KING HARBOR

PUBLIC AMENITIES PLAN

King Harbor Public Amenities Plan

100% Draft for City Council Approval

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September 2022

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King Harbor existing aerial view, photo courtesy SWA Group

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INTRODUCTION

1.1 Project Background and Purpose

Background

The City of Redondo Beach wishes to establish a plan to improve and enhance various public amenities within the City's waterfront, commonly referred to as King Harbor.

The King Harbor Public Amenities Plan will act as a framework for recreational and operational needs and uses along the waterfront, and provide an implementation plan to guide the City through recommendations.

The revitalization of the waterfront has been a key strategic priority for the City for many years. Key to the revitalization effort is the need to upgrade or replace many of the public amenities within the waterfront. These public amenities serve as the system within which other revitalization activities can occur, including the attraction of private investment to the waterfront and improving the recreational, educational, and entertainment offerings available to residents. Over the past several years, there have been studies and planning efforts primarily focused on individual facilities; this effort serves the current need to plan for the waterfront as a whole and understand how the various public amenities may be organized and implemented to maximize the recreational and visitor experience.

Plan Process Objectives

The goals of the King Harbor Public Amenities Planning process are to:

- Review existing conditions along the Waterfront, previous planning documents, technical studies, and design work related to the various public amenities located or proposed for King Harbor;
- Facilitate community participation and engagement throughout the planning process;
- Work closely with a Working Committee for technical and stakeholder understanding;
- Prepare a framework plan that improves pedestrian experience along the waterfront and connects Mole C to the Horseshoe Pier;
- Advance community plans for Moonstone Park/Mole B and Seaside Lagoon; and,
- Prioritize what should be rebuilt or renovated and locate new recreational and operational elements, such as the Short Pier (previously Sportfishing Pier), small Hand Launch, and Public Boat Launch.

Project Team Roles

City of Redondo Beach Waterfront and Economic Development Department

The plan development is led by the City of Redondo Beach Waterfront and Economic Development Department.

Greg Kapovich, Waterfront and Economic Development Director
Brandy Forbes, Community Development Director
Laurie Koike, Manager Waterfront and Economic Development
Elizabeth Hause, Assistant to the City Manager

Consultant Team

The City retained SWA Group, an international planning, urban design, and landscape architecture firm, to assist the City's Waterfront and Economic Development Department in analyzing the project site, facilitating community outreach, and preparing the plan. SWA Group is supported by Anchor QEA for marine engineering, Architectural Resources Group for buildings assessment, Cumming Corporation for cost estimates, and Murakawa Communications for the project website.

Public Outreach and Stakeholder Participation

Public Outreach

It was integrally important that stakeholders have a strong voice throughout the planning process, and that community input guide programming and design solutions. In addition, the preparation of the plan included various virtual and in-person community workshops and pop-up events to collect and gather feedback. A summary of the community participation plan may be found in Section 4 of this report.

Working Committee

The Working Committee was developed to provide valuable

The project boundary includes the seven key interest areas and overall connectivity highlighted in orange

stakeholder feedback in the initial planning stage, and to anchor the plan in community-focused considerations.

Plan Development

Re-imagining the harbor and developing the plan required synthesis of information from multiple inputs and processes. The holistic planning approach included community participation, collaboration with the working committee, synthesis of the input from the community and the working committee, an exploration into the concepts and framework for the harbor, plan iterations throughout the design, and constant sharing and evaluating of ideas with the City community and working committee. This process is informed by the professional expertise of the planning team, with guidance from the City staff, and is the foundation of the King Harbor Public Amenities Plan development.

Report Organization

The Amenities Plan is organized into five key sections. The first describes the existing conditions of identified public amenities within the plan area to provide an understanding of site context for the development of the framework plan. This section also provides a summary of previous planning efforts related to the site. The second section covers the community outreach approach that was undertaken throughout the duration of the project. The outreach and responses from the community are summarized as well. The third section will cover the proposed connectivity framework that works to provide a cohesive identity for King Harbor. This includes both proposed look and feel and circulation throughout the harbor. The fourth section will take a deeper dive into key interest areas, with a focus on site design and waterfront framework. The fifth section will detail the implementation plan, including phasing, funding, and next steps.

