

Juneau Downtown Harbors Uplands Master Plan

BRIDGE PARK TO NORWAY POINT

March 30, 2017



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Executive Summary

Why this project is needed

The contributions of the maritime sector to the overall Juneau, Alaska, economy are substantial, but have long been under-recognized due to the way that jobs and income are measured. Improving the project area (Bridge Park to Norway Point) will generate specific economic outcomes totaling an estimated **\$5.3 to \$7.9 million** annually but will also help support and grow the larger local maritime economy. In public and private sectors combined there are more than 2,000 maritime jobs in the capital city with a total associated annual payroll of \$117.5 million.

Project Goal

The Juneau Harbors Uplands Master Plan: Bridge Park to Norway Point is a phased approach to enhancing the Juneau downtown harbor uplands to provide the needed facilities to support harbor users, the fishing fleet, and the community. The intent is to make Juneau a premier port in Southeast Alaska.

Summary of Master Plan

Expand Marine Service Yard and Infrastructure at Norway Point (\$31.7 million)

- **Phase I:** Relocate the Marine Service Yard and grid to Norway Point, and increase the site to 2.5 acres using fill. Install a 150-ton vessel lift and a 120-foot float dock. (\$21.4 million)
- **Phase II:** Expand the Marine Service Yard to 4 acres. (\$3.9 million)
- **Phase III:** Expand the Marine Service Yard to 5.6 acres. Relocate the Yacht Club to Bridge Park. (\$6.3 million)

Harbor Road and Walk (\$15.8 million)

Harbor Road linking Harris and Aurora Harbors and Norway Point

- Improve safety of accessing the waterfront from Egan Drive.
- Link harbors with service road to improve safety.
- Main driveway access at Fisherman's Terminal.
- Road width: 24 to 30 foot.
- Eliminate parking on roadway. Consolidate at Harbor gangways.

Harbor Walk

- 10-15 foot wide waterside pedestrian walk along length of entire project area for pedestrian safety.

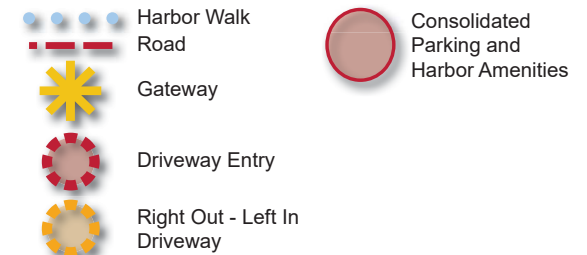
Fisherman's Terminal and University of Alaska Southeast (\$34.9 million)

- **New Harbormaster Facility and Uplands Improvements:** Two-story, 8,000 square foot harbormaster office and commercial retail building, includes restrooms, laundry facilities, space. New harbormaster maintenance building and service yard. Consolidated parking and direct seafood marketing. (\$14.8 million)
- **Drive Down Float** (\$5.5 million)
- **Crane Dock Expansion** Includes ice house and net shed (\$8.1 million)
- **Moorage Floats:** Replace aging floats with two new 150 foot moorage float. (\$6.5 million)

Harris Harbor Upland Improvements (\$20.7 million)

- Uplands lease area expansion
- Restrooms
- Leasable storage area
- Buildings for small professional related maritime related businesses, with housing or businesses on second floor
- Food trucks and small retail (coffee shops etc.)
- Connection to Bridge Park
- Relocated future community building at Bridge Park via Harbor Walk
- Float plane dock to be replaced and also include moorage for visiting yachts and use by Juneau Youth Sailing

Preferred Master Plan



Land Use & Strategic Planning Downtown Harbors

Conceptual Master Plan - Preferred

REV: 01/19/2017



Project Introduction

Project Need

Juneau depends on its docks and harbors to respond to the needs of its robust maritime sector and fuel the local economy. The purpose of this project was to develop a vision and master plan for the uplands between the Juneau-Douglas Bridge and Norway Point that reflects the needs and desires of our community while enhancing Juneau as a premier port city. Understanding the economics and feasibility of the planning effort is a critical component of the project.

Project Area

Located in Juneau, Alaska, the project boundary is Norway Point to the north; Juneau-Douglas Bridge to the south; Gastineau Channel to the west; and Egan Drive to the east. Within this boundary are City and Borough of Juneau Docks and Harbors managed lands and facilities commonly known as Norway Point, Aurora Harbor, Juneau Fisheries Terminal, Harris Harbor, and Juneau-Douglas Bridge uplands.



Juneau Downtown Harbors Uplands Preferred Master Plan: Bridge Park to Norway Point

The Process

This plan was developed through the input of more than 150 Juneau stakeholders and residents during four community workshops, three open house events, three harbor board presentations, integrated design charrettes, stakeholder meetings, and intensive public outreach over a 10-month period.

All elements of the Plan will cost an estimated \$103 million to develop. An analysis of Juneau's economic indicators and various elements of the waterfront plan shows the development of the facilities in the master plan are expected to attract an additional \$7.2 to \$9.5 million in increased economic activity to Juneau on an annual basis.

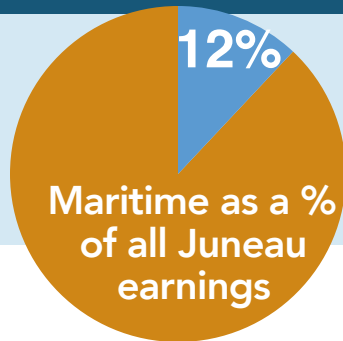


The Preferred Master Plan

On February 16th, 2017 the planning and engineering team presented the preferred master plan and cost estimates for the uplands to the public. The public in attendance received these plans with great enthusiasm and accepted them as presented.

From the three master plan options initially developed, this master plan captures the community's desires and priorities. The Preferred Juneau Waterfront Master Plan—Bridge Park to Norway Point develops four distinct areas of the waterfront: Norway Point, Harbor Road and Walk, Fisherman's Terminal, and Harris Harbor.

Project Need: The Maritime Economy of Juneau Alaska



Juneau's Maritime Economy

- Total Maritime Jobs: **2,000**
- Total Maritime Payroll: **\$117.5 Million**
- 5-year change in jobs by percent: **+5%**
- 5-year change in earnings by percent **+8%**

Juneau's maritime elements

Juneau is a maritime community. Nearly every element of its economy is intermingled with the maritime economy. In terms of workforce earnings, maritime is the community's largest sector outside of government; and it draws from nearly every element of the workforce. (The visitor industry has more jobs overall but lower earnings than maritime).

Juneau's private and Coast Guard maritime subset includes 1,400 "blue jobs," and accounts for 12% of the community's private sector economy. These include jobs in seafood, marine tourism, ocean transportation, boat repair, etc. There are an additional 570 government jobs in Juneau focused on fisheries enforcement, tracking, and science. Alaska Marine Highway and Juneau Docks and Harbors jobs are also maritime jobs.

With new dock projects in Juneau, a rebounding tourism sector, and expected increases in Juneau seafood harvests, the outlook for the maritime economy is for continued growth. However,

facilities, services, and capacity do not meet current or future needs.

Juneau is Alaska's top port for vessels over 25 feet

Another statistic that has been under-reported is the fact that Juneau is Alaska's top port for mid-sized to larger vessels. Using the Coast Guard documented vessel database, there are 809 vessels with a hailing port of Juneau - the highest by far of any community in the state. Juneau remains the top port even when the analyzed using different metrics (since boats can be difficult to count with accuracy). Conducting a query for only vessels owned by Alaskans, that number drops to 668, but Juneau is still the top community. Conducting a query for vessels with an owner in the same community as the hailing port, Juneau remains the top port in Alaska. The state of Alaska maintains a separate fishing vessel database, and here Juneau comes in 6th in terms of top ports across Alaska for fishing vessels.

Alaska Vessels Longer than 25 Feet

Top Alaska Hailing Ports	Vessels from hailing port	Vessel from hailing port with Alaskan owner	Vessel from Hailing port with owner in community (fishing vessels 26+ ft.)
Juneau	809	668	478
Homer	592	537	425
Sitka	518	425	476
Ketchikan	456	376	366
Kodiak	420	327	289
Cordova	380	329	347
Seward	369	311	98
Petersburg	305	249	298
Anchorage	304	219	192
Valdez	241	213	144

Depending on which metric you use to count local vessels, Juneau is home to 10-12% of the state's documented vessels (generally vessels larger than 25 feet), and about 6% of the state's commercial fishing fleet. Currently locally-based vessels are being significantly under-serviced in their own home port of Juneau.



Photo by Ron Gile

Juneau's Waterfront Character

Return toward the waterfront's interaction with our community is recognized as true public-private opportunity for Juneau.

Like any other community in coastal Alaska, Juneau's connection to and use of our waterfront and shoreline is a primary element of the character of place. Our expectation and reliance on the waterfront as active piece of our community is deeply tied to our identity. Development of the waterfront is considered a primary asset to both public and private interests as it strongly defines our relationship to our marine environment.

Over the past 30 to 50 years, development of marine services harbor support facilities to support local business has been minimal. While tourism infrastructure has been more active, it has been localized in specific locations in direct proximity to the cruise ship berths. Development follows the economy. At a time of review, our waterfront uplands represents opportunity to direct the next focus of development towards local community interests in a sector where it has been lacking in recent decades.

Under this masterplan effort, both Harris and Aurora Harbors, the UAS Uplands, Bridge Park and the Juneau Yacht Club are proposed

to return a direct community connection to the waterfront by introducing development opportunities currently looking for a development lead. A focus on economic development along the waterfront will further strengthen the community's maritime character. The project will and return a direct economic value to the community, and offer a sense of waterfront authenticity to both locals and visitors.

The proposed uplands infrastructure would support the fishing fleet, industrial marine services, harbor needs, and make the waterfront a destination for the community supporting current needs. Expansion, including private and public projects, is anticipated and recommended by those whom offered comments during our design sessions. They would like to be next to the water, next to the harbor and representative of how communities should utilize their waterfront assets.

Conceptual presentations of upland docks, repair yards, seafood and fishing fleet support facilities, harbor patron facilities, chandleries, shops, restaurants, and limited housing with maritime architecture was well received. Large industrial warehouses, small waterfront two-story wood framed buildings, and medium-sized harbor support facilities mesh well when they all share waterfront-related aesthetics of simple, utilitarian forms and traditional waterfront materials. Proximity to repair shops, fish markets, net repair sheds and a expansive marine services yard represent would serve true needs. The aesthetic would be relevant and meaningful, rather than superficial and historic.

Marine Service Yard: Economic Impact Analysis

Vessels Home-ported in Juneau and Owned by Juneau Residents Only	26 to 49 Feet	50 to 200 feet	Total
Number of vessels	413	65	478
Commercial fishing vessels	186	27	213
Commercial passenger vessels	55	16	71
Private vessels	168	16	184
Other commercial vessels	4	6	10
Total repair and maintenance potential if vessels hauled out annually	\$3,222,000	\$3,283,000	\$6.5 million
Total annual repair and maintenance if commercial vessels haul out every 1.5 years, and private boats every 2.5 years	\$2,039,467	\$2,027,200	\$4.1 million
Estimated annual haul outs based on assumptions above	230	39	270

Why this facility is needed

As previously mentioned, Juneau is the top port in Alaska for vessels over 25 feet. However, Juneau does not have the capacity to haul out and service vessels much larger than 35 tons. Juneau has a 35-ton Travelift currently located next Aurora Harbor, and a 45-ton hydraulic lift located at Auke Bay Loading Facility (which is currently not hauling out vessels much larger than 35 tons). This means that approximately 15% of Juneau's fleet cannot be hauled out locally. Moreover, these larger vessels tend to be commercial vessels that spend significantly more on vessel maintenance and repair work. The current facility in the project area is extremely small — less than half an acre — and does not have electricity or running water, which limits activities considerably. In other words, despite the importance of the maritime sector to the local economy, Juneau does not currently have the infrastructure to serve the needs of its own fleet, and a significant amount of economic activity is leaving the community on an annual basis to use vessel lifts located in Washington State or in other Alaska communities.

The economic impact of an expanded service yard

In order to be conservative, the project team reviewed all vessels home-ported in Juneau with a Juneau owner, over 25 feet, that would require a vessel lift to conduct maintenance. So while there are 809 vessels of this class home-ported in Juneau, the analysis took into consideration just over

half of these vessels. Moreover, a conservative approach was taken into how often vessels are taken out of the water to be serviced (every 1.5 years for commercial vessels, and every 2.5 years for private vessels). Based on the analysis for these 478 vessels alone, **the project team estimates that at least \$2.1 million in annual activity is currently leaving Juneau due to lack of services.**

Of course, many vessels currently in Juneau are excluded from this analysis (Juneau has permanent stalls for 713 vessels, and additional capacity for 696 vessels). Also, Juneau attracts private and commercial yachts in the summer, along with commercial fishing vessels that have service and repair needs. Also, by increasing the size of the service yard and the local capacity to provide vessel repair and maintenance services, vessels in northern Southeast Alaska in this size class (230 additional vessels) are more likely to use these services as well. Wrangell, with 78% **fewer** vessels than Juneau hauled out 284 vessels in 2016 (which excludes vessels hauled out using private commercial operations). Based on this information, the build-out of Norway Point as a marine service center with water, electricity, a 5-acre site, and a 150-ton vessel lift, and sufficient time to build an economy of scale, would provide service to more vessels this analysis captures. **The estimated impact is \$2 to \$3.5 million in increased economic activity in Juneau annually.**

Marine Service Yard at Norway Point

Relocate and Expand Marine Service Yard

Phase I:

Phase I will relocate the Marine Service Yard and tidal grid to Norway Point in order to consolidate all vessel repair work and resources to a single area.

Because additional space is required to work on boats, the site will use fill to increase the total area to 2.5 acres. With the installation of a 150-ton vessel lift the service yard would be able to service most Juneau-based vessels. A 120-foot float dock and wash down pad will also be installed.

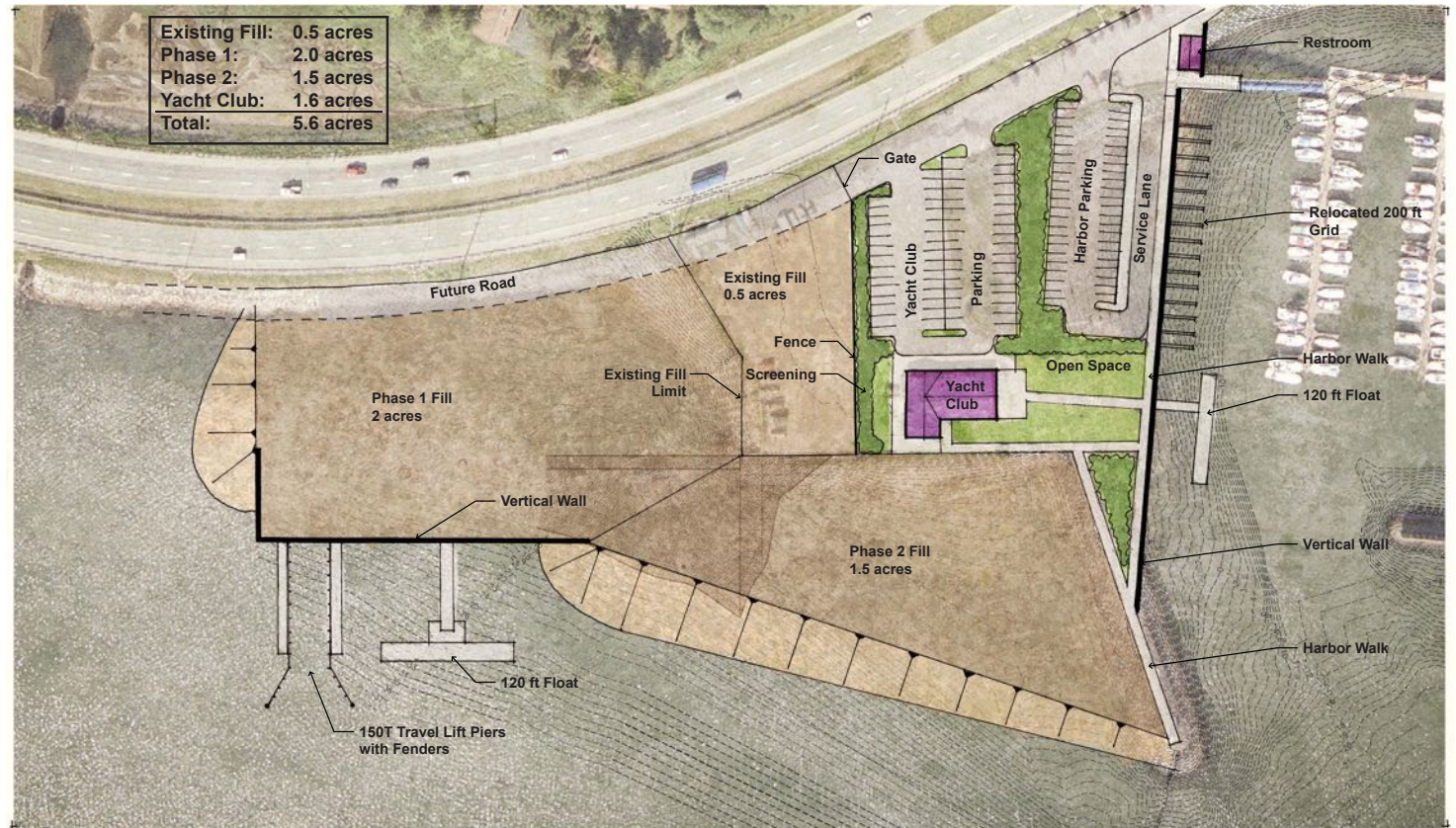
(Option 2 increases the Marine Service Yard to 4 acres in phase I, and moves the Yacht Club).

Phase II:

Expand the Marine Service Yard to 4 acres.

Phase III:

An ideal marine service yard is at least 5 acres. Phase III will expand the Marine Service Yard to 5.6 acres. This phase would also relocate the Yacht Club to Bridge Park, or another location within the project area.



