



The University of Washington

Master of Urban Planning & Design

URBDP 507 Studio Spring 2024

Jeff Baitx, Colleen Clayton, Elliot Falinski, Shanay Ming, Hunter Ottman, Mariana Sánchez Castillo, Sunny Song, Deena Tamaroff, Sarah Whitney, Julia Zarechkina

Executive Summary

The phased development proposal for the Bendiksen Landing site prioritizes realistic economic development opportunities for the Port of Willapa Harbor and community of South Bend. The plan segments the site by associative use to increase general legibility; north side is manufacturing businesses, while the south side is public-facing commercial retail and food. Site development is broken down into 4 phases: phase 1 is 0-2 years, phase 2 is 3-5 years, phase 3 is 6-10 years, and phase 4 is 11-20 years. In imagining the future of the Bendiksen Landing site, the immediate priority was monetizing the components of the site that are readily and safely accessible to the public in the short term phases. This will serve to not only bring in revenue to allow for future site development, but also test the market demand for uses to be expanded upon through further investment into more permanent site infrastructure and facilities. Activating the outdoor space with an expanded food truck plaza and seasonal market space capitalizes on the site's prominent location along a major tourism route and will gauge engagement and interest from locals and tourists alike. A key focus of site design at this stage is logical and safe circulation for the various users of the site by foot, bike, and vehicle, generally segregating industrial uses on the northeast side of the site and tourist use on the southwest side. The long term phases encompass larger shoreline and facilities developments that will require more resources, and make the Bendiksen Landing site a greater economic asset to the community. Overall, the phased implementation allows for flexibility to pivot and reassess seasonally, and if profitable, these initial phases will pave the way for more ambitious future use cases long term.

Current Site Conditions

Building Conditions

Based on the Livermore Structural Assessment conducted in 2022, the majority of the buildings are not code-compliant or have structural problems. The Port of Willapa Harbor has since started remodeling buildings 1, 2, and 3. None of these properties have been fully remodeled.

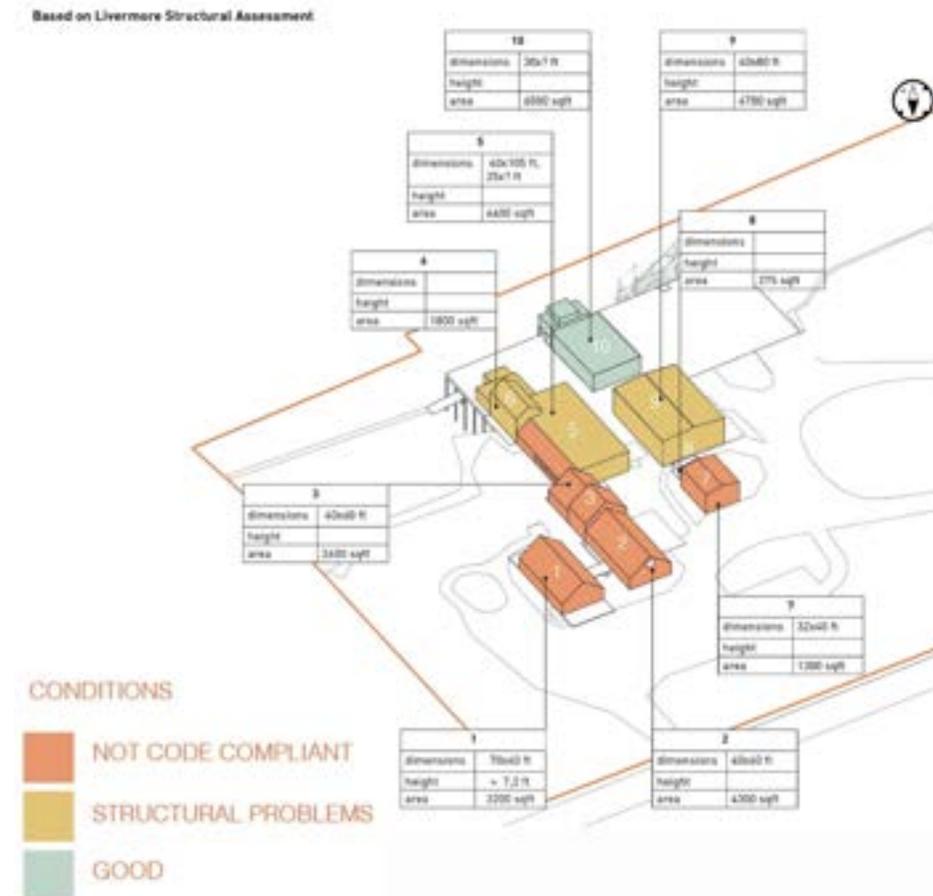


Figure 1. Livermore Structural Assessment Building Conditions

Current Utilities

At the Bendiksen Landing site, utilities come from various public and private sources. Sewage and water are supplied from the City of South Bend, electricity is supplied from Pacific County Public Utility District 2, and broadband is supplied by an independent service provider. Our team is still in need of information regarding the public utility's existing lines, capacity, and cost at the site in order to further assess the site's development opportunities and to recommend possible future projects.

Tenants

Two tenants currently lease space on the site, Linda's Fish & Chips and Taylor Shellfish. Linda's Fish & Chips is a popular food truck that operates seasonally from April through September. The owner pays \$310.31 per month for a month-to-month lease of approximately 1,252 square feet of the site on the southwest corner of the lot which allocations space for the food truck to be parked, for patrons of the food truck to park, and a relatively informal outdoor seating area with a couple of picnic tables. Taylor Shellfish is a local seafood company that operates oyster farms,



seafood restaurants, and seafood markets throughout Washington State and British Columbia. The company pays \$1738.87 per month for a five-year lease through December 2027 (with the opportunity to extend) for 20,750 square feet of the site on the northeast corner of the lot, including a small building and waterfront dock access.

There are additional leases in the contract for Buildings 1 and 2. Building 1 will be occupied by Heather Hamilton, a local entrepreneur with plans to set up individual markets for small-scale craftspeople and facilitate bike and kayak rentals. Building 2 will be occupied by staff of Washington Sea Grant for satellite administrative and office use. For the purposes of the first few phases of proposed site planning, we have assumed these uses for said buildings.

Parking and Pedestrian Infrastructure

Currently there is no dedicated infrastructure for pedestrians or cyclists on site. Vehicular paths and parking areas are prominently visible from the road. There is no signage to differentiate between access points for personal vehicles and industrial vehicles. Parking spaces are not explicitly defined within the existing gravel parking areas.

Dock and Shoreline Uses

There is one existing floating dock on the southwest corner of the site, but it is in need of repair or removal. Currently, it appears that the dock is only utilized for occasional mooring. Adjacent to the dock is a small patch of public access to the shoreline, albeit unstable and lacking maintenance. The main wharf is used solely by Taylor Shellfish to load and offload oyster aquaculture supplies and harvests.

Project Goals & Vision

Using the information we collected for our Initial Conditions Report and the market research we conducted in the first half of our studio, our team has assembled a set of short-term design and land use recommendations to maximize the return on investment of the property and its benefit to the community. We believe that these recommendations have strong potential to create jobs for South Bend and Pacific County residents, generate revenue for the Port, create an activated space for the community, and attract and sustain tourism from Highway 101. We also intend to honor the maritime heritage of the region and this site's historic role as a cannery, and to recommend uses that are in alignment with South Bend's Comprehensive Plan.

The site plan divides 20 years of proposed activity into four phases. The short-term vision described in this report addresses the initial five years of development and is broken into phases of 0-2 years and 3-5 years.

The primary objectives for the first five years are to:

- Activate the site through flexible, low-cost, non-permanent upgrades to facilities
- Enhance infrastructure and expand utilities on site to complement current uses and lay the foundation for future uses
- Benefit local entrepreneurs in conjunction with the Willapa Works Business Incubator by providing space to test out business models
- Provide the community with additional public space and event venue
- Gain insight into market demand through engagement with initial use cases before investing in more permanent infrastructure

The long-term vision is broken into two additional phases: 6-10 years and 11-20 years. The



goals and vision for the site during this time are:

- Responsive to demand observed in short term phasing before investing in more extensive infrastructure
- Combine cohesive, complementary uses with overlapping audiences
- Promote a mix of seasonal and year round uses that can have flexible hours, offerings, and activity according to demand
- Attract an audience of both local residents and tourists
- Tourist-centered uses introduced in the short term may help subsidize long term community-centered uses and work in tandem together

Market Analysis

Based on the existing conditions of the site and the project goals, our team developed a set of criteria to evaluate and prioritize potential site tenants according to their market viability.

The set of criteria the team used is as follows:

- Whether/the extent to which each tenant would create jobs for Pacific County residents
 - Whether any potential jobs created would match the skills, qualifications, and availability of existing South Bend residents
- Whether/the extent to which each tenant could generate revenue for the port
- Whether each tenant represented a need that was already being fulfilled elsewhere in the community or within a reasonable competitive distance

Our team generated a list of potential tenants by taking into consideration the legally permissible uses of the site per the South Bend Zoning Ordinance, Pacific County Zoning Ordinance, and the Shoreline Management Program, as well as a need to serve both tourists and locals. **Below are the results of our team’s evaluation of each potential tenant using the stated criteria:**

Tenant	Viable?	Notes and Phasing Plans
Daycare/Child Services Center	✘ No	✘ Demand already adequately met.
Artist Residency	✘ No	✘ Does not generate revenue.
Internet Cafe	✘ No	✘ Demand already adequately met.
Food Trucks	✓ Yes	✓ Recommended for Phase I
Outdoor Market	✓ Yes	✓ Recommended for Phase I
Makers’ Space	✓ Yes	✓ Recommended for Phase I
Bike Shop/Rental	✓ Yes	✓ Recommended for Phase I
Event Space	✓ Yes	✓ Recommended for Phase II
Kayak Rental	✓ Yes	✓ Recommended for Phase II
Marine-Related Storage	✓ Yes	✓ Recommended for Phase III

Recreational Marina	✓ Yes	✓ Recommended for Phase III
Commercial Boatyard	✓ Yes	✓ Recommended for Phase IV
Seafood Restaurant	✓ Yes	✓ Recommended for Phase IV
Educational Research Center	✓ Yes	✓ Recommended for Long-Term Vision
Community Tool Library	✓ Yes	✓ Recommended for Long-Term Vision
Commissary Kitchen	✓ Yes	✓ Recommended for Long-Term Vision
Recreational Fishing Rentals/Bait & Tackle Shop	✓ Yes	✓ Recommended for Long-Term Vision
Passenger Ferry	✓ Yes	✓ Recommended for Long-Term Vision

Branding

Branding Purpose

The branding aims to showcase the site's new and vibrant identity after the former cannery's relaunch while still honoring its historical significance. The choice of color palette and graphic elements draws inspiration from the region's maritime culture, local industry, and nature.

Naming

The main project name, "Cannery Cluster," reflects the site's past as a cannery; also, many city residents still use "Cannery" when talking about the site. The term "Cluster" symbolizes the coexistence of various functions on the site, such as a farmers market, food truck plaza, third place, and makerspace. We have also developed alternative names: "Mariculture", "Shell Port", "Starboard Bend", "Shell Stock", and "Harbor'n'Hub". We propose involving the public in the final name decision, either through town discussions or a vote, to ensure the name resonates with the community.

Color Palette

The color palette is a thoughtful blend of vibrant and complex colors. It features cool shades of blue and green, symbolizing the site's connection with its natural surroundings, including water, shore, sky, and green mountains. The palette also includes warm shades of orange and yellow, representing positive and active human intervention. These colors are used individually, in pairs, or in triads in the proposed logos, creating a harmonious and visually appealing brand identity.