1.2 Project Boundary

Location

The City of Redondo Beach owns and is responsible for the overall operation and maintenance of King Harbor and its attendant commercial recreation facilities.

The public Amenities Plan is generally focused on the area

The plan development framework reflects a cyclical process

between Portofino Way to the north and the south end of the International Boardwalk, and also considers the overall vision for King Harbor and the connections between various public amenities and city-owned spaces with private leases.

The plan does not include programming and uses on the Redondo Beach Pier, but will consider cohesiveness and connectivity to the Redondo Beach Pier.

Existing Land Uses

The primary land uses within the project area are commercial services. Throughout the year, various water activities occur at King Harbor, including both motorized and non-motorized kayaking, pedal boating, paddle boarding, sailing, whale watching, and fishing. The area is also very popular for leisure and passive activities such as biking and running. Various restaurants and multiple hotels serve the area.

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SUMMARY OF PLANNING DOCUMENTS

2.1 Summary of Planning Documents

City of Redondo Beach General Plan

The City of Redondo Beach General Plan provides a comprehensive long-term general plan for the physical and economic development of the City. The General Plan includes the seven elements required by state law, which are: land use, circulation noise; housing, safety, conservation, and open space. The General Plan also includes four elective or optional elements:: child/senior care, solid waste and recycling, utilities, and toxic wastes and materials.

Section 2.1 - The land use element of the General Plan establishes goals, objectives, policies, and implementation programs to guide the manner in which new development will occur; existing uses will be conserved in the City of Redondo Beach. The land use element was adopted on May 26, 1992, and most recently amended May 6, 2008.

Section 3.4 includes the conservation, recreation and parks, and open space elements of the General Plan. The purpose of the Conservation Elements is to protect, preserve, and enhance the natural environment for the long-term benefit of City residents and visitors. Specific conservation issues of importance in the City of Redondo Beach include protecting the beach and waterfront lands; mitigating potential pollution; automobile congestion; and general development issues. The conservation element identifies the beach and waterfront lands as the most important natural resources the City possesses, and King Harbor as the single most recognizable area of the community. The conservation, recreation and parks, and open space elements were originally developed in 1973, and most recently amended September 1, 1993.

The recreation and parks elements aim to enhance quality-of-life and the environment, ensuring that leisure services and open spaces are well-designed, properly located, and adequately maintained.

The purpose of the open space element is to plan for the City's total open space systems, while balancing future urban growth and open space. Open spaces, which are accessible both visually and physically, offer much-needed relief from congestion, and are of particular importance along the waterfront.

The circulation element is focused on traffic and transportation within the City of Redondo, with the goal of ensuring that residents can walk or bike to key destinations such as the beach, the Civic Center, and Redondo Beach Pier. This element was adopted in November 2009 and amended on July 13, 2021.

Harbor/Civic Center Specific Plan

The Harbor/Civic Center Specific Plan was adopted on May 6, 2008 to serve as a supplemental policy and planning document complementing the City of Redondo Beach General Plan and Local Coastal Program. The Harbor/Civic Center Specific Plan recognizes the unique conditions and uses of the harbor, pier, and Civic Center areas, and covers approximately 355.4 acres of land. There are eight primary land use classifications identified in the specific plan: commercial, residential, industrial, public streets, utility, public open space, and vacant. Commercial uses are the most prominent, covering 24.1 percent of the Specific Plan land area.

Within the King Harbor Public Amenities Plan area, the primary uses are commercial-retail a commercial-hotel, commercial-office, and open space.

