# **Joint Permit Application**

This is a joint application, and must be sent to both agencies, who administer separate permit programs. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.



Date Stamp

U.S. Army Corps of Engineers Portland District					OF a	OPEGON		ego nds	n Department of State		
Corps Action ID Number DSL						Num	ber	6409	92FP		
(1) TYPE OF PERMIT(S) IF KNOWN (check all that apply)											
Corps: 🗌 Individu	Corps: 🗌 Individual 🗍 Nationwide No.: 🗋 Regional General 🛛 OtherSection 10								_ ⊠ OtherSection 10		
DSL: 🛛 Individual 🗌 General Permit 🗌 No State Permit Required 🗌 Waiver											
(2) APPLICANT AND LANDOWNER CONTACT INFORMATION											
	Applicant		Prope	erty O	)wne	r (if dif	feren	nt)	Authorized Agent (if applicable)		
Name (Required)	Aaron Bretz		Port of	of Ne	wpo	rt			Brian Kelly		
Business Name	Port of Newport		600 S	SE Ba	av Bl	vd.			PBS Engineering and Environmental		
Mailing Address 1	600 SE Bay Blvd.				-				4412 S Corbett Avenue		
Mailing Address 2			Newp	oort, (	OR 5	7365					
City, State, Zip	Newport, OR 973	65						Portland, OR 97239			
Business Phone	(503) 861-3822								541-323-5886		
Cell Phone									541-233-7408		
Fax											
Email	abretz@portofnewpo	rt.com	В					Brian.kelly@pbsusa.com			
(3) PROJECT INF	ORMATION										
A. Provide the proje	ct location.										
Project Name Rogue Brewery Seaw	vall Repairs					<u>Latitu</u> 44°3	<u>ide &amp;</u> 7'12"	<u>Long</u> N, 12	<u>jitude*</u> 4°3'8"W		
Project Address / Loo 2320 SE Marine Sci			City (nearest) Newport			County Lincoln					
Towns	hip	Rang	ge	Sect	tion		uarte uarte		Tax Lot		
11 So	uth	11 W	est	17	7		IW/SE		400		
Brief Directions to the I-5 South: Exit 228 to Abalone Street, con	o OR-34, turn right						urn le	ft ont	o US101, turn right onto SW		
B. What types of wa	terbodies or wetla	nds are	presen	t in y	your	proje	ct are	ea? (0	Check all that apply.)		
River / Stream		□Non	-Tidal \	Wetl	land				Lake / Reservoir / Pond		
Estuary or Tidal	Wetland	□Othe	er						Pacific Ocean		
Waterbody or Wet Yaquina River	land Name**	River N	/ile		<u>6<sup>th</sup> F</u> Nan	Field H	<u>IUC</u>		6th Field HUC (12 digits) 171002040303		
		1			Poo	le Slou uina F		-			

\* In decimal format (e.g., 44.9399, -123.0283)

\*\* If there is no official name for the wetland or waterbody, create a unique name (such as "Wetland 1" or "Tributary A").

C. Indicate the project category. (Check all that apply.)						
Commercial Development	Industrial Development	Residential Development				
Institutional Development	□Agricultural	Recreational				
□Transportation	Restoration	Bridge				
	□ Utility lines	☐ Survey or Sampling				
✓ In- or Over-Water Structure	✓ Maintenance	☐ Other:				

#### (4) PROJECT DESCRIPTION

**A. Summarize the overall project including work in areas both in and outside of waters or wetlands.** The proposed action involves performing structural rehabilitation for the over-water structure known as the Rogue Brewery Seawall located at the South Beach Marina in Newport, Oregon (Attachment 1 - Permit Drawings). The Rogue Brewery Seawall is located just east of the Highway 101 Yaquina Bay Bridge on the south end of the South Beach Marina and is located approximately 1.25 miles east of the mouth of the Yaquina River and the Pacific Ocean (see attached Permit Drawings).

The project site sits at the south end of the South Beach Marina operated by the Port of Newport. The marina was developed in 1979 and is home to recreation and commercial vessels for daily and annual moorage. The seawall was constructed at the same time the harbor was developed. The seawall currently supports the Rogue Brewery World Headquarters building at 2320 SE Marine Science Drive in Newport, Oregon.

The seawall is comprised of steel soldier piles and concrete lagging panels to support the backfill material. The piles are spaced 10-feet on center and tied back with steel rods connected to a deadman anchors. The seawall is approximately 540 feet long. A floating dock is located along most of the face of the seawall. The dock is connected to the seawall by pipe and timber piles attached to the seawall. The dock will need to be disconnected from the seawall and moved while the seawall repairs are conducted, then placed back in its original location.

The steel soldier piles supporting the seawall have become corroded and the concrete panels have settled allowing backfill material to seep through the seawall below the water line. If repairs are not made to the corroded steel piles and actions taken to stabilize the backfill, the seawall will fail resulting in damage to the building and possibly resulting in material of various kinds entering the water (e.g., concrete, rock/soil, building materials).

The proposed action entails reinforcing the seawall by welding steel plates onto the existing soldier piles; injecting a polymer compound behind the seawall to stabilize the backfill soils which are a combination of rock, sand and soil, and adding corrosion protection (anodes) to the corroded steel soldier piles. Welding above the water line will be required to attach the new steel plates to the existing steel soldier piles. These repairs will restore load capacity of the seawall to approximately its original strength, add corrosion protection, and improve soil stability around the seawall.

The polymer compound that will be used to stabilize the backfill soils is a product called URETEK 486 Star<sup>®</sup>. The product is a two-component, high-density, expanding thermoset polyurethane system that is inert, non-toxic, and insoluble in water. A Safety Data Sheet is attached with other project construction details (Attachment 2). URETEK developed its polymer to be the ideal solution for under-sealing, filling voids, lifting settled pavement, stabilizing and stiffening weak soils, and encapsulating and sealing buried infrastructure. The compound will be injected into the soils behind the retaining wall backfill using approximately 18 small drill holes spread out evenly across the length of the seawall.

All work will be in or over water with work being primarily performed from either the shoreline or work barge. Access for construction equipment will be via the bay and marina or paved access roads. No ground disturbance or vegetation removal will occur, and no new impervious surface will be created. No upland improvements will occur. No site restoration will be required. In-water work is proposed to occur during the in-water work window for Yaquina River Estuary (November 1 to February 1).

Additional details on these activities are presented in the following sections.

#### List of Attachments

Attachment 1 – Permit Drawings

- 1 USGS Location Map
- 2 Tax Lot Map
- 3 Aerial Photograph
- 4 Site Plan Showing Existing and Proposed Repairs (Plan View)
- 5 Site Plan Showing Existing and Proposed Repairs (Elevation View)
- Attachment 2 Construction Drawing Details
- Attachment 3 Site Photographs

#### B. Describe work within waters and wetlands.

The published upper limit of State of Oregon jurisdiction at the closest tidal station to the Yaquina River, Newport Station, is 11.66 feet (NAVD88 datum) highest measured tide (HMT) elevation. According to Oregon Department of Geology and Mineral Industries light detection and ranging (LiDAR) data, 11.66 feet occurs near the top of the seawall. Most of the steel plate installation will occur below the 11.66-foot (NAVD88) elevation. For US Army Corps of Engineers jurisdictional purposes, the U.S Coast Guard-reported mean higher high water (i.e., "High Tide Line") elevation is 7.57 feet (NAVD88) and the mean high water elevation is 6.87 feet (NAVD88). These elevations correspond to a much lower elevation on the retaining wall. 55 steel plates will be installed resulting in approximately 22.29 cubic yards of permanent impacts measured below the HMT.

The steel plates will be welded onto the steel soldier piles. The work is expected to take three to six months. The project will require the use of a work boat and barge for handling materials and other equipment. The steel plates will be welded by workers stationed on a floating dock/work barge. The steel plates will be temporarily held in pace by epoxy, then welded along the top and edges of the plate down tot eh water line. Epoxy may be used below the water line. The actual rate of installation will be dependent on the equipment used. No removal of sediment or placement of fill will be required.

The non-toxic polymer material that will be injected behind the seawall may seep through the concrete panels of the seawall and into the water. The insoluble material is naturally buoyant, so any material not adhering to the seawall will float to the water surface. A turbidity curtain will be used to contain the polymer so that it can be removed from the water either by hand or dip net.

Workers will also install anodes for corrosion protection onto the seawall at various locations above and/or below the waterline. This is a sacrificial form of corrosion protection where an anode, typically made of aluminum or zinc alloy is bolted or welded to the steel structure. The anodes will be installed onto the steel plates before they are installed on the seawall.

The in-water work window for the Yaquina River Estuary is November 1 to February 1. The in-water work will be performed during that window. Specific construction methods are described below. No work will occur within wetlands.

C. Construction Methods. Describe how the removal and/or fill activities will be accomplished to minimize impacts to waters and wetlands.

Installation of the steel plates and injection of the polymer stabilizer is anticipated to take up to six months.

