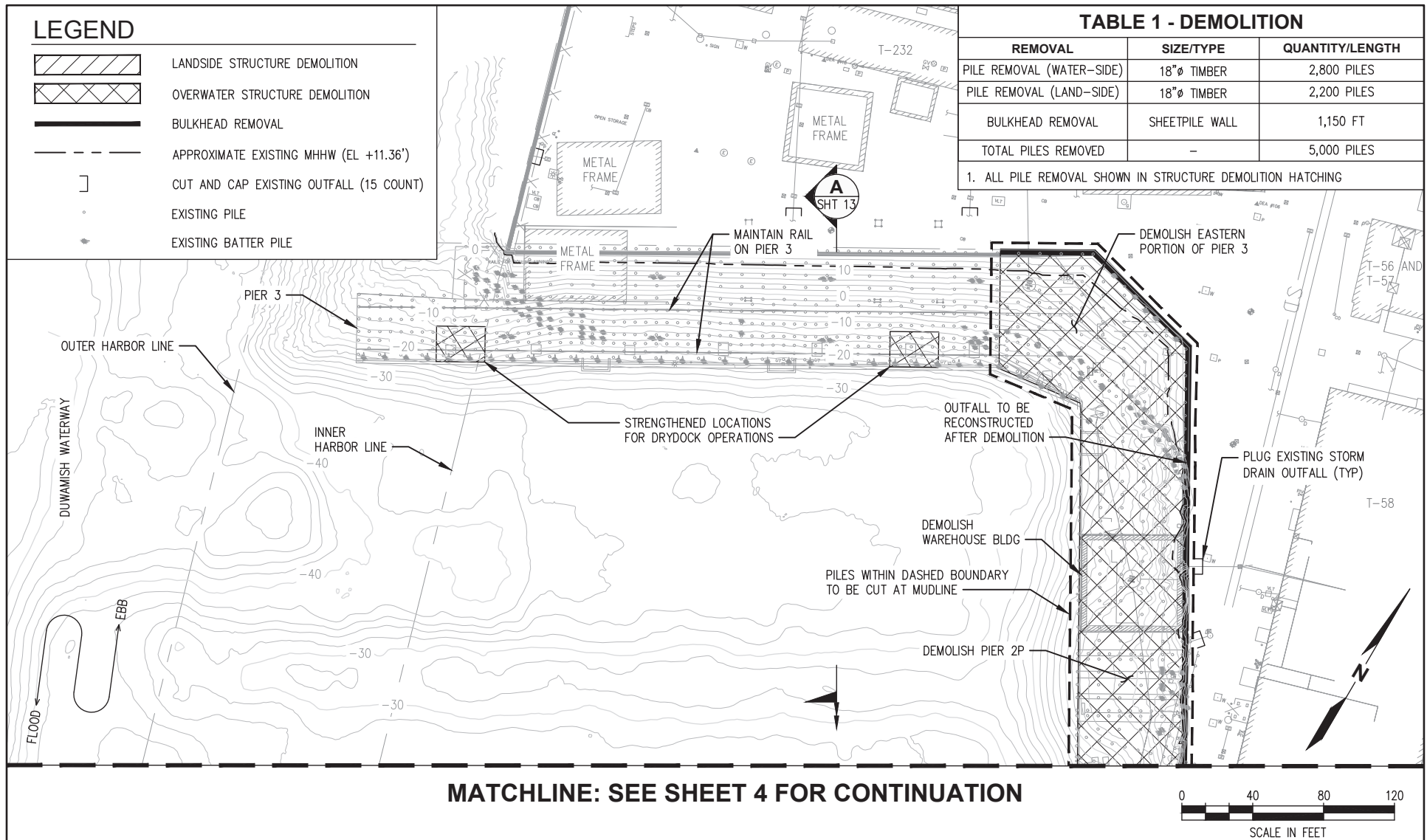
	LANDSIDE STRUCTURE DEMOLITION
	OVERWATER STRUCTURE DEMOLITION
	BULKHEAD REMOVAL
	APPROXIMATE EXISTING MHHW (EL +11.36')
	CUT AND CAP EXISTING OUTFALL (15 COUNT)
	EXISTING PILE
	EXISTING BATTER PILE

TABLE 1 - DEMOLITION

REMOVAL	SIZE/TYPE	QUANTITY/LENGTH
PILE REMOVAL (WATER-SIDE)	18"Ø TIMBER	2,800 PILES
PILE REMOVAL (LAND-SIDE)	18"Ø TIMBER	2,200 PILES
BULKHEAD REMOVAL	SHEETPILE WALL	1,150 FT
TOTAL PILES REMOVED	-	5,000 PILES

1. ALL PILE REMOVAL SHOWN IN STRUCTURE DEMOLITION HATCHING

**IN:** ELLIOTT BAY, PUGET SOUND**AT:** 1801 16TH AVENUE SW**CITY:** SEATTLE**COUNTY:** KING**STATE:** WASHINGTON**PARCEL #:** 7666702850**APPLICATION BY:** VIGOR SHIPYARDS**DATUM:** MLLW = 0.00'**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.**SECTION:** 7 AND 12**TOWNSHIP:** 24N**LAT:** 47° 35' 15" N**RANGE:** 4E AND 3E**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
DEMOLITION PLAN  
(1 OF 2)

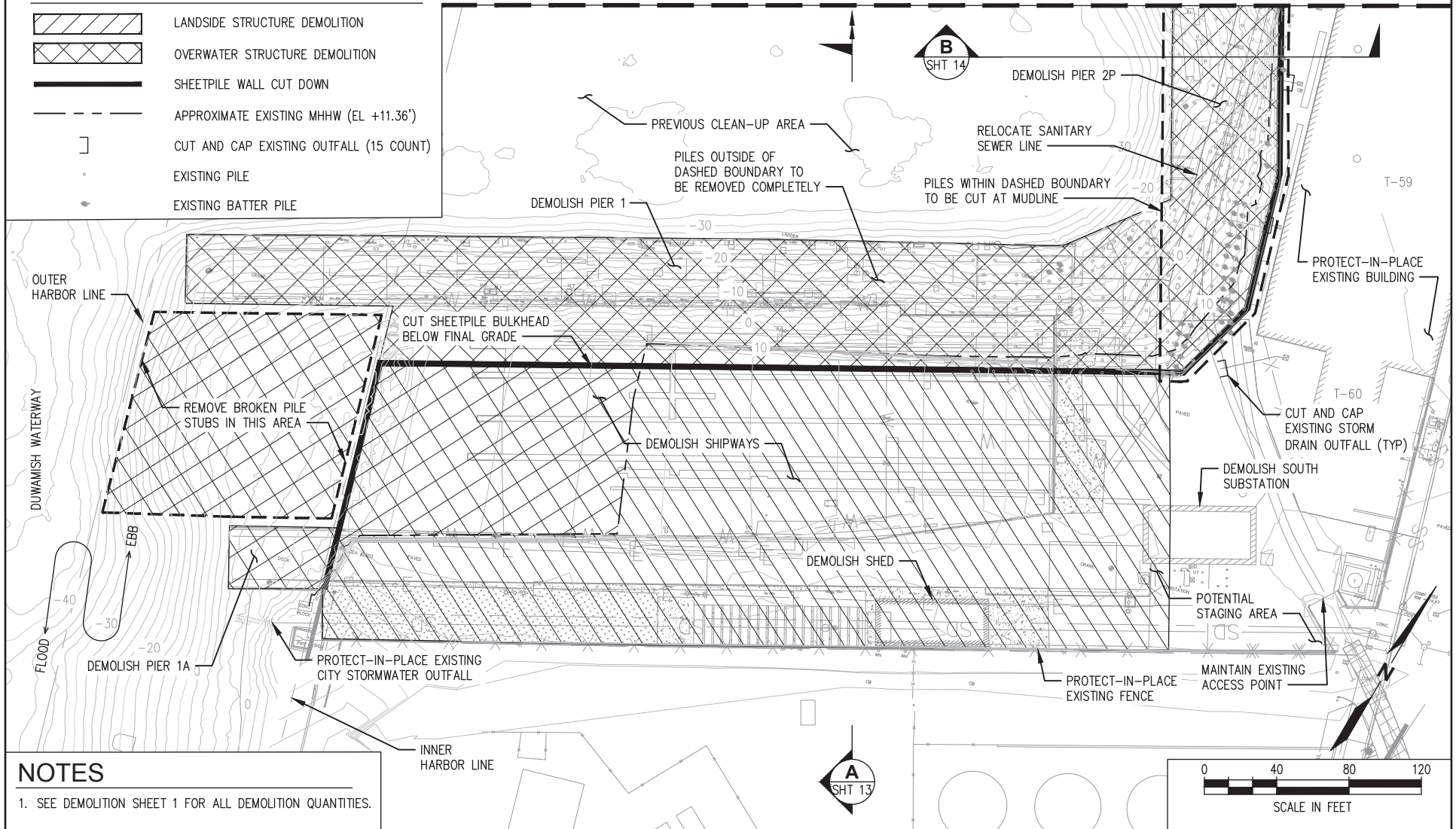
**DATE:** FEBRUARY 2020**REVISION DATE:****SHEET:** 3 OF 14