All three phases = \$31.7 million

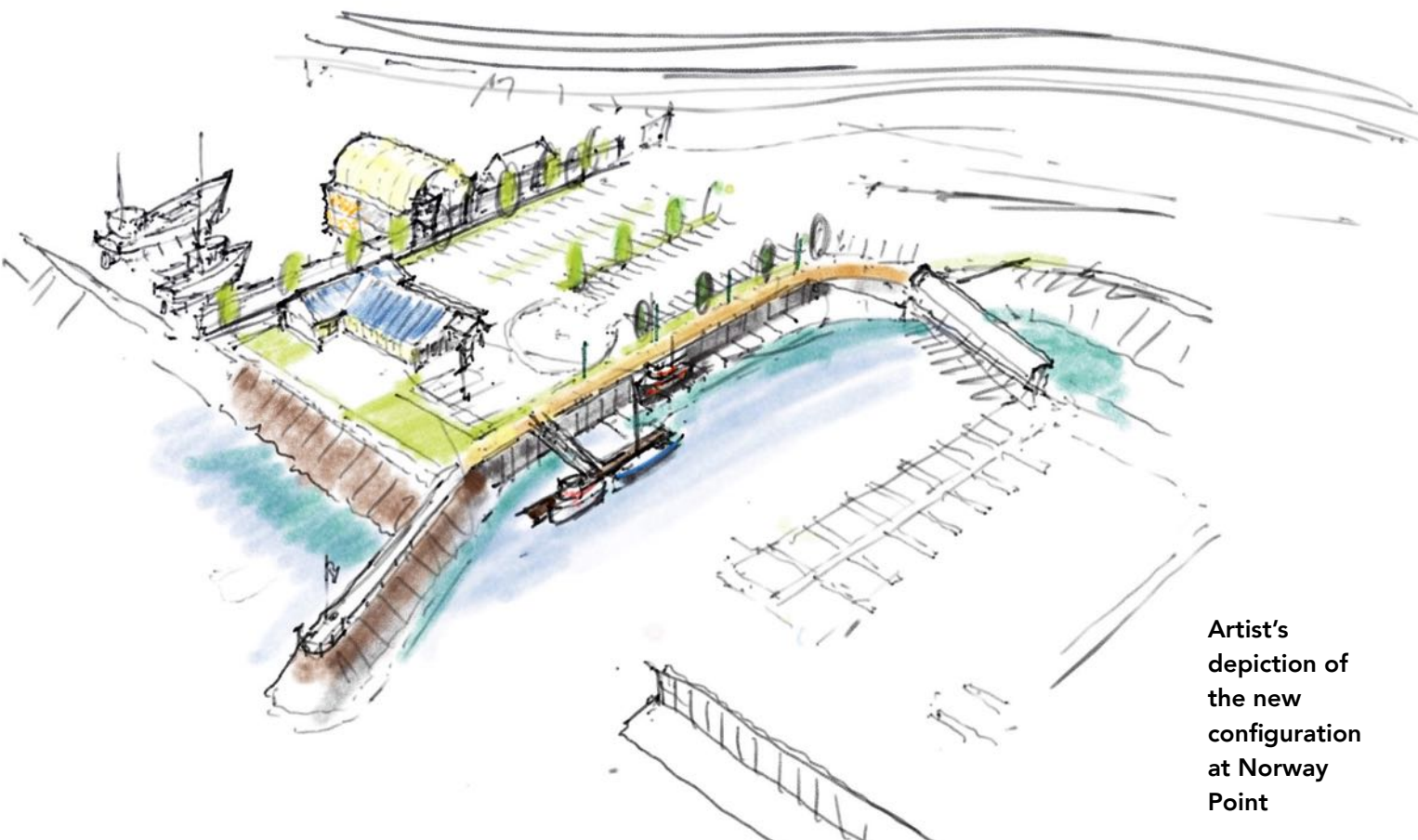
Marine Service Yard Expansion at Norway Point Phase I

Expand by 2 acres through use

of fill: The existing fill pad at Norway Point is expanded by approximately two acres to the north along Gastineau Channel under this project phase. The work involves first removing an existing pile-supported timber approach dock, gangway and moorage float, then filling the site with approximately 120,000 cubic yards of clean shot rock and armor stone. The armor stone materials will blanket the fill slopes to prevent coastal erosion caused by currents, waves and boat wakes in the channel. Up to 30,000 cubic yards of dredge material needs be disposed of that the U.S. Army Corps of Engineers could be used for use in this project.

Construction of bulkhead: A 320-ft-long sheet pile bulkhead is planned for the northwest corner of the new fill area where seafloor contours are relatively deep. The bulkhead will be approximately 53 feet in height at the most extreme case and will include safety rails along its full length.

Installation of 150-ton Travelift: A pile supported pier with approach fenders will be sited at the northwest corner of the bulkhead to support a 150 ton Travel Lift for boat hoisting operations.



Artist's
depiction of
the new
configuration
at Norway
Point

120 foot moorage float: Alongside and immediately south of the pier, a 120-ft-long moorage float will be connected to shore by an 80-ft gangway. The float will serve to queue and moor vessels arriving or departing from the lift. All marine piles will be equipped with sacrificial anodes to control marine corrosion.

Vessel wash down pad: A vessel wash down pad with an adjacent wash water treatment plant will be located onshore near the boat lift pier. Following removal of suspended solids and dissolved metals it is anticipated that the effluent will be discharged to the municipal sewer collection system for further treatment. Site surfacing materials will consist of crushed aggregate.

Utility connections: Utility extensions into this area include water, sewer, storm drains, power and area lighting. Onsite runoff will be collected and treated per Alaska Department of Environmental Conservation (ADEC) requirements prior to discharge into Gastineau Channel.

Cost estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection has been estimated at \$21.4 million (see spreadsheet page 45). Local, state and federal permits will be required for the proposed improvements.

Marine Service Yard Expansion at Norway Point Phase II

Increase area to 4 acres: In phase 2 the existing fill pad at Norway Point is expanded by approximately 1.5 acres, to the west along Gastineau Channel, tying into the existing rubble mound breakwater at the north entrance to Aurora Harbor. Approximately 85,000 cubic yards of total embankment and armor stone will be required to construct this pad extension. The armor stone materials will blanket the fill slopes to prevent coastal erosion caused by currents, waves and boat wakes in the channel. Utilities will be extended into this area.

Surfacing: Site surfacing materials will consist of crushed aggregate. Onsite runoff will be collected and treated per ADEC requirements prior to discharge into Gastineau Channel.

Cost estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection have been estimated at \$4.0 million (see spreadsheet page 47). Local, state and federal permits will be required for the proposed improvements.

Marine Service Yard Expansion at Norway Point Phase III

Expand yard to 5.6 acres: The existing fill pad at Norway Point is expanded by approximately 0.75 acres at the northeast corner of Aurora Harbor in phase 3, adjacent to N-Approach Dock and Gangway. Approximately 23,000 cubic yards of total clean shot rock and armor stone will be required to construct this pad extension. Utilities will be extended into this area.

Construction of vertical seawall: A vertical marine seawall will be constructed at the harbor's edge to retain the fill.

Tidal boat grid installed: A new 20-ft by 200-ft tidal boat grid will be constructed alongside the wall to service vessels. A vehicle service lane and walkway will be located shore side of the wall for vehicular and pedestrian access.

Parking: Harbor parking will be expanded in this area providing an additional 46 parking stalls for moorage patrons. A separate delineated parking area will also be dedicated to Yacht Club patrons, providing 66 parking stalls along with a loading zone near the existing building. Parking areas will be paved and will be delineated with curbs and sidewalks.

Yacht Club elements: Open space will be provided to the south of the Yacht Club, providing scenic views of Aurora Harbor. A walkway will be extended from the Yacht Club to a new moorage float and gangway located within the protected harbor near the north entrance. Exterior space surrounding the Yacht Club and its parking areas will be landscaped with screened vegetative buffer zones adjacent to other designated work areas at Norway Point.

Cost estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection has been estimated at \$6.3 million (see spreadsheet page 48). Local, state and federal permits will be required for the proposed improvements.

Improved Egan Access, Harbor Road, and Harbor Walk

Why This is Needed

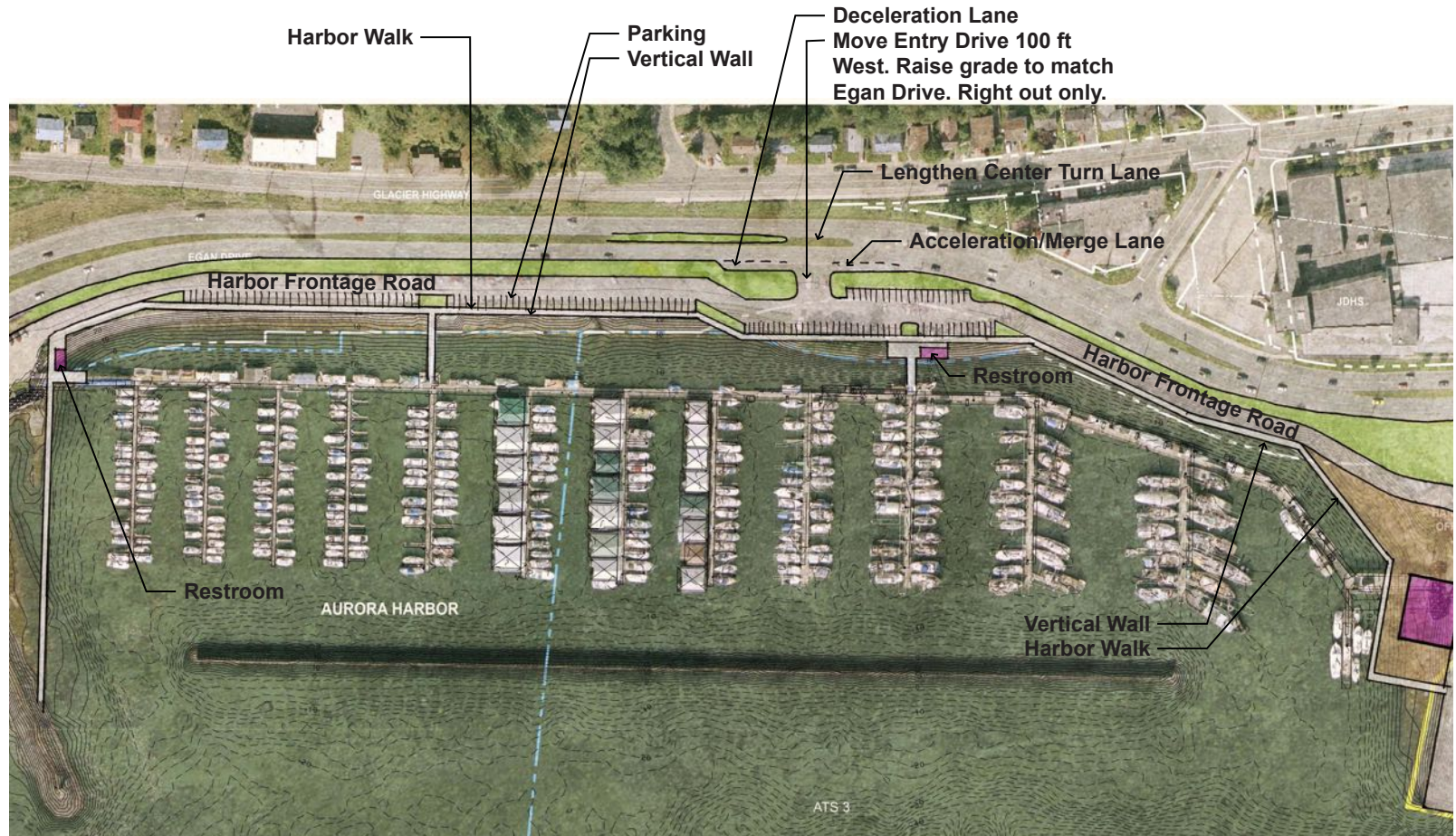
These elements of the plan would significantly improve the safety of harbor access from Egan Drive, and creates connections between the harbors. A new harbor walk would separate pedestrians from the busy harbor vehicle traffic. Safer access is a high priority by the public.

Harbor Road linking Harris and Aurora Harbors and Norway Point

Currently the roads at Aurora and Harris Harbors do not connect. The Plan would create a Harbor Road connecting both harbors with main driveway access at the Fisherman's Terminal. The road width would be 24 to 30 feet. Parking along the road would be reconfigured, with parking provided along the waterfront adjacent to the harbor walk. This improves safety and efficiency accessing the harbors and its facilities.

Harbor Walk

A "Harbor Walk" would connect to the Juneau Sea Walk that terminates at the Juneau-Douglas Bridge. It would be a 10- to 15-ft wide waterside



pedestrian walk, and provide increased access (and create increased economic activity by allowing arriving boaters to have better access to Juneau's stores and restaurants).

All elements = \$15.8 million

Aurora Harbor Road & Parking

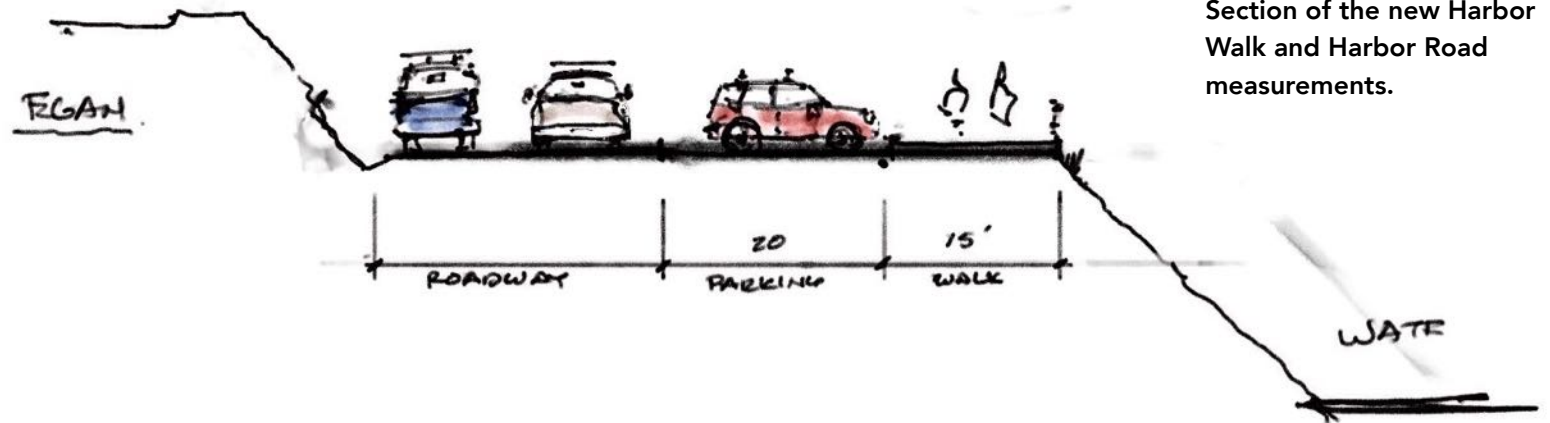
Harbor Walk Seawall: A marine seawall with a pedestrian walkway will be extended over the harbor basin slope along the frontage road of Aurora Harbor approximately between existing B Float and N Float. The wall will be backfilled with clean rock materials to provide additional upland space for parking and vehicle circulation along the entire harbor. A concrete walkway with architectural safety rails will be provided along the top of the seawall and restrooms are provided at each end.

Parking: Paved and delineated parking with curb and gutter improvements are planned adjacent to the harbor walkway with a paved access road alongside Egan Drive. Landscaping, site furnishings and area lighting will complement the site finishes.

Improved Egan Drive Access: Improved driveway access with deceleration and acceleration lanes and a longer center turning center lane on Egan Drive are also planned.

Utilities: Utility extensions into this area include water, sewer, storm drains, power and area lighting. Onsite runoff will be collected and treated per ADEC requirements prior to discharge into Gastineau Channel.

Cost Estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection has been estimated at \$8.3 million (see spreadsheet page 49). Local, state and federal permits will be required for the proposed improvements.



Section of the new Harbor Walk and Harbor Road measurements.

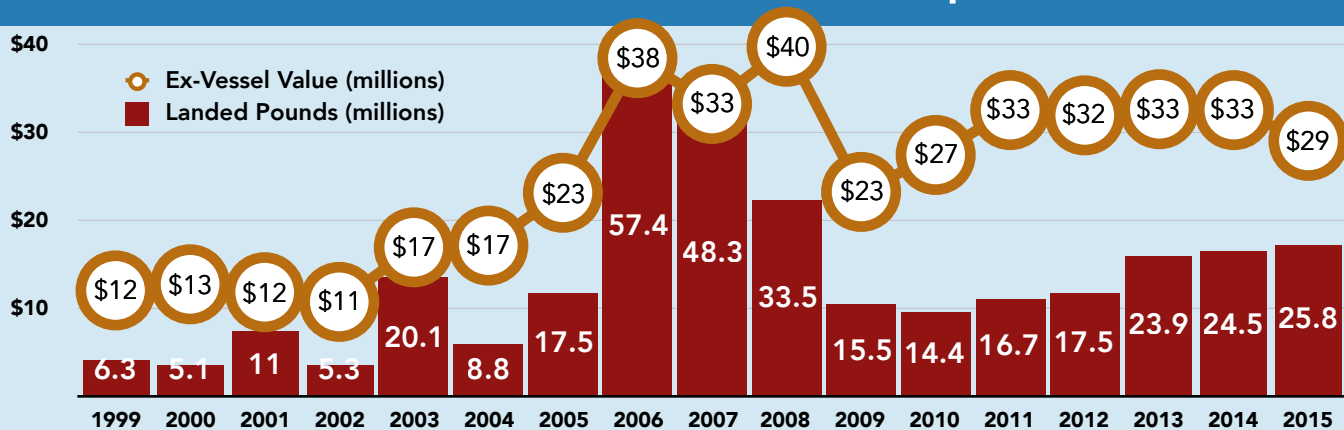
Harbor Connecting Road

Harbor Road linking Harris and Aurora Harbor and Norway Point: A 700' long sheet pile bulkhead will first be constructed over the harbor basin slope and a paved frontage road will then be extended alongside Egan Drive to connect Aurora Harbor between B Float and the existing Harbor Office. The bulkhead will be backfilled with clean rock materials to provide additional upland space for vehicle and pedestrian circulation without constricting the vessel navigational aisles between the harbor headwalk float and shore. Utility extensions into this area include water, sewer, storm drains, power and area lighting.

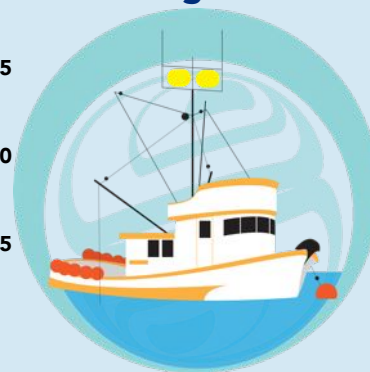
Harbor Walk: A concrete walkway with architectural safety rails will be provided along the top of the bulkhead to ensure a safe and continuous pedestrian route along the water's edge. By improving the attractiveness and pedestrian access to the waterfront, Juneau will increase the walkability and attractiveness of the community.

Cost Estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection has been estimated at \$7.5 million (see spreadsheets page 50). Local, state and federal permits will be required for the proposed improvements.

Fisherman's Terminal: The Importance of Juneau's Seafood Sector



Fishing & Seafood Processing



Jobs: **580**
 Wages: **\$27.4 M**
 Change in jobs
 2010-14: **+7%**

The Value of a Fisherman's Terminal

The largest component of the Juneau maritime sector is the local seafood industry. Juneau is the nation's 44th largest commercial fishing port, by both value and poundage, and the 13th largest commercial fishing port in Alaska. Over the past 10 years, the ex-vessel value (price received by fishermen) of Juneau's seafood harvest has fluctuated between \$23 million and \$40 million annually. The total Juneau seafood harvest in 2015 was 26 million pounds, a 79% increase from 2010. Nearly 600 commercial fishing vessels (including those not home-ported in Juneau) participated in this harvest. In 2014, 8% of all pounds landed in Southeast Alaska were landed in Juneau, representing 12% of the total value of the Southeast Alaska catch.

The project team worked closely with local fishermen to better understand their needs, and how to meet these through infrastructure improvements. Providing support to this significant industry could have a substantial economic benefit for the community as whole.

The Seafood Industry is a Key Economic Driver

Seafood harvests have long been an important part of the Juneau economy. The Juneau seafood industry (including commercial fishermen and seafood processors) generated 580 average annual regional jobs in 2014. (Nonresident commercial fishermen & crew members are excluded from these figures.)

JUNEAU SEAFOOD NUMBERS

- In the past 5 years, **100 million pounds of seafood** were harvested in and around Juneau waters (mostly salmon) with an ex-vessel of **\$159 million**.
- Juneau supports **580 annual average seafood jobs** in the private sector along with **510 public sector jobs** for a total of **1,090 year round equivalent Juneau based seafood and ocean life focused jobs**, with **\$65 million** in total associated annual earnings.