#### Construction Access, Staging, and Stockpiling

Construction access will vary depending on the work activity. Workers who weld the steel plates onto the soldier piles with work from a floating dock/work barge or will be divers in the water. A containment system to collect debris from entering the water will also be installed around the work barge. Construction access for the steel plate installation will occur via the water using a work barge.

No site preparation, earthwork or vegetation clearing will be necessary for equipment or construction access to the work pier.

#### In-water Work

#### Steel Plate Installation

No parts or pieces of the seawall will be removed. Steel plates measuring approximately 12 feet long by 1 foot wide by 0.1 feet thick (see Attachment 1) will be welded on the exterior of the seawall support piles of the seawall above and below the waterline. Workers may install the steel plates by standing on a work barge or floating dock and divers may be used to weld the plates below the waterline. The plates will be welded onto the support piles with structural welds along the top and vertical edge.

#### Polymer Injection

The polymer injection will occur from upland areas and work crews will use a drilling rig to bore holes into the backfill soils and inject the polymer. The polymer material will be injected into the backfill soils under pressure to fill voids in the backfill and stabilize the soils. Some seepage may occur through the seawall and into the water. The polymer material is designed to be used in marine applications and will float to the surface. The polymer material is inert, non-toxic, and insoluble in water. A turbidity curtain will be used to contain the polymer so that it can be removed from the water either by hand or dip net.

#### Pile corrosion protection

Anodes will be installed on the retaining wall for corrosion protection. The anodes will be attached to the steel plates before they are welded to the seawall. The anodes are 6 feet long by 0.5 feet wide and 0.5 feet deep.

#### Overwater Work

No other overwater work is planned other than the steel plate and anode installations.

#### **Construction Schedule**

Construction is scheduled to occur during the in-water work window between November 1, 2022 and February 1, 2023. The project is expected to take up to six months. In-water work will be completed during the in-water work window. A general sequence of the in-water and over-water activities is provided below:

#### Construction Equipment

The project will require the use of a floating dock or work barge to allow workers to access the seawall and make the repairs. Pneumatic tools may be used for repairing the seawall. Average noise levels for this type of equipment are shown below:

Equipment	Average L <sub>max</sub> at 50 feet
Drilling Rig	81
Work Barge	
Pneumatic Tools	85
Skid Steer/loader	80

Source: WSDOT 2018

#### Impact Avoidance and Minimization Measures

The project will implement the following minimization measures and BMPs to avoid and minimize impacts to waters:

- All in water work will occur during the fall-winter Oregon Department of Fish and Wildlife (ODFW) in-water work window for Yaquina River Estuary (November 1 to February 1).
- A Pollution Control Plan will be developed and implemented to minimize the potential for pollution caused by in-water activities. The plan will identify measures for preventing construction debris from entering the water and controlling turbidity, and specify measures to be taken if a spill or leak of hazardous materials occurs.

- Containment booms and turbidity curtains or debris nets will be installed during the overwater work to contain any excess polymer material that may seep through the seawall as well as other materials that may be used overwater. Other booms and absorbent pads will be maintained on site during all phases of construction to facilitate rapid response and cleanup of hazardous materials spills when piles are not being removed.
- No materials treated with preservatives or pesticides, including creosote, pentachlorophenol, or copper-based treatments, such as ammoniac copper zinc arsenate (ACZA) or chromate copper arsenate (CCA), will be allowed.
- All equipment will be clean and inspected daily for leaks prior to use. Should a leak develop during use, the leaking equipment shall be removed from the project site immediately and not used again until it has been adequately repaired. At no time will fuels or oils be allowed to enter any waterbody.
- Barges will be secured, stabilized, and maintained to ensure no loss of balance, stability, anchorage, or other condition that could result in release of contaminants or construction debris.
- Portable fuel tanks stationed on a barge to refuel equipment will be double-walled and have an absorbent containment boom around the tank while it is on the barge.

#### (4) PROJECT DESCRIPTION (continued)

#### D. Describe source of fill material and disposal locations if known

No fill material will be discharged within jurisdictional waters. The project will install steel bracing onto steel piles supporting a retaining wall in the Yaquina River/Bay/South Beach Harbor.

E. Construction timeline.

What is the estimated project start date?	_November 2022
What is the estimated project completion date?	_April 2023
Is any of the work underway or already complete? If yes, please describe.	☐Yes ☑No

Any in-water construction is planned for the in-water work window (i.e., November 1, 2022 to February 1, 2023) assuming permits are issued before the in-water work period ends. Remaining over water construction would continue until project completion. The contractor performing the work will be required to coordinate activities with other vessels in the area.

F. Removal Volumes a	and Dime	nsions (i	f more tha	n 7 impact s	ites	, include a	summary tab	le as an	attachment)	
Wetland / Waterbody		Re	emoval Di	mensions			Duration of			
Name *	Length Width Depth Area Volume (ft.) (ft.) (ft.) (sq.ft. or ac.) (c.y.)		Impact**	N	Material***					
									S	
G. Total Removal Volu	G. Total Removal Volumes and Dimensions									
Total Removal to Wetlands and Other Waters					Le	ength (ft.)	Area (sq. ft	t or ac.)	Volume (c.y.)	
Total Removal to Wetlands						N/A	N/A		N/A	
Total Removal Below	Ordinary	High Wa	ter			N/A	N/A		N/A	
Total Removal Below	Highest N	<u>lleasured</u>	<b>Tide</b>							
Total Removal Below	High Tide	<u>Line</u>								
Total Removal Below	Mean Hig	h Water <sup>·</sup>	Tidal Elev	vation						
H. Fill Volumes and D	H. Fill Volumes and Dimensions (if more than 7 impact sites, include a summary table as an attachment)									
Wetland / Waterbody		Fill Dimensions					Duration of		Matorial***	
Name*	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft. or a	ic.)	Volume (c.y.)	Impact**		Material***	

Yaquina River Estuary -South Beach Harbor (55 Steel Plates)	55	0.1	12	5 <b>48 sq ft</b>	20.29 cu yds avg below HMT	Permanent	Steel Plate	
Note: dimensions shown ab oursuant to Section 404 of t aw.						, , ,		•
(4) PROJECT DESCRIP	PTION (C	ONTINUE	ED)					
I. Total Fill Volumes an	nd Dimen	sions						
I. Total Fill Volumes an Total Fill to Wetlands a Waters				L	ength (ft.)	Area (sq. ft.	or ac.)	Volume (c.y.)
Total Fill to Wetlands a				L	ength (ft.) N/A	Area (sq. ft. N/A	or ac.)	Volume (c.y.) N/A
Total Fill to Wetlands a Waters	and Othe	r		L	• • •		or ac.)	
Total Fill to Wetlands a Waters Total Fill to Wetlands	and Othe	r Water		L	N/A	N/A	or ac.)	N/A
Total Fill to Wetlands a Waters Total Fill to Wetlands Total Fill Below Ordina	and Othe ary High at Measu	r Water <u>red Tide</u>		L	N/A N/A	N/A N/A	or ac.)	N/A N/A

\*If there is no official name for the wetland or waterbody, create a unique name (such as "Wetland 1" or "Tributary A"). \*\*Indicate the days, months or years the fill or removal will remain. Enter "permanent" if applicable. For DSL, permanent removal or fill is defined as being in place for 24 months or longer.

\*\*\* Example: soil, gravel, wood, concrete, pilings, rock etc.

#### (5) PROJECT PURPOSE AND NEED

#### Provide a statement of the purpose and need for the overall project.

The seawall that supports the north side of the Rogue Brewery building is deteriorating and nearing the end of its designed service life. The seawall requires repair to maintain its long-term functionality. An evaluation of the seawall was performed in 2018. The following deficiencies were observed:

- The four decades of exposure to the marine environment have resulted in visible deterioration of many of the seawall major structural elements.
- This deterioration includes corrosion of the steel soldier piles and spalling of the concrete beam/pile cap. Visible cracks, misalignments and corrosion damage was noted on the soldier piles during the 2018 inspection.
- In addition, some loss of backfill material through gaps in the concrete lagging panels is apparent as backfill material was observed at the base of the seawall during an underwater inspection. It is suspected that some historical settlement of the interior floor slab of the brewery may be due to this material loss.

The proposed action will reinforce the seawall, maintain the long-term functionality of the structure and extend its lifespan.

#### (6) DESCRIPTION OF RESOURCES IN PROJECT AREA

A. Describe the existing physical and biological characteristics of each wetland or waterbody. Reference the wetland and waters delineation report if one is available. Include the list of items provided in the instructions.