# NWS-2020-145

## LEGEND

	LANDSIDE STRUCTURE DEMOLITION
	OVERWATER STRUCTURE DEMOLITION
	SHEETPILE WALL CUT DOWN
	APPROXIMATE EXISTING MHHW (EL +11.36')
	CUT AND CAP EXISTING OUTFALL (15 COUNT)
	EXISTING PILE
	EXISTING BATTER PILE

MATCHLINE: SEE SHEET 3 FOR CONTINUATION



## NOTES

1. SEE DEMOLITION SHEET 1 FOR ALL DEMOLITION QUANTITIES.

**IN:** ELLIOTT BAY, PUGET SOUND

**AT:** 1801 16TH AVENUE SW

**CITY:** SEATTLE

**COUNTY:** KING

**STATE:** WASHINGTON

**PARCEL #:** 7666702850

**APPLICATION BY:** VIGOR SHIPYARDS

**DATUM:** MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

**SECTION:** 7 AND 12

**TOWNSHIP:** 24N

**RANGE:** 4E AND 3E

**LAT:** 47° 35' 15" N

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## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**

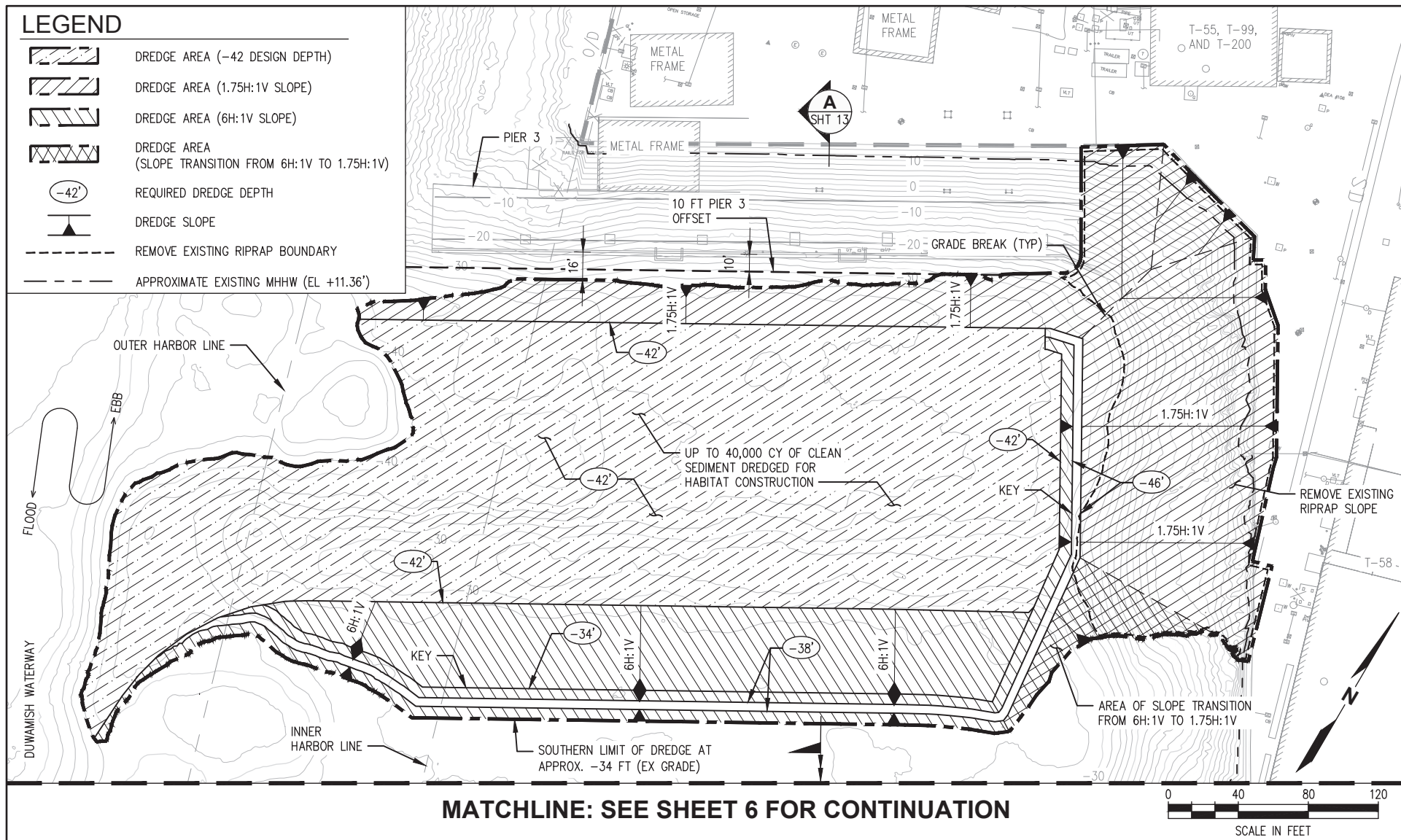
DEMOLITION PLAN  
(2 OF 2)