Redondo Beach General Plan (Draft)

It is important to note that, at the time of this writing, the City is in the process of updating its General Plan. The City Council approved the Draft Land Use Plan on May 18, 2021. The General Plan Update will include updates to the Land Use Plan/Map as well as three (3) General Plan Elements: land use; conservation, recreation and parks; open space; and environmental/natural hazards (which will become the noise and safety elements). The planning process includes monthly meetings of the General Plan Advisory Committee (GPAC), a 27-member group of Redondo Beach residents who discuss land use and open space goals and policies for the plan update.

Redondo Beach Certified Local Coastal Program

Local Coastal Programs (LCPs) are planning tools used by local governments to guide development in coastal zones,

in partnership with the Coastal Commission. Similar to the General Plan, the LCPs contain ground rules for future development, with a specific focus on coastal areas and the protection of coastal resources. The City of Redondo Beach's Local Land Use Plan (LUP) was certified by the Coastal Commission in 1981, and in 2010, the Local Coastal Program (LCP) for the King Harbor-Pier area was adopted through an initiative known as Measure G, which instituted development caps for the Harbor. In 2017, Redondo Beach voters passed Measure C, which was later certified by the Coastal Commission in 2018, as a response to concerns over a significant redevelopment plan of the Harbor Area. The criteria of Measure C are as follows:

1. Require maintenance of the current Seaside Lagoon or, if that is not feasible, replace the Lagoon with a pool or similar swimming facility;
2. Prohibit the Lagoon from being opened to harbor waters;
3. Require that new development preserve a percentage of existing views to the harbor and the ocean;
4. Institute new design and safety standards for the development of a required future Public Boat Launch facility;
5. Prohibit new parking structures in one of the Coastal commercial zones, and prioritize coastal-dependent parking;
6. Require detailed traffic studies for new development proposed within the harbor area;
7. Prevent a road connection of Harbor Drive to Torrance Boulevard for vehicular traffic through the harbor; and,
8. Require that new development include the square footage of any new parking structures in the square footage allowed, pursuant to the existing development cap for the harbor.

City of Redondo Beach Local Hazard Mitigation Plan

The City of Redondo Beach Local Hazard Mitigation Plan (LHMP) was last updated in July 2020. The purpose of the plan is to allow city officials and members of the public to understand threats to natural and human-made hazards in the community and provide a framework to how to respond to such disasters.

The LHMP identified the following areas of concern along the King Harbor Marina:

- Tsunamis: As with other beaches, the Redondo Beach waterfront is threatened by tsunami inundation. Should a Tsunami occur, it could inundate the waterfront as far as Harbor Drive.
- Liquefaction: The King Harbor area consists of engineered fill that led to liquefaction failures after the 1994 Northridge earthquake. The soils in Redondo Beach's marinas and beaches are highly porous and prone to liquefaction.
- Earthquakes: As referenced above, the 1994 Northridge earthquake caused liquefaction failure within the King Harbor area, which caused severe damage to marina facilities, parking lots, and one of four offshore fills constructed as part of marina improvements during 1960-1961.
- Drought: The City imports a majority of its water supply, and is vulnerable to drought. Parks, open space, and planting that require extensive irrigation could be impacted.

2.2 Previous Planning Efforts

While the focus of the King Harbor Public Amenities Plan is to develop a holistic framework for improving public amenities along the waterfront, various planning efforts related to Seaside Lagoon, a Public Boat Launch, the Sportfishing Pier, and Moonstone Park have been conducted, and have been considered in the plan's development. Key highlights from these previous efforts are highlighted below.

Seaside Lagoon

In 2007, Aquatic Design Group Inc. prepared a feasibility study and conceptual options for a contemporary aquatics facility, events venue, and boat launch location, with consideration of how these facilities can be incorporated into the Harbor. The summary options developed were:

- Option 1: Repair the lagoon's existing physical plant;
- Option 2: Rehabilitate the lagoon's structures and modernize the current water feature;
- Option 3: Construct a new harbor area special events venue modest recreational water park with traditional swimming pool and boat ramp;
- Option 4: Construct a new special events venue and a substantial recreational water park with a children's pool and boat ramp in the harbor area; and
- Option 5: Construct a new special events venue along with an active and varied recreational water park and boat ramp.