Graphic Elements

The primary logo and supporting elements incorporate imagery associated with South Bend and the Cannery, such as a ship's helm, an anchor, marine creatures, and building outlines. These elements are combined with graphics representing the territory's new functions, such as food trucks, cafes, and kayaks.

Signage

The primary logo (Figure 2) is recommended for use on the site, as well as on merchandise, souvenirs, and posters. Additionally, a system of sub-signs and supporting elements has been developed for individual Cannery areas and site navigation, with each place assigned its color combinations. For example, the Makers Space and Kayak Rentals are yellow and orange, respectively (Figure 3).



Figure 2. Branding concept



Figure 3. Supporting branding elements

Phase 1: 0-2 Years

Overview



Figure 4. Developments Phase 1: 0-2 years

In Phase 1, the primary focus of the site is concentrated on site preparation and beautification, utilities improvements, shoreline-related improvements, a temporary bathroom, an outdoor market and food truck plaza. The total capital cost for this phase is approximately \$740,000.00 (see Appendix 2: Capital Costs for further information). Below is the overall cost distribution:

- Building: \$130,000.00
- Infrastructure: \$470,000.00
- Furnishings: \$85,000.00
- Planting: \$55,000.00

Facilities

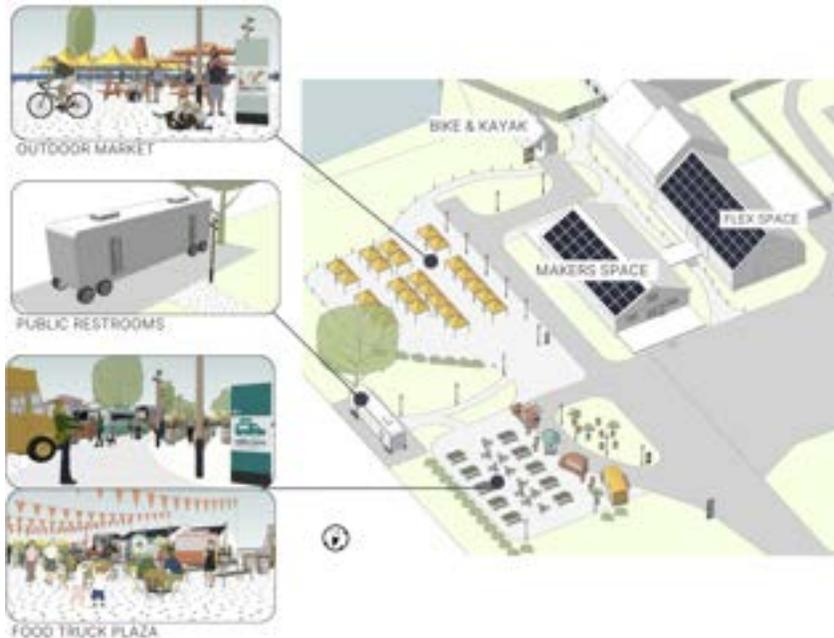


Figure 5. Phase 1: 0-2 years

The first stage involves actions that do not require significant capital investments. The main focus in years 0-2 is to expand the food truck area, set up a seasonal outdoor market space, update utilities and make general site improvements.

Phase 1 Assumptions

Currently, the Port of Willapa Harbor is renovating several buildings and working on a lease for Heather Hamilton's proposed maker's space and bike and kayak rental. We anticipate the maker's space, bike and kayak rental, and flex office space buildings will be operational in Phase 1.

Large Food Truck Plaza

The food truck plaza aims to target local residents and tourists passing by on Highway 101. The existing seafood restaurant, Linda's Fish & Chips, is popular during the warmer months, so the project proposes expanding the area by attracting 3 more food trucks to connect to the existing utility connections and to expand the seating capacity in a more clearly dedicated area.

It is also suggested to explore different models of space rent. Linda's Fish & Chips currently has a month to month lease, but other models like a daily space rent or percentage of earnings or combination of the two may be better suited to respond to the seasonality of demand, and to accommodate fluctuating demand particularly when special events may be hosted at the site.

A food truck plaza serves three important goals: it allows local entrepreneurs a venue to try out food and beverage business concepts with a lower barrier to entry than a restaurant; it builds engagement and familiarity with the site by the public by offering more reasons to visit and spend more time; it allows for demand for a restaurant on site to be gauged by assessing the profitability of the collective food trucks.

In total the food truck plaza related improvements are expected to cost approximately \$16,000.00 in Phase 1.

Outdoor Market

The market area behind the food truck area is designed for 10-30 tents for various uses such as weekend and seasonal markets. The outdoor market aims to promote local business, generate revenue for the Port of Willapa, benefit the community, and attract tourists. Vendors would sell items like: produce, food products, drinks, crafts, home goods, clothes, and recreation supplies. Programming for the outdoor market will vary by season. A summer market could operate on a weekly cadence from July through September, while specialty markets could operate 2-4 times per year.

In total the outdoor market related improvements are expected to cost approximately \$15,000.00 in Phase 1.

Public Restrooms

A mobile restroom truck with 4+4 stalls will be placed between the market and food truck areas, requiring electricity, water, and sewerage connections. This temporary structure is necessary for increased visitors, and will serve the immediate need for public restrooms. Considered operating costs, the monthly rent and maintenance of this temporary facility is not factored into the capital costs for Phase 1 development. However, we estimate that a unit like this would cost approximately \$5,000 for the first month.

Wayfinding

Signage, fencing, and lighting will be installed in this phase to enhance the legibility of the site for visitors. Through these additions, we hope to improve navigation, safety, and the overall image of the site. Altogether, we anticipate these Phase 1 site improvements will cost approximately \$25,000.

Signage types include section markers, safety signage, and way-finding signage. We envision the section signs will be placed at the south entrance of the site, maker's space, kayak and bike rental area, food truck plaza, and outdoor market. Through distinct branding, these signs will provide a cohesive character across the public-facing areas and businesses. The safety signage will define areas that are off-limits for the public. Wayfinding signage will be added in later phases to direct the public to different public-facing spaces.

Fencing is necessary to prevent people from trespassing into unwarranted areas of the site. This includes the back pier, underneath the dock, and industrial areas like the worksite area of Taylor Shellfish. Fencing will not only ensure the safety of visitors but also prevent liability of negligence if anyone were to get hurt on the dock.

Lighting will increase the hours of operation for businesses in the winter, and create inviting spaces for the public. Phase 1 will install walkway lights, building lights, and tall lamp posts near the food truck plaza and outdoor market.

Solar Energy

Install solar modules on top of building 1 & 2. The quote from Blossom Solar offers details of the panel option, the cost, and the estimated energy produced in an annual year. Our recommendation is to contact the company and to set up a preconstruction, installation, and post-installation phase to produce clean energy and save money for the site.

From the quote, 113 modules would be installed on building roofs 1 & 2 facing southwest and is estimated to produce 59,000 kW in the first year. This would produce an approximate value of



\$4,055.36 and within 25 years produce \$160,621 of energy, offsetting the price of the whole system of \$147,243 with an estimated return on investment in 18 years.

The energy produced from the system would be used to power facilities, and any unused power would be net metered back to PUD #2 for a profit and help fasten the return of investment. With the solar system being under 100kW it would also be sales exempt. There are many federal and state grants, loans, and tax incentives that are based on either a revolving door status or first-come-first-serve. Information about grants is from DSIRE State and from Washington State Department of Transportation.

Proposed Circulation



Figure 6. Phase 1: 0-2 years Circulation Map

The goal of the proposed circulation is to improve site circulation and safety by creating clear paths for pedestrians, cyclists, cars, and semi-trucks and dividing visitor and tenant commercial parking. The northwest entry remains an industrial-focused access to employee parking and on-site loading and unloading. Pedestrian foot traffic is concentrated on designated pathways connecting the visitor parking lots to the outdoor public uses and temporary restrooms while prioritizing safety when crossing the vehicle route. The parking lot will remain an informal gravel parking lot to minimize costs in this phase. This will allow us to test the demand for the specific uses and plan for a formal parking lot in phase 3.

Parking design recommendations

Designing for flexibility will be paramount as market response will have an ongoing impact on the phased plans. The South Bend Zoning Ordinance mandates that different parking capacities be provided for different land uses, so the site's parking needs will evolve over time. For the first two phases, our team recommends allowing vehicles to park on the existing gravel, rather than installing any permanent parking infrastructure. According to our team's parking analysis, the proposed tenants for the first phase will require 36,400 gross square feet to accommodate up to 182 vehicles (see Appendix 1).

Beautification

The beautification of the site is based on three reasons. The first is to help create spaces the South Bend community can enjoy, the second is with Route-101 parallel to the cannery, to grow interest in the site from those who initially didn't intend to stop onsite, and lastly to improve the drainage of the site. With an average of eighty-five inches of rainfall across the site, improving the drainage is a pressing issue. The first step is expanding existing drainage ditches into year-long retention ponds and the excavation of new rainy-season detention ponds. Each of these smaller ponds feeds into the larger year-round ponds and eventually out to sea.

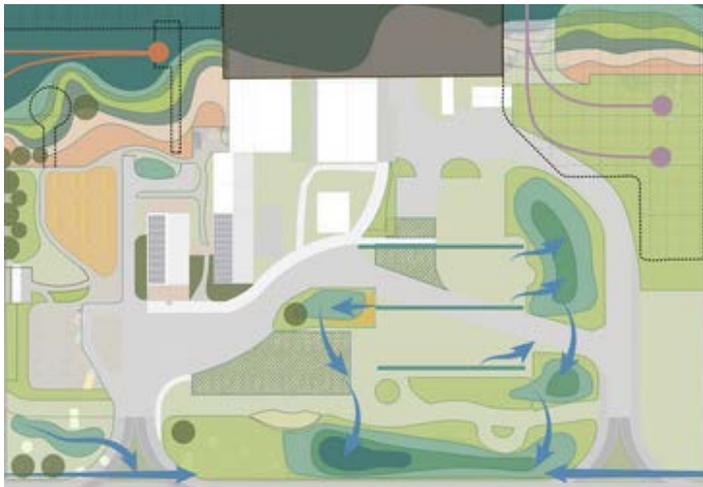


Figure 7: Proposed Drainage System

This leads to the addition of plant life focused on the frontage and public areas. The overarching theory is to create a vibrant and inviting space that focuses sightlines toward public amenities, fills in the barren space, and blocks the more unsightly industrial views with native and non-invasive plant life. Going parallel from Route-101 and the River, inwards to the center of the site the focus is on water & salt-loving plants to help deal with drainage. Moving inwards adding the more vibrant and noticeable plants Washington's ecosystem has to offer once alongside the buildings or less sightly edges of the site, the focus moves to add trees to help give a semi-private feeling whilst on-site (Appendix 5).