The project area is located in the Port of Newport South Beach Marina at approximately River Mile 1.2 of the Yaquina River. The Yaquina River has perennial year-round flow and is tidally influenced in the vicinity of the project area. The U.S. Fish and Wildlife Service National Wetland Inventory identifies the entire harbor area as E1UBLx (estuarine, subtidal, unconsolidated bottom, subtidal Cowardin class, excavated). The E1UBLx permanently inundated areas lack aquatic and tidal marsh vegetation. The substrate is mostly rock and sand. The upland-shoreline interface is abrupt due to the existence of fill and exposed rock that creates an embankment at the shoreline. Common riparian vegetation is found within the narrow riparian zone found between the shore and marina infrastructure including roads and parking lots in the project area. Riparian vegetation is lacking large mature trees, stream shading and large woody debris due to the commercial development in the area. No freshwater wetlands occur within the project area. The harbor area is over 900 feet wide at the project site and the NOAA nautical chart for the Yaquina River (NOAA 2019) shows depths up to approximately 30 feet (MLLW datum) in the project area. Based on Army Corp of Engineers

bathymetric data, the mudline on the marina side of the seawall is at an elevation of approximately -8 to -10 feet MLLW and is restively flat.

Flows in the Yaquina have seasonal fluctuations with low flows in late summer and early fall (August through November) and high flows in winter and spring during the rainy season (December to June).

#### **Channel and Bank Conditions**

The river and harbor in the vicinity of the action area has been dredged to accommodate historical industrial uses including the development of the South Beach Harbor and Marina in 1979. The harbor area is confined and dredged so that it is narrower and deeper with very little shallow water or off-channel areas left near the project action area. There is little natural habitat present along the banks of the harbor area. Shallow-water areas are often restricted to a narrow band along the shore that changes with the rise and fall of the tidally influenced river. Much of what was historically shallow water near the project area has been converted to deep-water habitat or filled.

Streambanks in the action area have been altered by industrial and other development. The banks of the harbor area consists of a vegetated rocky shoreline. The Rogue Brewery is situated on the south end of the South Beach Marina and small boat harbor.

The shoreline in this area is rocky and vegetation is limited. Vegetation is found as scattered bushes or small patches creating a narrow band of vegetation between the harbor and other recreational, commercial and industrial uses in the area.

#### Substrate

The substrate of the harbor is likely dominated by fill materials and sediment consisting of varying proportions of sand, silt, and clay. The fine sediment present is indicative of the tidal action and low water velocities, which allow fine particles to settle out of the water column.

#### **Assessment of Functional Attributes**

Steam functions were evaluated based on knowledge of the Yaquina River in the vicinity of the Harbor area and best professional judgement. The focus of this assessment is the lower Yaquina River. Functions evaluated are those presented in Table 2.1 of the *Stream Function Assessment Method User Manual, Version 1.1*. The area of the riverbed/harbor area affected by the proposed work is small and there will be no disturbance to riparian vegetation, so measurable changes in functions within or beyond the project area are not expected.

The river's functional attributes in the vicinity of the project area are relatively limited. Hydrologic functions for surface water storage are minimal in the project area. Subsurface / surface transfer hydrologic functions occur in the watershed but no evidence of significant subsurface or surface flow was observed in the project area. Flow variations associated with daily tidal flux and seasonal and inter-annual climatic patterns are important for sediment dynamics and life cycles of aquatic organisms. Geomorphic functions associated with channel character and sediment transport appear to be intact and typical for the estuary; evidence of erosion, deposition, or impediments to sediment movement was not observed within the project area. The river and harbor area supports biologic functions such as a variety of life forms, in-channel habitat for native species, and food production; however, these functions within the project area are minimal compared to the greater river. Chemical and nutrient functions are presumably intact but a specific analysis was not conducted for the purpose of this application. The Yaquina River is on the 2018/2020 Oregon 303(d) list of water quality limited waterbodies for the following parameters: Arsenic, Inorganic- Human Health; Aquatic Weeds; Temperature- Year Round. The shoreline in the immediate project action area is developed with harbor infrastructure and the sediment is not known to be contaminated. There do not appear to be any sources of atypically warmed water within the project area. Water temperature in the Yaquina River Estuary can range from 8-16 degrees Celsius (Brown 2007).

Based on this information, the project will have no affect on the river's functional attributes.

#### Fish and Wildlife

There are numerous fish species that occur in the Yaquina Bay Estuary that may use resources in the Yaquina River watershed. Anadromous species found in the Yaquina River included chinook salmon, coho salmon, and steelhead. Some of the resident species found included cutthroat trout, green sturgeon, mountain whitefish, peamouth, largescale sucker, pikeminnow, common carp, largemouth bass, smallmouth bass, black crappie, white crappie, walleye, yellow perch, and channel catfish.

The Yaquina River and associated riparian areas also support a diversity of wildlife species. Birds are the most visible type of wildlife in the area. Avian species present include osprey, bald eagle, red-tailed hawk, great blue heron, double-crested cormorant, and many species of waterfowl, gulls, and songbirds. Many of these species have been observed perching on piles, equipment, docks, or shoreline in the vicinity of the project. Waterfowl are commonly observed swimming in the river near the project. Mammalian species would include mice, voles, moles, rats, rabbits, skunks, raccoons, nutria, river otters, beavers, and coyotes. Reptiles and amphibians of various kinds may also be present. The presence of any one species is highly variable depending on the site-specific conditions and human activity at any point in time.

#### **Marine Mammals**

Marine mammals known to occur in the Yaquina Bay Estuary include California sea lions (*Zalophus californianus*), Steller sea lions (*Eumetopias jubatus*), and harbor seals (*Phoca vitulina*) (Wright et al. 2015). These species migrate up the Yaquina River to feed on salmon and steelhead. Although not protected under the ESA, these species are protected under the Marine Mammal Protection Act (MMPA) of 1972. The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters.

Harbor Seals are occasionally sighted in the South Beach Marina basin. The nearest haul out locations for harbor seals and sea lions is at the Finger Jetty location, less than one mile west of the of the project action area in the Yaquina Bay estuary.

#### **Threatened and Endangered Species**

The NMFS and USFWS have identified the possible presence of listed species within the vicinity of the project (Table 1). The Yaquina River supports Evolutionarily Significant Units (ESUs) and Distinct Population Segments of listed salmonids.

			Critical	Detential		
Species	ESU/DPS	Listing Status <sup>1</sup>	Status	Includes Action Area?	Potential Presence in Action Area?	
Chinook Salmon Oncorhynchus tshawytscha	Yaquina River	Threatened	Designated	Yes	Yes	
Chum Salmon <i>O. keta</i>	Yaquina River	Threatened	Designated	No	Yes	
Coho Salmon O. <i>kisutch</i>	Yaquina River	Threatened	Designated	Yes	Yes	
Steelhead O. mykiss	Yaquina River	Threatened	Designated	Yes	Yes	
Green Sturgeon Acipenser medirostris	Lower Yaquina River	Threatened	Designated	Yes	Yes	
California Brown Pelican Pelecanus occidentalis californicus	Yaquina Bay	Threatened	Designated	No	Yes	
Pacific Marten Martes caurina	Coastal	Threatened	Designated	No	No	
Marbled Murrelet Brachyramphus marmoratus	—	Threatened	Designated	No	No	
Northern spotted owl Strix occidentalis caurina	_	Threatened	Designated	No	No	
Streaked horned lark Eremophila alpestris strigata	—	Threatened	Designated	No	No	
Western Snowy Plover Eremophila alpestris strigata	—	Threatened	Proposed	No	No	

#### **Table 1: Listed and Proposed Species Considered**

Leatherback Sea Turtle Dermochelys coriacea	—	Endangered	Designated	No	No
Olive Ridley Sea Turtle Lepidochelys olivacea	—	Threatened	None	No	No
Loggerhead Sea Turtle Caretta caretta	—	Endangered	None	No	No

<sup>1</sup> Federal listing status for all species under NMFS jurisdiction were updated on April 14, 2014 (79 FR 20802).

The action area is designated critical habitat for the salmonid ESUs/DPSs identified to potentially occur within the action area. While the Yaquina River in the project action area provides suitable rearing and migration habitat for these listed species, it does not provide suitable spawning habitat near the proposed action area.

Primary constituent elements (PCEs) consist of physical or biological features identified as essential to the conservation of the listed species. Critical habitat PCEs have been designated for all the listed ESUs and DPSs within the project action area. Freshwater rearing sites and freshwater migration corridors are the PCEs for Pacific salmon that apply to the action area. Other critical habitat PCEs such as freshwater spawning, nearshore marine, and offshore marine habitats do not occur within the action area and will not be affected by the proposed action.

The listed salmonid species use the Yaquina River as a migration route as adults and for rearing and migration as juveniles. There is no suitable spawning habitat for salmon or steelhead within the project action area. Adult salmon and steelhead migrate upstream through the Lower Yaquina River from early fall through spring, with the specific timing of the migration varying by species (NMFS 2018). The timing of peak abundance of juvenile salmonids varies from year to year but occurs in the fall and winter months.

#### **Listed Wildlife and Plant Species**

The official species list requested from the USFWS Information for Planning and Consultation (IPaC) website identified avian, mammal, reptile and insect species potentially present in the project vicinity. These species included northern spotted owl, pacific marten, red tree vole, marbled murrelet, streaked horned lark, sea turtles, monarch butterfly and western snowy plover. None of these species are present in the project vicinity owing to the lack of suitable habitat.