In 2015, the five salmon species represented 78% of the overall seafood catch in terms of volume—yet only 37% of total ex-vessel value (\$10.8 million). Halibut, black cod and crab—while just 16% percent of total pounds landed—accounted for more than half of the total catch value (54%) in 2015. The shore-based seafood processors in Juneau have an average annual employment of 198 people. They process 15 to 25 million pounds of seafood annually. State shared fisheries taxes for processing activity in CY16 generated \$312,000 for Juneau.

Estimated Economic Impact of Juneau Fisheries Terminal Dock or "Crane Dock"

One element of the Plan would build out the crane dock by constructing a new dock face on the north side and adding at least two new cranes. The Juneau Fisheries Terminal supports fishermen with loading dock, cranes, and access to boat repair facilities. According to an analysis done by SeaFisk consulting in 2015, the 10-year economic benefit of the completed project is projected to be \$19.8 million, or approximately \$2 million annually.

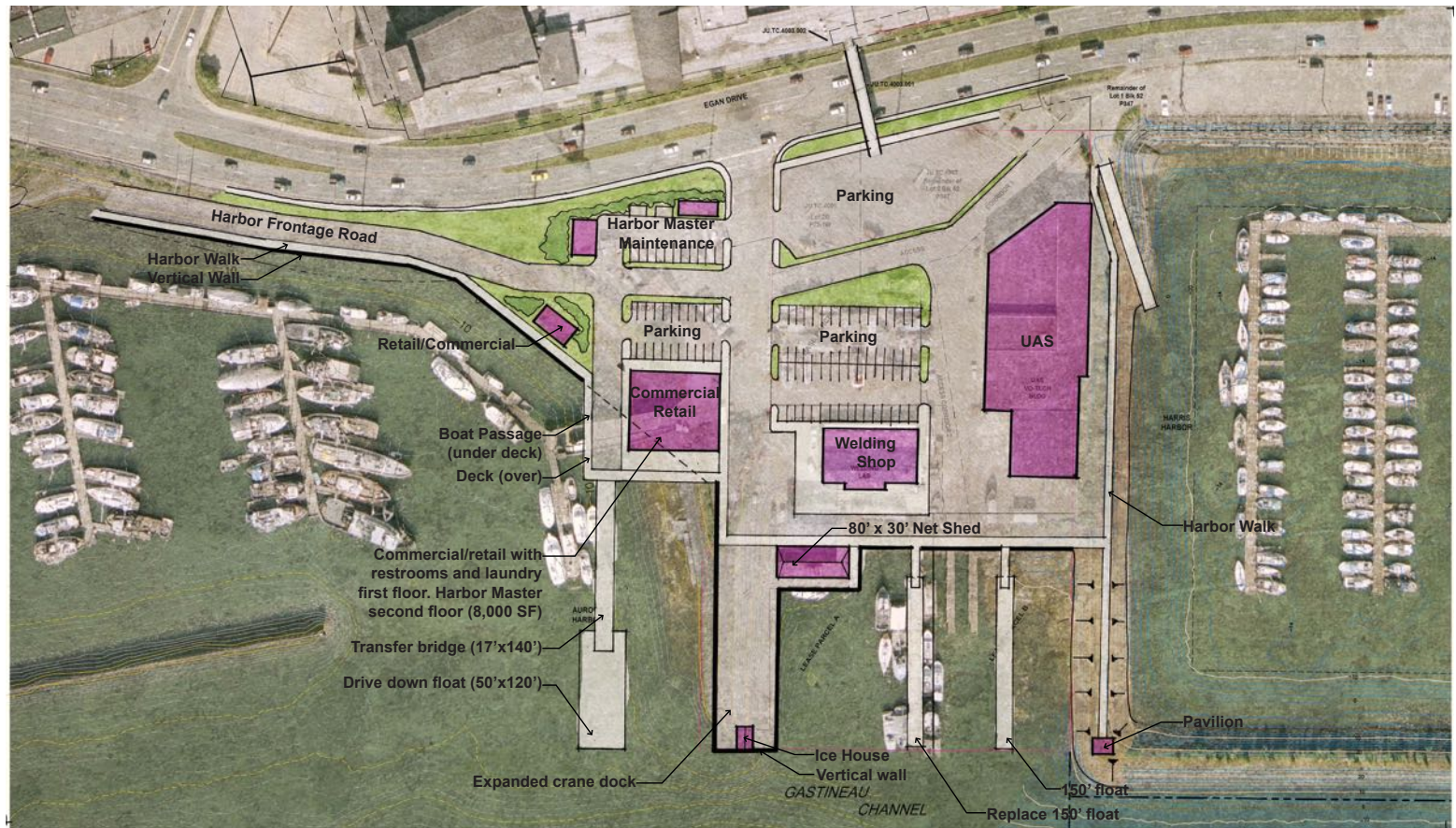
Fisherman's Terminal Plan Elements

Project Need

The Plan will provide the needed facilities to service the fleet, while consolidating commercial fishing activity to the area adjacent to the UAS Tech Center to better serve the needs of local and regional fishermen. A large portion of the upland area adjacent to the UAS Tech Center is owned by the university and leased by the City and Borough. Efforts have been made to limit infrastructure improvements on these lands beyond water dependent needs and parking.

Drive Down Float, Crane Dock Expansion, Moorage Floats

A drive down float, an expansion of the current "crane dock," and an ice house are three elements that fishermen say will help their operations considerably. A net shed will allow fishermen a designated area to repair their nets out of the weather. The aging floats will be replaced with two new 150-ft moorage floats. Direct fish sales would be offered here to the public. Infrastructure development includes a retaining wall and pile supported deck.



New Harbormaster Facility and Uplands Improvements

In addition to providing better services to the local and regional fishing fleet, new harbormaster facilities will replace aging structures. The Plan envisions a two-story, 8,000 square feet per floor harbormaster and commercial retail building. The building would have space for public restrooms and laundry, as well as space for commercial retail. A new consolidated maintenance building and yard would deter serve the harbors.

All elements = \$34.9 million

Fisherman's Terminal: Uplands

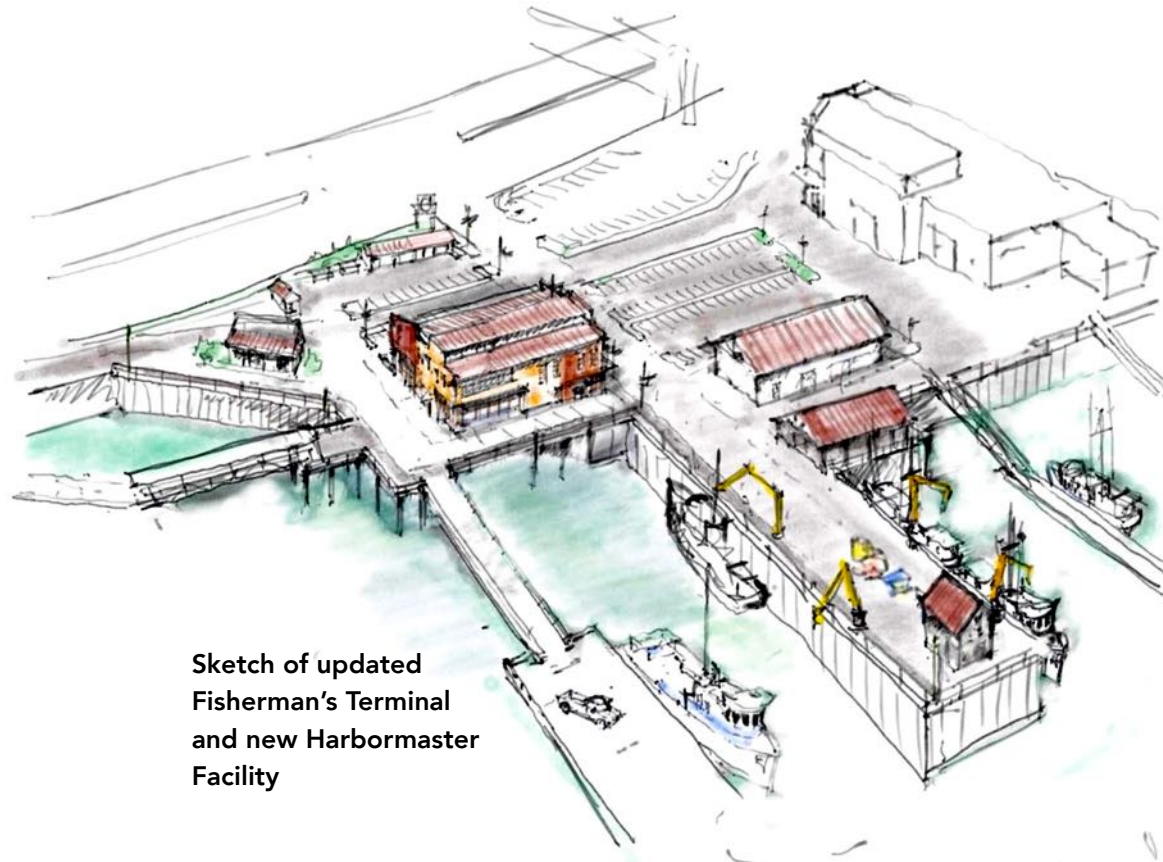
Retaining Wall: A sheet pile bulkhead retaining wall will be extended from the Harbor Connecting Road on a diagonal alignment following the waterfront across the pile supported approach near Gangway A to the shore near the crane dock. The bulkhead will be backfilled with clean rock materials to provide additional upland space for vehicle and pedestrian circulation, parking and new buildings.

Boat passage and deck: A pile supported deck will extend seaward from the bulkhead to provide access to Gangway A and a proposed Drive Down Float near the harbor entrance. The deck will allow vessel passage underneath for small vessels transiting the aisleway between the headwalk float and shore.

Harbor walk: A concrete walkway with architectural safety rails will be provided along the top of the bulkhead and pile supported dock to ensure a safe and continuous pedestrian route along the water's edge.

New Harbormaster Facility: The uplands area will be developed with landscaped parking lots and a 16,000 square foot commercial building supporting retail, restroom and laundry on the first floor and a new harbor office on the second floor. A separate 2,000 square foot service building will be located on site to support harbor maintenance and storage operations.

Cost Estimates: Total project budget including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection has been estimated at \$14.8 million (see spreadsheet page 51).



Sketch of updated
Fisherman's Terminal
and new Harbormaster
Facility

Fisherman's Terminal: Drive Down Float

A drive down float similar to the CBJ's Auke Bay Loading Facility will be sited just inside the south entrance to Aurora Harbor. The facility consists of a 17 by 140-ft transfer bridge connected to shore at the northwest corner of the proposed pile supported deck. The bridge leads to a 50 by 120-ft vehicle accessible drive down float equipped with a 5 ton hydraulic crane. The float is moored with steel piles and pile frames surrounded by energy absorbing pile hoops attached to the float. The bridge is primarily supported on the seaward end by a submerged auxiliary float in order to reduce structural loads into the main float. Water, fire suppression, power and lighting utilities will be extended down the bridge to provide services on the main float. The facility is intended to support vessel loading and offloading operations.

Cost Estimates: Total project budget has been estimated at \$5.5 million (see spreadsheet page 52).

Fisherman's Terminal: Crane Dock Expansion

Crane Dock: The existing crane dock is located along the southerly entrance breakwater into Aurora Harbor. The facility consists of a rock filled sheet pile bulkhead with concrete apron, fender piles and hydraulic crane facing south into the small vessel basin known as the Fisherman's Terminal. The facility is primarily used to support loading operations for commercial fishing vessels. The crane dock will be expanded by constructing a new sheet pile bulkhead facing north into Aurora Harbor. It will also be filled with rock then finished with a concrete apron, fender piles and two hydraulic cranes.

Ice House: A new ice house will be placed at the westerly end of the dock. The seafloor at the face of the new dock section will be dredged to provide sufficient water depth for vessel loading operations.

Cost Estimates: Total project budget has been estimated at \$8.1 million (see spreadsheet page 53).

Fisherman's Terminal: Moorage Floats

Two new moorage floats: The existing boat haul out pier and moorage float within the Fisherman's Terminal moorage basin will be demolished and the moorage basin will be dredged and expanded towards the south to the maximum extent possible without encountering the Harris Harbor rubble mound breakwater. A retaining wall will be constructed and backfilled with rock along the easterly shoreline to maximize upland operational and pedestrian circulation space surrounding the basin. Architectural safety rails will be mounted at the top of the wall. Two new moorage floats each with separate gangways leading from the upland retaining wall will be constructed within the expanded basin. Utility services on the floats will consist of potable water, fire suppression, power and lighting.

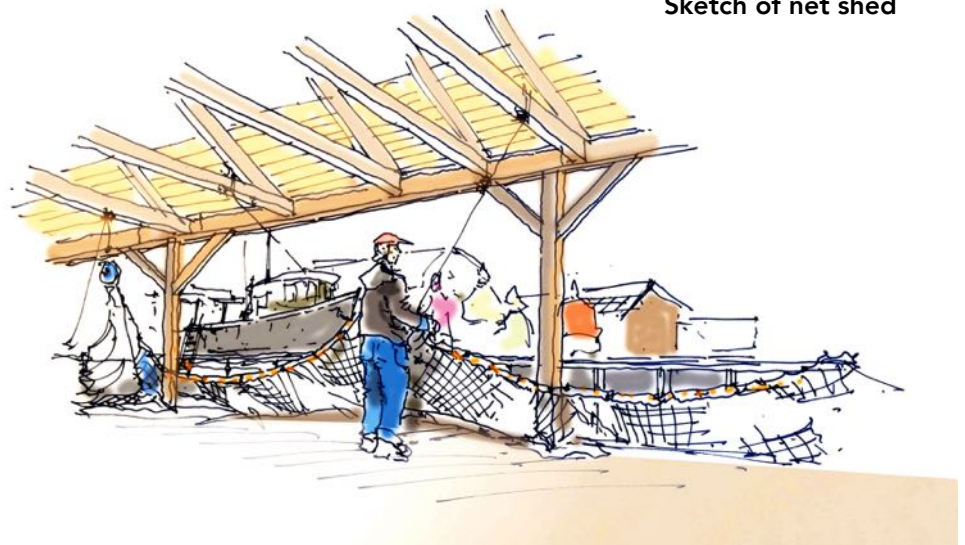
Net Shed: A 30 by 80-ft net shed will be constructed on shore at the northeast corner of the basin. The net shed serves the fishing industry as a covered utility building to be used for net repair, sorting gear, and other related activities that benefit from a sheltered location, something the industry currently lacks. The net shed will also become an important

community space that could be used for festivals, celebrations, weddings and just enjoying the waterfront during lunch. Sitka's net shed at Crescent Harbor serves the same purpose for both the fishing industry and public use and is a focal point of its waterfront. The building form connects back to historic Southeast Alaska waterfront architecture, which at one point defined most of our coastal communities' town character. The design depicts strong, bold and symbolic forms that connects the land to the water and has a very practical use.

Perimeter: Site paving, curb and gutter, sidewalks and area lighting improvements are planned around the perimeter of the harbor basin. Onsite runoff will be collected and treated per ADEC requirements prior to discharge into Gastineau Channel.

Cost Estimates: Total project budget has been estimated at \$6.5 million (see spreadsheet page 54).

Sketch of net shed



Project Area: The Economic Potential of Waterfront Retail

Daily Users in Project Area

- **Yacht Club:** 40 daily avg.
- **Harbor residents :** 150
- **UAS staff & students:** 50 in school year
- **Other workers :** 35
- **Boat users:** 50

=300



=500

Daily Users Adjacent to Bridge Park

- **Department of Labor:** 300
- **Fish and Game :** 110
- **Juneau Hotel (staff and guests):** 75
- **Other workers :** 15

Coffee Shop or Restaurant

\$500,000 to \$1,000,000 annual revenue

There are an estimated 800 daily users that have access to the project area, and there are currently no food or retail services. If a quarter of this group paid \$10 for a purchase (food, coffee, light retail), assuming a business operated 5 days per week,

total revenue would exceed a half-million dollars annually, which is what the "average" US coffee shop generates annually. A restaurant that could serve 150 people a day, 5 days per week with an average tab of \$25 per person would have total revenue of nearly one million dollars annually. With improved vehicle and pedestrian access, it follows that total daily users will be higher.

Retail Provider

\$75,000 to \$100,000 in rent

During the planning process there has been interested expressed interest in 5,000 square feet of rental space. Because this business would move within Juneau, its sales would no be considered new economic activity. However, such a store could generate \$75,000 to \$100,000 in rent.

Fishermen's Direct Marketing

\$625,000 to \$1.25 million annual sales

Another option is developing a location where fishermen can directly sell their seafood to Juneau residents. Despite being a community with a

robust seafood economy, the ability for local fisherman to sell their product directly to locals, businesses, and visitors is limited, and the public has few options to directly buy local seafood. If a fishermen's direct marketing location becomes well established, it could become an attraction to visitors and locals alike, adding additional direct market opportunities for the fishermen. There is already a certain amount of direct salmon, shrimp and crab sales taking place off vessels in our harbors. However, there are problems with lack of dedicated spaces and facilities, and poor communication and advertising with the potential buying public. By consolidating direct seafood sales at Fisherman's Terminal, total sales could range from \$625,000 to \$1.25 million annually.

CBJ Revenue

Sales could generate up to approximately \$112,500 in annual sales tax, in addition to rental fees.