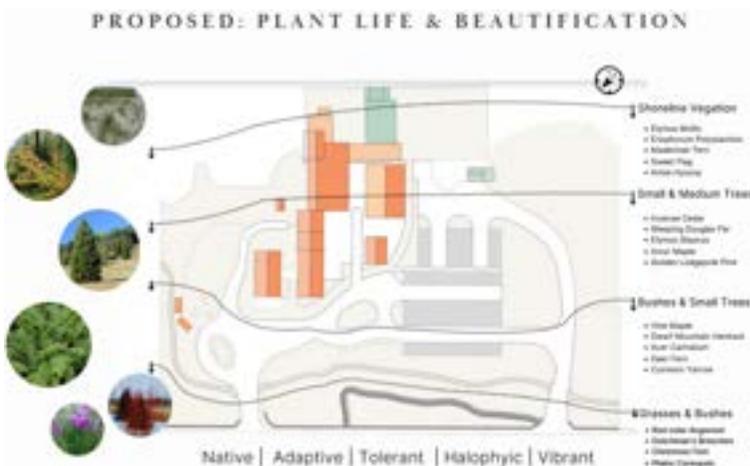


Figure 8: Overarching Layout

Overall the cost of plants for phase one comes to \$71,000 split between an estimated twenty-five thousand for trees, twenty-four thousand for bushes & shrubs, and twelve thousand for new grasses & perennials (Appendix 2). However with plant costs heavily spent on the age of the plant, one can go much cheaper as well as much more in cost.



Figure 9: Phase 1 Proposed Detailed Beautification Layout

Permits & Regulations

Under Washington State Building Ordinance 15.84 any project starts on site, permits will have to be obtained from several different agencies. Any development on site or to the buildings will need to be approved by the City of South Bend. Building ordinance, regulations, and permits will be located in Appendix 3. Any federal or state obtained grants may require extra permits or regulations depending on the policy of the grants.

In preparation for Phase I, a survey will need to be done to locate where existing utility lines are to extend off from them. Projects that will need approval for permits will be the installation of extending utility lines to the future outdoor restroom, outdoor lighting, farmers market, solar module installation, and laying of gravel. Permits can be bundled up into one application of the South Bend Building Permit Packet (see Appendix 3). Several other permits will be required to handle mechanical permits, and an environmental checklist. Permits from the Washington Department of Transportation will also have to be acquired to work on the intersection of the site and HWY 101. Permit for the site entry point should be started within 90 days of issuance and be completed 120 days of issuance unless approval for extension is accepted.

During phase I, it is recommended to start the application process for the permits for phase II to save time for processing. The process will be similar in which all projects can be bundled up into the South Bend Building Permit. These projects will include installation of fencing, sidewalk, outdoor restroom, and parking.

Shoreline



Figure 10: Shoreline Phase 1 Site Plan, Circulation, & Future Permitting

Phase 1 will consist of a combination of site preparation, development, and long-term planning. This phase should include the preparation of pre-construction documents, permitting and regulatory considerations for shoreline development, as well as shoreline restoration and enhancement. The latter is the primary focus of Phase 1, where the design, construction, and planting of various vegetative strips should ideally be completed by the end of the phase.

The first phase of proposed shoreline improvements will focus on reestablishing the public's connection to nature on the southwest corner of the site by creating access to, and interaction with, the Willapa River. Removing the abandoned scows, the crumbling dock, and various piles of concrete from past demolition will clear the space for further assessment of the scale of shoreline rehabilitation needed. Additionally, by analyzing LIDAR data from the WA DNR, we have identified several water elevation lines (measured as feet Above Mean Sea Level AMSL) where on-site flooding could pose a significant problem for future development.

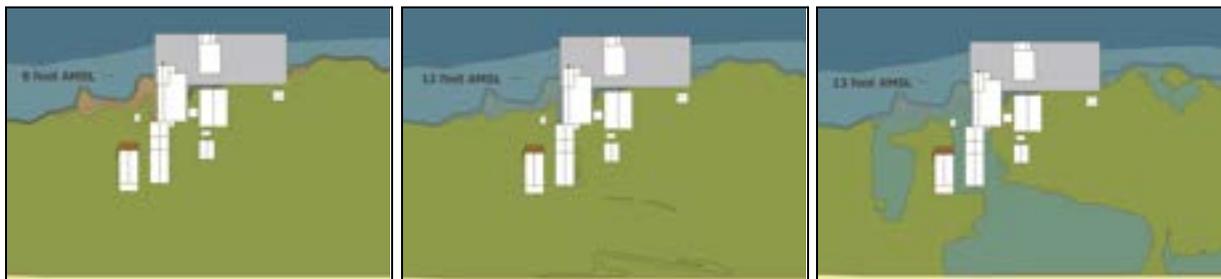


Figure 11a. 8 feet AMSL

Figure 11b. 12 feet AMSL

Figure 11c. 13 feet AMSL

While sea level rise predictions do not yet model a scenario where 13 feet AMSL would become the mean water level, the grade of the site as a whole (which is very flat) illustrates a scenario

where if water levels were to rise as a result of major a geological or meteorological event, much of the site is currently exposed to being flooded.



Figure 12a. Elevation, Figure 12b. Slope Analysis, Figure 12c. Waterflow Accumulation)

These maps illustrate how the site is in an exceptionally flat floodplain, and at risk of becoming inundated in the face of any storm surge or upstream flooding events.

To account for these risks, we're proposing the use of an eco-friendly terraced seawall that will help to mitigate shoreline erosion, provide varied elevation planting zones for water-dependent species, and reduce potential flooding risks. Additionally, any alterations to the shoreline (that are legally permissible and pose no significant risk to the watershed ecology) could provide stability for the building of a new floating recreational dock and public viewing deck.



Figure 13a. Existing Shoreline Figure 13b. Proposed Terracing Figure 13c. Planting Zones

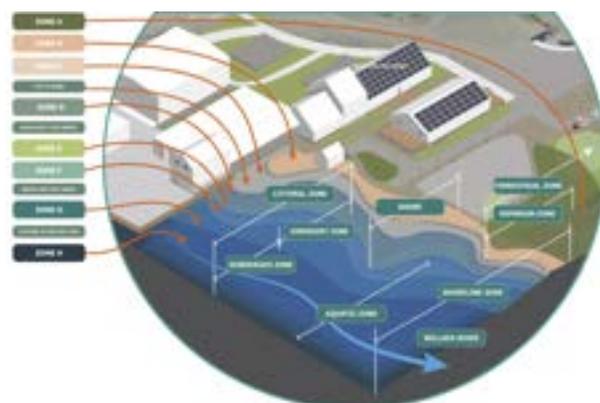


Figure 14. Shoreline Eco-Zones & Water Levels

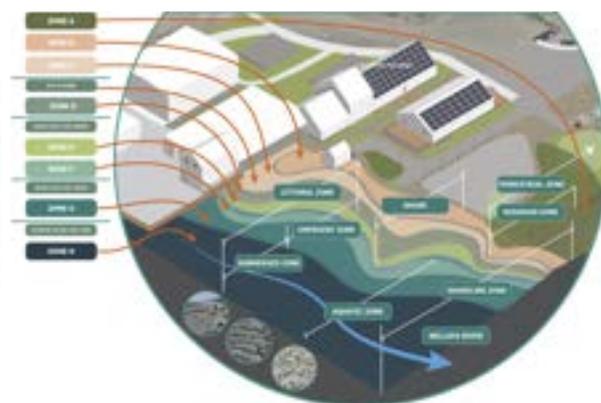


Figure 15. Shoreline Eco-Zones & Planting

Using the topography generated from LIDAR data as the initial conditions, we regarded the shoreline to expand the spatial area of shoreline habitat. In this design, Rock Rolls, a more robust form of coir logs (erosion wattles) are used to create several terraces that correspond to

the various shoreline-specific habitat zones. These terraces also serve as a way of creating more refined and stable edge lines with the river, in order to reduce shoreline erosion and incision. Zones A-H correspond with unique plant palettes that include species that are suitable for that particular shoreline habitat, as defined by the proximity to the water's edge, elevation, and tidal changes (see Appendix 5). Zone C, for example, would only be inundated in rare circumstances as it is above the *Top of Bank* and *Mean High Tide*, however, this terracing is intended to be anticipatory of such circumstances and therefore it is designed with occasional submersion in mind. The planting zones are intended to be flexible in their species composition, and the final species selection should be based on the Shoreline Eco-Zone that it covers. Where the actual form of the terracing design changes, or for additional terraces to be constructed at smaller elevation intervals, the plant palettes should be based on the shoreline zones. Zones A (*Terrestrial & Riparian*) and Zone B (*Shoreline, Riparian*) are considered to be dry land zones, and accessible to the public. Specific planting plans within those zones ought to be designed in a way that can account for required water access or other access needs. Zones C-H, however, are intended to be entirely sectioned off from the public in terms of foot track, as these would be areas for restoration plantings for function, ecosystem services, and habitat provision, which is why new, safer, and more universally accessible shoreline access like the viewing deck and Kayak dock should be considered complementary to the restoration work. Additional natural features like local driftwood, oyster shells, rocks, etc., should be added throughout the planting zones where they can enhance the planting design and better support the establishment of new plantings and the local ecology for years to come.

As the phasing unfolds, and coinciding with the creation of the food cart plaza, public market, and new kayak rental business, the increased attractiveness aesthetically and ecological value of the property will further increase the profitability of the site, attract tourists to stimulate the city's economy, and build greater community vibrancy. This phase should also lay the groundwork for strategizing the lengthy permitting process for the potential dredging of some of the shoreline and water-related construction for the future viewing deck, public kayak dock, recreational marina, and Commercial Boat yard (Phases 2, 3, and 4.) Through phase 1, in addition to the shoreline restoration terracing and plantings, preparations should be made in anticipation of the Kayak dock and viewing deck which will copy the same spaces, but will likely not be able to be constructed and opened until the end of phase 2. The marina and boatyard will also be lengthy phased projects, therefore, the pre-development and preliminary design (see Figure 14a) should be conducted in this phase as well.

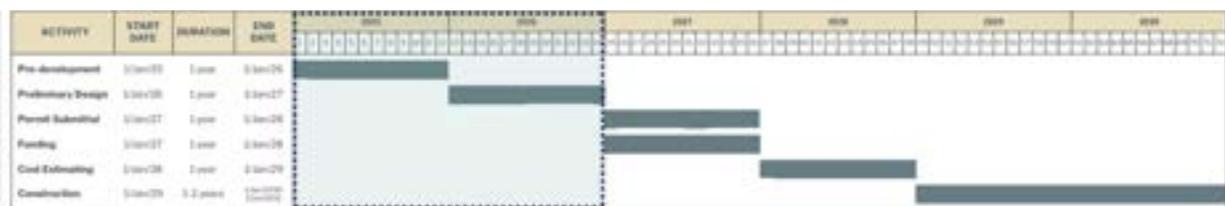


Figure 16 The Shoreline Development Timeline for Phase 1

Phase 2: 3-5 Years

Overview



Figure 17. Developments Phase 2: 3-5 years

In Phase 2, the primary focus of the site is concentrated on the southwest side of the site. Shoreline-related improvements, a permanent visitor restroom, and the Third Place area and viewing deck are the primary focus of development in this phase. The total capital cost is approximately \$865,000.00 (see Appendix 2 for further information). Below is the overall cost distribution:

- Building: \$240,000.00
- Building Renovations: \$520,000.00
- Furnishings: \$100,000.00
- Planting: \$5,000