**DATE:** FEBRUARY 2020

**REVISION DATE:**

**SHEET:** 4 OF 14





**IN:** ELLIOTT BAY, PUGET SOUND

**AT:** 1801 16TH AVENUE SW

**CITY:** SEATTLE

**COUNTY:** KING

**STATE:** WASHINGTON

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**SECTION:** 7 AND 12

**TOWNSHIP:** 24N

**RANGE:** 4E AND 3E

**LAT:** 47° 35' 15" N

**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
CLEAN DREDGE PLAN

**DATE:** FEBRUARY 2020

**REVISION DATE:**

**SHEET:** 5 OF 14

MATCHLINE: SEE SHEET 5 FOR CONTINUATION

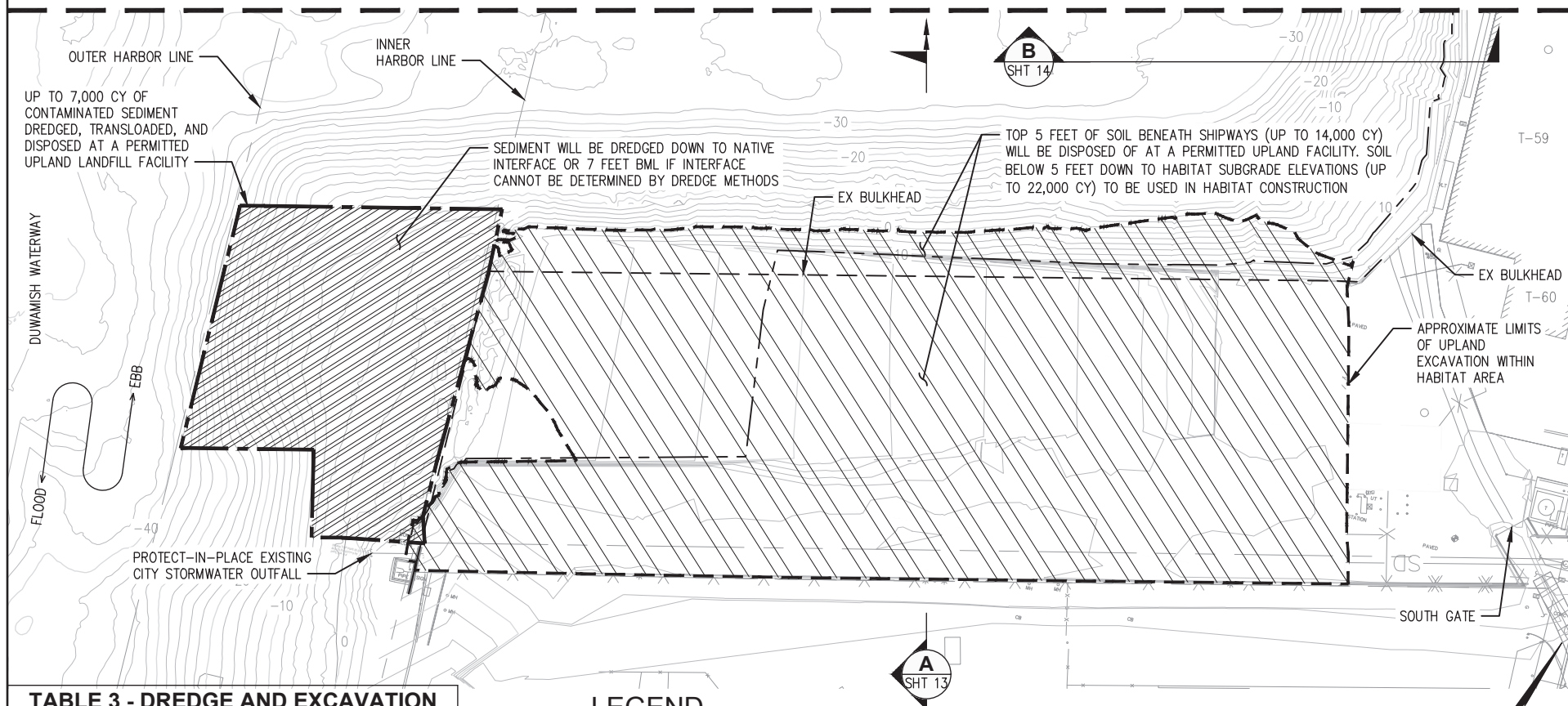


TABLE 3 - DREDGE AND EXCAVATION

REMOVAL	QUANTITY
CONTAMINATED SEDIMENT DREDGE (7' BELOW MUDLINE, SEE NOTE 1)	7,000 CY
CONTAMINATED SOIL EXCAVATION - TOP 5'	14,000 CY
CLEAN SOIL EXCAVATION - DEPTH VARIES	22,000 CY

1. VOLUMES ARE APPROXIMATE AND INCLUDE 1-FOOT OVERDREDGE ALLOWANCE

## LEGEND

- CONTAMINATED SEDIMENT DREDGE AREA (TOP 7'+1')
- CONTAMINATED EXCAVATION WITHIN HABITAT AREA (TOP 5')  
- ADDITIONAL EXCAVATION BELOW CONTAMINATES REQUIRED
- DREDGE SLOPE
- APPROXIMATE EXISTING MHHW (EL +11.36')

**IN:** ELLIOTT BAY, PUGET SOUND**AT:** 1801 16TH AVENUE SW**CITY:** SEATTLE**COUNTY:** KING**STATE:** WASHINGTON**PARCEL #:** 7666702850**APPLICATION BY:** VIGOR SHIPYARDS**DATUM:** MLLW = 0.00'**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.**SECTION:** 7 AND 12**TOWNSHIP:** 24N**RANGE:** 4E AND 3E**LAT:** 47° 35' 15" N**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
CONTAMINATED AREA  
DREDGE AND HABITAT  
EXCAVATION PLAN

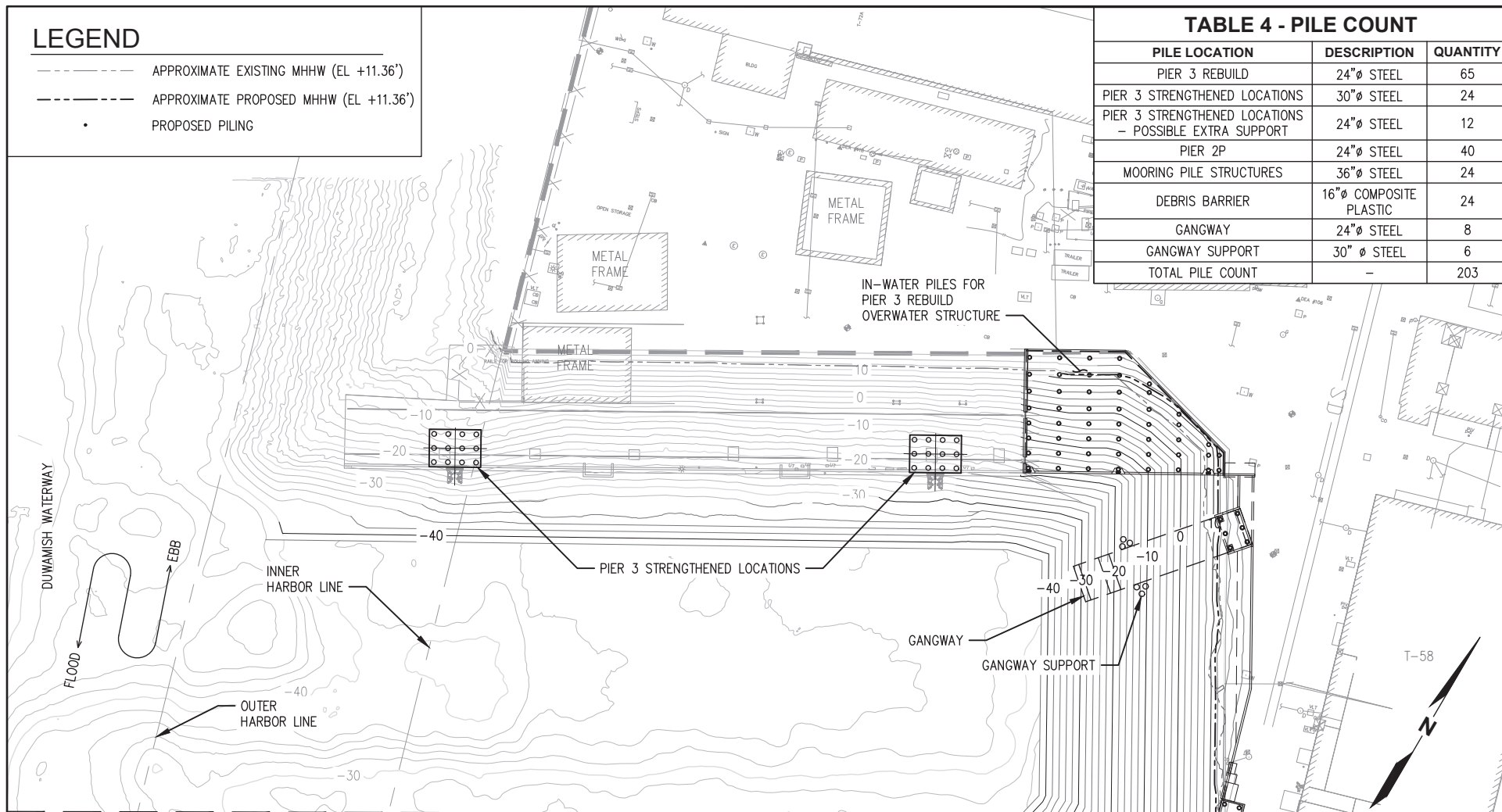
**DATE:** FEBRUARY 2020**REVISION DATE:****SHEET:** 6 OF 14