Total retail potential = \$1.2 million to \$2.35 million



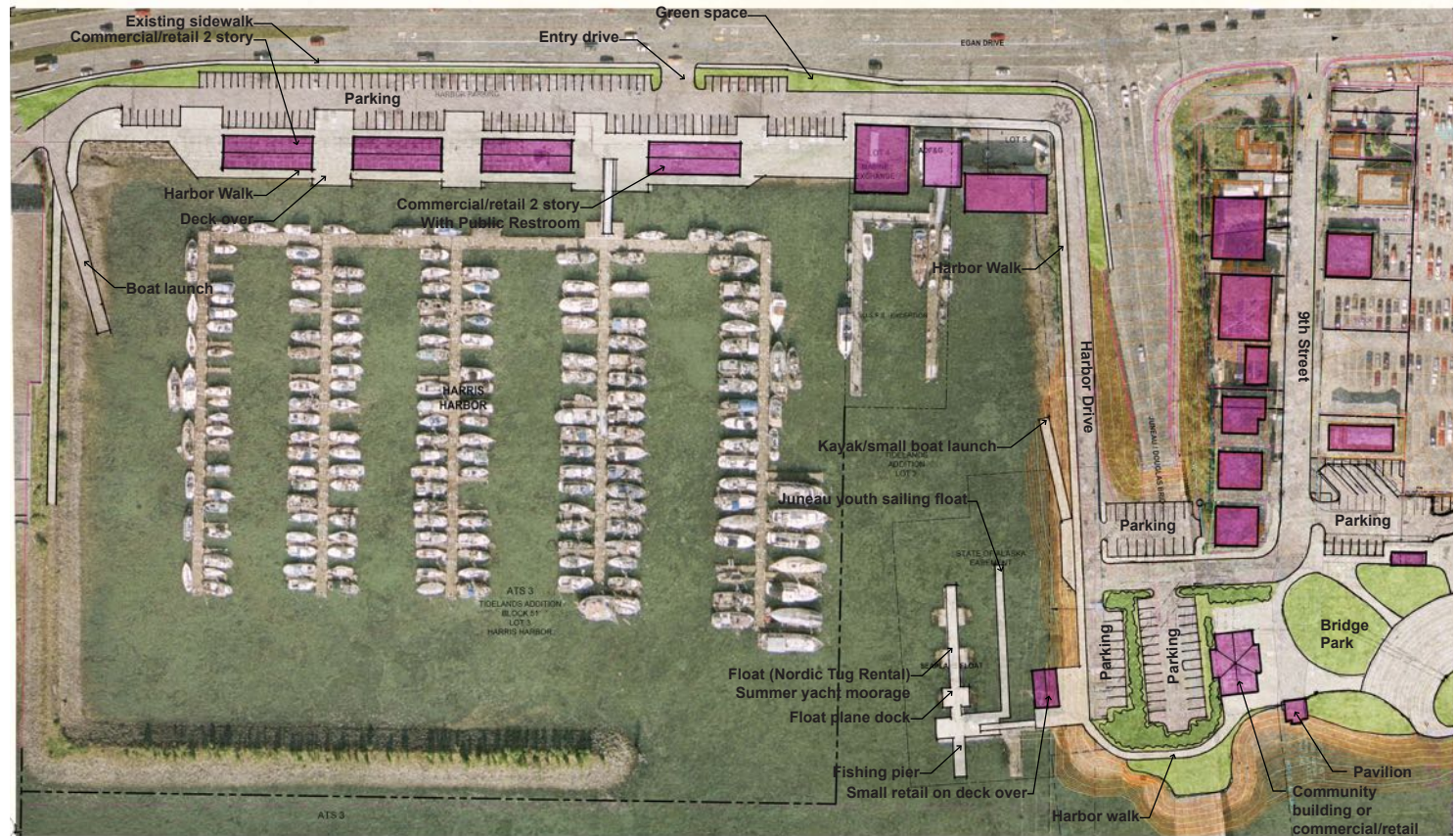
Harris Harbor Plan Elements

Uplands Improvements at Harris Harbor

In Harris Harbor, with the boat grid relocated to Norway Point, a space is created that could be commercially developed and leased. The area could accommodate food trucks and small retail, such as coffee shops. Or these could be small professional maritime-related businesses, with businesses or housing on the 2nd floor. Creating commercial and retail in this area provides economic opportunities and connects the harbors to the adjacent neighborhood to help make the harbors a destination and vibrant part of the community.

Access from to Bridge Park would be provided by a new Harbor Walk. The float plane dock would be replaced and the rebuild would include moorage for visiting yachts and room for the Juneau Youth Sailing Club. The area's restrooms will be restored.

All elements = \$12.8 million



Food trucks could represent a phase I retail approach

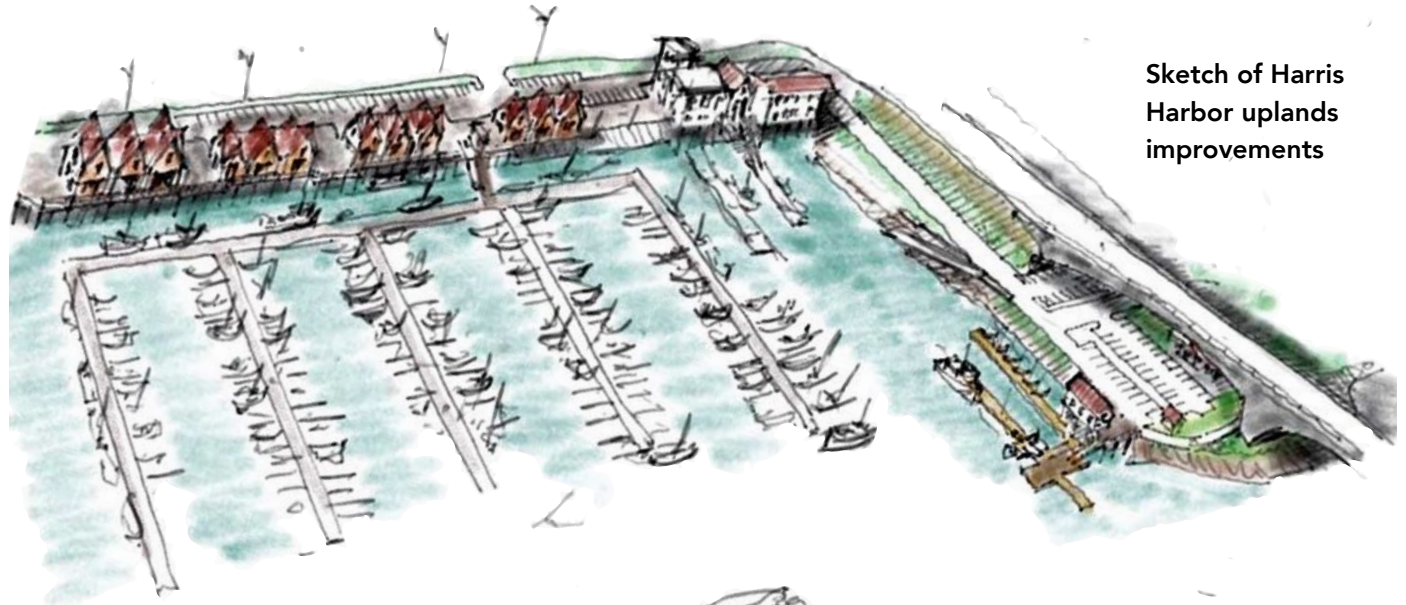
Harris Harbor Uplands

Tidal Boat Grid: The existing tidal boat grid will be demolished and a replacement boat grid will be constructed at the north end of Aurora Harbor as described above in the Marine Service Yard expansion at Norway Point.

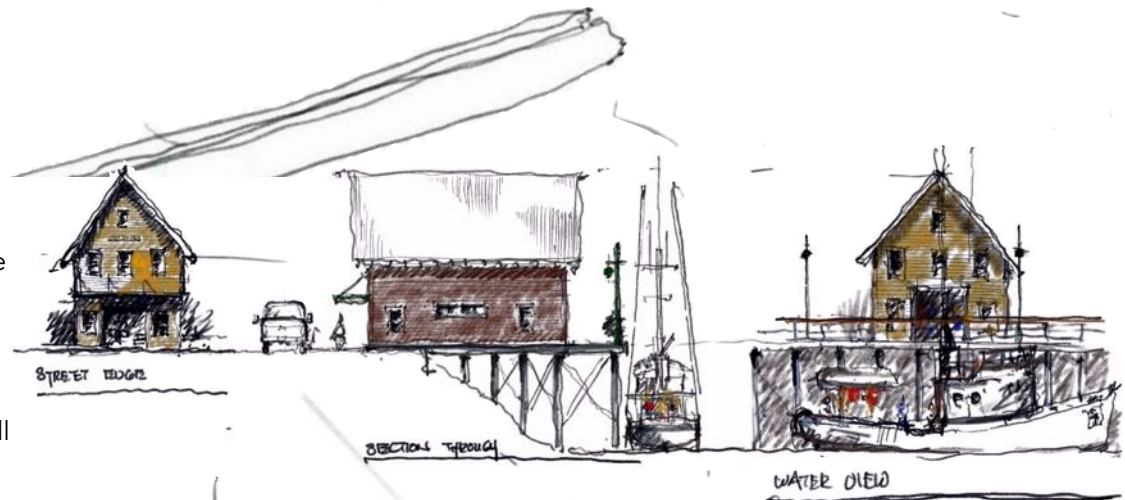
Retail Space on New Deck: A pile supported deck will be constructed over the slope of the existing Harris Harbor basin from the existing boat launch ramp to the new Marine Exchange of Alaska building. The deck will support a variety of commercial retail businesses and public restrooms within two-story buildings located on the deck. Improved parking with landscape features will be located between the pile supported deck and Egan Drive. Site paving, curb and gutter, sidewalks and area lighting improvements are planned in the improved uplands. Onsite runoff will be collected and treated per ADEC requirements prior to discharge into Gastineau Channel.

Harbor Walk: The water side of the deck will feature a harbor walkway with architectural safety rails running the full length of the harbor.

Cost Estimates: Total project budget has been estimated at \$12.8 million (see spreadsheet page 55). This does not include commercial buildings construction. These buildings could be built and leased, or land leased for private development.



Sketch of Harris Harbor uplands improvements



Sketches of retail space developed at Harris Harbor.

Bridge Area: Plan Elements

Potential Community Building Development next to Whale Statue

By locating a community building next to the whale statue in Bridge Park, uplands visitor activities area consolidated to a single location. The whale statue marks the end of the Sea Walk, and the area will transition into the new Harbor Walk, linking the updated Harris Harbor retail sector to this area by providing access under the Juneau-Douglas Bridge. Retail, commercial, a restaurant, coffee shop, or an interpretive facility (such as a museum) could also be part of the new community meeting place. If desired in the future, a new yacht club could fill this role.

Parking for the new community building could be developed beneath the bridge, and the new building would be developed adjacent to the bridge. A community building located in the park would create a much needed community gathering and special events facility on Juneau's waterfront.

All elements = \$7.8 million

Sketch of a new community building, and the connection between Bridge Park and Harris Harbor.



Bridge Float & Parking

Community or retail building: A new two-story community, retail, or office building will be sited between the parking areas and Bridge Park. Site paving, curb and gutter, sidewalks, landscaping, seawalk and area lighting improvements are planned in these improved uplands.

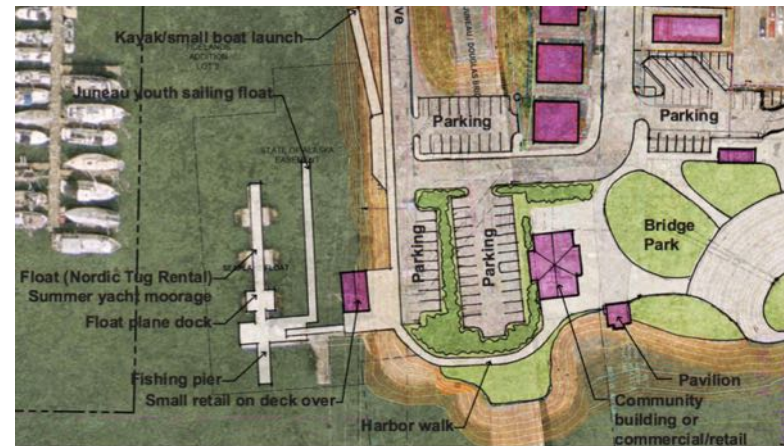
Road and parking: Harbor Drive will be improved and three new parking areas will be constructed along the southern shoulder of Harris Harbor between Egan Drive and the Gastineau Channel under the Juneau-Douglas bridge. Onsite runoff will be collected and treated per ADEC requirements prior to discharge into Gastineau Channel.

Seaplane Float, Moorage Float, and Fishing Pier: Within Harris Harbor, the existing seaplane float will be removed and replaced with a smaller seaplane float, moorage float, youth sailing float and fishing pier at the same location. Access to these new floats is provided by a new ADA-compliant gangway attached to a small pile supported approach dock near shore. The float could also support summer yacht visitations to downtown.

Small retail building: A small retail building is located on the dock to house various services associated with the float operations.

Kayak and small vessel launch ramp: A new kayak and small vessel launch ramp with upper staging area will be located midway along the basin slope.

Cost estimates: Total project budget has been estimated at \$7.8 million (see spreadsheet page 56).



View from the future community building entrance.



View of a new community building from the whale statue.

Total Cost Benefit Analysis

Additional Economic Benefits

Component	Expanded Marine Service Yard	Retail (marine, food, fish)	Crane Dock	New Annual Economic Activity Estimated
Low Estimate	\$2.1 million	\$1.2 million	\$2 million	\$5.3 million
Medium Estimate	\$3.5 million	\$2.35 million	\$2 million	\$7.9 million

\$7.9 million in annual benefits, \$103 million in total costs

The total benefits of the complete build out would be \$5.3 to \$7.9 million annually based on current available data. The project would also provide an additional but unmeasured benefit to the Juneau maritime sector as a whole, which is Juneau's second largest economic sector after government in terms of total annual workforce earnings, paying out \$118 million annually.

Costs

Area	Phase	Estimated Cost
Norway Point	Phase I	\$21.4 million
	Phase II	\$4.0 million
	Phase III	\$6.3 million
Road	Aurora Harbor Road & Parking	\$8.3 million
	Harbor Connecting Road	\$7.5 million
Fisherman's Terminal	Uplands	\$14.8 million
	Drive Down Float	\$5.5 million
	Crane Dock Expansion	\$8.1 million
	Moorage Floats	\$6.5 million
Harris Harbor	Uplands	\$12.8 million
Bridge	Float and Parking	\$7.8 million
		\$103 million

Total costs of the buildout would be \$103 million. If the project's benefits met the mid level estimates calculated, it would take 13 years for the project to pay for itself in terms of overall economic activity generated within the community.

The Process

The following pages summarize the process, analysis and master plan development with the public over a 10-month period that led to the creation of the adopted preferred master plan on the previous pages.

The project team developed a process for the Juneau Downtown Harbors Uplands Bridge Park to Norway Point Master Planning effort that began with a review of past planning initiatives, and an analysis of the Juneau economy to ensure that the resulting plan would have the maximum benefit for the community.

This project included significant public involvement to engage the community and allow input and help direct the harbor uplands planning effort. Stakeholders and members of the public were invited to four public meetings, three open house events, integrated design charrettes, and three meetings with the Docks and Harbors Board. Public outreach was conducted to ensure maximum public participation. Initially, three master plan alternatives were developed in response to local visions for the harbor uplands. Based on the community input and prioritization from the three master plans, initial plans were distilled into a single Preferred Juneau Downtown Harbors Uplands Bridge Park to Norway Point Master Plan. Each of these designs are presented in this document.





They focused on guiding the design work and implementation plan to fit smoothly within the existing Juneau waterfront character. PND reviewed this work to ensure that the concepts were feasible from an engineering and permitting standpoint, as well as providing construction costs on the individual elements of the design alternatives. Rain Coast Data developed an analysis of local maritime economic trends to forecast and identify the potential economic benefits to be gained from this project. This analysis informs the implementation strategy to allow Juneau Docks and Harbors to maximize the returns on the investment required for the Master Plan.

Project Team

The design team, led by Corvus Design Landscape Architects, was hired to develop an implementation plan that included extensive community involvement; identifies ideas, potential growth, long-term and short-term opportunities; and attains consensus for the long-term use and development of the Juneau harbor uplands.

Corvus Design teamed with PND Engineers, Rain Coast Data and NorthWind Architects, three Juneau firms that, like Corvus Design, have a proven track record working for the City and Borough of Juneau and on waterfront projects across the region. Corvus Design and NorthWind Architects led the overall uplands planning and design effort, integrating the diverse uses, elements and needs into a unified design.



Project Area By the Numbers

The project team began the process by conducting an analysis of the current land use of the area. These findings are presented below.

289 Parking Spaces

The primary uplands use in the project area currently is parking. The project area has a parking capacity of 289 vehicles. There are 800 parking stickers distributed annually to Aurora and Harris Harbor patrons with year round stalls. An additional 620 temporary parking permits were also issued last year (ranging from one day to three months).

753 Vessel Capacity

Aurora Harbor has the capacity for 465 vessels while Harris Harbor has an additional moorage capacity for 288 vessels. This includes 42 boat shelters that are currently in use. The harbors are nearly at capacity in the summer with the exception of the 24-ft stalls in Aurora. Juneau hosts a significant fishing fleet, many of which base out of the Aurora and Harris Harbors. There were 643 transient vessels that used these Harbors in 2015.

\$1 Million+ in Annual Moorage Revenue

Total moorage revenue for all downtown harbors was \$1.4 million in FY2014 and \$1.25 million in FY2015. The total moorage revenues for Aurora and Harris are approximately one million annually.

One-third of Juneau's Commercial Fishing Fleet

There are **100 commercial fishing boats** with year-round stalls in Aurora and Harris Harbors. According to the Juneau Economic Plan Economic Baseline Report there are 300 commercial fishing boats in Juneau, **so this represents one-third of the Juneau fishing fleet**. There are 1,180 fishing vessels (including non-local transient vessels) registered with CBJ that use local facilities.

160 Harbor Residents

There are **160 people** permanently living in the project area on **123 different vessels** including **21 houseboats or float houses**. This count includes 120 residents living in Aurora Harbor, 39 in Harris Harbor, and one additional resident moored at Norway Point. To provide perspective, this means that the project area has a similar population to Coffmann Cove, and has 30 more residents than Tenakee Springs.



Nearly 15,000 People Used the Yacht Club During 274 Events Last Year

Last year there were **14,630 user days** of the yacht club at **274 events**, for an average of **53 attendees per event**. There were 70 public rentals with an average attendance of 100 people each. Other top users included church groups, Juneau Youth Sailing, Sons of Norway, Coast Guard Auxiliary, Docks and Harbors, and Yacht Club organizational meetings.

150-200 Haulouts

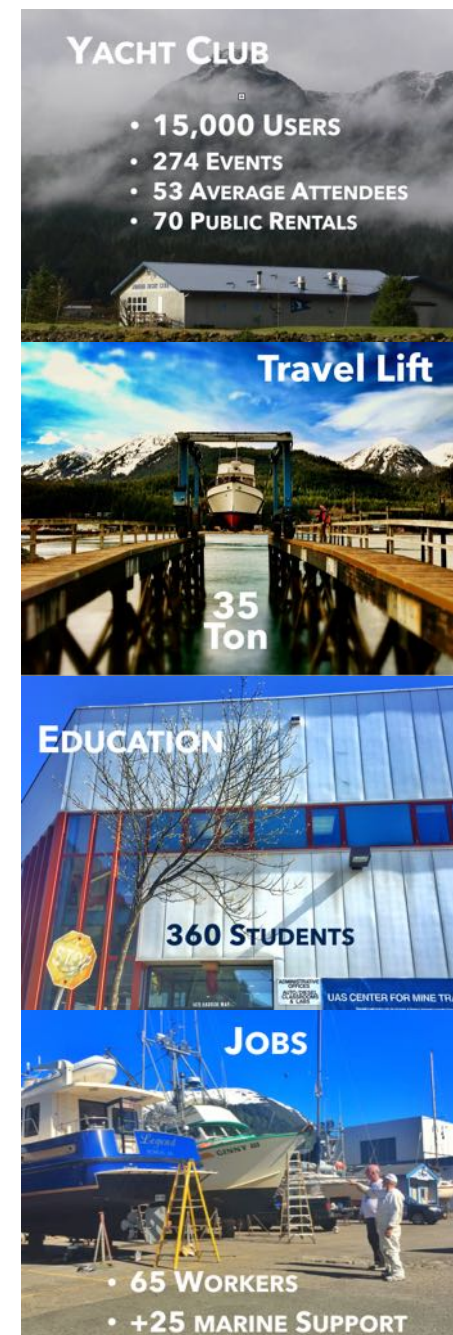
In the small leased ship yard, Harri Commercial Marine provides welding, fabrication, fiberglass repair, and a 35-ton travel lift. The travel lift hauls between 150 to 200 vessels annually at a price of \$20 per foot. The work done in the yard generally ranges between \$500 to \$5,000 per vessel. There are 10 slots for vessel storage/work.