Facilities

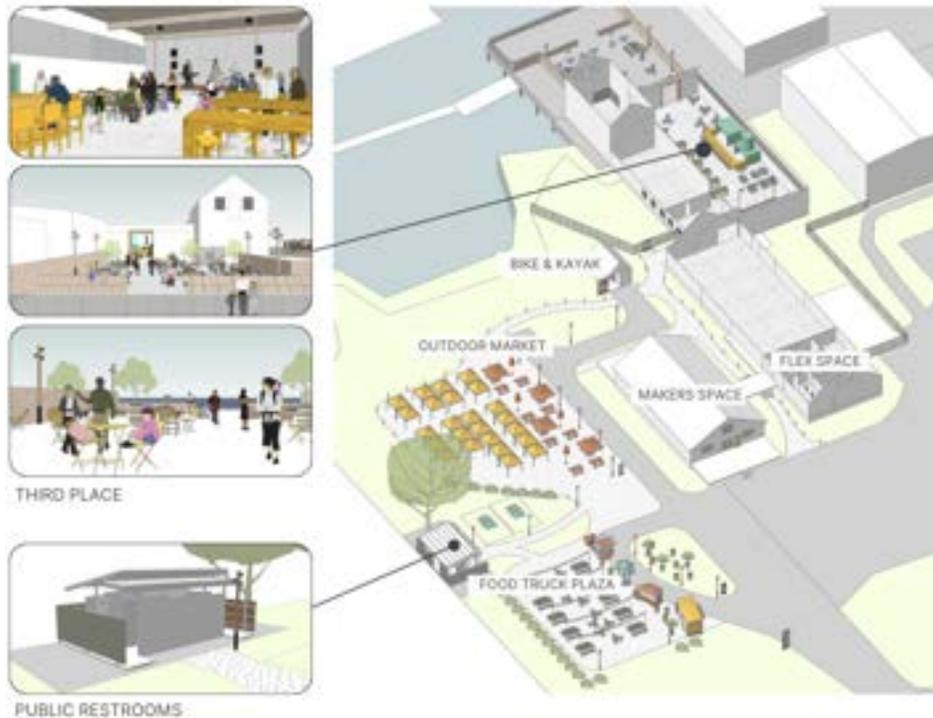


Figure 18. Phase 2: years 3-5

In the second phase, the market and food truck areas are expanded. The number of places to eat has increased, and the site design includes additional amenities and beautification features like: potted trees, peripheral plantings, umbrellas, lamp posts, string lighting, and ping-pong tables. The mobile restroom will be replaced by a permanent structure to accommodate more visitors and tenants at this stage. The construction of a 6-stall permanent restroom is expected to cost approximately \$195,000.00.

Building 5 now serves as a “third place” seating area for the outdoor market and food truck plaza. A “third place” refers to the general concept of having a “third” place to go and spend time outside of one’s home and their place of employment or education - essentially, a welcoming public space to spend time. A path and additional wayfinding signage lead visitors around the bike and kayak shed to an entrance to Building 5. Inside the entrance, a temporary wall and signage have been added on the east side to secure private space from visitors. The large space accommodates a cafe, play area, stage for special events and performances, and tables for eating. From this room, there is access to a fenced-in observation deck for visitors to eat and enjoy the views of the Willapa River. A section of the third-place building and the entire outdoor deck is zoned for water-related uses. With this in mind, the deck will include two telescopes to really take advantage of the views of the Willapa River, and we suggest having a designated section near the edge of the pier for fishing. We estimate that the third-place project will cost approximately \$500,000.00 to upgrade and renovate.

Proposed Circulation



Figure 19. Phase 2: 2-4 years Circulation Map

In phase 2, the proposed circulation does not have any major changes for the vehicular circulation as that remains the informal gravel parking lot. The pedestrian circulation is enhanced by the addition of designated pathways to the public viewing deck, shoreline, and kayak launch, and into the third space. According to our team’s parking analysis, the proposed tenants for the second phase will require an additional 12,000 gross square feet to accommodate up to 60 additional vehicles, bringing the total gross square footage requirements to 48,400 for 242 total vehicles (see Appendix 1).

Permits & Regulations

Phase III permits should be applied during phase II. Application process will be similar in submitting project proposals. These include renovations to buildings walls, parking, concrete for EV charging stations, and extension to the bike path & bike shelters. South Bend Building Permit Packet will entail all of the required paperwork with the additional Washington Department of Transportation to extend the bike path through the site. Permit for the bike path should be started within 90 days of issuance and be completed 120 days of issuance unless approval for extension is accepted.

Shoreline

Building upon the previous phase, the permitting process will continue to move forward, but the focus will now shift toward the future recreational marina (Phase 3) and boatyard (Phase 4). Shoreline rehabilitation will continue via maintenance of the shoreline restoration and adaptation elements already installed as well as more targeted planting and removal of further contaminants on an as-discovered basis. This phase will also see the installation of a vegetative strip along the north shoreline that will create a buffer to help mitigate any possible runoff from future boatyard activities. It is proposed that by adding the strip in this phase, it will ensure the vegetation reaches an acceptable stage of maturity by the time the boatyard area is activated in Phase 4. Phase 2 will also see the modernization of some water-related uses on the concrete wharf. Building 10, located on the westernmost edge of the wharf currently houses the now defunct ice facility and has been deemed potentially hazardous by the port. It is recommended the port carefully remove the existing outdated ice production elements and mitigate any hazardous material that may have accumulated over time. The building will then be brought up to code in order to install a new industrial flake ice production and delivery system that will be able to produce up to 20 tons of ice in a 24 hour period. This updated facility will create a new revenue stream for the port by providing packaged ice for sale to the public, as well as flake ice to be sold to local commercial fishing fleets, and will be effective in creating multiple new jobs and helping bolster the local fishing industry. The existing manual crane at the Northwest corner of the wharf will be replaced by a modern, automatic crane to more efficiently offload fishing and aquaculture vessels and allow for increased productivity for current and future tenants.

Barring delays in permitting, the end of this phase will be highlighted by the construction of the south shore Kayak launch as well as a separate public shoreline viewing deck. The Public Kayak dock provides a more accessible and convenient way for patrons of the site and visitors to access the water. The viewing deck allows for people to step through and out over the restoration zones, and safely observe the variable tide levels.



Figure 20a Kayak Docks, Viewing Deck View 1



Figure 20b Kayak Docks, Viewing Deck View 2



Figure 20c Phase 2 Feature Exhibit Map

Figure 20c Phase 2 Feature Exhibit

Shoreline Permitting

Permitting in this phase will focus on wrapping up preparation for Phase 2 construction of the south shore updates and ramping up preparation for Phases 3 and 4.

Permit submission and funding will continue for projects in all phases and will overlap with the finalization of pre-construction steps for the Phase 2 shoreline projects. The cost-estimating process will now begin for projects in all phases, giving priority to the kayak launch and viewing deck projects. Once permitting is finalized and funding is reached, construction should begin on the South shore deck and dock projects by the start of year 5.

For expected permits needed, see Appendix 4.

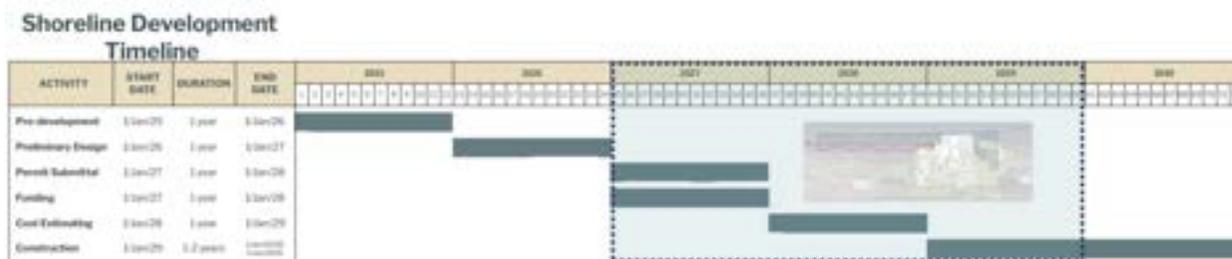


Figure 20. Shoreline Development Timeline with Phase 2 highlighted.

Phase 3: 6-10 Years

Overview



Figure 21. Developments Phase 3: 6-10 years

In Phase 3, the majority of development is concentrated in the northeast corner of the site. This phase encapsulates shoreline-related improvements, parking infrastructure, a bike path extension, electric vehicle charging stations, and interior renovations. The total capital cost for this phase is approximately \$1,620,000.00 (see Appendix 2 for further information). Below is the overall cost distribution:

- Building: \$145,000
- Infrastructure: \$1,010,000
- Infrastructure: \$460,000
- Furnishings: \$5,000

Facilities



Figure 22. Phase 3: years 6-10

No major changes to the facilities are proposed during this phase, so the focus will be on streamlining operations of the previously developed new spaces on site, gauging demand, and planning for future expansion based on observations made during this time. As far as changes to the existing buildings, the only recommendations are to better outfit buildings 2 and 3 to serve as flexible office space (a continued use from the present day) and storage for the seasonally used components of the outdoor market, viewing deck, and food truck plaza (foldable tables and chairs, etc). Updates to the storage space are estimated to cost approximately \$360,000.00 and improvements to the flex space are estimated at approximately \$170,000.00.

During phase 3, we also recommend putting in a minimum of two electric vehicle (EV) fast charging stations. Equipment and installation are expected to cost approximately \$62,000.00 each, \$124,000.00 total. Due to the high cost of this infrastructure, we recommend assessing the demand before increasing the number of spots in phase 4.

Circulation

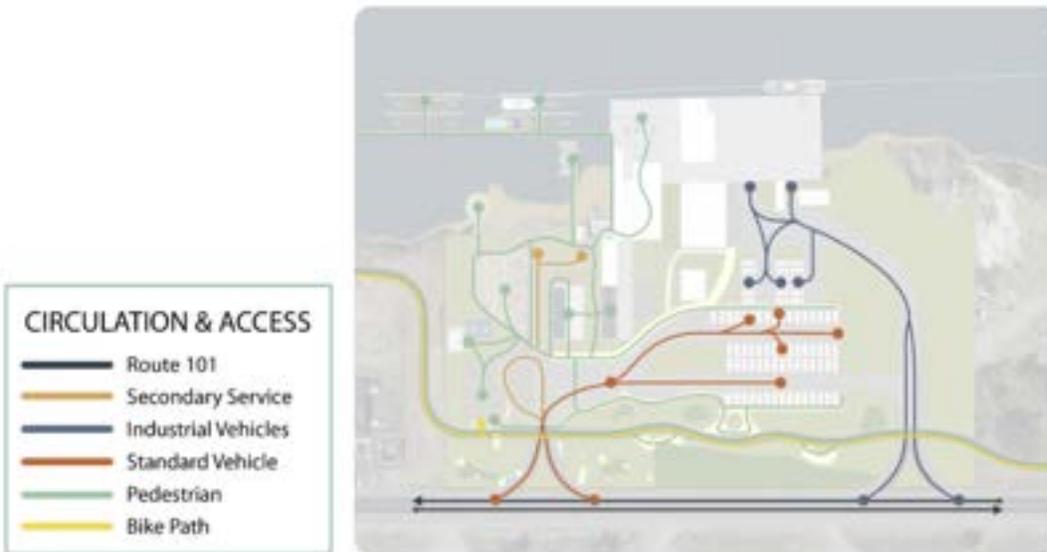


Figure 23: Phase 3: Circulation Map

In phase 3 there are major capital investments in the circulation as the informal gravel parking lot will be replaced with paved roads and a parking with permeable paving blocks designated parking spots for tenants and visitors. Our team recommends the use of planted paving blocks for the permanent parking lot, rather than asphalt, to enhance the site's drainage capabilities. According to our team's parking analysis, the proposed tenants for the third phase will require an additional 600 gross square feet to accommodate up to 3 additional vehicles, bringing the total gross square footage requirements to 49,000 for 245 total vehicles (see Appendix 1). This capital investment will be accompanied by the construction of the Willapa Hills Bicycle Trail as it extends into the site for both pedestrians and bicyclists, with safety considerations and design for the trail crossings with our two entrances and exits, and bike parking on the Southwest corner of the site.