**LEGEND**

- APPROXIMATE EXISTING MHHW (EL +11.36')  
 ----- APPROXIMATE PROPOSED MHHW (EL +11.36')  
 • PROPOSED PILING

**TABLE 4 - PILE COUNT**

PILE LOCATION	DESCRIPTION	QUANTITY
PIER 3 REBUILD	24"Ø STEEL	65
PIER 3 STRENGTHENED LOCATIONS	30"Ø STEEL	24
PIER 3 STRENGTHENED LOCATIONS - POSSIBLE EXTRA SUPPORT	24"Ø STEEL	12
PIER 2P	24"Ø STEEL	40
MOORING PILE STRUCTURES	36"Ø STEEL	24
DEBRIS BARRIER	16"Ø COMPOSITE PLASTIC	24
GANGWAY	24"Ø STEEL	8
GANGWAY SUPPORT	30" Ø STEEL	6
TOTAL PILE COUNT	-	203

**MATCHLINE: SEE SHEET 8 FOR CONTINUATION****IN:** ELLIOTT BAY, PUGET SOUND**AT:** 1801 16TH AVENUE SW**CITY:** SEATTLE**COUNTY:** KING**STATE:** WASHINGTON**PARCEL #:** 7666702850**APPLICATION BY:** VIGOR SHIPYARDS**DATUM:** MLLW = 0.00'**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.**SECTION:** 7 AND 12**TOWNSHIP:** 24N**RANGE:** 4E AND 3E**LAT:** 47° 35' 15" N**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**

PILE PLAN  
(1 OF 2)

**DATE:** FEBRUARY 2020**REVISION DATE:****SHEET:** 7 OF 14

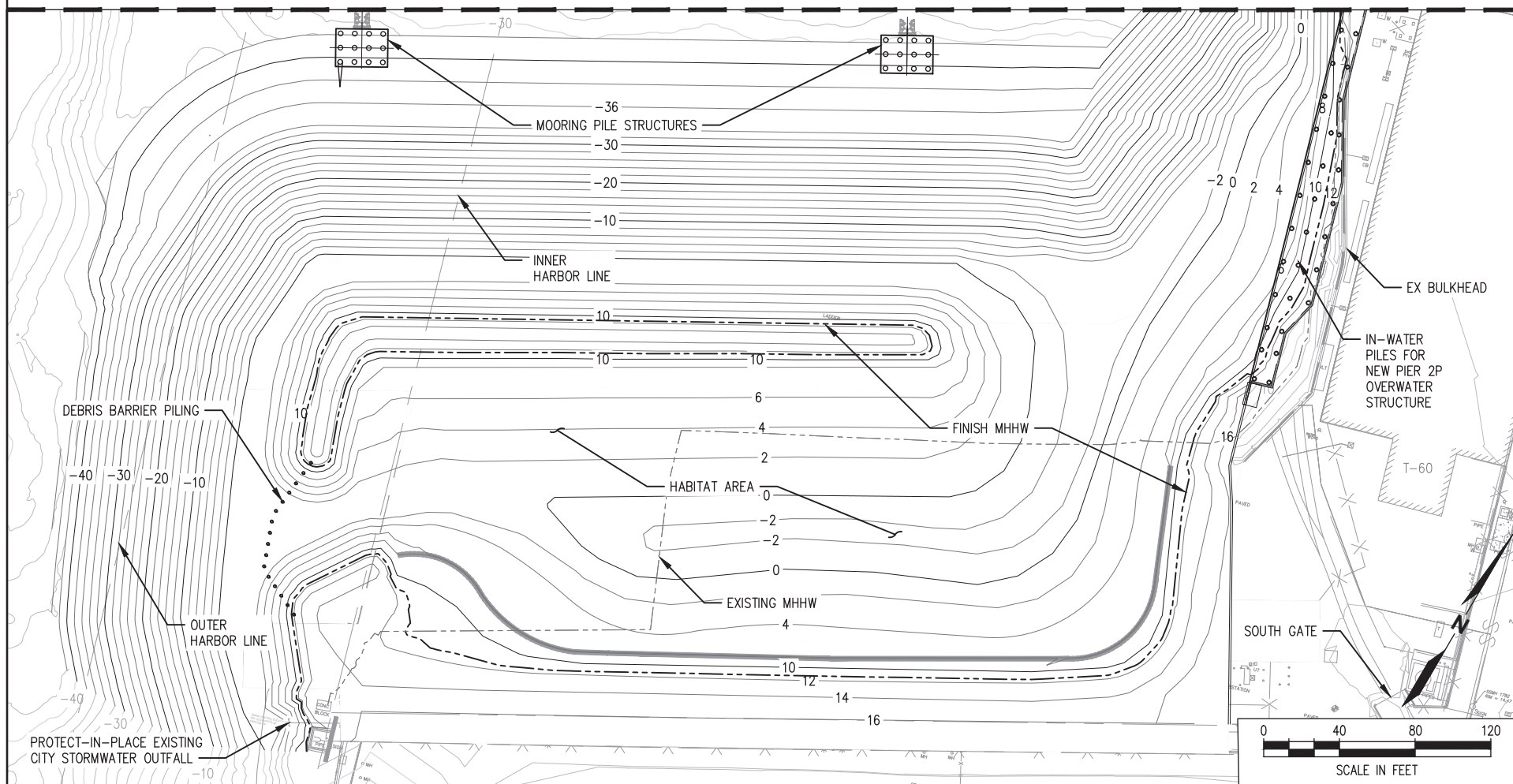


**LEGEND**

- APPROXIMATE EXISTING MHHW (EL +11.36')
- APPROXIMATE PROPOSED MHHW (EL +11.36')
- PROPOSED PILING

**MATCHLINE: SEE SHEET 7 FOR CONTINUATION****NOTES**

1. SEE TABLE 4 ON SHEET 7 FOR ALL PROPOSED PILE COUNTS

**IN:** ELLIOTT BAY, PUGET SOUND**AT:** 1801 16TH AVENUE SW**CITY:** SEATTLE**COUNTY:** KING**STATE:** WASHINGTON**PARCEL #:** 7666702850**APPLICATION BY:** VIGOR SHIPYARDS**DATUM:** MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

**SECTION:** 7 AND 12**TOWNSHIP:** 24N**RANGE:** 4E AND 3E**LAT:** 47° 35' 15" N**LONG:** 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**

PILE PLAN  
(2 OF 2)