360 Students

The UAS Technical Education Center (TEC) is located at 1415 Harbor Way across from Juneau Douglas High School. The TEC is comprised of two buildings that house programs in the School of Career Education. It includes the UAS Center for Mine Training along with programs in construction technology, power technologies (diesel/auto/marine) and welding. The proximity of the TEC to the nearby high school provides opportunities for shared use of facilities and early-college career pathways for high school students taking college courses. A portion of the TEC site is leased to the City and Borough of Juneau as a commercial haul-out location for marine vessels. The lease for this purpose extends to 2021.

Approximately 90 Workers

Harri Commercial Marine supports 5-6 on-site employees in the summer. Marine Exchange employs 18 to 20 people providing a 24 hour vessel tracking system for Alaska. Juneau Electronics has 4 to 5 employees. Technical Education Center has 30 staff, faculty, and adjuncts working at this site. Juneau Yacht Club has 2 employees plus volunteers. Maritime Hydraulics has 3 employees. There are an additional 25 mechanics, fiberglass, and shipwrights providing marine support—mostly as independent contractors.



Public Process

A focus on public participation and working with users throughout the project duration created an inclusive process that helped shape a strong community understanding and support for this project. The public played a vital role in developing the vision, planning goals, and the creation of the resulting Preferred Plan.



Public Meetings and Programming Priorities

Four public meetings were conducted as part of the Juneau Downtown Harbors Uplands Master Plan process. In addition to these meetings, the Juneau Harbor Uplands team held three all-day open house sessions for those interested in the project to see the designs in progress and provide individual input. A key step in the design process is an integrated design charrette. The purpose of the charrettes and intensive public design workshops was to develop a vision and plan for the Juneau downtown harbors uplands (and harbors as a whole). The workshop format was predicated on an participatory iterative process, where attendees are required to participate and contribute to the discussion.

In order to maximize participation, the meetings were announced through a series of Public Service Announcements on KTOO, ad placements in the Juneau Empire, a series of Facebook posts on the Juneau Community Page, event posters placed around the community, Constant Contact and individual emails, and announcements on several websites including the the Juneau Waterfront Master Plan Project Blog site and prior to each public meeting. More than 150 people were involved into the process.

May 18th, 2016

On May 18th, the first public meeting was held to develop a vision and master plan for the uplands between Bridge Park and Norway Point that reflect the needs and desires of our community. There were nearly 60 interested citizens in attendance. This is a summary of that meeting.

Expand marine services capability: Twenty seven people commented that additional and/or expanded fisheries support facilities were needed. The addition of a 150 to 300-ton lift (8 comments) was cited as the most pressing need. Other suggestions included a crane, haul out facility, welding and boat maintenance shops, maritime hydraulic services, additional boat storage, and filling uplands to meet these needs.

27

Improve safe & efficient access to/from Egan Drive and between the harbors: Improved access to the harbor was among the top concerns for respondents, with 21 comments saying it was the most-needed improvement. The majority of those citing access commented specifically on the hazards of crossing Egan Drive to turn into the harbors. Other commenters spoke of wanting a road that

21

connected Aurora parking and road area to the Harris Harbor area.

Upgrade harbor amenities: Seven respondents listed an updated and improved harbormaster's office as the most pressing need. Reasons included the need for a larger space for staff and overall modernization. New and updated restrooms were listed as high priority by six respondents. Harris Harbor used to have plumbed facilities, which were discontinued due to security issues, excessive janitorial requirements, and lift station maintenance problems. Commenters noted that to be a world class harbor we need to provide more adequate restroom facilities.

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Increased shops and services for harbor residents, visitors and locals: Increasing economic development opportunities was the top suggestion among 11 respondents, who said they would like to see the addition of restaurants offering waterfront views, retail shops and maritime-related businesses. With a community of liveaboards, visiting recreational boaters and commercial fishermen, respondents recommended providing services that meet their needs in the project area uplands. **Prioritizing this type of development was also the most popular suggestion when a follow up question was asked: What would be best for the community?**

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Increased pedestrian access: Nine respondents said improved walking paths are needed. Pedestrian safety was the top reason cited by this group. **Background:** Last year 643 transient vessels with boaters, yachters and commercial fishermen arrived in the project area. It is difficult for those arriving without vehicles to access services, stores and restaurants. Limited access to businesses results in decreased spending. Look for opportunities to create increased pedestrian access to those

9



arriving by water, and provide linkages to the seawalk in development connecting to Bridge Park.

Other comments:

- Four people said the waterfront area surrounding the harbor should be **zoned for mixed-use**, allowing businesses to move in alongside housing (suggestions for housing ranged from high-price waterfront condos to affordable homes).
- The addition of **storage space** for private belongings was suggested by four people.
- Four respondents wrote that **additional parking** is needed. Reasons varied from current limited parking to easing congestion when entering and leaving the harbor.
- Three Comments Each: Add a net shed or float. Create a public transportation hub. Increase maritime workforce development and emergency response training. Improve small craft launch/moorage.

- Two Comments Each: Improve and add community facilities. Create a fresh fish market. Covered boat storage. Add bike paths and improve current ones. Add a cold storage facility. Add a drive-down dock. Repair or replace floats.
- One Comment Each: Provide power for the lot near Juneau Yacht Club for youth sailing. Convert Juneau Electronics into a maritime terminal. Clean up the area. Build homes. Prioritize feedback of harbor residents and users over others. Improve security. Improve sewage. Add boat slips.

January 17th, 2017 and January 19th, 2017 Public Meetings:

At the January 17th meeting, the project team presented three conceptual plans to the community, along with an analysis of economic opportunities. Based on the feedback from that meeting, ideas from those who attended the open house that week (approximately 50 people) along with the feedback from the Docks and Harbors Board, the team refined the uplands plans and presented that updated version at the January 19th meeting.

What the project team heard:

- Expand cranes and fish market opportunities
- More “fish landing” opportunity in plans
- Expand seafood market
- Community cold storage
- Appropriate landscape
- Public fishing pier—multi purpose between fishing fleet and public use
- Clear signage to market use
- Community return to build awareness of maritime needs
- Marine service yard as large as possible
- Storing boats
- Provide ice house facilities

- Maritime museum: Offer “real local venue” boats and history for the visitor industry
- Housing non-advantageous
- Potential impact on Egan Drive traffic with new development
- Would Goldbelt’s West Douglas Island venture have an impact on the long range master plan?
- Develop and consolidate fisherman’s terminal
 - Drive down dock
 - Additional float space
 - Ice house
 - Net shed
 - Direct fish market
- Put restrooms and dog facilities at all harbor entrances.
- Provide commercial retail at centralized location near harbormaster.
- Harbormaster building should serve as a gateway, able to monitor comings and going: centrally located.
- Consolidate harbor service/recycling/garbage in one location that can be monitored by harbormaster.
- Relocating grid to Aurora harbor near yacht club may be an area where current carry debris.
- Yacht club—limited excitement about being adjacent to marine service yard: relocate to be adjacent to whale park once conflicts arise.
- Location of 120-ft float and travel lift haul out in location with strong currents.
- Minimize/avoid new facilities on UAS leased property.
- Love the harbor connecting road and harbor walk.

The project team conducted another programming exercise to determine the public's implementation priorities:

1. Marine service yard
2. Improved vehicular and pedestrian circulation
3. Fisherman's terminal improvements
4. Harris Harbor improvements
5. Harbor master office and maintenance facility

February 16th, 2017: At the final public meeting, the preferred conceptual master plan was presented to the public to unanimous approval by those present.

March 14th, 2017 Letter fro the Yacht Club:

On February 23rd, the project team presented the draft plan to the Juneau Yacht Club (JYC), and on March 14th, Yacht Club Commodore Jerry Burnett wrote a letter to City and Borough Port Director Carl Uchytel with the following comments:

- In general, JYC is in agreement with the conceptual plans.
- The JYC preference is to seek alternatives that do not require moving the clubhouse. However, JYC also understands that if the proposed enlarged boatyard and marine repair facility is moved to the area now occupied by the JYC, those operations could adversely impact JYC, and reduce parking while leaving the club within an industrial zone.
- They also understand that moving our clubhouse could result in very substantial cost savings over some of the development alternatives by reducing the amount of new filled lands to be constructed. Thus, if it becomes necessary to move, and if the overall benefit to the community warrants it, JYC will support the concept.

- Any move of the club facility should exclude the possibility of the location under or adjacent to the Juneau-Douglas Bridge. It is neither the only nor the best site available for relocation.
- Their preferred alternative is to leave the JYC in its present location with adequate separation from the proposed boat yard.
- JYC suggests that the boat yard should be relocated to the rock dump area.
- An alternative would be to relocate the JYC to the second floor of the proposed Harbormaster's office.

Docks and Harbors Board Programming Priorities

In addition to meeting the with the public, the team also met with the Juneau Docks and Harbors Board on three occasions to present the master planning process, and to get direction from the Board.

June 30th, 2016:

On June 30th, Meilani Schijvens represented the Bridge Park to Norway Point Land Use Master Planning team at the full Docks and Harbors Board meeting. (Meeting minutes can be viewed at: <http://www.juneau.org/harbors/minutes/20160714090428-m.pdf>). The board was provided a document that summarized the work of the team to date, along with the feedback received from the initial public meeting. The purpose of the meeting was to prioritize desires from public meeting and identify the non-starters in order to provide clear direction moving forward as we continue to develop the master plan. The board participated in a programming exercise. They were provided a list of the public priorities that emerged from the May 18th public meeting, and were asked to vote using stickers to indicate their highest and lowest priorities. A summary of the results of this exercise is presented below.

Most popular

New restrooms: The most clear direction was a desire for new bathrooms in the project area, which received 7 positive votes, and no negative votes.

Expand marine services capability: The board also had interest in expanding industrial marine services in the project area. It received 6 positive votes, and 3 negative votes. Two of those negative votes were specifically against installing a larger travel-lift.

Improve safe & efficient access to/from Egan Drive and between the harbors: Specifically fixing the hazardous turn connecting Aurora and Egan Drive received 4 positive votes, and no negative votes. Specifically developing an interior road connecting Aurora and Harris harbors received two negative votes, and one positive.

Increased shops and services for harbor residents, visitors and locals: Another top vote getting was increasing shops and services in the project area. However, this also received two negative votes from the board.

Create a fresh fish market: Developing a fresh fish market in the project area was another board favorite, earning 4 positive votes and no negative votes.

Limit liveaboards to a single area: The board added one priority to the list of plans for the project area that had come out of the public meeting: confining those living on boats to a single part of the project area. This received four positive votes, and two negative votes.

Upgrade Harbormaster's Office: Renovating and updating the harbormaster's office received three positive votes, and no negative ones.

Other: 2 yes votes each

Three additional items received votes from the board:

- Increased pedestrian access
- Change zoning in area to mixed-use
- Add a net shed or float

Least popular

Build Homes: The board was also very clear that they did not want to use the uplands for housing development.

Create a public transportation hub: There was some talk at the public meeting about having the bus system connect to the harbors, or creating a public transportation hub. That concept received 4 negative votes from the board.

The addition of storage space for private belongings: The board also was not interested in using the uplands to let people store their things.

Bike path: There was mixed interest in developing a bike path in the project area.

Other:

Three additional items received two no votes each from the board:

- Additional parking
- Improved small craft launch / moorage
- Covered boat storage

Finally, there were two additional items with a single no vote:

- Add a cold storage facility
- Add a drive-down dock

January 17th, 2017: At the January 17th meeting, the project team presented three conceptual plans to the Docks and Harbors Board, along with an analysis of economic opportunities, and received the following feedback:

- Marine services expansion has the highest rate of return and need.
- Marine service at Norway Point can be done in phases.
- Housing may not be appropriate on limited land.
- Better access to the site is a priority, and access needs increase with new development.

February 23rd, 2017: At the February Docks and Harbors meeting, the preferred conceptual master plan was presented to the Board.



Economic Analysis: Marine Service Yard Expansion

In order to understand the public need for the project, an economic analysis of the marine service yard and potential expansion was conducted.

Summary

Juneau is the number one port in Alaska in terms of total vessels, when counting documented vessels (generally those over 25 feet) and commercial vessels. However, Juneau does not currently have adequate facilities to service these vessels. Based on an analysis of vessels owned and operated in Juneau year round, just over half of repair and maintenance dollars spent on these vessels occurs in Juneau. The amount not spent locally is not due to vessel owners choosing to take their vessels elsewhere for such work, but because there is not a lift large enough to service these vessels in Juneau.

The 478 locally based vessels owned by local residents included in this analysis likely spend between \$3.8 and \$4.1 annually on vessel upgrades and repair work. Approximately \$2.1 million of that amount is estimated to be spent locally with the current facilities available, meaning that just for this subset of vessels, there is an economic leakage of \$1.8 to \$2 million from the community on an annual basis.

In addition to these locally owned, locally based vessels, there are hundreds of additional boats excluded from this analysis, including vessels homeported in Juneau with an Alaskan non-Juneau owner (190 vessels), additional vessels of this class homeported in northern Southeast Alaska that might be interested in such services (238 vessels), and any visiting fishing, yachting, or other vessels that would need to make repairs during their travels in the area. By including the 428 additional Alaskan-owned Juneau and Southeast Alaska homeported vessels, the total annual repair and

maintenance work required annually increases by 90% to an estimated \$7.3 to \$7.7 million annual repair and maintenance economic activity associated with these vessels. The total annual amount that Juneau could attract annually would more than the current annual leakage, but less than all the vessels in the Northern Southeast Alaska region.

Juneau based vessels

Boats can move, which makes precise counts of vessels in each community a moving target. However, regardless of methodology, one thing is clear. Juneau is the top port in Alaska when it comes to number of vessels over 25 feet. (For the purposes of this document, only Coast Guard documented vessels are included. Registered vessels under 25 feet are excluded as they are often easily stored and maintained on personal property using a trailer).

Using the Coast Guard database, there are 809 vessels with a hailing port of Juneau—the highest by far of any community in the state. Conducting a query for only vessels owned by Alaskans, that number drops to 668, but Juneau is still the top community. Conducting a query for vessels with an owner in the same community as the hailing port, Juneau remains the top port in Alaska. (There are also many boats with Juneau owners with hailing ports outside of Juneau). Additional top port communities include Homer, Sitka, Ketchikan, Kodiak, Cordova, and Petersburg. The state of Alaska maintains a separate fishing vessel database, and here Juneau comes in 6th in terms of top ports across Alaska for fishing vessels. Depending on which metric you use to count local vessels, Juneau is home to 10-12% of the state's documented vessels (for vessels larger than 25 feet), and about 6% of the state's commercial fishing fleet.

Vessels over 25 ft in Alaska

Hailing Port	Vessels from hailing port	Vessel from hailing port with Alaskan owner	Vessel from Hailing port with owner in community (fishing vessels 26+ ft.)
Juneau	809	668	478
Homer	592	537	425
Sitka	518	425	476
Ketchikan	456	376	366
Kodiak	420	327	289
Cordova	380	329	347
Seward	369	311	98
Petersburg	305	249	298
Anchorage	304	219	192
Valdez	241	213	144
Wrangell	176	154	162
Additional Northern Southeast Vessels			
Haines	90	82	66
Hoonah	49	33	37
Elfin Cove	38	28	18
Pelican	29	24	20
Gustavus	28	22	29
Port Alexander	27	24	14
Skagway	25	25	18

Sources: First two columns only use data from Coast Guard certified vessels. The final column backs out commercial fishing vessels from the Coast Guard analysis, and replaces it with vessels from the ADFG Alaska Fishing Vessel Database.

Potential Economic Impact of Expanded Juneau Marine Services Yard

The project team conducted a new analysis of potential haul out activity associated with an expanded marine service yard, a 150-ton travel lift, and improved conditions (water, electricity, additional storage and work areas).

Based on primary data from the USCG and CFEC, along with survey data analysis – an improved, expanded marine services yard with increased lift capacity could generate up to \$1.6 to \$2 million in increased repair and maintenance spending in Juneau on an annual basis—although it would be unlikely to capture 100% of this amount.

Assumptions: For the purposes of this analysis, all boats registered in Juneau (4,206) are **excluded** from the analysis, as they are mostly small enough to be trailered and maintained without the services of a marine service yard. These boats are generally 25 feet or less. In addition, all commercial fishing vessels 25 feet and under were excluded for the same reason.

In addition to boats registered in Juneau, there are additional vessels that are certified with the Coast Guard as being actively in the “hailing port” of Juneau, including 417 non-fishing vessels. For the purposes of this analysis, only those vessels that reported a Juneau hailing port **and** an owner with a Juneau mailing address were included, for a total of 260 commercial and recreation vessels (excluding fishing vessels). Vessels over 150 tons were also excluded from this analysis.



For data related to fishing vessels, the project team used the State of Alaska's Commercial Fisheries Entry Commission commercial vessel database. According to this database, 640 fishing vessels are homeported in Juneau. Again, all vessels with owners outside of Juneau were excluded, leaving 213 active fishing vessels with Juneau owners.

Based on the above assumptions, there are 478 vessels in this analysis, including 65 that are too large to be hauled out using the 35-ton travel lift currently available in downtown Juneau, but that could be served by a 150-ton travel lift. Nearly half of the vessels in this analysis (45%) are fishing boats.

Juneau Vessels in Analysis

(Coast Guard certified and commercial fishing vessels 26+ ft with Juneau based owners only)

Gross Tonnage	Fishing	Commercial passenger	Other commercial (freight etc.)	Recreation	Total
0 to 35 tons	186	54	5	168	413
36 to 49 tons	15	6	2	9	32
50 to 100 tons	10	7	2	6	25
101 to 150 tons	2	4	1	1	8
Total	213	71	10	184	478

Source: USCG and CFEC. <https://www.cfec.state.ak.us/plook/#vessels>

To be clear, this analysis does not represent all vessels located in Juneau, but rather a subsection of permanent vessels that are most likely to use a marine services yard.

In addition to private and commercial moorage, City and Borough of Juneau facilities have the capacity for approximately 1,400 vessels, including 713 permanent stalls.

Total Juneau Vessel Capacity: Permanent and Transient

Location	Permanent Stalls	Additional Seasonal/ Transient Capacity (Approximate)
Aurora Harbor	312	153
Harris Harbor	176	112
Douglas Harbor	155	57
Statter Harbor	70	324
Fishermens Terminal	0	4
Norway Point	0	10
Intermediate Vessel Float	0	22
TOTAL	713	682
Combined Total	1,395	

Model 1: Estimated Annual Spending on Repairs and Maintenance for Juneau Vessel Owners: Based on Petersburg Vessel Owners Survey

The project team used the findings in a survey conducted in Sitka in 2014 by Northern Economics. The owners of 186 vessels were asked how much they spend on repairs and maintenance annually, along with annual vessel haul outs by tonnage. According to this survey:

- Owners with vessels under 50 tons spend \$8,245 on the repair and maintenance of their vessels,
- Owners with a vessel between 50 and 100 tons spend \$29,154 annually, and

- Owners with a vessel between 100 and 150 tons spend \$75,000 annually.

The project team applied these annual improvement cost estimates to the Juneau model, with one change: noncommercial spending and haul out activity for vessels under 36 tons were reduced significantly to more accurately reflect local Juneau based assumptions. Owners were also asked for annual haul out rates, which were applied to the model below.