Beautification

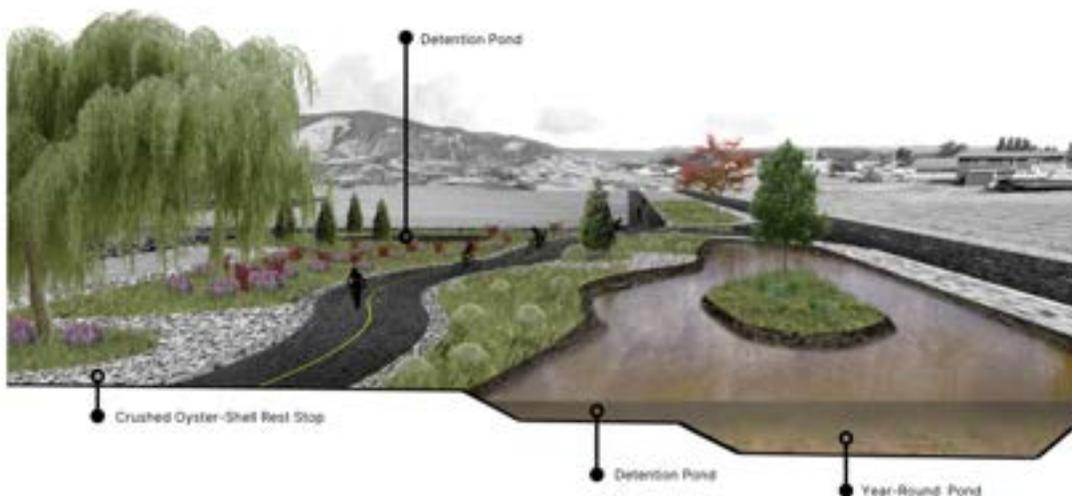


Figure 24. Phase 3 Beautification view looking North

With phase three comes the expansion of parking, navigating the public onto the center of the site. This is the basis for a new push in beautification as native tall grasses and bushes are placed around the edges of the site to encase and separate the dedicated parking from the more industrial on-site uses. With the Willapa Hills Trail extending across the site as well, small refurbishments will likely need to be made alongside the path, the most important of these are three detailed rest stops that allow for private moments in such a public space. It is also estimated to cost around \$13,000 for the plants as well as using the existing stock of oyster shells for the rest stops (Appendix 2).

Permits

Depending on demand, budget, and time limitations, phase IV permits are recommended to be applied for in phase III. The process should not be lengthy due to simple projects of renovations to the building for a gallery and third space as well as the installation of EV Charging stations in the parking lot. This will go through a similar process of applying for the South Bend Building Permit Packet.

Shoreline

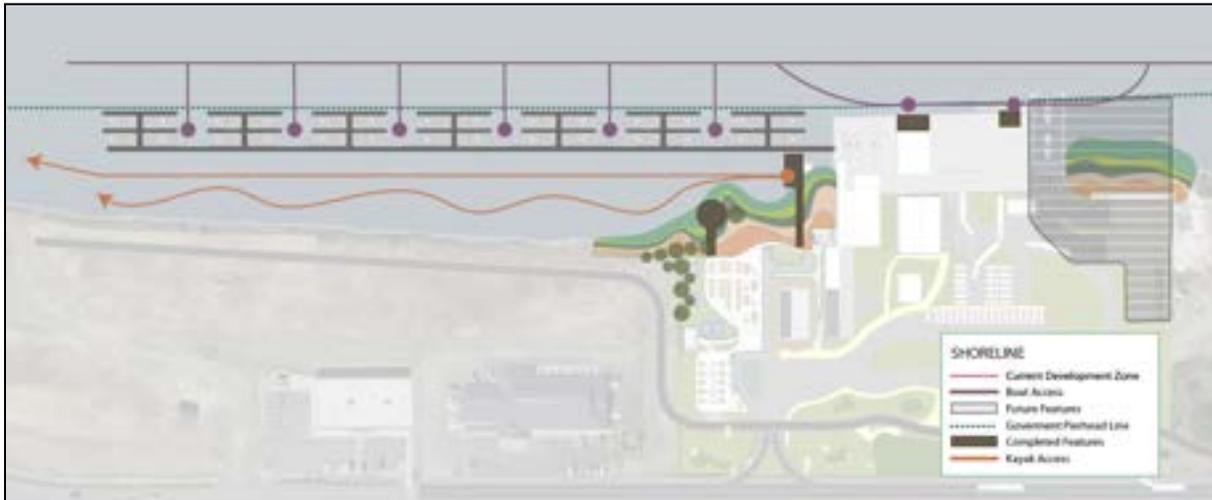


Figure 25a: Phase 3 Shoreline Development and Circulation Updates

During the third phase, the recreational marina should be constructed and activated. This footprint of this development will create approximately 30 slips (generalized for graphical representation in Figure 25a) for both short- and long-term moorage, generating additional revenue for the port.



Figure 25b: Phase 3 Features View 1



Figure 25c: Phase 3 Features View 2

Preparation for the activation of the boatyard should also take place during this time. Funding for the boatyard should be secured, and all required permits completed to allow pre-construction activities to start.

Additionally, partnership agreements and any required funding between a marine training school and the Port of Willapa should be finalized during this phase to prevent delays after the boatyard's completion.

Phase 4: 11-20 Years

Overview

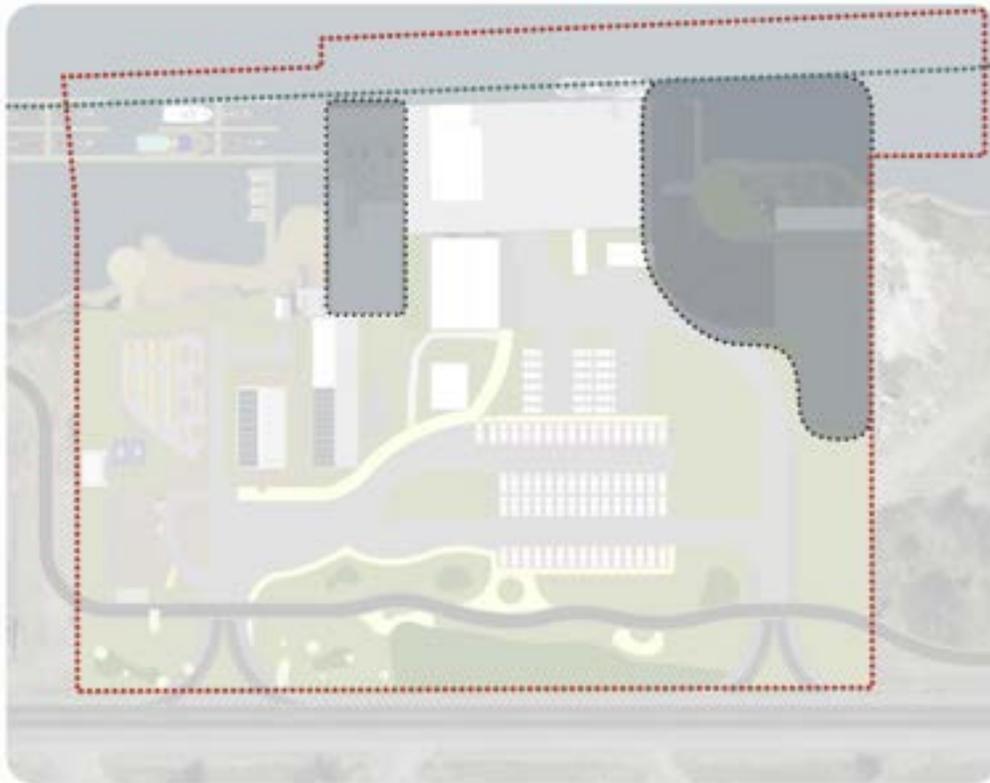


Figure 26. Developments Phase 4: 11-20 years

In Phase 4, development is primarily on the west side of the site. The primary focus of development is water-related uses including shoreline-related improvements, boat yard construction, and a waterfront restaurant and gallery space. The total capital cost for this phase is approximately \$1,280,000.00 (see Appendix 2 for further information). Below is the overall cost distribution:

- Building: \$105,000.00
- Building Renovations: \$730,000.00
- Infrastructure: \$285,000.00
- Furnishings: \$160,000.00

Facilities

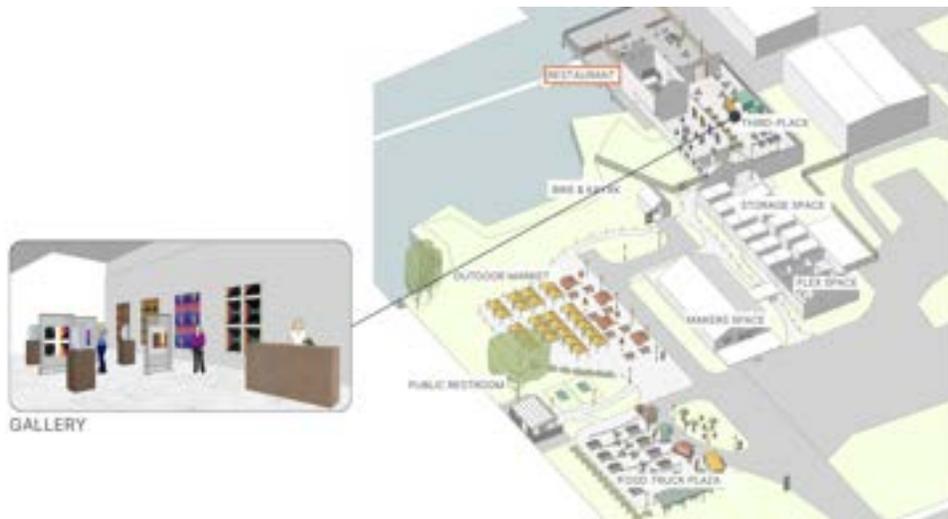


Figure 27. Phase 4: years 11-20

Proposed updates to facilities in phase 4 are based upon an assumption that demand for food and beverage establishments on the site proved viable in the initial phases via engagement with the food truck plaza and seasonal market offerings. If indeed viable, a waterfront seafood restaurant is proposed to occupy the back half of buildings 5 and 6, perhaps in conjunction with Taylor Shellfish (if they are still a tenant) as they are experienced restaurant operators. Their model of a more casual operation seen at Samish Oyster Bar & Shellfish Market could be an ideal tenant in this space if a more upscale restaurant is not as appropriate a fit for the market or the space. The approximate cost of renovating this space is \$150,000.00 due to its relatively small footprint. The small footprint may mean that the building would need to take space away from the third-place area.

In the southwestern corridor of building 6, we propose renovations to build out a gallery space, utilizing skylights for maximum natural light. This would serve as the entryway into the restaurant, and would be a place for local artisans (perhaps the same who sell their wares at the building 1 makers' market) to display their work for sale. This could also be an ideal space to display historical photographs of the site and town for a visual and informational connection to its legacy. We estimate the renovations would cost approximately \$130,000.00 for the gallery space.

The third place may need additional improvements to accommodate more visitors and make this a comfortable space year-round. Depending on the restaurant's needs, a portion of the third place may also need to support additional seating or space to expand restaurant operation. We estimate that building renovations to the third place will cost approximately \$450,000.00.

In phase 4, we recommend increasing the number of EV charging stations if the demand is viable at the end of phase 3. We estimate putting in 4 additional spaces at \$62,000.00 each, which will cost approximately \$248,000.00 total. More EV can be installed depending on demand and funding from grants.