#### B. Describe the existing navigation, fishing and recreational use of the waterbody or wetland.

The Yaquina River and South Beach Harbor are primarily used for mooring recreational and commercial watercraft, recreational fishing, navigation, and industrial uses. Recreational boaters and commercial fishing vessels use the waterway where the work is proposed. The project is located at the south end of the harbor, so the proposed project should have no effect on navigation, fishing, or recreational uses.

## (7) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

Describe project-specific criteria necessary to achieve the project purpose. Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterbody or wetland.\*

<sup>\*</sup> Not required by the Corps for a complete application, but is necessary for individual permits before a permit decision can be rendered.

The Rogue Brewery facility consisting of a brewery, restaurant and floating dock is a fixed commercial facility owned by the Port of Newport with no alternative facilities that are similar in size to support their operations. The project will repair the seawall that supports the facility and extend the lifespan of the seawall by another 20 years. The project is designed to minimize impacts to listed fish and aquatic habitat by conducting in-water work during the Oregon Department of Fish and Wildlife recommended in-water work period (November 1-Feburary 1). In addition, no additional expansion of the project footprint is proposed.

A No Action Alternative would not meet the purpose of restoring the load capacity rating of the retaining wall and would limit the lifespan of the facility.

### (8) ADDITIONAL INFORMATION

Are there state or federally li	sted species on the project	site?	✔ Yes	No	Unknown			
Is the project site within des habitat?	ignated or proposed critical		✔ Yes	No	Unknown			
Is the project site within a na	ational <u>Wild and Scenic Rive</u>	<u>r</u> ?	Yes	✓ No	Unknown			
Is the project site within a $\underline{S}$	tate Scenic Waterway?		Yes	✓ No	Unknown			
Is the project site within the	<u>100-year floodplain?</u>		✔ Yes	No	Unknown			
If yes to any of the above, explain in Block 6 and describe measures to minimize adverse effects to these resources in Block 7.								
Is the project site within the	<u>Territorial Sea Plan (TSP) A</u>	<mark>vrea</mark> ?	Yes	✓ No	Unknown			
If yes, attach TSP review as a se	eparate document for DSL.							
Is the project site within a de	esignated <u>Marine Reserve</u> ?		Yes	✓ No	Unknown			
If yes, certain additional DSL read								
Will the overall project involvor more?	ve ground disturbance of on	e acre	Yes	✓ No	Unknown			
If yes, you may need a 1200-C p	ermit from the Oregon Departm	ent of En	vironmental Quali	ty (DEQ).				
Is the fill or dredged materia on-site or off- site spills?	I a carrier of contaminants f	rom	Yes	✓ No	Unknown			
Has the fill or dredged mate chemically tested?		Yes	✓ No	Unknown				
If yes, explain in Block 6 and pr	ovide references to any physica	l/chemica	al testing report(s)	-				
Has a cultural resource (arc performed on the project are			Yes	✓ No	Unknown			
If yes, provide a copy of the survey with this application to the Corps only. Do not describe any resources in this document.								
Will the project result in new	impervious surfaces or the	redevel	opment of existi	ng surfaces? Y	es 🗆 No 🛛			
If yes, the Applicant must subm and approval, see <u>http://www.de</u>	it a post-construction stormwat	ter manag	jement plan to DE	Q's 401 WQC prog				
Identify any other federal ag	ency that is funding, authoriz	zina or ir	nplementing the	project.				
Agency Name	Contact Name	<u> </u>	Number	Most Recent I	Date of			
None				Contact				

List other certificates or approvals/denials required or received from other federal, state or local agencies for work described in this application. For example, certain activities that require a Corps permit also require 401 Water Quality Certification (WQC) from Oregon Department of Environmental Quality (DEQ). For DEQ, please note that all projects that qualify for a Nationwide 401 WQC will be invoiced a fee. Projects that do not qualify for the Nationwide certification will be invoiced based on project complexity. See <a href="http://www.oregon.gov/deg/wg/wgpermits/Pages/Section-401-Fees.aspx">http://www.oregon.gov/deg/wg/wgpermits/Pages/Section-401-Fees.aspx</a>

Agency	Certificate/ approval / denial description	Date Applied
Oregon Department of Environmental Quality	Section 401 Water Quality Certification	To Be Determined
Oregon Department of State Lands	Removal-fill Permit	To Be Determined
U.S. Army Corps of Engineers	Section 10/404 Permit	To Be Determined

Other DSL and/or Corps Actions Associated with this Site (Check all that apply.)

Work proposed on or over lands owned by or leased from the Corps (may require authorization pursuant to 33 USC 408).

□ State owned waterway	DSL Waterway Lease #	#
□Other Corps or DSL Permits	Corps #	DSL #
□Violation for Unauthorized Activity	Corps #	DSL#
□ Wetland and Waters Delineation	Corps #	DSL #
	10 I 01 I I	

Submit the entire delineation report to the Corps; submit only the concurrence letter (if complete) and approved maps to DSL. If not previously submitted to DSL, send under a separate cover letter

## (9) IMPACTS, RESTORATION/REHABILITATION, AND COMPENSATORY MITIGATION

A. Describe unavoidable environmental impacts that are likely to result from the proposed project. Include permanent, temporary, direct, and indirect impacts.

The project would not result in any permanent impacts to the riverbed. The project is expected to have minimal to no temporary and localized direct effects to fish and other aquatic organisms and their habitat. No significant long-term adverse effects are anticipated.

## **Direct Effects**

Potential direct effects on listed salmonid species and other species and their designated critical habitat are described in the following sections. Project activities will include moving the floating dock, work on the exterior face of the seawall by welding steel plates onto the steel soldier piles and a polymer injection into the surface soils behind the seawall for soil stabilization. Some polymer seepage through the seawall and into the water may occur and will be captured by booms or other BMPs as it floats to the surface.

These activities are expected to cause temporary direct effects on listed fish present in the Yaquina River. However, by scheduling work during the ODFW in-water work period, juvenile salmonids and migrating adults as well as other species listed above (e.g., green sturgeon) are anticipated to be in lower numbers within the action area. Direct effects will be primarily associated with noise and the polymer injection; however, minor effects may result from increases in turbidity and other water quality modification due to in-water work. No permanent adverse effects are anticipated given that the seabed will not be impacted and the polymer injection is insoluble, non-toxic and will be collected at the water surface using BMPs. The probability for incidental "take" of species during project activities will be reduced by implementation of impact avoidance and minimization measures.

#### Sedimentation and Turbidity Effects

Welding steel plates onto the seawall soldier piles using a work barge is not expected to disturb sediment. However, due to the project location in the harbor area, water velocities will be near zero, so dissipation of any sediment and turbidity plumes could be protracted.

Effects on fish from turbidity and suspended sediment depends on the magnitude and duration of exposure. Pacific Northwest river systems naturally have periodic incidences of elevated turbidity and suspended sediment, and listed fish species present in the action area have evolved with such events (Nightingale and Simenstad 2001). Nonetheless, increased turbidity and suspended sediments can have physical and behavioral effects on salmonids. Physical effects would result when fish are exposed directly to suspended sediments and may include alterations to blood sugar levels and osmoregulatory function, and damage to gills. Behavioral effects include avoidance of turbid water, changes in foraging ability, reduced avoidance of predators, and reduced territoriality (Bash et al. 2001). Morbidity resulting from suspended sediment generally only occurs when the associated turbidity is very high, in the thousands of NTUs (DEQ 2014). Turbidity within the river fluctuates seasonally with lower turbidities expected during the in-water work window when the flow within the river is less.

The project is unlikely to have any significant effects to listed fish species resulting from turbidity and suspended sediment for several reasons. First, there is a low likelihood of fish presence during the November 1 to February 1 ODFW in-water work window and because the work area will be located within the harbor/marina area. In addition, with the implementation of BMPs, the magnitude of suspended sediment and turbidity created by the work barge or other operations should be relatively low and of short duration. Measurable effects to water quality are not expected to extend beyond the work area and any temporary or localized increases in suspended sediment and turbidity are not expected to have long-term interference with juvenile or adult salmonid life cycle or the primary constituent elements of critical habitat.

The project is unlikely to have any significant effects on benthic resources within the harbor because no ground disturbance is expected.

#### **Chemical Contaminants**

No chemical contaminants are expected in the sediments within the project area.

#### Hazardous Materials and Chemical Spills

Use and storage of hazardous materials and chemicals (e.g., diesel fuel, lubricants) over the water could potentially impair water quality if they are spilled or released. In general, construction-related chemical spills could affect fish by increasing physiological stress, altering primary and secondary production, affecting juvenile salmonid prey species, and possibly causing direct mortality. Given the volume within the Yaquina River, a spill would need to be substantial to result in any measurable effect. The possibility of adverse effects related to spills and leaks will be mitigated by implementing a Pollution Control Plan. With BMPs in place, any impacts from hazardous materials are anticipated to be insignificant.

The polymer material to be injected into the seawall backfill is non-toxic and insoluble in water. The material is designed to float to the surface if seepage through the seawall occurs and captured using a boom, turbidity curtain, dip net or other BMPs. It will have no impact on fish or other species in the surrounding environment.