Model 1: Estimated Annual Spending on Repairs and Maintenance for Juneau Vessel Owners: Based on Petersburg Vessel Owners Survey

(Coast Guard certified and commercial fishing vessels with Juneau based owners only)

Vessel Tons	Vessels	Total spent on repairs/ maintenance	Estimated haul outs per year
0 to 35 tons	413	\$2,271,993	238
36 to 49 tons	32	\$263,836	23
50 to 100 tons	25	\$728,844	17
101 to 150 tons	8	\$600,000	4
Total	478	\$3,864,672	282

Source: Northern Economic analysis http://www.sawmillcove.com/downloads/Preliminary_Screening-Level_Assessment%20FINAL.pdf

If Juneau vessel owners have similar behavior to Sitka vessel owners, last year these 478 vessels would have resulted in 282 haul outs, and \$3.9 million in total spending. While not all repair and

maintenance activity is associated with haul outs, the majority of spending takes place in conjunction with haul out activity. The Sitka survey did not specifically ask what portion of annual vessel work spending was done when vessels were not actively in the water. Since the Juneau Marine Service yard estimates approximately 250 haul outs annually (including smaller vessels), this means that approximately 44 vessels too large to be serviced in Juneau likely received services someplace else. The team estimates that there is currently approximately \$2.1 million in economic activity in Juneau based on this vessel set. This means that, based on this analysis, approximately \$1.8 million in repair and maintenance dollars for local vessels is leaving the community on an annual basis.

Model 2: Estimated Annual Spending on Repairs and Maintenance for Juneau Vessel Owners: Based on estimates of costs per boat length

A second model for estimating future use and economic activity at an expanded marine services yard was a bit more conservative on the total number of haul outs annually, and was more specific in terms of total spending per vessel regarding repairs and maintenance. According to this analysis there is a potential of \$6.5 million in annual activity if every owner hauled out their vessel annually, including \$3.2 million for vessels over 50 ft that are generally too big to haul locally. Instead, the model uses a more conservative approach of a haul out every 1.5 years for commercial vessels and every 2.5 years for recreation vessels.



Model 2: Estimated Annual Spending on Repairs and Maintenance for Juneau Vessel Owners: Based on estimates of costs per both length
(Coast Guard certified and commercial fishing vessels home-ported in Juneau with Juneau-based owners only)

Vessel Feet	25+/-27'	28-35'	36-49'	50-59'	60-99'	100-200'	Total
Number of vessels	29	172	212	39	21	5	478
Commercial fishing vessels	8	81	97	22	5		213
Commercial passenger vessels	2	29	24	6	7	3	71
Private vessels	19	62	87	9	6	1	184
Other commercial vessels	0	0	4	2	3	1	10
Est avg. commercial spending	\$1,500	\$5,000	\$18,000	\$45,000	\$75,000	\$135,000	varies
Est avg. private spending	\$500	\$1,500	\$3,500	\$12,000	\$20,000	\$40,000	varies
Total annual repair and maintenance potential	\$24,500	\$643,000	\$2,554,500	\$1,458,000	\$1,245,000	\$580,000	\$6,505,000
Total annual repair and maintenance if commercial vessels haul out every 1.5 years, and private boats every 2.5	\$13,800	\$403,867	\$1,621,800	\$943,200	\$798,000	\$286,000	\$4,066,667
Estimated annual haul outs based on assumptions above	14	98	118	24	12	3	270

By this analysis there is \$4.1 million of repair and maintenance needed by this subsection of vessels, including \$2.0 million in annual economic activity occurring on the Juneau fleet annually outside of the community.

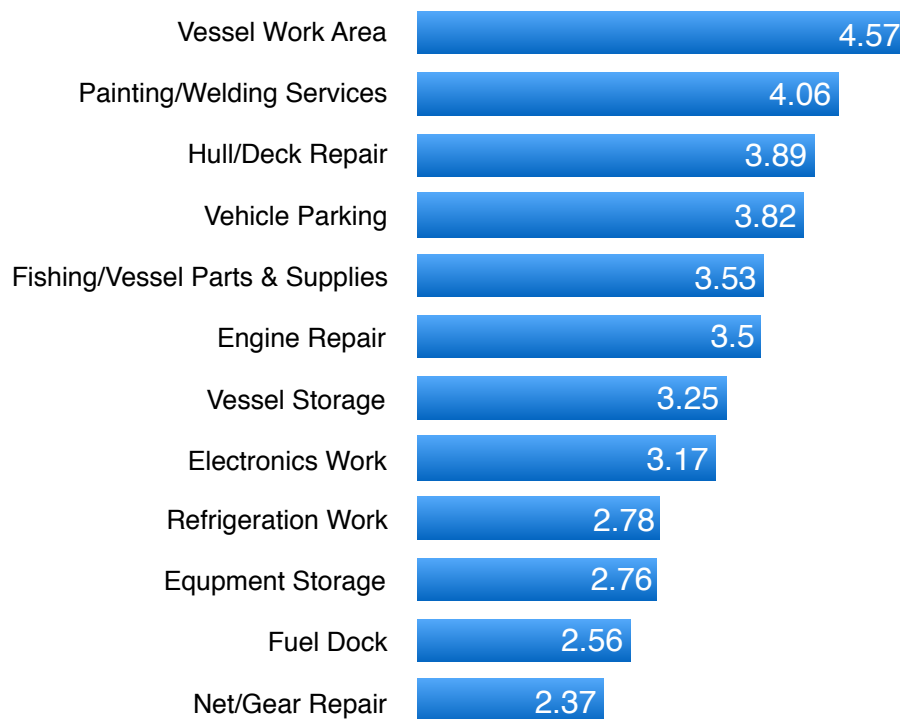


What do vessels owners want in a shipyard?

In order to understand if vessel owners will use a new marine service yard, it is important to understand the needs of the local fleet. Sitka vessel owners were asked by Northern Economics what they look for when choosing a haul out location, on a scale from 1-5. The top answer was sufficient vessel work area, followed by painting and welding services, hull and deck repair options, and the ability to drive up to the area.

Northern Economics 2014 Sitka Survey:

The Importance of Amenities in Decision to Haul Out Vessel



Potential Increased Annual CBJ Revenue

Potential associated fees and taxes could generate up to \$300,000 annually in revenue for the City and Borough of Juneau.

A small amount of this economic activity would be directed at the CBJ. Given the assumption that up to \$7.9 million in new economic activity would take place in Juneau on an annual basis due to the expansion of the marine service yard, seafood activities, retail and food services (and assuming it was all taxable) the City and Borough of Juneau government could receive up to \$395,000 annually in sales tax. Also, if a haul out rate of \$12 per foot was levied and those fees were returned to the CBJ, an additional \$125,000 in annual revenue would be realized. The total potential tax and fee earnings the CBJ could generate directly would be just over a half million dollars annually.

Potential Increased Annual CBJ Revenue

	Potential 5% sales tax	Potential haul out fees	Max Potential increased CBJ Revenue
Total	\$395,000	\$125,000	\$520,000

Other potential revenue that could be realized by the CBJ includes land and building rents and a management contract fee.

Wrangell Case Study

In determining full use of an expanded marine service yard in Juneau, it is instructive to look to the success of the Wrangell model.

The Wrangell shipyard was developed based on the assumption that it would haul out 280 vessels annually, have an economic impact of \$2.5 million annually (this translates into \$3.4 million in 2016 dollars) and create 22 jobs. The City and Borough of Wrangell projected only 60 haul outs in the first year of operations, and received 160.

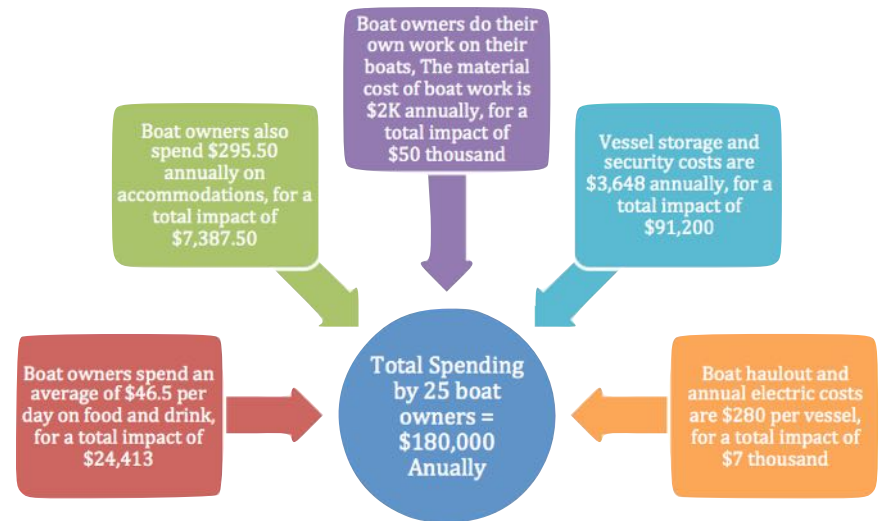
Boat Lift Activity in Wrangell, Alaska, 2007 to 2016

Year	Haulouts	Notes
2007	160	First full year of 150 ton travelift
2008	179	
2009	200	
2010	274	
2011	210	
2012	276	
2013	247	construction and pavement pour on yard
2014	250	construction and pavement pour on yard
2015	272	first full year of 300 ton lift - 8 vessels hauled
2016	284	10 vessels on 300 ton lift

Last year there were 284 vessels hauled out in Wrangell. The above tables shows the amount of haul out activity that occurs annually in Wrangell after the installation of the 150-ton travelift. The full benefits of the improved shipyard took ten years to be fully

realized. For comparison, there are just one-third of the vessels in Wrangell of this class (more than 25 ft.) as there are in Juneau.

The Economic Impact of Boat Storage in Wrangell

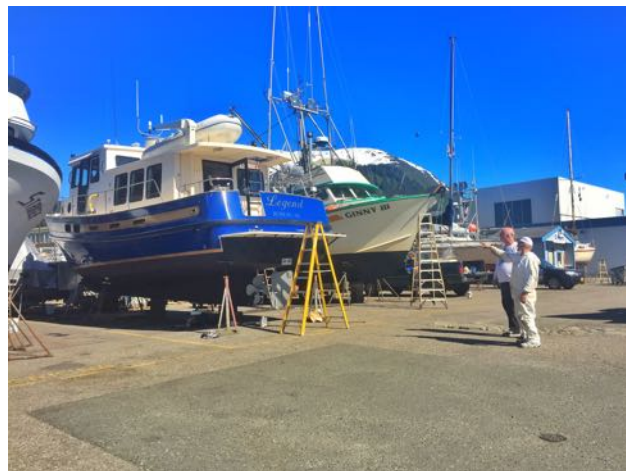


Another study conducted in Wrangell (by this project team) examined the economic impact of boat storage to the community. Based on that analysis, visitors who come to Wrangell to store their boats generate an estimated \$7,200 per person in economic activity. Meaning that if space were made available for winter storage for 25 vessels, the economic impact generated is estimated to be \$180,000 annually.

Three conceptual master plans for Juneau's Downtown Harbor

Based on the public input and priorities generated at presentations and design charrettes, the design team developed three conceptual master plans for the harbors uplands. The three master plans were presented to the public on January 17, 2017 to receive input and comments. Workshop attendees were also asked to vote on their favorite designs

and provide comment on each. The following pages present fill options the project team used to develop the three plans, along with the highlights of each master plan.



Potential Fill Opportunities

In developing conceptual plans for the uplands in the project area, the team was limited by the lack of existing uplands. However, there are many areas within the project uplands that could be expanded through the use of fill. The team analyzed property ownership and land use options, and determined a number of

locations in which new opportunities could be developed for the area by utilizing fill. These areas are designated below in orange. This potential fill opportunities map was used in the creation of the conceptual plans that follow.



 Fill Opportunities



Land Use & Strategic Planning Downtown Harbors

Potential Fill Opportunities

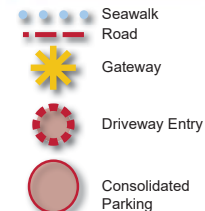
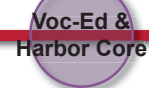
REV: 10/19/2016



Conceptual Master Plan #1

This plan creates an expanded marine service yard at Norway Point, and consolidates the grid, haul out area, net shed, and float to this location. It strengthens the vocational-education harbor core, providing increased support elements for fishermen at the UAS Tech Center area by adding a direction seafood sales location, and new float. It creates a new harbormaster facility. It creates a

commercial retail area at Harris Harbor. It also consolidates pedestrian and visitor activity to Bridge Park by relocating the Yacht Club to this area, along with strengthening neighborhood connections to the harbor area. Consolidated parking nodes are also included in this concept.



Land Use & Strategic Planning Downtown Harbors Conceptual Master Plan #1

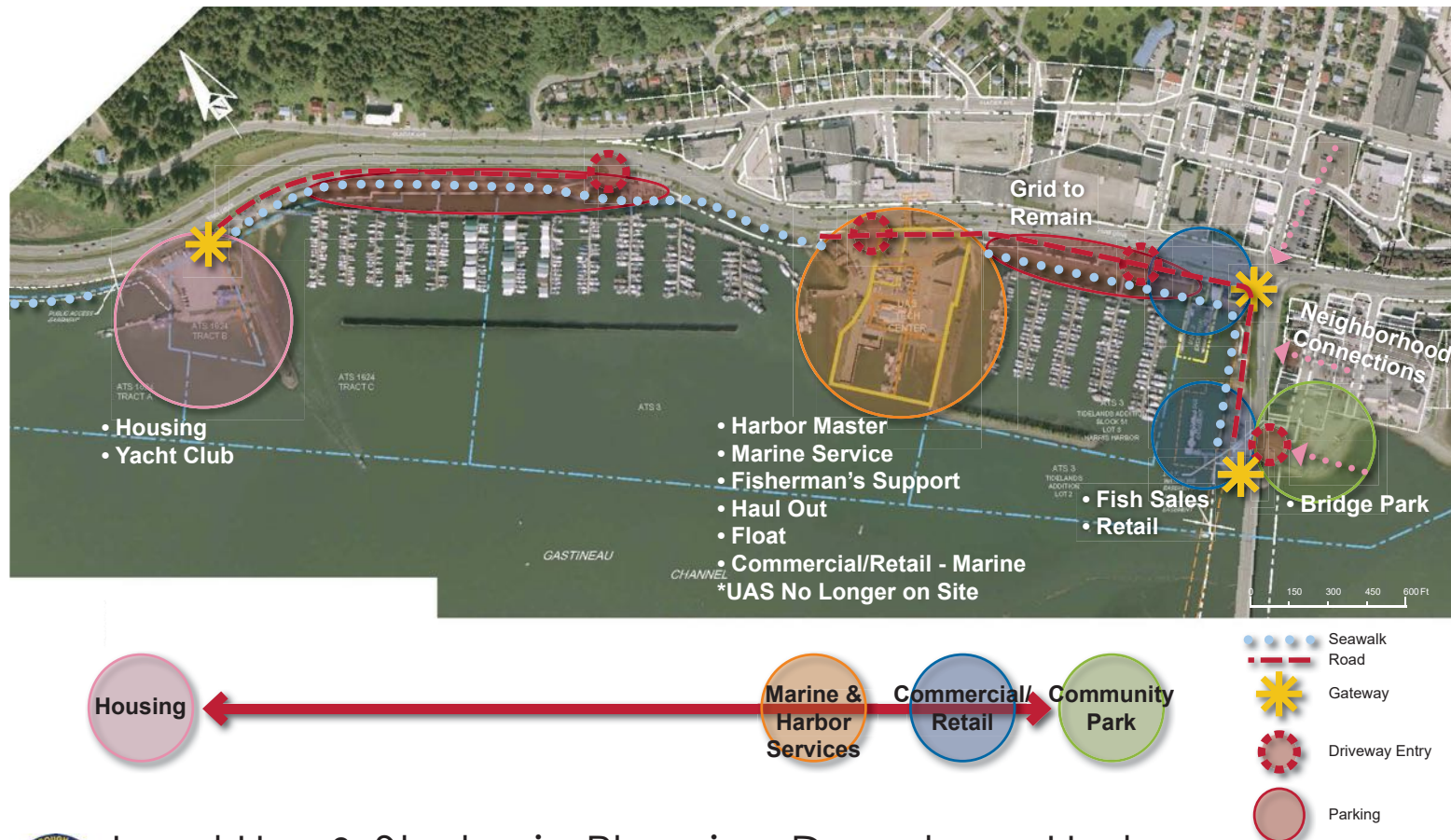
REV: 10/19/2016



Conceptual Master Plan #2

This plan combines the current Yacht Club use of Norway Point with additional housing in the area. Without taking into account any kind of development constraint, local zoning would allow for 45 units on site of this size (2.5 acres) with a conditional use permit. This concept allows for a future scenario in which UAS no longer wishes

to use the Tech Center and that area can be used for expanded marine services, including haul outs, a new float, commercial marine retail, and new harbormaster facilities. Fish sales and retail would be provided in Harris Harbor, and the grid would remain at that location. A harbor walk is included in this concept.



Land Use & Strategic Planning Downtown Harbors Conceptual Master Plan #2

REV: 10/19/2016



Conceptual Master Plan #3

Conceptual Master Plan #3 keeps the marine service yard relatively small, at two acres, but still consolidates industrial marine activity at Norway Point by moving the tidal grid. This concept consolidates fishermen activity to the area between Aurora and Harris Harbors. It retains neighborhood connections and maximizes access to the

harbors. New commercial/retail is located along Harris Harbor and at the floatplane dock. In this concept, the harbor road would connect the entire project area. A new harbor walk would also provide increased connectivity to Bridge Park and throughout the projects area.



- Seawalk
- Road
- Gateway
- Driveway Entry
- Consolidated Parking



Land Use & Strategic Planning Downtown Harbors

Conceptual Master Plan #3

REV: 10/19/2016



Total Costs

Total Costs of the Preferred Master Plan

Total project budget including construction, 15% contingency, and indirect costs for site investigations, design and contract administration has been estimated at \$103 million.