While this study was underway, water quality issues were identified at the City's Seaside Lagoon facility, making the need to develop aquatics facility alternatives more urgent .

In 2009, the City Council received revised facility design concepts from Aquatics Design Group for a rehabilitated Seaside Lagoon. All concepts included a hard-bottomed, zero-depth entry lagoon water feature as the primary recreational amenity. In addition, each of the design concepts also included a reconfiguring of the facility space to allow for a multipurpose special events park area accessible by the public throughout the year, and an area for parking that would serve the facility and allow the adjacent lease holder to utilize a portion of Mole D for the development of a Public Boat Launch.

In 2017, Redondo Beach voters passed Measure C, which called for the improvement/replacement of various public amenities within the King Harbor area in addition to imposing development restrictions. Key takeaways from this measure included the appeal to construct a new Public Boat Launch and the expansion of open space at Seaside Lagoon. If such expansion is deemed infeasible, the measure then requires preservation of existing open space, while maintaining and operating the existing or replacement swimming facility.

Most recently, in 2021, the City received a $10 million dollar state grant to rehabilitate the Seaside Lagoon. Improvements to the lagoon will have a considerable role in the overall improvements to the public amenities at the waterfront.

Public Boat Launch

Over the past decade, the City has developed launch ramp options at Moles A, B, C, and D. As described above, the passage of Measure C applied a framework for the Public Boat Launch that included the following requirements:

- A minimum of two lanes.
- A minimum of 30 double-length boat trailer/vehicle parking stalls per launch lane adjacent to or within 500 feet of the ramp. This equates to 60 parking stalls.
- At least 10 percent but no more than 25 percent of the parking stalls must be at least 55 feet long. No parking stall shall be less than 40 feet long.
- Ramp, parking, and vehicular access routes shall conform to the design guidelines of the California Division of Boating and Waterways and the American Association of Highway and Transportation Officials.
- Shall not result in any net loss of boat slips that were available as of January 1, 2016.
- Shall not interfere with or adversely impact public access to or public use of other coastal-dependent recreational uses.
- Shall be at a safe distance from any human-powered watercraft launch points and swimming areas.

Alternative Siting Study from a March 2018 public workshop

- Shall be designed to accommodate safe launch and recovery in harbor surge conditions.
- Shall not be sited in any location where waves topping the outer breakwater may create safety hazards in launching or recovery, or damage risk to vessels, vehicles, or trailers.
- Shall have directional signage indicating that the ramp is open for public use.

These conditions limit potential locations for the boat launch ramp. Both the City's consultant and the consultant for the former owners of King Harbor Marina (KHM) evaluated launch ramp options at Moles A and B. Both the City's and KHM's consultants developed options at Mole A that included a boat launch ramp and reconfiguration of the King Harbor Yacht Club, including maintaining mast-up dry boat storage. Mole A is aligned with the main channel, but not within a marina basin, making it ideal for a boat launch. However, Mole A is susceptible to wave overtopping and flooding, which fails one of the Measure C criteria. Critically, these concepts had between 20 and 30 trailer parking stalls, which is half of the Measure C requirements. In addition, Yacht Club Way, the approach road to Mole A, is constrained between a seawall, and Basin 1 and has a long approach and tight turns. This location is not considered feasible.

Mole B faced similar issues and non-compliance with the Measure C requirements. Concepts were developed that incorporated the existing Moonstone Park and outrigger club. Some alternatives attempted to minimize loss of slips at existing small boat docks, or incorporate relocation of large vessels berthed elsewhere in the harbor. Ultimately, the Mole B boat launch ramp locations faced the same issues as Mole A: lack of adequate trailer parking and constrained approach lanes along Marina Way, impacting access to the ramp and adjacent marinas. The City ultimately determined to move forward with redevelopment of Moonstone Park and Mole B without a boat launch ramp.