#### Hydroacoustic Effects

No pile driving will occur, therefore, no hydroacoustic effects are anticipated.

#### Habitat-related Effects

Designated critical habitat within the action area consists of freshwater rearing sites and freshwater migration corridors and their essential physical and biological features (i.e., Primary Constituent Elements) located with the Yaquina River Estuary. A summary of effects on primary constituent elements are listed below:

- Minor and temporary disturbance to benthic macroinvertebrate community. Benthic community expected to recover quickly following project.
- No significant impacts to sediment and water quality.
- Juveniles feed primarily on pelagic and terrestrial invertebrates' habitat, so loss of benthic production not significant to listed salmonids and other species.
- Underwater noise during the underwater steel plate welding may affect foraging behavior of juveniles. Effect should be minor at most given that no pile driving will be required.

• Shade created by work barge may affect migration of juveniles. No effect once project is completed.

#### **Indirect Effects**

No indirect adverse effects to critical habitat were identified owing to the short duration and limited scope of the proposed action.

#### References:

- Bash, J., C. Berman, and S. Bolton. 2001. Effects of turbidity and suspended solids on salmonids. Center for Streamside Studies, University of Washington, Seattle, Washington.
- DEQ. 2016. Oregon's 2012 Integrated Report. Available: <u>http://www.oregon.gov/deq/WQ/Pages/Assessment/2012report.aspx</u>. Accessed: July 15, 2022.
- DEQ. 2018/2020. Water Quality Index Webpage. Available: <u>https://www.oregon.gov/deq/wq/Pages/WQI.aspx</u>. Access July 15, 2022.

NOAA, 2019 Nautical Chart, Published 3/1/2019

- Nightingale, B., and C.A. Simenstad. 2001. White Paper: Overwater Structures: Marine Issues. Prepared by Washington State Transportation Center (TRAC). Prepared for Washington State Transportation Commission. June 2001.
- ODFW (Oregon Department of Fish and Wildlife). January 2022. Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources. Available at:

https://www.dfw.state.or.us/lands/inwater/Oregon Guidelines for Timing of %20InWater Work2008.pdf. Accessed July 2022.

ORBIC (Oregon Biodiversity Information Center). 2022. Rare, Threatened and Endangered Plant and Animal Records for Warrenton Work Pier Repair Project in Newport, OR. L

Reid, Scott M, Scott Stoklosar, Serge Metikosh, and Jim Evans. 2002.

- USGS (U.S. Geological Survey). 2016. National Water Information System: Web Interface. USGS 14211720 Yaquina River at Newport, OR. Available: https://waterdata.usgs.gov/usa/nwis/uv?site\_no=14211720. Accessed: July 2022.
- USFWS. 2022. Information, Planning, and Conservation System. Available online at http://ecos.fws.gov/ipac/. Accessed July 2022.

B. For temporary removal or fill or disturbance of vegetation in waterbodies, wetlands or riparian (i.e., streamside) areas, discuss how the site will be restored after construction to include the timeline for restoration.

No temporary removal, fill, or disturbance of vegetation is proposed; therefore, no restoration is required.

#### **Compensatory Mitigation**

C. Proposed mitigation approach. Check all that apply: No mitigation is proposed.

Permitteeresponsible Onsite Mitigation

Permitteeresponsible Offsite mitigation ☐ Mitigation Bank or in-lieu fee program Payment to Provide (not approved for use with Corps permits)

D. Provide a brief description of mitigation approach and the rationale for choosing that approach. If you believe mitigation should not be required, explain why.

No	mitigation	is	proposed.	See	Item	9.C	above.
			p. op 0000.				

#### Mitigation Bank / In-Lieu Fee Information:

Name of mitigation bank or in-lieu fee project:

Type of credits to be purchased:

If you are proposing permittee-responsible mitigation, have you prepared a compensatory mitigation plan? Yes. Submit the plan with this application and complete the remainder of this section.

□ No. A mitigation plan will need to be submitted (for DSL, this plan is required for a complete

Mitigation Location Information (Fill out only if permittee-responsible mitigation is proposed)					
Mitigation Site Name/Legal Description		Mitigation Site Address		Tax Lot #	
County		City		Latitude 8 format)	Longitude (in DD.DDDD
Township	Range		Section		Quarter/Quarter
(10) ADJACENT PROPERTY OWNERS FOR PROJECT AND MITIGATION SITE					
Pre-printed mailing labels <ul> <li>of adjacent property</li> <li>owners attached</li> </ul>		Project Site Adj Owners	Ijacent Property Mitigation Site Adjacent Property Owners		

No adjoining property owners. Port of Newport owns adjoining properties

This project is consistent with t	OCAL PLANNING OFFICI, d in this application and have deter the comprehensive plan and land he comprehensive plan and land us he comprehensive plan and land us	AL) rmined that: use regulations se regulations
☐Other Permit (explain in ☐This project is not currently cor consistent requires: ☐Plan Amendment ☐Zone Change	nsistent with the comprehensive pla ew (explain in comment section bel	low)
Local planning official name (print) Derrick I. Tokos, AICP	Title Community Development Director	City / County Newport
Signature	Date September 27, 20	022
<b>Comments:</b> Because the project is within the Yaqu (NMC 14.04.030)	iina Bay estuary, an Estuarine Permit is ro	equired before work can proceed

# (12) COASTAL ZONE CERTIFICATION

If the proposed activity described in your permit application is within the <u>Oregon coastal zone</u>, the following certification is required before your application can be processed. The signed statement will be forwarded to the Oregon Department of Land Conservation and Development (DLCD) for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program and consistency reviews of federally permitted projects, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050 or click <u>here</u>.

#### **CERTIFICATION STATEMENT**

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Applicant Name	Title	
au na chaile n' na chaile denn	net Fill of Language of Fills	Carl State of the second
Applicant Signature	Date	

# (11) CITY/COUNTY PLANNING DEPARTMENT LAND USE AFFIDAVIT (TO BE COMPLETED BY LOCAL PLANNING OFFICIAL)

I have reviewed the project described in this application and have determined that:

This project is not regulated by the comprehensive plan and land use regulations

This project is consistent with the comprehensive plan and land use regulations

This project is consistent with the comprehensive plan and land use regulations with the following:

Conditional Use Approval

Development Permit

Other Permit (explain in comment section below)

This project is not currently consistent with the comprehensive plan and land use regulations. To be consistent requires:

Plan Amendment

Zone Change

Other Approval or Review (explain in comment section below)

An application or variance request has has not have been filed for approvals required above

Local planning official name (print)	Title		City / County	
Signature		Date		
Comments:				

# (12) COASTAL ZONE CERTIFICATION

If the proposed activity described in your permit application is within the <u>Oregon coastal zone</u>, the following certification is required before your application can be processed. The signed statement will be forwarded to the Oregon Department of Land Conservation and Development (DLCD) for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program and consistency reviews of federally permitted projects, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050 or click <u>here</u>.

#### CERTIFICATION STATEMENT

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Applicant Name	Title
Aaron T. Bretz	Director of Operations, Port of Newport
Applicant Signature	Date
Aaron Bretz	22SEP2022
0	

# (13) SIGNATURES

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or DSL staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish supplemental information in support of this permit application. I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance. **To be considered complete, the fee must accompany the application to DSL. The fee is not required for submittal of an application to the Corps.** 

Fee Amount Enclosed	\$885	
Applicant Signature (required)	must match the nai	me in Block 2
Print Name		
Aaron T. Bretz		
Signature		Date
Aaron Bretz Authorized Agent Signature		22SEP2022
Authorized Agent Signature		
Print Name		Title
Signature		Date

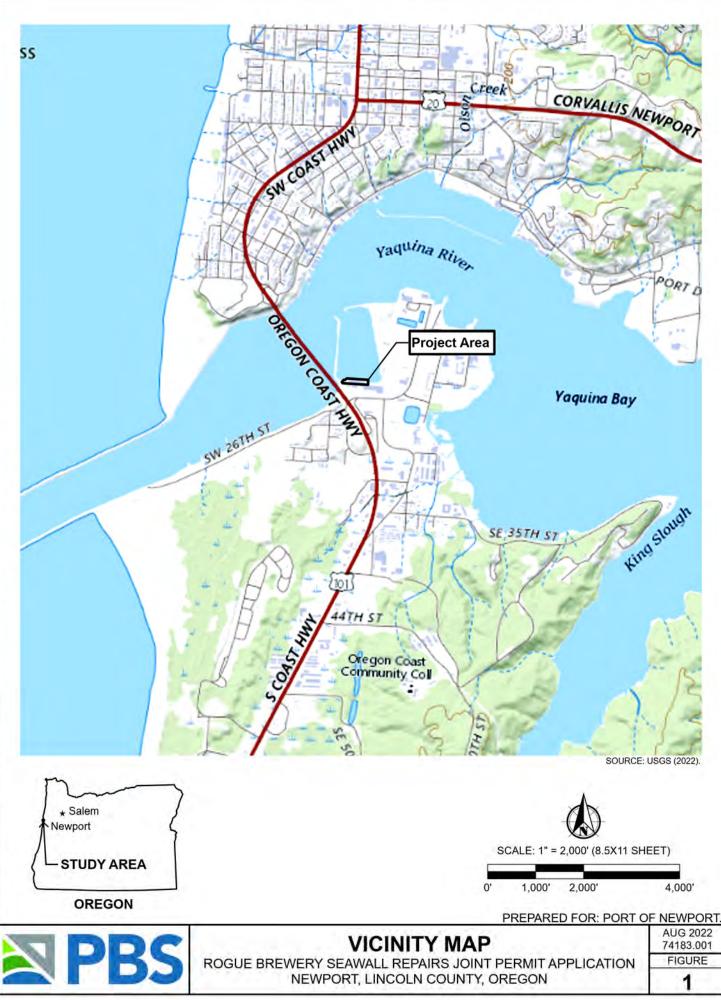
Landowner Signature(s) <sup>*</sup>			
Landowner of the Project Site (if different from ap	plicant)		
Print Name	Title		
Signature	Date		
Landowner of the Mitigation Site (if different from	applicant)		
Print Name	Title		
Signature	Date		
Department of State Lands, Property Manager (to	be completed by DSL)		
If the project is located on <u>state-owned submerged and submersible lands</u> , DSL staff will obtain a signature from the Land Management Division of DSL. A signature by DSL for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for a removal-fill permit. A signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied and a separate proprietary authorization may be required.			
Print Name	Title		
Signature	Date		