Permits

Possible phase IV permits include a restaurant, commissary kitchen, tool library, and other tenants. While the process for applying for permits may be the same as previous phases, the restaurant will need to hurdle over extra obstacles of safety, fire, occupancy, and health permits. It may also need the installation of water, gas, and sewer lines if the building does not already have so.

Shoreline



Figure 28 Phase 4 Shoreline Plan

Boatyard Infrastructure and Capital Budget

Feedback from the commercial fishing industry highlighted the need for a local boatyard to facilitate haulouts and repairs, with the nearest alternative options being in Ilwaco or Seattle. The identified requirement is for a travel lift capable of handling vessels weighing up to 80 tons and measuring up to 64 feet in length, with an estimated purchase cost of approximately \$150,000. This travel lift depicted here has a track width of 24ft, and all docking, roads, and coverings were calculated with that size in mind and designed to accommodate it.



Figure 29a. Phase 4: Shoreline Feature Exhibit Map



Figure 29b. Phase 4: Shoreline Feature Exhibit

The most suitable area on the site for this development is the underutilized shoreline in the northeastern section. This location can accommodate a designated boat launch for haulouts and provide the necessary infrastructure and facilities for the efficient functioning of the boatyard. Strategically positioning the boatyard here not only addresses the need for such facilities but also allows for effective site use separation measures, ensuring safety by deterring unauthorized access by other site visitors.

Boatyard repairs may involve activities such as sanding, scraping, painting, varnishing, and fiberglassing, which generate waste containing harmful contaminants like metals, solvents, and hydrocarbons. Even at low levels, these substances can be detrimental to marine organisms.



Additionally, materials washed into the water from these activities can contaminate hull maintenance areas and sediments, complicating dredging and the disposal of dredged materials. The proposed design therefore aims to minimize environmental damage to both the site and the shoreline and is intended to be low-impact, following best practices to prevent ecological harm to the surrounding areas.

The proposed infrastructure therefore includes:

1. Enclosure for Maintenance Activities

An enclosed structure for activities that generate high levels of toxic particles is crucial. For the Bendiksen site, a temporary structure may be more effective given space and budget constraints. Based on projected market needs, the proposed size for the Bendiksen site is 80 feet long, 40 feet wide, and 30 feet high. This size will facilitate the movement of a Marine boatlift inside and provide ample workspace.

These structures come as kits with assembly instructions, requiring the port to provide labor for construction. The structure must have hard floors and covered drains if necessary. Additionally, it will need special ventilation, and workers must wear protective clothing and comply with the Occupational Safety and Health Act (OSHA) and local fire safety regulations. The cost of these structures currently averages at \$80,000.

2. Concrete Work Area

A designated concrete work area must also be established for tasks that cannot be performed inside the temporary structure. This area should be located further inland and constructed with an impermeable surface for easy cleanup, resistant to solvents and petroleum products. Regular maintenance is required, including sweeping and vacuuming, with proper disposal of materials. To prevent stormwater from flowing over this area, drainage should be directed away from it to a stormwater treatment device situated away from the shoreline. The area should not be near storm drains and must have the capability to be semi-covered with tarps on windy days to prevent contamination of drains and the shoreline. The average cost for the construction of these slabs is \$10.61 and with a proposed square footage of 3200 will cost roughly \$34,000.

3. Catch Basin

A catch basin should be installed underground to capture the first flush of surface runoff, typically the first 0.5-1.0 inches of rainfall, which would contain most pollutants such as trash, debris, sediment, oil, and grease. Surface runoff is channeled into chambers with a permanent pool of water, where oil and grease float and attach to sediment, which settles at the bottom. The discharge pipe should be positioned at least four feet below the inlet pipe, with the depth of the permanent water pool being four times the diameter of the inlet pipe. The permanent pool should have a minimum volume of 400 cubic feet of water per acre of impervious drainage area and a minimum depth of four feet. Regular inspection and cleaning are needed, especially in high sediment areas, and accumulated waste may be classified as hazardous, requiring special care for disposal. The cost for equipment and construction varies and would depend on the best options recommended by engineers.

4. Vegetative Filter Strip for Shoreline Protection

A vegetative buffer of at least 20 feet along the boatyard shoreline is necessary to filter stormwater runoff before it reaches the surface water. This buffer aims to filter large particles, nutrients, and chemicals from the runoff, protecting and maintaining water quality. Additional benefits include reducing sediment deposition in the river basin, decreasing the need for dredging, and enhancing the area's aesthetic appeal.

The Bendiksen site is well-suited for this solution due to its relatively flat slope and the small area reserved for boatyard services, making it easier to control stormwater flow. To ensure effectiveness, a shallow trench can be used to spread the water flow evenly. Using native, water-tolerant vegetation is recommended. Planting should begin below the normal water elevation with wetland species and proceed upland with both water-tolerant and upland species. This vegetation will take approximately 1 to 3 years to become fully established. While this method requires routine and frequent maintenance, it will significantly help protect the sensitive shoreline and waterway. This is proposed to be first planted within the phase 2 development of the site to ensure maturity when the boatyard is activated.

Alternative Techniques to Consider:

Paint Removal Techniques

- **Plastic Media Blasting:** To minimize the production of paint chips and dust from conventional paint removal methods, the site should consider using Plastic Media Blasting and Environmentally Sensitive Paint Strippers. Plastic Media Blasting employs hull blasting technologies to recycle and reuse plastic-based media for boats. This process requires fully enclosing the boats to contain both the media and paint waste. The mixture is introduced into specialized equipment that separates paint chips and dust from the media, reducing waste output.
- **Environmentally Sensitive Chemicals:** chemicals that utilize methylene and other organic solvents, are now available for paint stripping. They effectively eliminate the production of paint chips and dust. However, it is important to implement waste collection measures for this method. Specific machines can pressure wash and collect the wash water in a single-step process from chemically stripped hulls, thereby preventing contamination.
- Additionally, innovative equipment like dustless sanders can be used to trap dust generated during sanding, ensuring cleaner and safer paint removal.

Community Partnerships

In addition to activating the boatyard, a vocational training partnership should be established between the Port of Willapa and a marine training school, such as Grays Harbor Community College. This collaboration would provide students with hands-on experience and help enhance the marine industry workforce within the region.

Long Term Vision

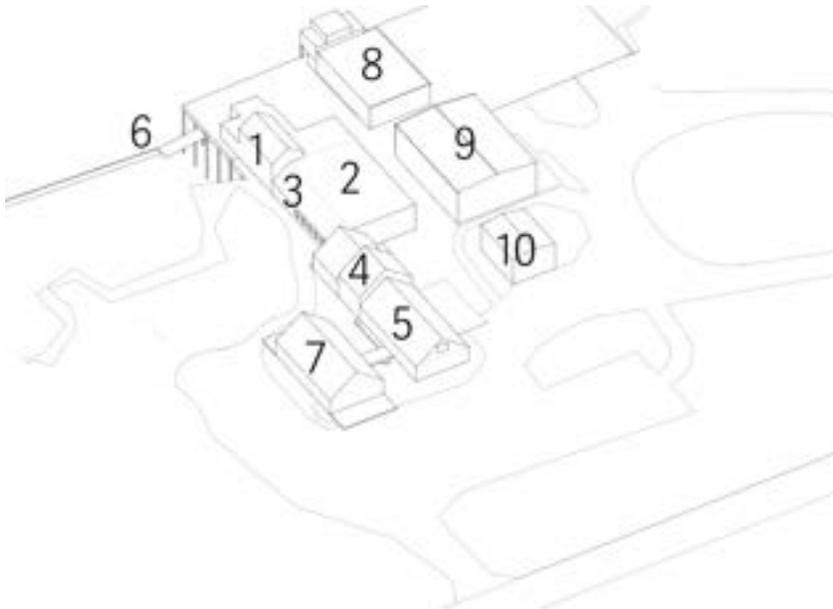


Figure 30. Long-Term Vision Key

In considering a “big picture” long-term vision for how potential uses might cohesively take place on the site, we envision the following allocation of uses per existing building, assuming renovation according to specific needs and applicable building codes. The feasibility of each use and public opinion should be assessed during the initial short-term phases.

1) RESTAURANT & EVENT SPACE:



Approximate square footage: 1800 SF

Potential tenant: Local seafood producer with restaurant chain

Potential rent: To be assessed based on comparable market rate \$/SF in the future

Intended audience: Locals & tourists

Parking needs: 25 spaces

Scheduling: Brunch, lunch, and dinner May through September with limited hours October through April; available for event buyouts year-round

Features: Outdoor seating, full bar; upper level for administrative and storage space

Precedent Image Source: The Bowline Hotel & Knot Bar; <https://bowlinehotel.com/the-knot-bar-astoria/>

2) COMMERCIAL KITCHEN:



Approximate square footage: 6600 SF
Potential tenant: On-site restaurant and food trucks
Potential rent: part of restaurant tenant's rent; hourly rental by on-site food trucks and catering for events
Intended audience: Services restaurant; rentable by food truck operators and caterers; hosts cooking classes
Parking needs: 25 spaces
Scheduling: According to restaurant hours; available for rental year-round
Features: Full commercial kitchen outfit with required ventilation and fire safety measures, walk-in cold storage, space for interactive cooking classes
Precedent Image Source:Peerspace; https://www.peerspace.com/plan/commercial-kitchen

3) GALLERY & EVENT SPACE:



Approximate square footage: 750 SF
Potential partnerships: On-site artisans; regional art museums
Potential rent: Gallery model (% of sale of art on display)
Intended audience: Local artisans to display work; serves as hallway leading to restaurant entrance; cocktail reception area for event buyouts
Parking needs: 3 spaces
Scheduling: According to restaurant hours and event buyouts
Features: Skylights for maximal natural light; gallery-style lighting
Precedent Image Source:MASSMoCA; https://massmoca.org/exhibitions/

4) OFFICES & MEETING SPACE:



Approximate square footage: 2600 SF
Potential tenants: Port of Willapa Harbor; Pacific County; Willapa Works business incubator
Potential rent: not applicable if used for Port activities; rentable by local business owners for co-working space
Intended audience: Local entrepreneurs
Parking needs: 10 spaces
Scheduling: As required by individual office tenants
Features: Soundproof meeting rooms with AV capabilities
Precedent Image Source: Wowhaus; https://en.wowhaus.ru/design/office-wowhaus.html

5) **MAKER SPACE & TOOL LIBRARY:**



Approximate square footage: 4300 SF
Potential partnerships: On-site retail market artisans; local high schools and community colleges
Potential rent: tool library as community amenity offered by Port; hourly rental by artisans
Intended audience: Local artisans; tool rental with hands-on classes for local community
Parking needs: 18 spaces
Scheduling: As required by individual maker hourly rental; tool library open weekends
Features: Craft equipment as dictated by local artisan interest; ventilation as required

Precedent Image Source: The American Genius; <https://theamericangenius.com/business-news/maker-spaces-in-austin/>

6) **PASSENGER FERRY DOCK:**



See Livable City Year Pacific County Passenger Ferry proposal

Precedent Image Source: Architizer; <https://architizer.com/projects/east-34th-street-ferry-terminal/>

7) **RETAIL MARKET:**



Approximate square footage: 3200 SF
Potential tenant: Local artisans & farmers
Potential rent: individual space rental to be assessed based on comparable market rate \$/SF in the future
Intended audience: Locals & tourists
Parking needs: 15 spaces
Scheduling: Daily May through September, weekends October through April
Features: Reach-in coolers; individual market stalls