**DATE:** FEBRUARY 2020**REVISION DATE:****SHEET:** 8 OF 14

## LEGEND







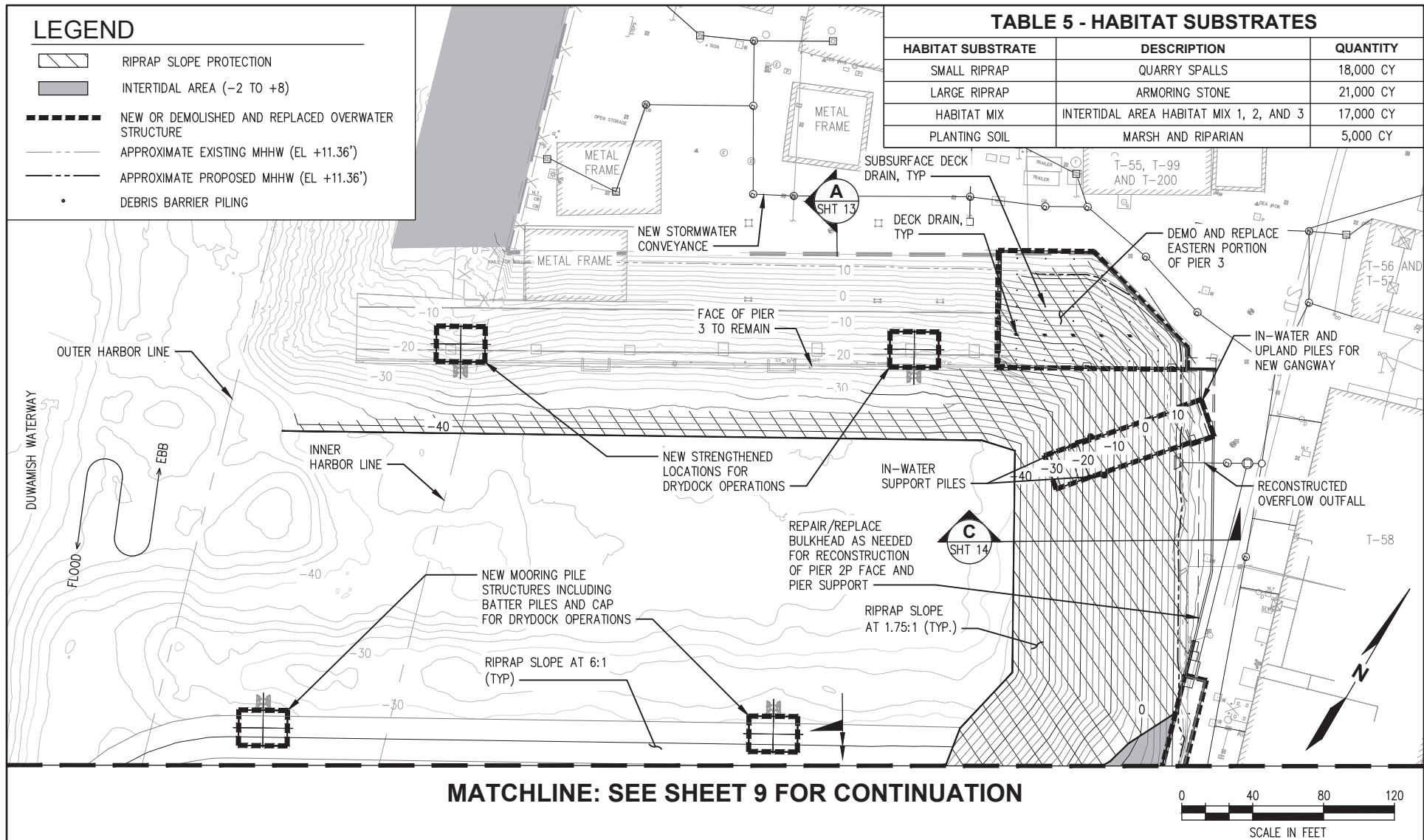
-  RIPRAP SLOPE PROTECTION  
 INTERTIDAL AREA (-2 TO +8)  
 NEW OR DEMOLISHED AND REPLACED OVERWATER STRUCTURE  
 APPROXIMATE EXISTING MHHW (EL +11.36')  
 APPROXIMATE PROPOSED MHHW (EL +11.36')  
 DEBRIS BARRIER PILING

TABLE 5 - HABITAT SUBSTRATES

HABITAT SUBSTRATE	DESCRIPTION	QUANTITY
SMALL RIPRAP	QUARRY SPALLS	18,000 CY
LARGE RIPRAP	ARMORING STONE	21,000 CY
HABITAT MIX	INTERTIDAL AREA HABITAT MIX 1, 2, AND 3	17,000 CY
PLANTING SOIL	MARSH AND RIPARIAN	5,000 CY



IN: ELLIOTT BAY, PUGET SOUND

AT: 1801 16TH AVENUE SW

CITY: SEATTLE

COUNTY: KING

STATE: WASHINGTON

PARCEL #: 7666702850

APPLICATION BY: VIGOR SHIPYARDS

DATUM: MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

SECTION: 7 AND 12

TOWNSHIP: 24N

RANGE: 4E AND 3E

LAT: 47° 35' 15" N

LONG: 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
PROPOSED  
DEVELOPMENT PLAN  
(1 OF 2)

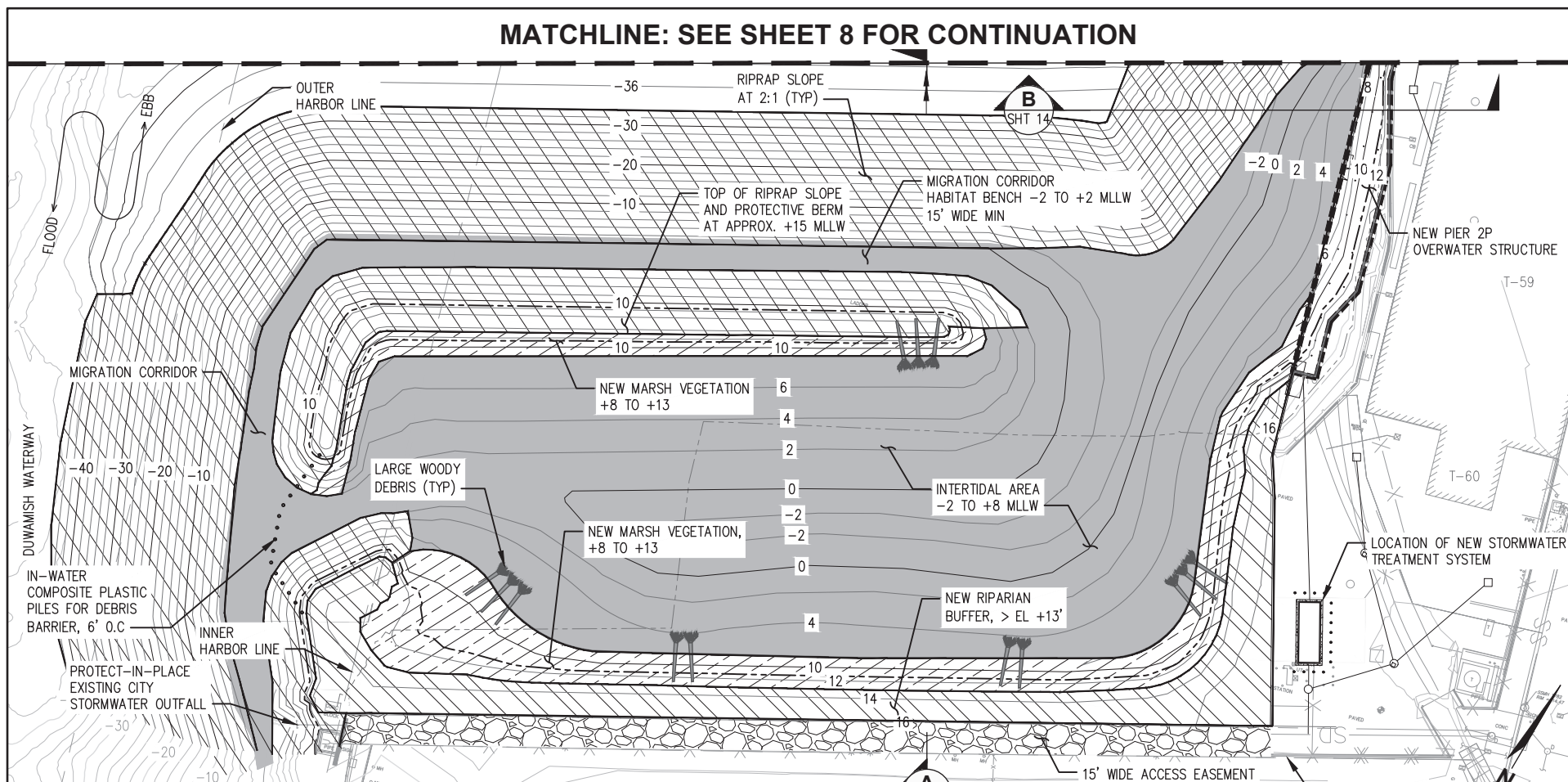
DATE: FEBRUARY 2020

REVISION DATE:

SHEET: 9 OF 14



MATCHLINE: SEE SHEET 8 FOR CONTINUATION



## LEGEND

- RIPRAP SLOPE PROTECTION  
 INTERTIDAL AREA (-2 TO +8)  
 NEW MARSH VEGETATION (+8' TO +13')  
 NEW RIPARIAN BUFFER (> +13')  
 GRAVEL MAINTENANCE ACCESS
- NEW OR DEMOLISHED AND REPLACED OVERWATER STRUCTURE  
 APPROXIMATE EXISTING MHHW (EL +11.36')  
 APPROXIMATE PROPOSED MHHW (EL +11.36')  
 DEBRIS BARRIER PILING

## NOTES

- SEE TABLE 5 ON SHEET 9 FOR HABITAT SUBSTRATE QUANTITIES.