This leaves Moles C and D as the remaining alternatives for further analysis. The Mole C location requires the removal of an operating restaurant facility (Joe's Crab Shack), significant grading to lower the existing grade, and possible encroachment into Seaside Lagoon to meet the parking requirements. This location is aligned with the harbor entrance, offering immediate access to the open ocean. However, given the proximity and perpendicular alignment of the ramp to the channel, main channel traffic may be impacted. In addition, Mole C is susceptible to ocean swells, waves, and storm surges. A recurved gravity seawall wall was built atop the rock revetment to protect landside facilities from these hazards. Lastly, the non-motorized craft launch dock is located at Seaside Lagoon, adjacent to the proposed Mole C location. Interaction between motorized and non-motorized craft would need evaluation.

A few locations were evaluated at Mole D, and include replacement of the Sportfishing Pier, at the end of the mole near the current Samba by the Sea restaurant, and a location between the Sportfishing Pier and Samba by the Sea. The parking lots at Mole D provide ample parking to meet Measure C requirements. However, this approach would reduce the number of standard vehicle parking stalls. The Sportfishing Pier option would eliminate the straightforward replacement of the pier at the same location, and would expose the launch ramp to ocean swells, waves, and storm surges. Although a location at the end of Mole D is more protected by the breakwater, this area still experiences swells and surges. Consideration of impacts to the boat hoist and Chevron/Foss docks and facility should also be evaluated.

The proposed location alternatives at Moles C and D would impact the promenade and pedestrian connectivity in this part of the Harbor. The Mole C location would have less

impact if the primary alignment of the promenade is cut short and aligned east of the proposed boat launch ramp, rather than continuing to the Portofino Inn.

It will be a challenge to find an ideal location in King Harbor for a boat launch ramp facility, especially one that meets all the criteria set forth in Measure C. The preferred alternative would be the one that "checks off the most boxes" and minimizes impact to parking, main channel traffic, and landside circulation and connectivity.

Sportfishing Pier

A visioning study was performed in 2018, and input from citizens and other interested parties was sought. This culminated in the development of three concept alternatives: in-like-kind (i.e., same footprint) replacement, reconfigured pier, and Y-shaped enlarged pier.

Although extra permitting effort may be required, the pier could be demolished today and rebuilt in-like-kind in the future. Alternatively, a floating dock with the same footprint could be built in this location. Given the exposed location, a heavy wave-attenuating dock would be required. It would be more difficult to get agency approval to build a larger pier as shown in Concept No. 3, which was presented in the 2018 visioning study. A same-size reconfiguration, such as Concept No. 2, is feasible, but is also more difficult to permit than an in-like-kind replacement such as Concept No. 1. Relocating the pier elsewhere in the harbor would be the most difficult to permit, unless that area is free of eelgrass and is shown to provide better water access than the current location.

Moonstone Park

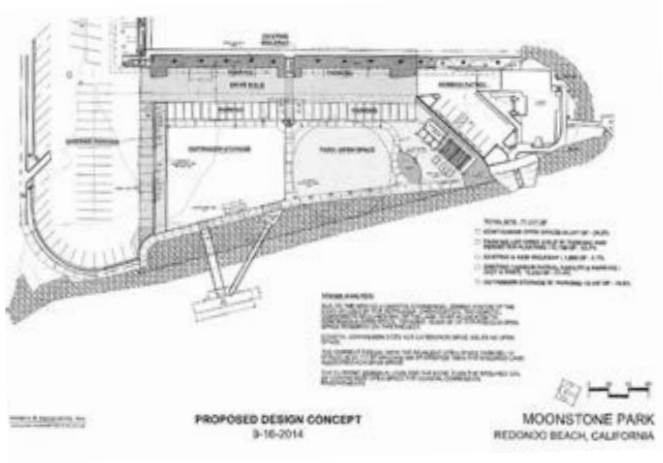
On July 5th, 2011, the City Council approved the conceptual plan for the Mole B Master Plan developed by Hirsch & Associates and put forward by Marina Cove, LLC. The proposed design included; public park space; an outrigger and small craft storage and launch; and sailboat storage.