<sup>\*</sup> Not required by the Corps.

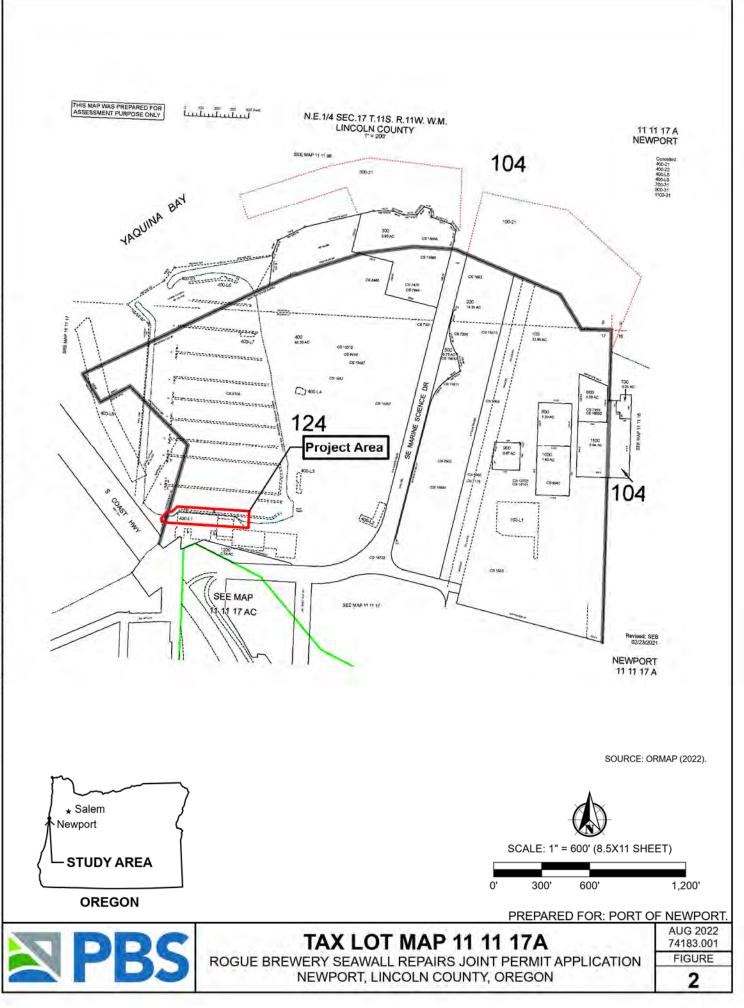
(14) ATTACHMENTS	
------------------	--

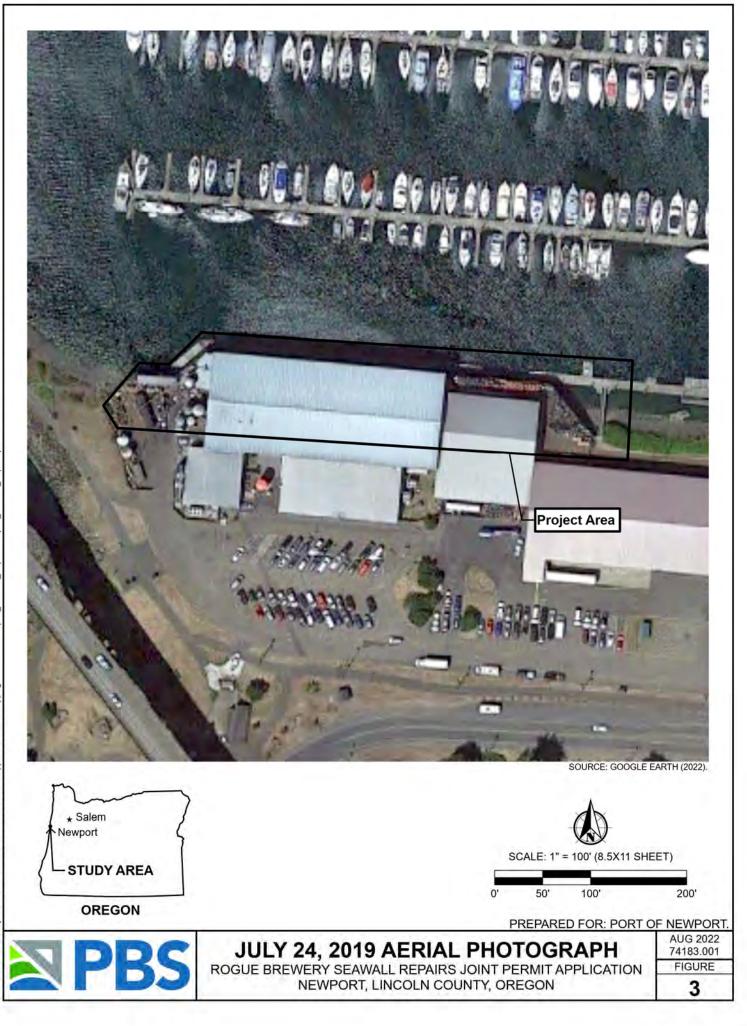
(14) ATTACHMENTS				
✓ Drawings				
Location map with roads identified				
U.S.G.S topographic ma	ıp			
Tax lot map				
✓ Site plan(s)				
Cross section drawing(s	;)			
Recent aerial photo				
Project photos				
$\Box$ Erosion and Pollution Co	ontrol Plan(s), if applicable			
□ DSL/Corps Wetland Co	ncurrence letter and map, if	approved and applicable		
□ Pre-printed labels for adjace	ent property owners (Require	ed if more than 5)		
□ Incumbency Certificate if a	applicant is a partnership or c	corporation		
Restoration plan or rehabilit				
☐ Mitigation plan				
□ Wetland functional assessm	nent and/or stream functiona	lassessment		
☐ Alternatives analysis				
		anager during pre-application co	ordination.)	
Stormwater management pla	an (may be required by the C	Corps or DEQ)		
Other:				
Send Completed form to:	<u>Counties:</u> Baker, Clackamas,	Send Completed form to:		
U.S. Army Corps of Engineers	Clatsop, Columbia, Gilliam, Grant, Hood	DSL - West of the Cascades:		
ATTN: CENWP-OD-GP	River, Lincoln, Malheur,	Department of State Lands		
PO Box 2946 Portland, OR 97208-2946	Morrow, Multnomah, Polk, Sherman, Tillamook,	775 Summer Street NE, Suite 100 Salem, OR 97301-1279		
Phone: 503-808-4373	Umatilla, Union, Wallowa,	Phone: 503-986-5200		
portlandpermits@usace.army.mil	Wasco, Washington, Wheeler, Yamhill	OR		
	Wheeler, rainin	DSL - East of the Cascades:		
OR		Department of State Lands		
U.S. Army Corps of	Counties:	1645 NE Forbes Road, Suite 112 Bend, Oregon 97701		
Engineers	Benton, Coos, Crook,	Phone: 541-388-6112		
ATTN: CENWP-OD-GE 211 E. 7 <sup>th</sup> AVE, Suite 105	Curry, Deschutes, Douglas, Jackson,	Send all Fees to:		
Eugene, OR 97401-2722	Jefferson, Josephine,	Department of State Lands		
Phone: 541-465-6868 portlandpermits@usace.army.mil	Harney, Klamath, Lake, Lane, Linn, Marion	775 Summer Street NE, Suite 100		
		Salem, OR 97301-1279 Pay by Credit Card Online:		
		https://apps.oregon.gov/dsl/EPS/		