PRELIMINARY BUDGET SUMMARY: Project Description	2017 Budget
Norway Point Area 1	\$21,408,531
Norway Point Area 2	\$3,970,750
Norway Point Area 3	\$6,334,606
Aurora Harbor Road & Parking	\$8,308,600
Harbor Connecting Road	\$7,481,686
Fisherman's Terminal - Uplands	\$14,828,080
Fisherman's Terminal - Drive Down Float	\$5,528,840
Fisherman's Terminal - Crane Dock Expansion	\$8,098,060
Fisherman's Terminal - Moorage Floats	\$6,476,902
Harris Harbor Uplands	\$12,835,210
Bridge Float and Parking	\$7,834,710
Total Estimated Budget	\$103,105,975

NORWAY POINT BOAT YARD AND 150 TON BOAT LIFT - Phase I

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$1,443,425
2060.1	Demolition and Disposal	LS	All Req'd	\$100,000	\$100,000
2202.1	Useable Excavation	CY	1,000	\$10	\$10,000
2202.2	Class A Shot Rock Borrow	CY	5,000	\$40	\$200,000
2202.3	Class B Shot Rock Borrow	CY	107,000	\$30	\$3,210,000
2204.2	Base Course, Grading C-1	CY	3,000	\$60	\$180,000
2205.1	Armor Rock	CY	6,000	\$60	\$360,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$150,000	\$150,000
2601.1	Water and Sewer Services	LF	3,000	\$75	\$225,000
2601.2	Sewer Lift Station	LS	All Req'd	\$150,000	\$150,000
2702.1	Construction Surveying	LS	All Req'd	\$100,000	\$100,000
2708.1	Guardrail	LF	750	\$75	\$56,250
2714.1	Geotextile Fabric	SY	10,000	\$5	\$50,000
2726.1	Haulout Pier	LS	All Req'd	\$2,750,000	\$2,750,000
2869.1	Sheet Pile Bulkhead	SF	18,000	\$200	\$3,600,000
2894.1	80' Gangway	LS	All Req'd	\$125,000	\$125,000
2895.1	Timber Gangway Landing Float, 20 x 20	SF	400	\$150	\$60,000
2895.2	Timber Moorage Float, 16 x 120	SF	1,920	\$150	\$288,000
2896.1	Furnish and Install Steel Pipe Pile	EA	6	\$10,000	\$60,000
2996.1	Pile Anodes	LS	All Req'd	\$200,000	\$200,000
3305.1	Concrete Gangway Abutment	LS	All Req'd	\$30,000	\$30,000
3305.2	Concrete Haulout Pier Abutment	LS	All Req'd	\$100,000	\$100,000
3306.1	Concrete Wash Down Pad w/ Hydronic Piping	CY	150	\$1,200	\$180,000
11000.1	Grit Chamber, O/W Separator, Filter Vault	LS	All Req'd	\$100,000	\$100,000
13000.1	Utility Building w/ Hydronic Boiler	SF	1000	\$400	\$400,000
13200.1	150 T Boat Lift	LS	All Req'd	\$1,500,000	\$1,500,000
16000.1	Power Pedestals and Area Lighting	LS	All Req'd	\$250,000	\$250,000
	ESTIMATED CONSTRUCTION BID PRICE				\$15,877,675
	Contingency (15%)				\$2,381,651
	Environmental Permitting & Compensatory Mitigation				\$250,000
	Topographic Survey & Geotechnical Investigation				\$200,000
	Final Design & Contract Documents				\$1,428,991
	Contract Administration and Construction Inspection				\$1,270,214
	TOTAL RECOMMENDED PROJECT BUDGET				\$21,408,531

NORWAY POINT BOAT YARD - Phase II

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$256,250
2202.1	Useable Excavation	CY	500	\$10	\$5,000
2202.2	Class A Shot Rock Borrow	CY	4,500	\$40	\$180,000
2202.3	Class B Shot Rock Borrow	CY	46,000	\$30	\$1,380,000
2204.2	Base Course, Grading C-1	CY	2,500	\$60	\$150,000
2205.1	Armor Rock	CY	8,000	\$60	\$480,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$100,000	\$100,000
2601.1	Water Services	LF	500	\$75	\$37,500
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.1	Guardrail	LF	400	\$75	\$30,000
2714.1	Geotextile Fabric	SY	10,000	\$5	\$50,000
16000.1	Power Pedestals and Area Lighting	LS	All Req'd	\$100,000	\$100,000
	ESTIMATED CONSTRUCTION BID PRICE				\$2,818,750
	Contingency (15%)				\$422,813
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$253,688
	Contract Administration and Construction Inspection				\$225,500
	TOTAL RECOMMENDED PROJECT BUDGET				\$3,970,750

NORWAY POINT PARKING AND BOAT GRID - Phase III

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$419,050
2060.1	Demolition and Disposal	LS	All Req'd	\$50,000	\$50,000
2202.1	Useable Excavation	CY	3,000	\$10	\$30,000
2202.2	Class A Shot Rock Borrow	CY	7,000	\$40	\$280,000
2202.3	Class B Shot Rock Borrow	CY	14,000	\$30	\$420,000
2204.2	Base Course, Grading C-1	CY	2,000	\$60	\$120,000
2205.1	Armor Rock	CY	1,000	\$60	\$60,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$100,000	\$100,000
2601.1	Water Services	LF	500	\$75	\$37,500
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.2	Architectural Guardrail	LF	400	\$300	\$120,000
2710.1	Fence & Gate	LF	250	\$80	\$20,000
2714.1	Geotextile Fabric	SY	2,000	\$5	\$10,000
2718.1	Signage	LS	All Req'd	\$25,000	\$25,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$25,000	\$25,000
2726.1	MSE Retaining Wall	SF	7,000	\$80	\$560,000
2728.1	Boat Grid, 20 x 200	SF	4,000	\$200	\$800,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	6,000	\$35	\$210,000
2881.1	Dredging & Disposal	CY	3,000	\$75	\$225,000
2894.1	80' Gangway	LS	All Req'd	\$125,000	\$125,000
2895.1	Timber Gangway Landing Float, 20 x 20	SF	400	\$150	\$60,000
2895.2	Timber Moorage Float, 12 x 100	SF	1,200	\$150	\$180,000
2896.1	Furnish and Install Steel Pipe Pile	EA	6	\$8,000	\$48,000
2930.1	Landscaping, Plantings & Site Furnishings	LS	All Req'd	\$200,000	\$200,000
2996.1	Pile Anodes	LS	All Req'd	\$25,000	\$25,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	1,000	\$150	\$150,000
3303.2	Curb and Gutter	LF	2,000	\$40	\$80,000
3305.1	Concrete Gangway Abutment	LS	All Req'd	\$30,000	\$30,000
16000.1	Area Lighting	LS	All Req'd	\$150,000	\$150,000
	ESTIMATED CONSTRUCTION BID PRICE				\$4,609,550
	Contingency (15%)				\$691,433
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$414,860
	Contract Administration and Construction Inspection				\$368,764
	TOTAL RECOMMENDED PROJECT BUDGET				\$6,334,606

AURORA HARBOR ROADWAY AND PARKING

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$555,000
2060.1	Demolition and Disposal	LS	All Req'd	\$50,000	\$50,000
2202.1	Useable Excavation	CY	6,000	\$10	\$60,000
2202.2	Class A Shot Rock Borrow	CY	15,000	\$40	\$600,000
2202.3	Class B Shot Rock Borrow	CY	5,000	\$30	\$150,000
2204.2	Base Course, Grading C-1	CY	2,000	\$60	\$120,000
2205.1	Armor Rock	CY	2,500	\$60	\$150,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$100,000	\$100,000
2601.1	Water Services	LF	200	\$75	\$15,000
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.2	Architectural Guardrail	LF	1,200	\$300	\$360,000
2714.1	Geotextile Fabric	SY	5,000	\$5	\$25,000
2718.1	Signage	LS	All Req'd	\$25,000	\$25,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$25,000	\$25,000
2726.1	MSE Retaining Wall	SF	18,000	\$80	\$1,440,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	9,000	\$35	\$315,000
2801.2	Egan Drive Intersection Improvements	LS	All Req'd	\$1,000,000	\$1,000,000
2930.1	Landscaping, Plantings & Site Furnishings	LS	All Req'd	\$100,000	\$100,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	2,500	\$150	\$375,000
3303.2	Curb and Gutter	LF	3,000	\$40	\$120,000
13000.1	Restroom, 4000 SF	EA	2	\$160,000	\$320,000
16000.1	Area Lighting	LS	All Req'd	\$150,000	\$150,000
	ESTIMATED CONSTRUCTION BID PRICE				\$6,105,000
	Contingency (15%)				\$915,750
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$549,450
	Contract Administration and Construction Inspection				\$488,400
	TOTAL RECOMMENDED PROJECT BUDGET				\$8,308,600

AURORA HARBOR CONNECTING ROADWAY

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$498,050
2060.1	Demolition and Disposal	LS	All Req'd	\$25,000	\$25,000
2202.1	Useable Excavation	CY	1,000	\$10	\$10,000
2202.2	Class A Shot Rock Borrow	CY	2,000	\$40	\$80,000
2202.3	Class B Shot Rock Borrow	CY	13,000	\$30	\$390,000
2204.2	Base Course, Grading C-1	CY	750	\$60	\$45,000
2205.1	Armor Rock	CY	500	\$60	\$30,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$100,000	\$100,000
2601.1	Water and Sewer Services	LF	1,400	\$75	\$105,000
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.2	Architectural Guardrail	LF	700	\$300	\$210,000
2714.1	Geotextile Fabric	SY	1,000	\$5	\$5,000
2718.1	Signage	LS	All Req'd	\$5,000	\$5,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$15,000	\$15,000
2726.1	Sheet Pile Retaining Wall	SF	15,600	\$200	\$3,120,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	2,500	\$35	\$87,500
2996.1	Pile Anodes	LS	All Req'd	\$150,000	\$150,000
3303.1	Concrete Seawalk on Grade	SY	700	\$250	\$175,000
3303.2	Curb and Gutter	LF	700	\$40	\$28,000
16000.1	Area Lighting	LS	All Req'd	\$100,000	\$100,000
16000.2	AELP OHE Tower Reconfigurations	LS	All Req'd	\$250,000	\$250,000
	ESTIMATED CONSTRUCTION BID PRICE				\$5,478,550
	Contingency (15%)				\$821,783
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$493,070
	Contract Administration and Construction Inspection				\$438,284
	TOTAL RECOMMENDED PROJECT BUDGET				\$7,481,686

FISHERMAN'S TERMINAL - UPLAND IMPROVEMENTS

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$1,004,000
2060.1	Demolition and Disposal	LS	All Req'd	\$300,000	\$300,000
2202.1	Useable Excavation	CY	1,000	\$10	\$10,000
2202.2	Class A Shot Rock Borrow	CY	1,500	\$40	\$60,000
2202.3	Class B Shot Rock Borrow	CY	8,000	\$30	\$240,000
2204.2	Base Course, Grading C-1	CY	1,000	\$60	\$60,000
2205.1	Armor Rock	CY	500	\$60	\$30,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$200,000	\$200,000
2601.1	Water, Sewer and Fire Hydrant Services	LS	All Req'd	\$75,000	\$75,000
2601.2	Reconfigure Harbor Water and Sewer Services	LS	All Req'd	\$75,000	\$75,000
2702.1	Construction Surveying	LS	All Req'd	\$75,000	\$75,000
2708.2	Architectural Guardrail	LF	300	\$300	\$90,000
2714.1	Geotextile Fabric	SY	2,000	\$5	\$10,000
2718.1	Signage	LS	All Req'd	\$20,000	\$20,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$20,000	\$20,000
2726.1	Sheet Pile Retaining Wall	SF	7,000	\$200	\$1,400,000
2730.1	Pile Supported Deck	SF	6,500	\$150	\$975,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	4,000	\$35	\$140,000
2894.2	Reset Gangway & Hinge Assembly	LS	All Req'd	\$50,000	\$50,000
2896.1	Deck Support Piles	EA	30	\$9,000	\$270,000
2930.1	Landscaping, Plantings & Site Furnishings	LS	All Req'd	\$100,000	\$100,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	1,000	\$150	\$150,000
3303.2	Curb and Gutter	LF	1,000	\$40	\$40,000
13000.1	Harbor Office and Retail Building	SF	16,000	\$300	\$4,800,000
13000.2	Harbor Service & Maintenance Buildings	SF	2,000	\$300	\$600,000
16000.1	Area Lighting	LS	All Req'd	\$150,000	\$150,000
16000.2	Reconfigure Harbor Power	LS	All Req'd	\$100,000	\$100,000
	ESTIMATED CONSTRUCTION BID PRICE				\$11,044,000
	Contingency (15%)				\$1,656,600
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$993,960
	Contract Administration and Construction Inspection				\$883,520
	TOTAL RECOMMENDED PROJECT BUDGET				\$14,828,080

FISHERMAN'S TERMINAL - DRIVE DOWN FLOAT

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$367,000
2601.1	Water & Fire Services	LS	All Req'd	\$75,000	\$75,000
2702.1	Construction Surveying	LS	All Req'd	\$30,000	\$30,000
2894.1	Transfer Bridge, 17x140	LS	All Req'd	\$850,000	\$850,000
2894.2	Bridge Support Float	LS	All Req'd	\$175,000	\$175,000
2894.3	Bridge Abutment Assembly	LS	All Req'd	\$60,000	\$60,000
2895.1	Drive Down Float, 50x120	LS	All Req'd	\$1,750,000	\$1,750,000
2896.1	Float and Abutment Pile	EA	12	\$20,000	\$240,000
2896.2	Float Mooring Pile Caps and Frames	LS	All Req'd	\$125,000	\$125,000
2901.1	Float Transition Plates and Apron	LS	All Req'd	\$80,000	\$80,000
2996.1	Pile Anodes	LS	All Req'd	\$60,000	\$60,000
13200.1	5 Ton Hydraulic Crane & Base	LS	All Req'd	\$75,000	\$75,000
16000.1	Power and Lighting	LS	All Req'd	\$150,000	\$150,000
	ESTIMATED CONSTRUCTION BID PRICE				\$4,037,000
	Contingency (15%)				\$605,550
	Environmental Permitting & Compensatory Mitigation				\$100,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$363,330
	Contract Administration and Construction Inspection				\$322,960
	TOTAL RECOMMENDED PROJECT BUDGET				\$5,528,840

FISHERMAN'S TERMINAL - CRANE DOCK EXPANSION

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$540,500
2060.1	Demolition and Disposal	LS	All Req'd	\$50,000	\$50,000
2202.1	Useable Excavation	CY	1,000	\$10	\$10,000
2202.2	Class A Shot Rock Borrow	CY	1,500	\$40	\$60,000
2202.3	Class B Shot Rock Borrow	CY	5,000	\$30	\$150,000
2204.2	Base Course, Grading C-1	CY	500	\$60	\$30,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$75,000	\$75,000
2601.1	Water Services	LS	All Req'd	\$50,000	\$50,000
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.1	Bullrail	LF	300	\$200	\$60,000
2869.1	Sheet Pile Bulkhead	SF	12,000	\$200	\$2,400,000
2881.1	Dredging and Disposal	CY	15,000	\$75	\$1,125,000
2896.1	Fender Pile	EA	32	\$10,000	\$320,000
2996.1	Pile Anodes	LS	All Req'd	\$100,000	\$100,000
3303.1	Concrete Paving	SY	1,000	\$200	\$200,000
3305.1	Concrete Face Beam	CY	150	\$1,500	\$225,000
13000.1	Ice House	SF	400	\$500	\$200,000
13200.1	5 Ton Hydraulic Crane & Base	EA	2	\$75,000	\$150,000
16000.1	Power and Area Lighting	LS	All Req'd	\$150,000	\$150,000
	ESTIMATED CONSTRUCTION BID PRICE				\$5,945,500
	Contingency (15%)				\$891,825
	Environmental Permitting & Compensatory Mitigation				\$100,000
	Topographic Survey & Geotechnical Investigation				\$150,000
	Final Design & Contract Documents				\$535,095
	Contract Administration and Construction Inspection				\$475,640
	TOTAL RECOMMENDED PROJECT BUDGET				\$8,098,060

FISHERMAN'S TERMINAL - MOORAGE FLOATS

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$428,850
2060.1	Demolition and Disposal	LS	All Req'd	\$150,000	\$150,000
2202.1	Useable Excavation	CY	1,000	\$10	\$10,000
2202.2	Class A Shot Rock Borrow	CY	2,000	\$40	\$80,000
2204.2	Base Course, Grading C-1	CY	500	\$60	\$30,000
2205.1	Armor Rock	CY	2,500	\$60	\$150,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$75,000	\$75,000
2601.1	Water & Fire Services	LS	All Req'd	\$150,000	\$150,000
2702.1	Construction Surveying	LS	All Req'd	\$75,000	\$75,000
2708.2	Architectural Guardrail	LF	250	\$300	\$75,000
2714.1	Geotextile Fabric	SY	2,000	\$5	\$10,000
2718.1	Signage	LS	All Req'd	\$20,000	\$20,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$20,000	\$20,000
2726.1	MSE Retaining Wall	SF	5,000	\$80	\$400,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	1,500	\$35	\$52,500
2881.1	Dredging and Disposal	CY	15,000	\$75	\$1,125,000
2894.1	80' Gangway	EA	2	\$125,000	\$250,000
2895.1	Timber Moorage Float, 16 x 120	SF	1,920	\$150	\$288,000
2895.2	Timber Moorage Float, 16 x 150	SF	2,400	\$150	\$360,000
2896.1	Furnish and Install Steel Pipe Pile	EA	12	\$8,000	\$96,000
2996.1	Pile Anodes	LS	All Req'd	\$40,000	\$40,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	1,000	\$150	\$150,000
3303.2	Curb and Gutter	LF	300	\$40	\$12,000
3305.1	Concrete Gangway Abutment	EA	2	\$30,000	\$60,000
13000.1	Net Shed, 30x60	SF	1,800	\$200	\$360,000
16000.1	Area Lighting	LS	All Req'd	\$50,000	\$50,000
16000.2	Float Power and Lighting	LS	All Req'd	\$200,000	\$200,000
	ESTIMATED CONSTRUCTION BID PRICE				\$4,717,350
	Contingency (15%)				\$707,603
	Environmental Permitting & Compensatory Mitigation				\$150,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$424,562
	Contract Administration and Construction Inspection				\$377,388
	TOTAL RECOMMENDED PROJECT BUDGET				\$6,476,902

HARRIS HARBOR - UPLAND IMPROVEMENTS

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$866,750
2060.1	Demolition and Disposal	LS	All Req'd	\$250,000	\$250,000
2202.1	Useable Excavation	CY	2,000	\$10	\$20,000
2202.2	Class A Shot Rock Borrow	CY	1,500	\$40	\$60,000
2204.2	Base Course, Grading C-1	CY	1,000	\$60	\$60,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$150,000	\$150,000
2601.1	Water, Sewer and Fire Hydrant Services	LS	All Req'd	\$75,000	\$75,000
2702.1	Construction Surveying	LS	All Req'd	\$75,000	\$75,000
2708.2	Architectural Guardrail	LF	1,000	\$300	\$300,000
2718.1	Signage	LS	All Req'd	\$25,000	\$25,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$20,000	\$20,000
2730.1	Pile Supported Deck	SF	37,500	\$150	\$5,625,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	6,500	\$35	\$227,500
2896.1	Deck Support Piles	EA	150	\$8,000	\$1,200,000
2930.1	Landscaping, Plantings & Site Furnishings	LS	All Req'd	\$100,000	\$100,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	1,000	\$150	\$150,000
3303.2	Curb and Gutter	LF	2,000	\$40	\$80,000
16000.1	Area Lighting	LS	All Req'd	\$150,000	\$150,000
16000.2	Power Service	LS	All Req'd	\$100,000	\$100,000
	ESTIMATED CONSTRUCTION BID PRICE				\$9,534,250
	Contingency (15%)				\$1,430,138
	Environmental Permitting & Compensatory Mitigation				\$100,000
	Topographic Survey & Geotechnical Investigation				\$150,000
	Final Design & Contract Documents				\$858,083
	Contract Administration and Construction Inspection				\$762,740
	TOTAL RECOMMENDED PROJECT BUDGET				\$12,835,210

* Estimate does not include commercial development building costs

BRIDGE FLOATS & PARKING

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	10%	\$529,250
2060.1	Demolition and Disposal	LS	All Req'd	\$75,000	\$75,000
2202.1	Useable Excavation	CY	3,000	\$10	\$30,000
2202.2	Class A Shot Rock Borrow	CY	2,500	\$40	\$100,000
2204.2	Base Course, Grading C-1	CY	1,500	\$60	\$90,000
2205.1	Armor Rock	CY	500	\$60	\$30,000
2501.1	Storm Drainage Improvements w/ BMP's	LS	All Req'd	\$100,000	\$100,000
2601.1	Water & Fire Services	LS	All Req'd	\$50,000	\$50,000
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2708.2	Architectural Guardrail	LF	200	\$300	\$60,000
2714.1	Geotextile Fabric	SY	2,000	\$5	\$10,000
2718.1	Signage	LS	All Req'd	\$20,000	\$20,000
2720.1	Painted Traffic Markings	LS	All Req'd	\$20,000	\$20,000
2726.1	Pile Supported Deck	SF	5,000	\$150	\$750,000
2801.1	AC Pavement, Type II, Class B, 3" Thick	SY	4,500	\$35	\$157,500
2894.1	80' Gangway	EA	2	\$125,000	\$250,000
2895.1	Timber Moorage, Seaplane & Fishing Float	SF	4,800	\$150	\$720,000
2895.2	Youth Sailing Float, 12x150	SF	1,800	\$150	\$270,000
2896.1	Furnish and Install Steel Pipe Pile	EA	16	\$8,000	\$128,000
2896.2	Deck Support Piles	EA	24	\$8,000	\$192,000
2996.1	Pile Anodes	LS	All Req'd	\$30,000	\$30,000
3303.1	Concrete Aprons, Sidewalks & Seawalks on Grade	SY	1,200	\$150	\$180,000
3303.2	Curb and Gutter	LF	2,000	\$40	\$80,000
3303.3	Concrete Abutment	LS	All Req'd	\$50,000	\$50,000
3305.1	Concrete Launch Ramp	LS	All Req'd	\$250,000	\$250,000
13000.1	Yacht Club, 2 Story Building	SF	5,000	\$300	\$1,500,000
16000.1	Area Lighting	LS	All Req'd	\$100,000	\$100,000
	ESTIMATED CONSTRUCTION BID PRICE				\$5,821,750
	Contingency (15%)				\$873,263
	Environmental Permitting & Compensatory Mitigation				\$50,000
	Topographic Survey & Geotechnical Investigation				\$100,000
	Final Design & Contract Documents				\$523,958
	Contract Administration and Construction Inspection				\$465,740
	TOTAL RECOMMENDED PROJECT BUDGET				\$7,834,710

Financing Options for Juneau Downtown Harbors

Opportunity: Alaska Municipal Harbor Matching Grant Program

Eligibility: Municipalities and regional housing authorities that own harbors

Use of Funds: Funds can be used for construction, expansion, major repair, or major maintenance of a harbor facility. The project cannot be part of regular maintenance or custodial care of a harbor facility.