IN: ELLIOTT BAY, PUGET SOUND

AT: 1801 16TH AVENUE SW

CITY: SEATTLE

COUNTY: KING

STATE: WASHINGTON

PARCEL #: 7666702850

APPLICATION BY: VIGOR SHIPYARDS

DATUM: MLLW = 0.00'

**PURPOSE:** CREATE NEW IN-WATER HABITAT FOR JUVENILE SALMONIDS WHERE THE LOWER DUWAMISH RIVER MEETS ELLIOTT BAY AS A CONDITION OF A NRD SETTLEMENT.

SECTION: 7 AND 12

TOWNSHIP: 24N

LAT: 47° 35' 15" N

RANGE: 4E AND 3E

LONG: 122° 21' 26" W

## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

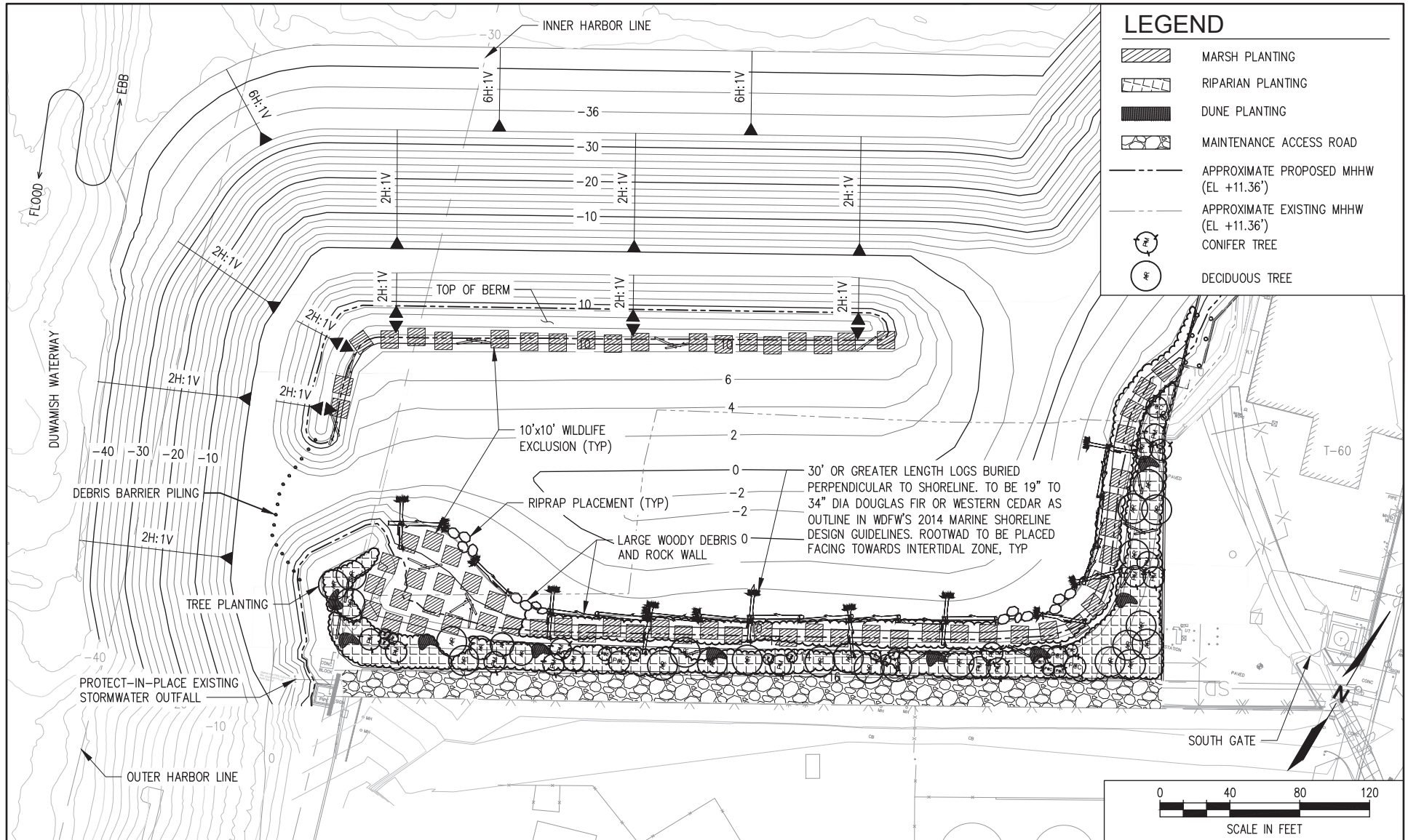
**TITLE:**  
PROPOSED  
DEVELOPMENT PLAN  
(2 OF 2)

DATE: FEBRUARY 2020

REVISION DATE:

SHEET: 10 OF 14

# NWS-2020-145



**IN:** ELLIOTT BAY, PUGET SOUND

**AT:** 1801 16TH AVENUE SW

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**COUNTY:** KING

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**PARCEL #:** 7666702850

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**DATUM:** MLLW = 0.00'

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## VIGOR SHIPYARDS NRD SETTLEMENT SW YARD PROJECT

**TITLE:**  
PLANTING PLAN

**DATE:** FEBRUARY 2020

**REVISION DATE:**

**SHEET:** 11 OF 14



CONIFEROUS TREES						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	AG	ABIES GRANDIS	GRAND FIR	6-8'	B & B	AS SHOWN
-	PM	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6-8'	B & B / CONTAINER	AS SHOWN
-	PS	PICEA SITCHENSIS	SITKA SPRUCE	6-8'	B & B	AS SHOWN
-	PCC	PINUS CONTORTA CONTORTA	SHORE PINE	6-8'	B & B	AS SHOWN
-	TP	THUJA PLICATA	WESTERN RED CEDAR	6-8'	B & B	AS SHOWN



DECIDUOUS TREES						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	AM	ACER MACROPHYLLUM	BIG LEAF MAPLE	2-3'	B & B	AS SHOWN
-	AR	ALNUS RUBRA	RED ALDER	2-3'	B & B	AS SHOWN
-	AMP	ARBUTUS MENZIESII	MADRONE	2-3" CAL	B&B/ CONTAINER	AS SHOWN
-	CN	CORNUS NUTALLII	PACIFIC DOGWOOD	2" CAL	B&B/CONTAINER	AS SHOWN
-	CD	CRATAEGUS DOUGLASII	DOUGLAS HAWTHORN	2" CAL	B&B/ CONTAINER	AS SHOWN
-	MFM	MALUS FUSCA	OREGON CRABAPPLE	3-4"	CONTAINER	AS SHOWN
-	PT	POPULUS TRICHOCARPA	BLACK COTTONWOOD	3" CAL	B&B/ CONTAINER	AS SHOWN



LARGE SHRUBS						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	AA	AMELANCHIER ALNIFOLIA	SERVICEBERRY/SASKA TOON	5 GAL	CONTAINER	AS SHOWN
-	CSR	CORNUS SERICEA	RED TWIG DOGWOOD	2 GAL	CONTAINER	6" O.C.
-	CC	CORYLUS CORNUTA	HAZELNUT	1 GAL	CONTAINER	AS SHOWN
-	HD	HOLODISCUS DISCOLOR	OCEANSPRAY	1 GAL	CONTAINER	AS SHOWN
-	MCA	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	5 GAL	CONTAINER	AS SHOWN
-	OC	OEMLERIA CERASIFORMIS	INDIAN PLUM	1 GAL	CONTAINER	AS SHOWN
-	PC	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	1 GAL	CONTAINER	AS SHOWN
-	RS	RIBES SANGUINEUM	RED FLOWERING CURRANT	1 GAL	CONTAINER	AS SHOWN
-	SH	SALIX HOOKERIANA	HOOKER'S WILLOW	1 GAL	CONTAINER	AS SHOWN
-	SR	SAMBUCUS RACEMOSA	RED ELDERBERRY	2 GAL	ESPALIER	AS SHOWN