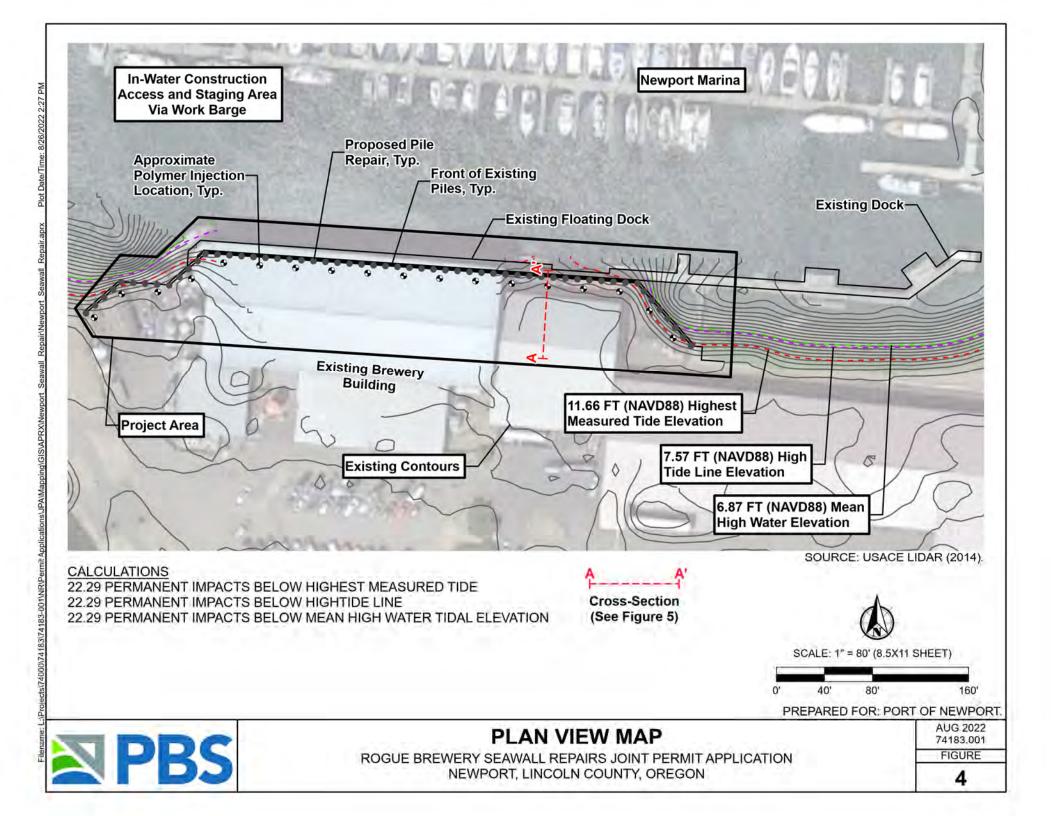
# **ATTACHMENT 1**

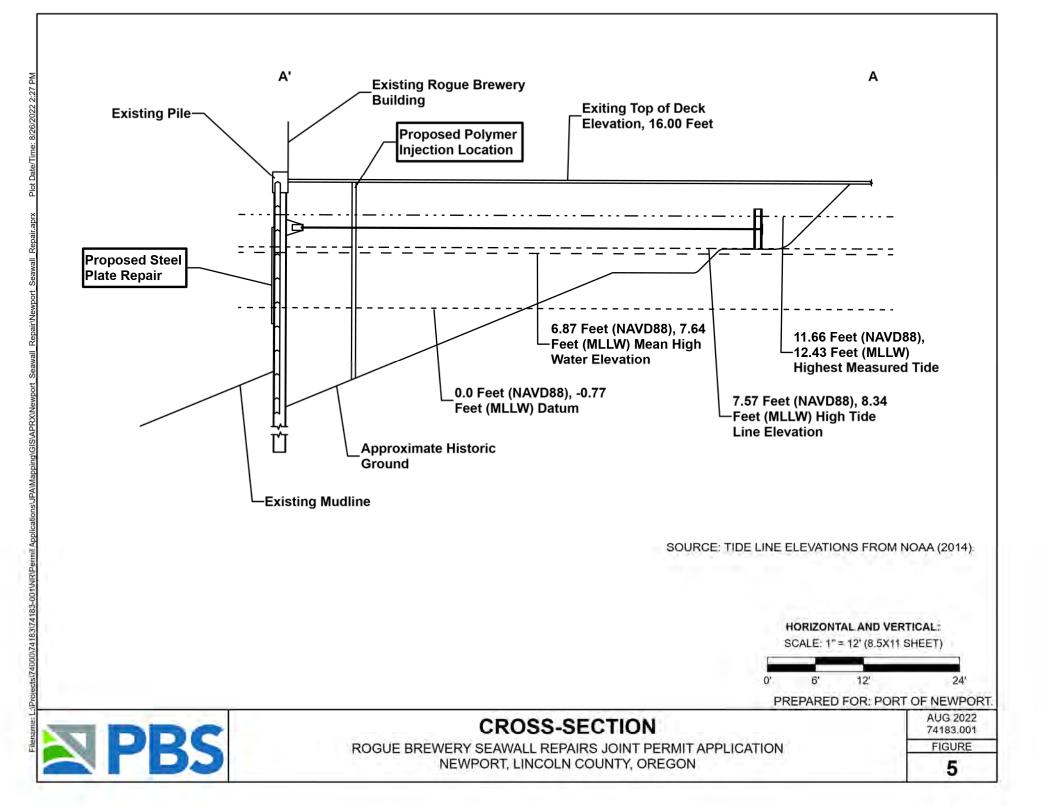


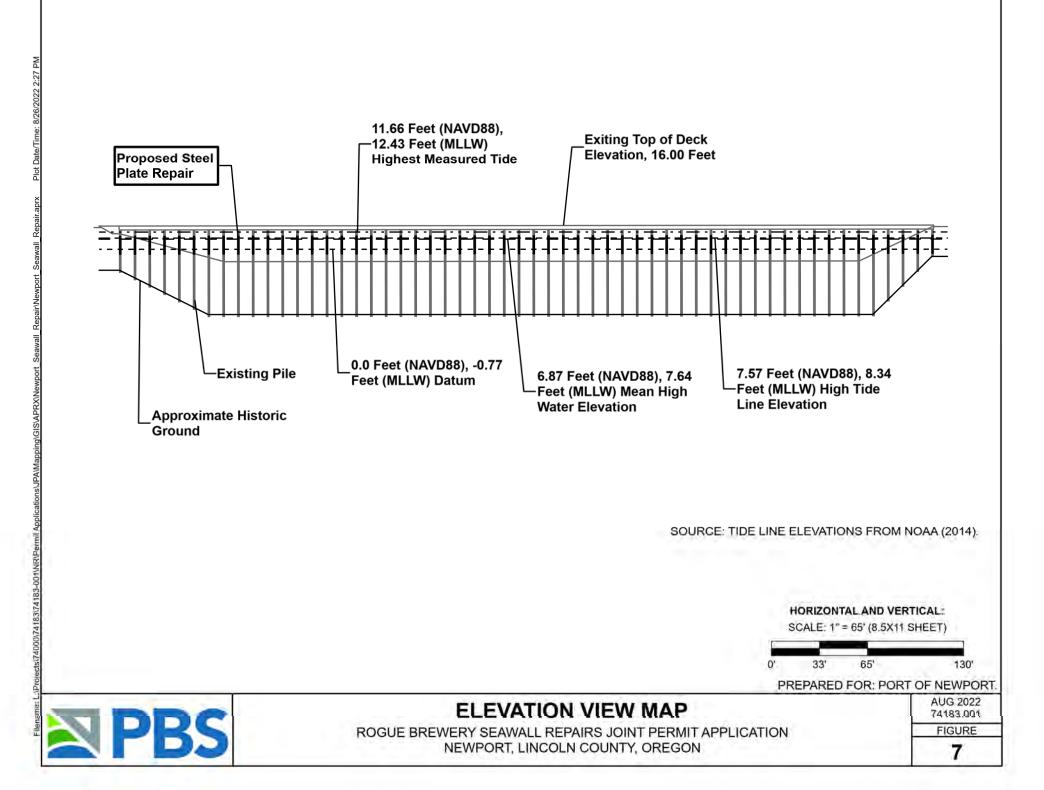
Plot Date/Time: 8/26/2022 2:27 PM Chrojects/74000/74183/74183-001/NR/Permit Applications/JPA/Mapping/GIS/APRX/Newport\_Seawall\_Repair/Newport\_Seawall\_Repair.aprx