Type of Funding: Matching grant (50% match required). Program funding subject to legislative appropriation.
http://www.dot.state.ak.us/stwddes/desports/harbor_grant.shtml

Opportunity: General Obligation Bonds

General obligation bonds can be sold to the Alaska Municipal Bond Bank Authority (AMBBA). Funds raised through the sale of general obligation bonds must be repaid by the borrower using means such as levied taxes or other revenue streams.

Eligibility: Alaska municipalities

Use of Funds: In order of priority, bonds issued through AMBBA can be used for school facilities, wastewater treatment facilities, fire protection and public safety facilities, public health facilities, public transportation facilities, and other capital improvements.

Type of Funding: General obligation bond.
<http://treasury.dor.alaska.gov/ambba/>

Opportunity: Revenue Bonds

Revenue obligation bonds can be sold to the Alaska Municipal Bond Bank Authority (AMBBA). Funds raised through the sale of general obligation bonds must be repaid by the borrower. Revenue bond packages are designed with the intention that funds be repaid using revenues raised by fees or other revenue sources generated by the project financed by the bonds.

Eligibility: Alaska municipalities

Use of Funds: In order of priority, bonds issued through AMBBA can be used for school facilities, wastewater treatment facilities, fire protection and public safety facilities, public health facilities, public transportation facilities, and other capital improvements.

Type of Funding: Revenue bond.

<http://treasury.dor.alaska.gov/ambba/>

Opportunity: Transportation Investments Generating Economic Recovery (TIGER) (DOT)

Eligibility: State, local, tribal governments, other government subdivisions

Use of Funds: Infrastructure projects that have a significant impact on the nation or region that promote economic competitiveness, improve energy efficiency, reduce greenhouse gas emissions and improve safety, quality-of-life and working environments in communities.

Type of Funding: Grant

<https://www.transportation.gov/tiger>

Opportunity: City and Borough of Juneau (CBJ) Temporary Sales Tax Ballot Proposition

Nature and Use of Funds: CBJ voters from time to time consider ballot propositions that levy temporary sales taxes in order to fund specific community infrastructure projects or initiatives. Voters have customarily renewed a 3% temporary sales tax upon its periodic expiration for several decades. Voters have voted lesser additional temporary taxes up or down depending on the issue and the year.

Type of Funding: Tax

http://www.juneau.org/clerk/elections/documents/2017-Timeframe_Letter_to_Assembly.pdf

Opportunity: Rural Community Development Initiative Grants, USDA

Eligibility: Public entities, non-profits, federally recognized tribes in rural areas. Note: USDA gives priority to projects that support multi-jurisdictional strategic economic and community development plans (see [SECD program page](#)).

Use of Funds: To improve housing, community facilities, and community and economic development projects in rural areas.

Type of Funding: Grants (\$50,000 - \$250,000), match requirement equal to amount of grant.

www.rd.usda.gov/programs-services/rural-community-development-initiative-grants

Opportunity: US Department of Agriculture – Rural Economic Development Loan and Grant Program

Eligibility: Nonprofit utilities that are eligible to receive assistance from the Rural Development Electric or Telecommunication Programs, in areas with population less than 50K.

Use of Funds: Borrowers (utility organizations) may use loan funding to re-loan to borrowers. Grant recipients (also utility organizations) may use the grant funding to establish revolving loan funds. Loans are made from the revolving loan funds to projects that will create or retain rural jobs.

Type of Funding: Loan or grants. Both require repayment, either during (in the case of loans) or at the end of (in the case of the establishment of an RLF using grant funds) the project.

<https://www.rd.usda.gov/programs-services/rural-economic-development-loan-grant-program>

Opportunity: US Department of Agriculture – Rural Business Development Grants

Eligibility: Municipalities, tribes, institutes of higher education, rural cooperatives, authorities, state agencies

Use of Funds: Training and technical assistance; acquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, utilities.

Type of Funding: Grant

<https://www.rd.usda.gov/files/fact-sheet/RD-FactSheet-RBS-RBDG.pdf>

Other Financing Options**Opportunity: Direct Energy Development Loans—Alaska Industrial Development and Export Authority (AIDEA) Sustainable Energy Transmission and Supply Development Fund (Energy Financing)**

Eligibility: Sole Proprietorship, Cooperative, Corporation, Firm, Partnership, or other association of persons organized in any manner, for any credit worthy business purpose.

Type of Funding: Direct Energy Development Loans, up to one-third of total project cost, not to exceed \$20 million without legislative authorization.

Use of Funds: Eligible uses include transmission, generation, conservation, storage, or distribution of heat or electricity, as well as distribution or storage of refined petroleum products. Other uses related to natural gas distribution detailed on the program website. <http://www.aidea.org/Programs/EnergyDevelopment.aspx>

Opportunity: Loan Participation—Alaska Industrial Development and Export Authority (AIDEA) Sustainable Energy Transmission and Supply Development Fund

Type of Funding: Loan participation by AIDEA in a project financed by a financial institution such as a bank or credit union. AIDEA can purchase up to 90% of a loan, not to exceed \$25 million.

Use of Funds: Eligible uses include transmission, generation, conservation, storage, or distribution of heat or electricity, as well as distribution or storage of refined petroleum products. Other uses related to natural gas distribution detailed on the program website. <http://www.aidea.org/Programs/EnergyDevelopment.aspx>

Opportunity: Loan or Bond Guarantee—Alaska Industrial Development and Export Authority (AIDEA) Sustainable Energy Transmission and Supply Development Fund

Eligibility: Sole Proprietorship, Cooperative, Corporation, Firm, Partnership, or other association of persons organized in any manner, for any credit worthy business purpose.

Type of Funding: AIDEA provides loan or bond guarantees, allowing borrowers to access lower rates or fees in private markets.

Use of Funds: Eligible uses include transmission, generation, conservation, storage, or distribution of heat or electricity, as well as distribution or storage of refined petroleum products. Other uses related to natural gas distribution detailed on the program website. <http://www.aidea.org/Programs/EnergyDevelopment.aspx>

Public-Private Partnerships:

Public-private partnerships are an important way to fund and sustain infrastructure projects. Strategic collaboration with other investment partners could enable the City and Borough of Juneau to create a multi-pronged funding strategy including federal and state grants in economic development along with contributions from development partners. This strategy can offset anticipated public funding limits resulting from the poor fiscal strength of state government and uncertain federal funding.

The development plan includes elements intended to support private sector investment and participation. Resources exist to support these.

Opportunity: Alaska Department of Commerce Community and Economic Development (ADCCED) Small Business Economic Development (SBED) Loan Program

Eligibility: Companies must be a small business as defined by the Small Business Administration (SBA) that will create significant long-term employment.

Use of Funds: Financing the start-up and expansion of businesses.

Type of Funding: Loan (private, non-public matching funding of 100% or greater required)

<https://www.commerce.alaska.gov/web/ded/FIN/LoanPrograms/SmallBusinessDevelopment.aspx>

Opportunity: Alaska Industrial and Economic Development Authority (AIDEA) Business & Export Assistance Loan Guarantee Program

Eligibility: Project must be in Alaska and majority-owned by an Alaska resident.

Use of Funds: Loans guaranteed through this program can finance real property, tangible personal property, working capital, and export transactions.

Type of Funding: Loan guarantee up to 80% of a loan and \$1 million in cost. (Actual loan must be secured through an AIDEA eligible financial institution.)

<http://www.aidea.org/Programs/BusinessExportAssistance.aspx>

Preferred Upland Master Plan Drawings

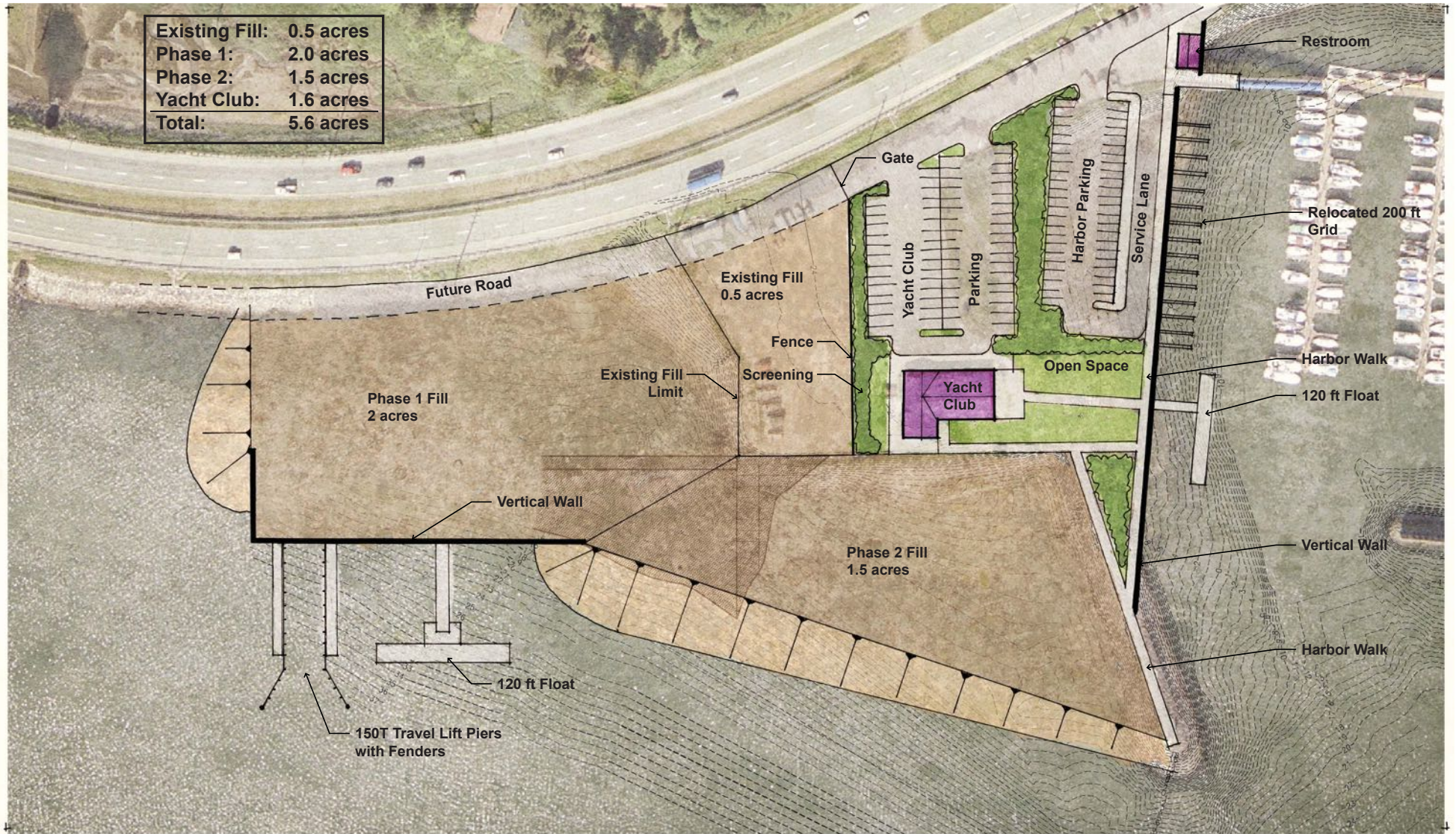


Land Use & Strategic Planning Downtown Harbors

Conceptual Master Plan - Preferred

REV: 01/19/2017





Juneau Harbors Master Plan & Feasibility

Norway Point - Marine Service Yard - Option 1

0 20 40 80FT





Juneau Harbors Master Plan & Feasibility

Norway Point - Marine Service Yard - Option 2

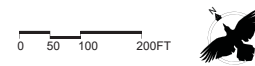
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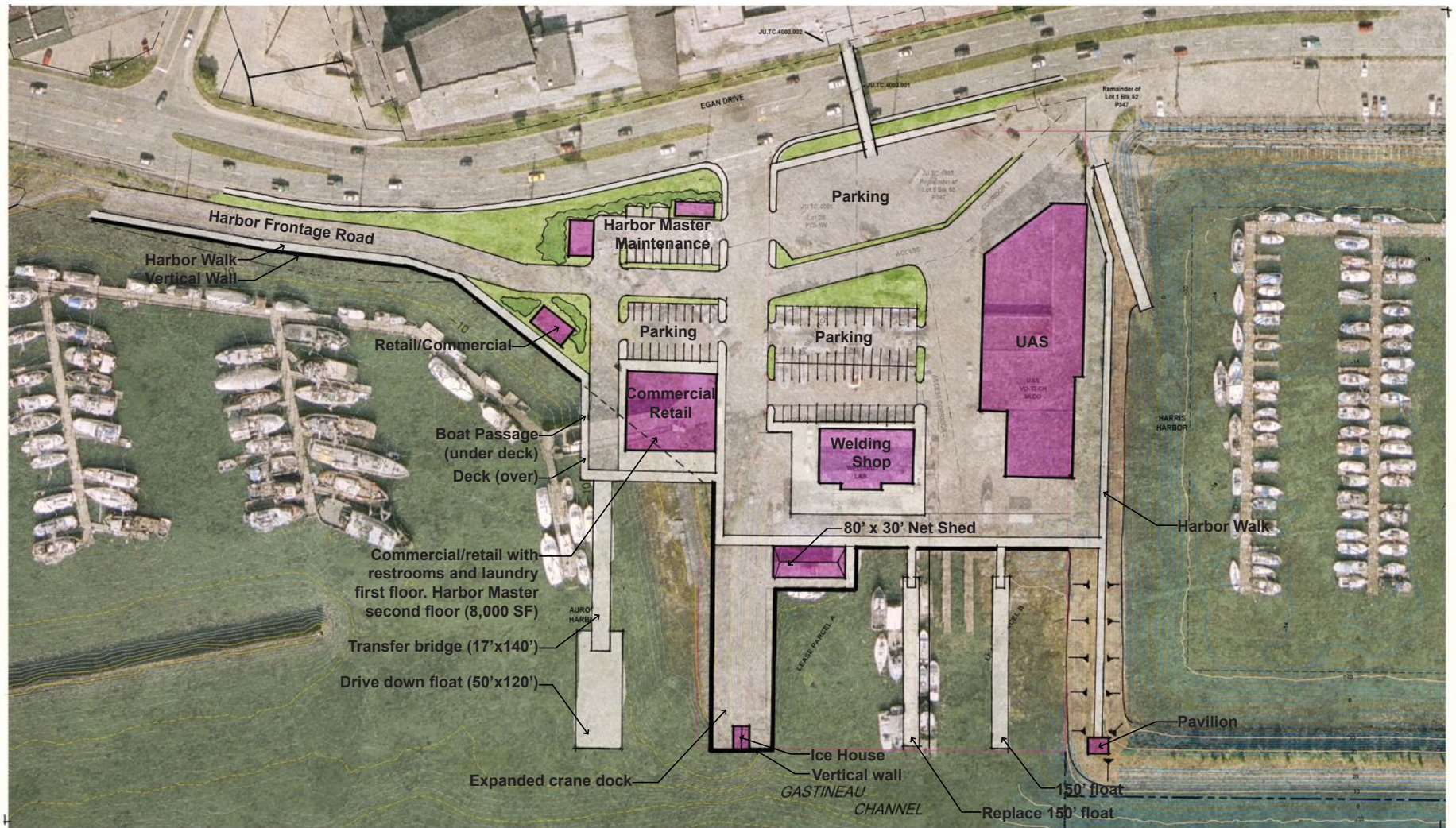




Juneau Harbors Master Plan & Feasibility

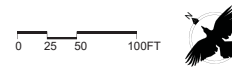
Aurora Harbor





Juneau Harbors Master Plan & Feasibility

UAS and Fisherman's Terminal



Conclusion

This process created a vision and master plan for the uplands between the Juneau-Douglas Bridge and Norway Point that reflects the needs and desires of our community. The proposed uplands infrastructure development would support the local fishing fleet, industrial marine services, harbor needs, and make the waterfront a destination for the community while enhancing Juneau as a premier port city.

A focus on economic development along the waterfront will further strengthen the community's maritime character. According to the analysis of the Bridge Park to Norway Point Uplands Preferred Master Plan, the total economic benefits of all project phases would be \$5.3 to \$7.9 million annually in trackable dollars, along with an unmeasured benefit to the larger Juneau maritime sector – which is significant as maritime is Juneau's second largest economic sector after government in terms of total annual workforce earnings. The total cost of the buildout is estimated to be \$103 million, including construction, 15% contingency, and indirect costs for site investigations, permitting, design, contract administration and construction inspection. If the project's benefits met the mid level estimates calculated, it would take 13 years for the project to pay for itself in terms of overall economic activity generated within the community.

This master plan proposes to return a direct community connection to the waterfront. Juneau's connection to the waterfront is a defining element of the community's character. Juneau business owners identify overall quality of life and recreational opportunities as the most valuable local benefits to their businesses. Quality of life and access to recreation has a strong correlation to access to the waterfront and ocean based activities. However, over the past 30 to 50 years, development of marine services, harbor support, and facilities to support local business has been minimal, or localized in specific locations in direct proximity to the cruise ship berths.

Harbor upland development represents an opportunity to direct the next phase of community improvement towards local community interests in a sector where it has been lacking in recent decades.

Based on the community input and prioritization from three initial conceptual plans, the planning and design team developed the single preferred master plan. This Preferred Master Plan was endorsed by the public at the conclusion of the February 16th, 2017 meeting. The Docks and Harbor Board subsequently adopted the plan March 30, 2017.