Precedent Image Source: Melrose Market; <https://melrosemarketseattle.com/>

8) COLD STORAGE & ICE PRODUCTION:



Approximate square footage: 6500 SF
Potential tenant: Local seafood producer
Potential rent: To be assessed based on comparable market rate \$/SF in the future
Intended audience: Commercial aquaculture companies
Parking needs: 5 spaces
Scheduling: As required by tenant, likely year-round
Features: Commercial grade ice machine, commercial refrigeration

Precedent Image Source: Interlake Mecalux;
<https://www.interlakemecalux.com/blog/cold-storage-warehousing>

9) WORKFORCE TRAINING CENTER:



Approximate square footage: 4700 SF
Potential tenant: Grays Harbor Community College
Potential rent: To be assessed based on comparable market rate \$/SF in the future
Intended audience: Youth apprenticeships and job skills training
Parking needs: 15 spaces
Scheduling: Year-round Monday through Friday
Features: Industry-specific equipment, lockers, classroom, breakroom

Precedent Image Source: Northland Workforce Training Center;
<https://northlandwtc.org/>

10) ON-SITE STORAGE:



Approximate square footage: 1300 SF
Potential tenant: Port of Willapa Harbor; storage for seasonal outdoor market, etc

Precedent Image Source: OnDemand Storage;
<https://www.ondemandstorage.com/guide-to-commercial-storage/>



Capital Budget Overview

The total cost for the 20 year development proposal is approximately \$4,505,000. The estimates assume that labor will be provided by the Port of Willapa Harbor, except for the ground resurfacing work, building and building renovations categories. The costs are based on an average of high and low estimates. Below are the approximate cost estimates for each phase (see Appendix 2 for more detail).

Short Term Phasing: \$1,605,000.00 total

- **Phase 1:** \$740,000.00 total
 - Building: \$130,000.00
 - Infrastructure: \$470,000.00
 - Furnishings: \$85,000.00
 - Plantings: \$55,000.00
- **Phase 2:** \$865,000.00 total
 - Building: \$240,000.00
 - Building Renovations: \$520,000.00
 - Furnishings: \$100,000.00
 - Plantings: \$5,000.00

Long Term Phasing: \$2,900,000.00 total

- **Phase 3:** \$1,620,000.00 total
 - Building: \$145,000.00
 - Building Renovations: \$1,010,000.00
 - Infrastructure: \$460,000.00
 - Furnishings: \$5,000.00
- **Phase 4:** \$1,280,000.00 total
 - Building: \$105,000.00
 - Building Renovations: \$730,000.00
 - Infrastructure: \$285,000.00
 - Furnishings: \$160,000.00

Next Steps & Recommendations

As a team, we view the next steps and recommendations in 3 short, mid, and long-term categories for feasibility. In the short-term, we recommend the Port of Willapa Harbor follow a Request-for-Proposal process for all tenants of the Bendiksen Landing site. We also recommend creating a website and developing a marketing and communications strategy utilizing our proposed branding as a foundation. We also recommend the Port of Willapa Harbor to hire professional consultants, including a civil engineer to follow-up on our redevelopment site plan and transportation plan, hire a surveyor to do boundary and topographic surveys, and a wetlands scientist, and permitting specialist to continue our research on permits needed for specific uses.

In the mid-term, we recommend the Port of Willapa Harbor to continue a collaboration with WA SeaGrant to create a strategic framework for the site, including a strategic vision, laying out a process for decision-making, benchmarks to determine the success and demand of use (annual sales, number of visitors, potential demand to grow). We also recommend the Port to prioritize a



community engagement process that includes a visioning for the site name, business and overall service needs. Finally, a potential recommendation is to assess the feasibility of a Food Hub based on the lessons learned from the Astoria Food Hub.

In the long-term, we recommend the Port to develop a partnership with Colleges in the area like Grays Harbor Community College to envision a manufacturing and boat repair trades program. A partnership with local highschoools could also result in the creation of youth arts programs for the Makers Space. Lastly, we advocate the City of South Bend to update its zoning code to reduce parking requirements and minimum lot size for housing to reduce cost of housing and incentivize more housing development.

Appendix

1. Parking Analysis by Phase, Phases 1-3

PHASE 1						
Tenant	Gross Floor Area (sq. ft.)	Est. # Employees	Spaces Required per Sq. Ft.	Spaces Required per Employee	Total Spaces Required	Gross Parking Area Needed (sq. ft.)
Food Truck Plaza (4 trucks)	5,000	4	1 per 75	1 per 2	70	14,000
Outdoor Public Market	9,200	25	1 per 250	1 per 2	50	10,000
Makers' Space	3,200	15-20	1 per 250	1 per 2	33	6,600
Flex Space	700	N/A	1 per 300	1 per 2	3	600
Bike Rental Operation	244	2	1 per 750	1 per 2	2	400
Kayak Rental Operation	244	2	1 per 750	1 per 2	2	400
Taylor Shellfish	20,750	2	1 per 1000	1 per 2	22	4,400
					182	36,400
PHASE 2						
Tenant	Gross Floor Area	Est. # Employees	Spaces Required per Sq. Ft.	Employee Requirement	Total Spaces Required	Gross Parking Area Needed (sq. ft.)
Phase 1 Tenants					182	36,400
"Third Space" Indoor Seating	4,500	N/A	1 per 75	N/A	60	12,000
					242	48,400
PHASE 3						
Tenant	Gross Floor Area	Est. # Employees	Spaces Required per Sq. Ft.	Employee Requirement	Total Spaces Required	Gross Parking Area Needed (sq. ft.)
Phase 1 and 2 Tenants					242	48,000
Cold Storage + Ice Maker	3,000	N/A	1 per 2,500		3	
					245	49,000

2. Capital Budget

Google Sheets Link:

<https://docs.google.com/spreadsheets/d/15bBuoRciU71TuCTyub24xIT1Eb-P8q7FdY1PHt1PgeQ/edit?usp=sharing>

Each permit is grouped by the regulatory entity that will approve and distribute that permit.

US Army Corps of Engineers

- [Discharge of Dredge of Fill Material Into Water - Section 404](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/37>
 - How Long Will it Take to Review my Application?
 - After receipt of a complete application, the Corps' goal is to process the application within the following timeframes:
 - Regional General Permit: 60 days
 - Nationwide Permit: 60 days
 - Standard Individual Permit: 120 days
 - However, the actual time to complete a permit decision on a particular application depends on the project's complexity, impact on the aquatic environment, effect on ESA-listed species, archaeological and/or tribal issues, Corps workload, and other factors.
 - How Much Will this Permit Cost?
 - The cost depends on the form of permit, nature of work, and applicant. The fee for Standard Individual Permits is \$100 for commercial or industrial activities and \$10 for non-commercial activities. No fee is charged to federal, state, or local governments. There is also no fee for Nationwide Permits or Regional General Permits.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - If Endangered Species Act (ESA)-listed species or critical habitat may be affected by or occur in the vicinity of the proposed project, the Corps may need to consult with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service before making a permit decision. If consultation is required, you may need to prepare and submit a Biological Evaluation describing the impact your project would have on ESA-listed species and critical habitat, and proposed measures to minimize those impacts. Other Federal laws and tribal treaty rights can also affect permit decisions.
 - How Long is my Permit Valid?
 - The expiration date of a permit is the date by which the work must be completed. Authorization under a Nationwide Permit or Regional General Permit generally expires when the general permit expires. General permits are issued for a period of 5 years, so authorizations are valid for shorter periods of time as the general permit nears its expiration date. Standard Individual Permits are normally issued for 3 to 5 years. In some cases, such as maintenance dredging, a standard permit may be issued for up to 10 years.
- [Work in Navigable Waters - Section 10](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/36>
 - How Long Will it Take to Review my Application?
 - After receipt of a complete application, the Corps' goal is to process the application within the following timeframes:



- Regional General Permit: 60 days
 - Nationwide Permit: 60 days
 - Letter of Permission: 120 days
 - Standard Individual Permit: 120 days
 - However, the actual time to complete a permit decision on a particular application depends on the project's complexity, impact on the aquatic environment, effect on ESA-listed species, archaeological and/or tribal issues, Corps workload, and other factors.
- How Much Will this Permit Cost?
 - The cost depends on the form of permit, nature of work, and applicant. The fee for issued Standard Individual Permits is \$100 for commercial or industrial activities and \$10 for non-commercial activities. No fee is charged to federal, state, or local governments. There is also no fee for Letters of Permission, Nationwide Permits, or Regional General Permits.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - If Endangered Species Act (ESA)-listed species or critical habitat may be affected by or occur in the vicinity of the proposed project, the Corps may need to consult with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service before making a permit decision. If consultation is required, you may need to prepare and submit a Biological Evaluation describing the impact your project would have on ESA-listed species and critical habitat, and proposed measures to minimize those impacts. Other Federal laws and tribal treaty rights can also affect permit decisions.
 - How Long is my Permit Valid?
 - The expiration date of a permit is the date by which the work must be completed. Authorization under a Nationwide Permit or Regional General Permit generally expires when the general permit expires. General permits are issued for a period of 5 years, so authorizations are valid for shorter periods of time as the general permit nears its expiration date. Letters of Permission are normally issued for 3 years. Standard Individual Permits are normally issued for 3 to 5 years. In some cases, such as maintenance dredging, a standard permit may be issued for up to 10 years.

Department of Ecology

- [Boatyard General Permit - NPDES \(National Pollutant Discharge Elimination System\)](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/100>
 - How Long Will it Take to Review my Application?
 - Under WAC 173-226-200 and RCW 90.48.170, application for permits shall be made at least 60 days prior to commencement of any proposed discharge or permit expiration date, whichever is applicable. See the Permit Timeliness Results below for average processing times.
 - How Much Will this Permit Cost?



- Ecology does not charge an application fee for this General Permit. However, there is a coverage fee, which varies depending on discharge. Fee amounts can change. For current fees, see the permit fee schedule in Chapter 173-224 WAC.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your permit, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions.
 - In addition, the permitting process includes public participation. This means that the public may submit comments to Ecology during the public comment period to support or oppose your proposed activity. If any comments are received, Ecology must review and respond to the comments and take them into consideration when making the decision to issue or deny permit coverage.
- How Long is my Permit Valid?
 - Your General Permit is valid for up to five years. Coverage for a facility begins at time of application approval and ends when the General Permit expires or your coverage is revoked. Ecology may administratively extend the General Permit past five years until the agency has completed the permit renewal process.
- [Construction Stormwater General Permit - NPDES](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/16>
 - How Long Will it Take to Review my Application?
 - WAC 173-226-200 and RCW 90.48.170: Application for permits shall be made at least 60 days prior to commencement of any proposed discharge or permit expiration date, whichever is applicable. See the Permit Timeliness Results above for average processing times.
 - How Much Will this Permit Cost?
 - Permit fees for Fiscal Year 2017 (July 1, 2016 - June 30, 2017) range from \$630 to \$2,346 depending on the number of disturbed acres. For current fees, see WAC 173-224-040 (4.c) or contact Ecology.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your permit, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions. In addition, the application for coverage has a public review requirement. This means that the public may submit comments to Ecology during the 30 day public comment period regarding the application. If any comments are received, Ecology must review and respond to the comments and take them into consideration when making the decision to issue or deny permit coverage. The applicant must submit the application for coverage at least 60 days before discharging stormwater from construction activity and must submit it on or before the first newspaper publication date of the

public notice. Information provided in the public notice must coincide with the application. Lastly, the SEPA review must be completed before your permit coverage will be issued. As a result of the public notice, Ecology may receive public comment(s) that must be addressed before permit coverage can be issued.