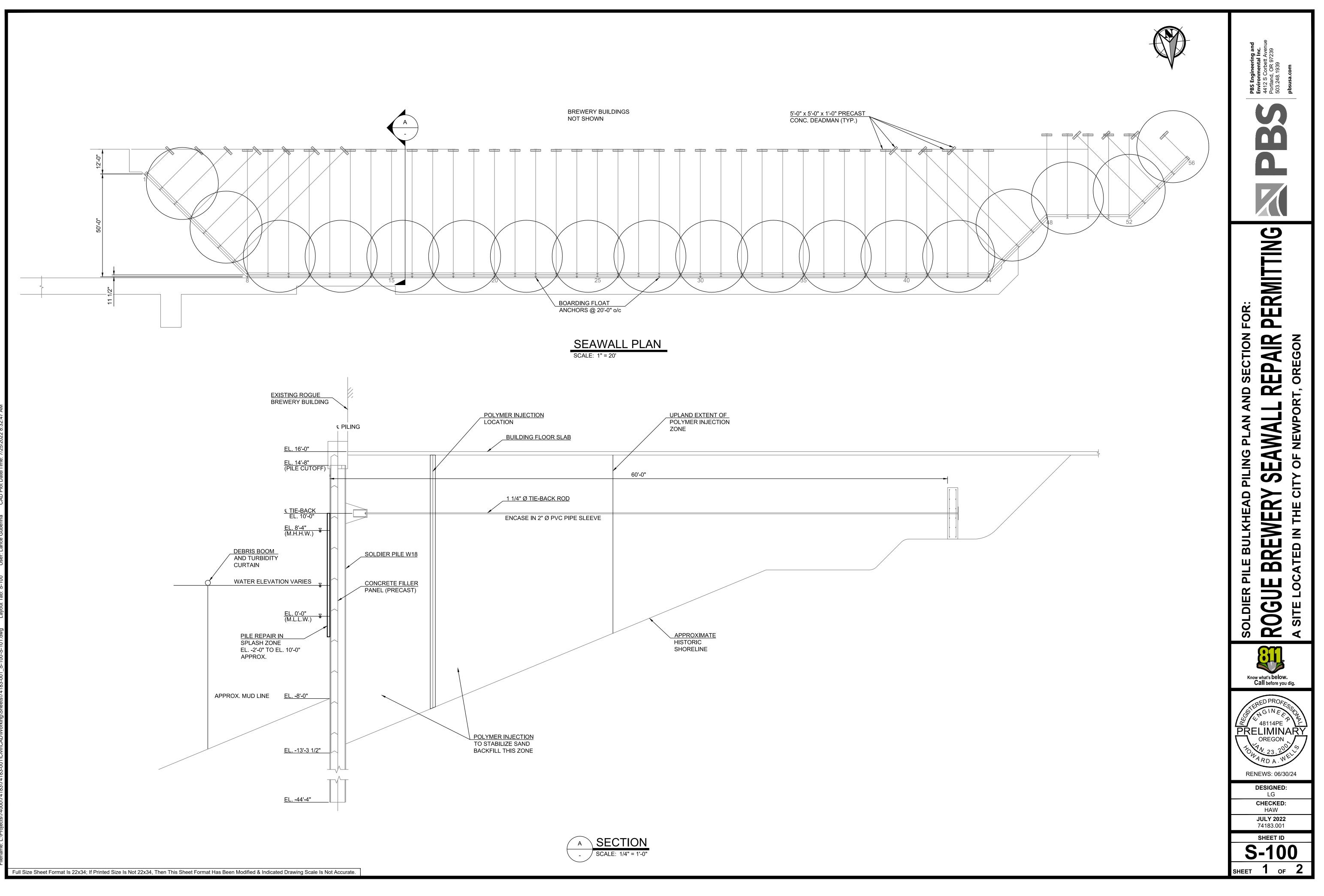




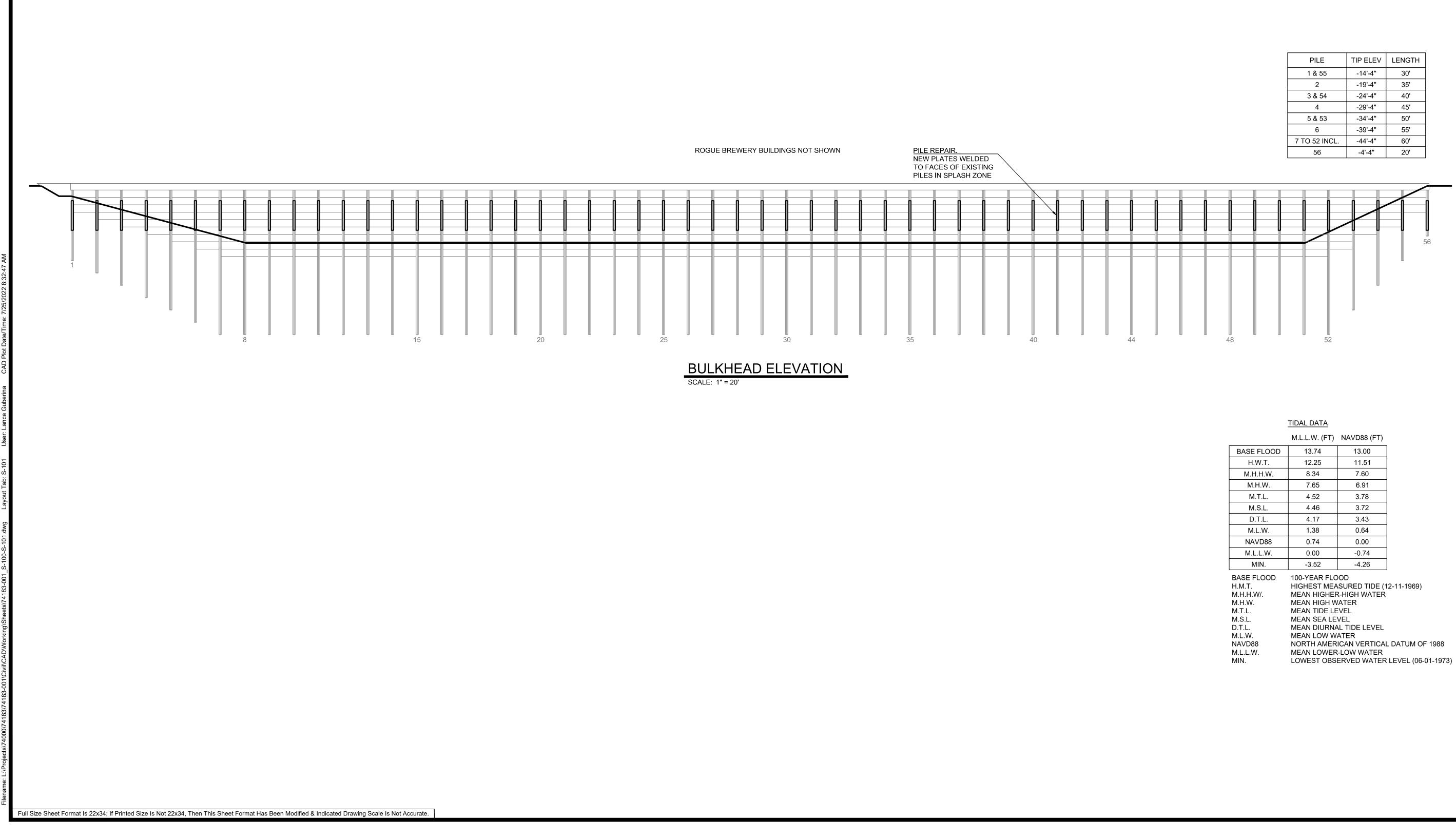




# **ATTACHMENT 2**



e: L:\Projects\74000\74183\74183-001\Civi\CAD\Working\Sheets\74183-001\_S-100-S-101.dwg Layout Tab: S-100 User: Lance Guberina CAD Plot Date/Time: 7/25/2022



PILE	TIP ELEV	LENGTH
1 & 55	-14'-4"	30'
2	-19'-4"	35'
3 & 54	-24'-4"	40'
4	-29'-4"	45'
5 & 53	-34'-4"	50'
6	-39'-4"	55'
7 TO 52 INCL.	-44'-4"	60'

	M.L.L.W. (FT)	NAVD88 (FT)	
BASE FLOOD	13.74	13.00	
H.W.T.	12.25	11.51	
M.H.H.W.	8.34	7.60	
M.H.W.	7.65	6.91	
M.T.L.	4.52	3.78	
M.S.L.	4.46	3.72	
D.T.L.	4.17	3.43	
M.L.W.	1.38	0.64	
NAVD88	0.74	0.00	
M.L.L.W.	0.00	-0.74	
MIN.	-3.52	-4.26	
BASE FLOOD H.M.T.	100-YEAR FLC		12 11 104
M.H.H.W/.	HIGHEST MEASURED TIDE (12-11-19) MEAN HIGHER-HIGH WATER		
M.H.W.	MEAN HIGH WATER		
M.T.L.	MEAN TIDE LEVEL		
M.S.L.	MEAN SEA LEVEL		
D.T.L.	MEAN DIURNAL TIDE LEVEL		
M.L.W.	MEAN LOW W		
NAVD88	NORTH AMER	ICAN VERTICA	L DATUN
N A 1 1 \A/			



**ATTACHMENT 3** 



Photo 1. Rogue Brewery retaining wall structure showing piles and wall.



Photo 2. Rogue Brewery building and Retaining Wall structure.





Photo 3. Typical view of retaining wall showing piles and support wall.



Photo 4. View of Brewery building and floating dock structure.