HERBACEOUS						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	CQ	CAMASSIA QUAMASH	COMMON CAMAS	4" POT	CONTAINER	18" O.C.
-	EM	ELYMUS MOLLIS	DUNEGRASS	4" POT	CONTAINER	18" O.C.
-	EH	EQUISETUM HYEMALE	SCOURING RUSH	4" POT	CONTAINER	18" O.C.
-	FC	FRAGARIA CHILOENSIS	COASTAL STRAWBERRY	1 GAL	CONTAINER	AS SHOWN

SMALL SHRUBS						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	AF	ATHYRIUM FELIX FEMINA	LADY FERN	1 GAL	CONTAINER	AS SHOWN
-	CSK	CORNUS SERICEA 'KELSEYI'	DWARF RED TWIG DOGWOOD	1 GAL	CONTAINER	3' O.C.
-	GS	GAULTHERIA SHALLON	SALAL	1 GAL	CONTAINER	AS SHOWN
-	MA	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	1 GAL	CONTAINER	AS SHOWN
-	MN	MAHONIA NERVOSA	LOW OREGON GRAPE	1 GAL	CONTAINER	18" O.C.
-	PM	POLYSTICHUM MUNIUM	SWORD FERN	1 GAL	CONTAINER	AS SHOWN
-	RG	ROSA GYMNOCARPA	BALDHIP ROSE	1 GAL	CONTAINER	AS SHOWN
-	RN	ROSA NUTKANA	NOOTKA ROSE	2 GAL	CONTAINER	AS SHOWN
-	SA	SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	CONTAINER	3' O.C.
-	VP	VACCINIUM PARVIFOLIUM	RED HUCKLEBERRY	4" POT	CONTAINER	AS SHOWN
-	VO	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	1 GAL	CONTAINER	AS SHOWN

HIGH SALT MARSH (ELEV. 10-13)						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	AS	ASTER SUBSPICATUS	DOUGLAS ASTER	10"	CONTAINER	24" O.C.
-	AP	ATRIPLEX PATULA	SALTWEED	10"	CONTAINER	24" O.C.
-	CM	CAREX MACROCEPHALA	LARGEHEAD SEDGE	1 GAL	CONTAINER	18" O.C.
-	DCT	DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	1 GAL	CONTAINER	AS SHOWN
-	DS	DISTICHLIS SPICATA	SALTGRASS	4" POT	CONTAINER	AS SHOWN
-	GI	GRINDELIA INTEGRIFOLIA	GUMWEED	4" POT	CONTAINER	AS SHOWN
-	JB	JUNCUS BALTICUS	BALTIC RUSH	4" POT	CONTAINER	AS SHOWN
-	JN	JUNCUS NEVADENSIS	SIERRA RUSH	4" POT	CONTAINER	18" O.C.
-	PP	POTENTILLA PACIFICA	PACIFIC SILVER WEED	1 GAL	CONTAINER	18" O.C.

LOW SALT MARSH (ELEV. 7-10)						
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	CONDITION	SPACING
-	CO	CAREX LYNGBYEI	SLOUGH SEDGE	1 GAL	CONTAINER	18" O.C.
-	CAP	COTULA CORONOPIFOLIA	BRASS BUTTONS	1 GAL	CONTAINER	18" O.C.
-	JC	JAUMEA CARNOSA	JAUMEA	4" POT	CONTAINER	0-10"
-	SC	SCIRPUS AMERICANUS	AMERICAN THREESQUARE	1 GAL	CONTAINER	18" O.C.
-	SM	SCIRPUS MARITIMUS	SALTMARSH BULRUSH	1 GAL	CONTAINER	18" O.C.
-	SA	SCIRPUS ACUTUS	HARDSTEM BULRUSH	1 GAL	CONTAINER	18" O.C.
-	SCO	SPERGULARIA CANADENSIS VAR. O	WESTERN SANDSPURRY	1 GAL	CONTAINER	18" O.C.
-	SV	SALICORNIA VIRGINICA	PICKLEWEED	1 GAL	CONTAINER	18" O.C.
-	TM	TRIGLOCHIN MARITIMUM	SEASIDE ARROWGRASS	1 GAL	CONTAINER	18" O.C.

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**APPLICATION BY:** VIGOR SHIPYARDS

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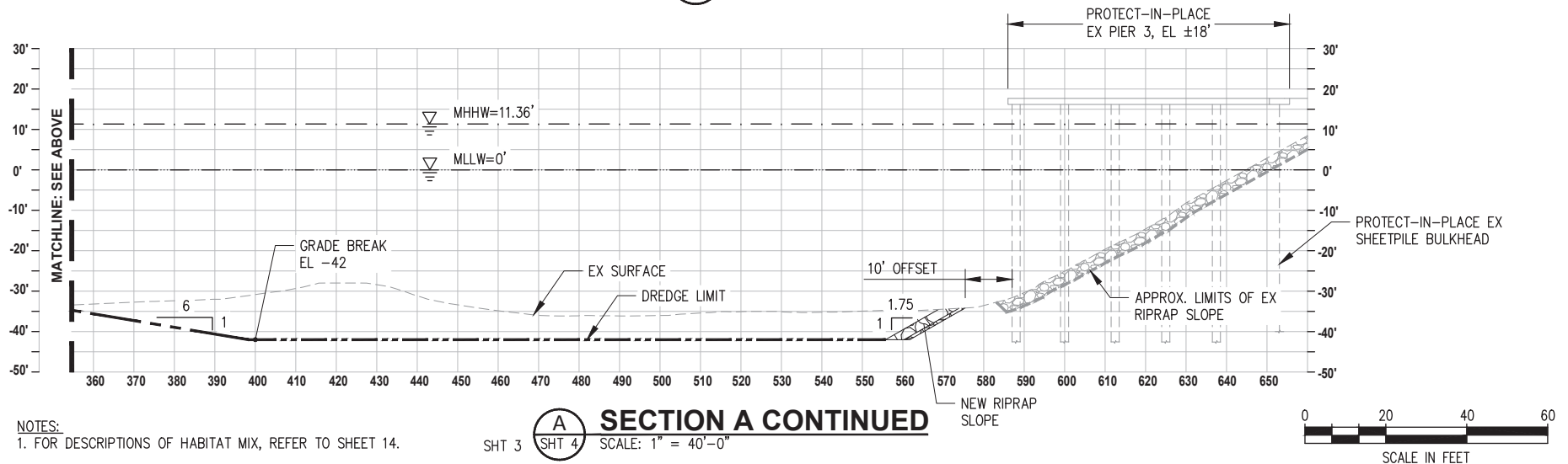
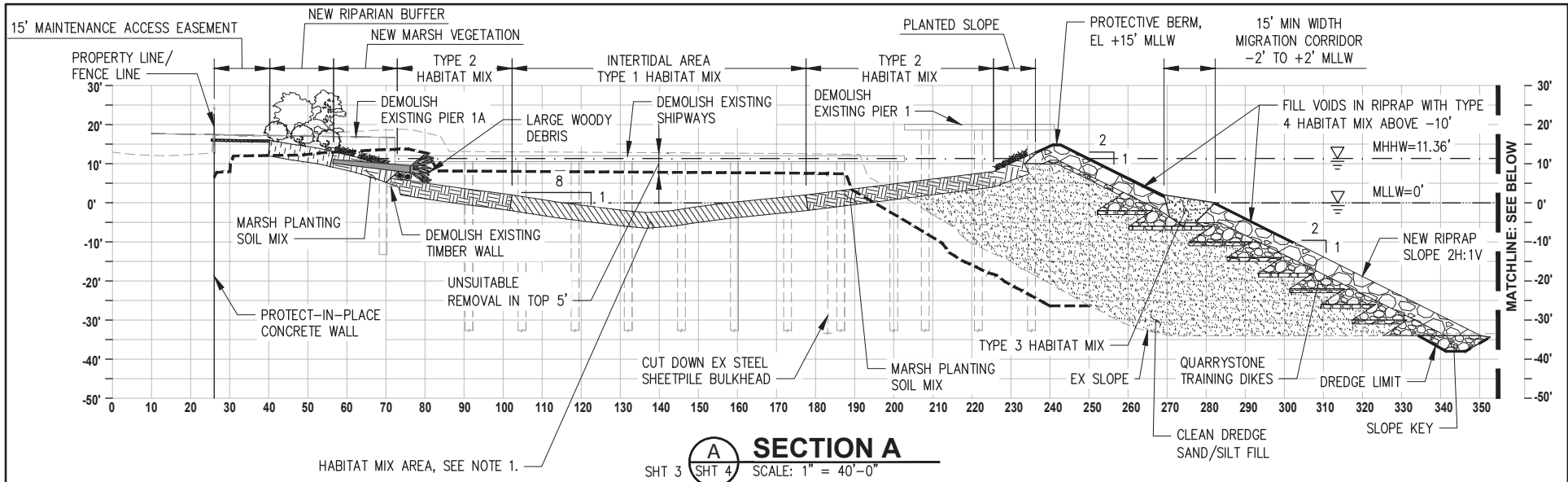
**TITLE:**  
PLANTING SCHEDULE