- How Long is my Permit Valid?
 - The statewide general permit expires every five years. Coverage under the permit is valid until your site's permit coverage is revoked or terminated. If permit coverage is required past the general permit expiration date, because construction isn't complete or eligible for termination, the permittee must submit a renewal application to Ecology at least 180 days prior to the expiration date in order to continue permit coverage under the re-issued general permit. Ecology will send notice to all active permit holders in the spring to explain the renewal process.

- [General Permit Coverage - NPDES](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/19>
 - How Long Will it Take to Review my Application?
 - The timeline for permit application review is dependent on the requirements of the applicable general permit.

 - How Much Will this Permit Cost?
 - Fees are variable and are set by regulation (Chapter 173-224 WAC). To find the fees for each type of general permit, visit the respective ORIA pages, the fee schedule, or contact the Ecology office.

 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on general permits, Ecology considers the applicable laws and rules, the contents of an application, and the background environmental conditions. Additional specific application requirements vary based on the applicable general permit.

 - How Long is my Permit Valid?
 - In most cases general permits have a five year life span. The coverage period for a general permit starts on the issuance date of coverage and lasts until the permit expires. Facilities must reapply for permit coverage prior to the expiration date of the general permit and as required by the specific general permit.

- [Industrial Stormwater General Permit Coverage - NPDES](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/17>
 - How Long Will it Take to Review my Application?
 - Final determinations on new applications for coverage under the industrial stormwater general permit are typically issued within 45 days of receiving an applicant's complete notice of intent. If the applicant does not receive notification from Ecology, permit coverage automatically commences on whichever of the following dates occurs last:



- The 31st day following receipt by Ecology of a completed application for coverage.
- The 31st day following the end of a 30-day public comment period.
- The effective date of the general permit.
- Ecology may need additional time to review the application:
 - If the application is incomplete.
 - If it requires additional site-specific information.
 - If the public requests a public hearing.
 - If members of the public file comments.
 - When more information is necessary to determine whether coverage under the general permit is appropriate.
- When Ecology needs additional time:
 - Ecology will notify the applicant in writing within 30 days and identify the issues that the applicant must resolve before a decision can be reached.
 - Ecology will submit the final decision to the applicant in writing. If Ecology approves the application for coverage, coverage begins the 31st day following approval, or the date the approval letter is issued, whichever is later.
- How Much Will this Permit Cost?
 - Annual fee ranges from \$128 to \$2,006 depending on company gross revenue reported to the Washington Department of Revenue. Contact your regional permit manager to determine costs for your facility.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your order/permit, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions. In addition, see "Do I need to include anything with my application?". For new discharges and new facilities: If any comments are received during the public notice, Ecology must review and respond to the comments and take them into consideration when making the decision to issue or deny permit coverage.
- How Long is my Permit Valid?
 - Statewide general permits are reissued every five years. You must submit a renewal application to Ecology at least 180 days prior to the expiration date in order to continue permit coverage under the general permit planned for re-issuance. Ecology will send notice to all permittees in the spring to explain the renewal process.
- [Section 401 Water Quality Certification](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/43>
 - How Long Will it Take to Review my Application?
 - Ecology, or Tribes with TAS are required to make a decision within the "reasonable period of time" allotted by the federal agency of up to a maximum of one year. Certification decision options are to grant, grant



with conditions, deny, or waive certification on any project receiving a federal permit, approval, or license.

- How Much Will this Permit Cost?
 - There is no fee for Section 401 water quality certifications.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - For projects requiring a U.S. Army Corps of Engineers permit, Ecology, EPA, or Tribe with TAS must receive a copy of the public notice or Nationwide Permit authorization letter prior to issuance of their Section 401 Water Quality Certification. For projects that trigger State Environmental Policy Act (SEPA) review, SEPA has to be completed prior to a Section 401 Certification decision. When we issue a Section 401 water quality certification, it means we have determined a project or action, as proposed and conditioned, will comply with state water quality standards and other requirements to protect state aquatic resources.
- How Long is my Permit Valid?
 - Section 401 Certification becomes part of the federal permit or license. The duration of the Section 401 Certification would be in effect for the same time period as the permit or license. However, Ecology issues Section 401 Certifications as chapter 90.48 RCW administrative orders, so they may have conditions that apply to the project longer than the federal permit or license.
- Wetlands
 - <https://www.oria.wa.gov/permithandbook/permitdetail/80>
 - How Long Will it Take to Review my Application?
 - Variable according to the permit(s) in question. Refer to the individual permit descriptions for more detail. You can also view the permit schematics detailing some of the application processes.
 - How Much Will this Permit Cost?
 - Variable. Please contact the permitting agency.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - Variable. Please contact the permitting agency.
 - How Long is my Permit Valid?
 - Variable according to the permit(s) in question. Refer to the individual permit descriptions for more detail.

Washington Department of Fish and Wildlife

- Fish Habitat Enhancement Projects
 - <https://www.oria.wa.gov/permithandbook/permitdetail/112>
 - How Long Will it Take to Review my Application?



- Washington Department of Fish and Wildlife has 45 days to make a determination. The local planning department has 15 days to submit their comments to WDFW.
- How Much Will this Permit Cost?
 - There is no charge for HPA's.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - No.
- How Long is my Permit Valid?
 - The permit is valid for up to 5 years.
- Hydraulic Project Approval - HPA
 - <https://www.oria.wa.gov/permithandbook/permitdetail/25>
 - How Long Will it Take to Review my Application?
 - It is dependent on the type of HPA
 - How Much Will this Permit Cost?
 - The cost is \$0.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - State Environmental Policy Act(SEPA) compliance must be completed prior to review of your application and issuance of the HPA by WDFW. SEPA compliance is not required for an expedited, emergency, or a fish habitat enhancement streamlined HPA.
 - How Long is my Permit Valid?
 - Up to five years for a standard HPA; up to 60 days for an expedited HPA; the length of the emergency for emergency HPAs

South Bend / Pacific County

- Shoreline Substantial Development Permit
 - <https://www.oria.wa.gov/permithandbook/permitdetail/38>
 - **Determination of Shoreline Exemption Permit (see below), may exempt need for Shoreline Substantial Development Permit***
 - How Long Will it Take to Review my Application?
 - Permit process time is determined by each local government. After receiving Substantial Development Permits from local government, Ecology will inform local governments and permit applicants in writing of the "date of filing" as defined by RCW 90.58.140.
 - How Much Will this Permit Cost?
 - The fee is established by each local government. Ecology does not charge a fee.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?



- SDPs are reviewed against the criteria in the local shoreline master program and state criteria in WAC 173-27-150. Compliance with the State Environmental Policy Act (SEPA) may be required.
- How Long is my Permit Valid?
 - This is determined by the local government in accordance with RCW 90.58.143. Typically, construction must begin within two years and must conclude within five years of receiving the permit.
- [Floodplain Development Permit](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/47>
 - How Long Will it Take to Review my Application?
 - Permit processing time varies by jurisdiction and project complexity.
 - How Much Will this Permit Cost?
 - Determined by local government.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - Determined by the property owner's local government.
 - How Long is my Permit Valid?
 - Usually lasts for the duration of the project.
- [Shoreline Conditional Use Permit](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/44>
 - How Long Will it Take to Review my Application?
 - Local permit process time is determined by the local government. Ecology's decision will be issued within 30 calendar days of receiving a complete permit package from the local government.
 - How Much Will this Permit Cost?
 - The fee is established by each local government. Ecology does not charge a fee.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your permit, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions.
 - Conditional Use Permit applications are reviewed against criteria in the SMP and state criteria in WAC 173-27-160.
 - Compliance with the State Environmental Policy Act (SEPA) may be required.
 - How Long is my Permit Valid?
 - This is determined by the local government in accordance with RCW 90.58.143. Typically, construction must begin within two years and must conclude within five years of receiving the permit.
- [Shoreline Exemption](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/130>



- How Long Will it Take to Review my Application?
 - This is determined by each local government.
- How Much Will this Permit Cost?
 - The fee to review an application for an SDP exemption is determined by each local government.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your application, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions.
 - Shoreline SDP exemptions are reviewed against the SDP exemption criteria in RCW 90.58.030(3)(e) and applicable criteria in the local SMP.
 - Compliance with the State Environmental Policy Act (SEPA) may be required.
- How Long is my Permit Valid?
 - SDP exemptions do not expire.
- [Shoreline Variance Permit](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/45>
 - How Long Will it Take to Review my Application?
 - Local permit process time is determined by the local government. Ecology's decision will be issued within 30 calendar days of receiving a complete permit package from the local government.
 - How Much Will this Permit Cost?
 - The fee is established by each local government. Ecology does not charge a fee.
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - When making the decision on your permit, Ecology will consider the applicable laws and rules, the contents of your application, and the background environmental conditions.
 - Variance applications are reviewed against criteria in the SMP and state criteria in WAC 173-27-170.
 - Compliance with the State Environmental Policy Act (SEPA) may be required.
 - How Long is my Permit Valid?
 - This is determined by local government in accordance with RCW 90.58.143. Typically, construction must begin within two years and must conclude within five years of receiving the permit.

Department of Natural Resources

- [Aquatic Use Authorization](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/31>
 - How Long Will it Take to Review my Application?
 - Review time generally takes between 6 months to a year after DNR receives a complete application.

- How Much Will this Permit Cost?
 - It depends on the type of agreement your proposal requires. You may be charged rent or fees depending on the activity. Rates are found in:
 - WAC 332-30-123 Aquatic land use rentals for water-dependent uses.
 - WAC 332-30-125 Aquatic land use rental rates for non-water dependent uses.
 - WAC 332-30-126 Sand and gravel extraction fees.
 - RCW 79.105.200 through RCW 79.105.310.
- Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - Yes, you must complete all other government permits or permit waivers before an authorization can be issued. For example, if the project requires a SEPA decision, and a Hydraulic Project Approval in addition to the use authorization, those processes must be complete before DNR can issue a decision.
- How Long is my Permit Valid?
 - It depends. The duration of your use authorization will depend on the proposed uses and the class of land you lease. The land classes are: Bedlands, 1st class tidelands and shorelands, 2nd class tidelands and shorelands, and Harbor Areas. Use authorization durations are specified under RCW 79.115 through RCW 79.135.

U.S. Coast Guard

- [Private Aids to Navigation - PATON](#)
 - <https://www.oria.wa.gov/permithandbook/permitdetail/98>
 - How Long Will it Take to Review my Application?
 - Permitting time frame can vary depending on workload, though average wait for a permit is three months.
 - How Much Will this Permit Cost?
 - Nothing
 - Is the Decision on my Permit Dependent on Anything Besides the Information in my Application?
 - A document from the Army Corps of Engineers showing the project has been approved should be submitted with the permit questionnaire.
 - How Long is my Permit Valid?
 - A permit only needs to be renewed if there are changes made to the structure that affect the condition of the permit. For example changes in ownership, dock relocation, removal of a buoy, etc.

5. Plant Recommendations

- To view the full plant list click [HERE](#) URL;
 - <https://docs.google.com/spreadsheets/d/1e9wAIPwpy2odPqwkiZUBUJIWPZ9DeMzcmMJz3qgcm4g/edit?usp=sharing>
 - Updatable list of plants and what criteria that meet as well as preferred location based on appel and salinity (salt tolerance).