**DATE:** FEBRUARY 2020

**REVISION DATE:**

**SHEET:** 12 OF 14

# NWS-2020-145



**IN:** ELLIOTT BAY, PUGET SOUND

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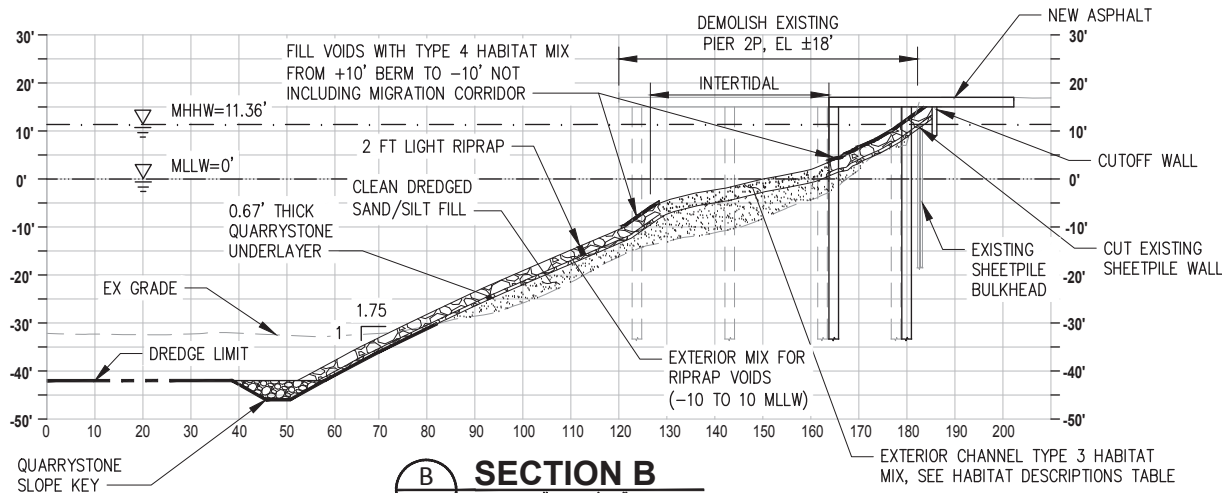
**TITLE:**  
SITE SECTIONS

**DATE:** FEBRUARY 2020

**REVISION DATE:**

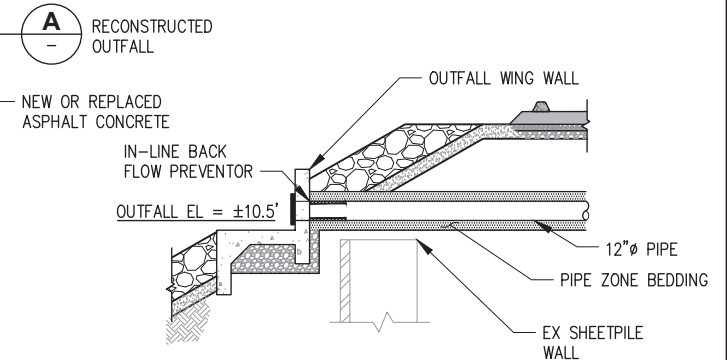
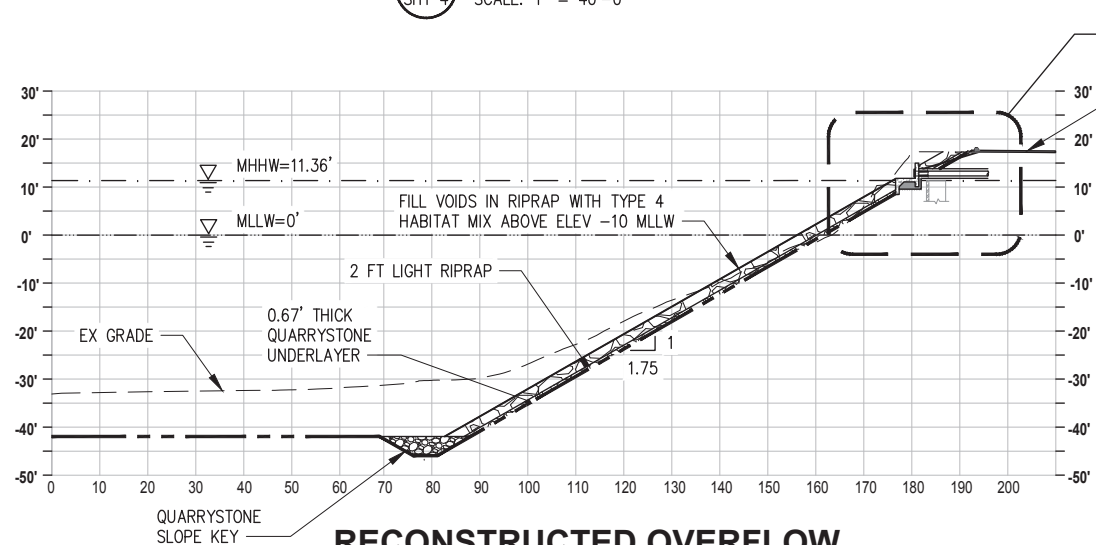
**SHEET:** 13 OF 14





### HABITAT MIX DESCRIPTIONS

TYPE 1	2-FOOT THICK LAYER OF 40% PEA GRAVEL, 60% SANDY LOAM TOPSOIL PLACED ABOVE 2-FOOT THICK LAYER OF TYPE 3 HABITAT MIX.
TYPE 2	2-FOOT THICK LAYER OF 40% 2-1/2" MINUS ROUNDED STREAMBED SEDIMENT, 60% SANDY LOAM TOPSOIL PLACED ABOVE 2-FOOT THICK LAYER OF TYPE 3 HABITAT MIX.
TYPE 3	60% 4" MINUS ROUNDED STREAMBED COBBLE, 40% 2-1/2" MINUS ROUNDED STREAMBED SEDIMENT.
TYPE 4	40% 10" MINUS ROUNDED COBBLE, 60% 3" MINUS ROUNDED GRAVEL.



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**TITLE:**  
SITE SECTIONS AND  
DETAILS

**DATE:** FEBRUARY 2020

**REVISION DATE:**

**SHEET:** 14 OF 14