Prior to the 2011 approval, an open space requirement had been established in the 2009 Local Coastal Program and codified in the 2010 Measure G. The CC-4 Coastal Commission zoning status of the outrigger organization required that 33 percent of the land be allocated to contiguous open space.

The 2011 plan was later modified in January 2012, and reconfigured with a more efficient layout that included the use of both City and leaseholder property. The updated plan preserves the uses outlined in the original plan, including a public restroom, helicopter clearance, and an additional 17 parking stalls. The 2012 plan complied with the 33 percent open space requirement, and also added a multipurpose boating facility building. In order for the Mole B Master Plan to be constructed as proposed, existing lease boundaries would have had to be modified. That design exercise, never approved by the City Council, was primarily driven by the Marina's decision to not build the two-story boating center. In May 2013, a letter from the Marina confirmed that it was still prepared to sign an agreement for the modification of existing lease boundaries.

An updated proposed design concept for Moonstone Park was developed by Hirsh & Associates on September 16, 2014. The updated concepts also removed the mast-up dry storage that was previously located on the leaseholder property.

The inclusion of the adjacent leaseholder property in future plans for Moonstone Park would pose a challenge to the City, as the property leaseholder has changed ownership since the time of initial plan approval. At last report, the City had not approached the new leaseholder about their interest in continuing this support.



Conceptual plans for Moonstone Park by Hirsch & Associates in 2014

3

EXISTING CONDITIONS ASSESSMENT

Key interest areas of the Amenities Plan

3.1 Existing Conditions Assessment

Summary

Key Observations and Existing Conditions

The consultant team, consisting of SWA, ARG and Anchor QEA, conducted an existing conditions analysis of harbor connectivity and key interest areas within the King Harbor Plan. The visual assessment was conducted during the fall of 2021 to document and describe existing conditions and characters that represented unique segments, significant features or influence, and other factors. The team conducted numerous site visits to the harbor to conduct visual inspection and analysis. These observations were supported by a review of technical reports, planning documents, and previous assessments of the site. The Existing Conditions Analysis is discussed in this section in the following order:

1. **Primary Public Amenities:** International Boardwalk, Seaside Lagoon, Moonstone Park, existing Short Pier (previously Sportfishing Pier), existing small Hand Launch, and main channel conditions.
2. **Harbor Connectivity Framework:** Movement, including site entry points, pedestrian circulation, bicycle/multi-modal, and vehicular parking circulation; site design, including green space, tree types, and paving; site furniture; and sea-level rise.
3. **Buildings and Structures:** Beach Life building (formerly On the Rocks sports bar), Charter Boat House (Foss Maritime Co.), Ruby's, Samba by the Sea, Joe's Crab Shack, and the International Boardwalk public restrooms.

Purpose of the Assessment

After the assessment was complete, the analysis became the foundational framework for initiating the Amenities Plan. The summary of key issues and findings will be detailed within this section.

Aerial view of International Boardwalk

International Boardwalk

The International Boardwalk is a row of commercial spaces that wraps the four sides of Basin 3 and is accessed by a broad walkway at the marina's edge. The boardwalk is located at the southern portion of the plan and is the connection from Redondo Beach Pier to King Harbor.

The principal section stretches along the east side of Basin 3 and consists of a single-story cast-in-place concrete structure with a flat roof. The roof supports the Avenue of the Arts promenade above. The shops are sheltered by a common projecting metal-clad pent roof that runs the length of the boardwalk. The row of shops is interrupted in three locations by stairways that provide circulation between the boardwalk and Avenue of the Arts above.

The eastern leg of the boardwalk was part of the original design for the harbor and Basin 3. This was designed by architects Arthur Froehlich and Rex Lotery and completed in the mid-1960s. The promenade above the boardwalk was created in the late 1970s when a subterranean parking structure was added adjacent to the boardwalk to the east (inland) side. Buildings at the north and south ends of the boardwalk were added at that time. A general renovation occurred in 1989, when the existing pent roof was added and changes were made to the stairways.

Key Observations and Existing Conditions:

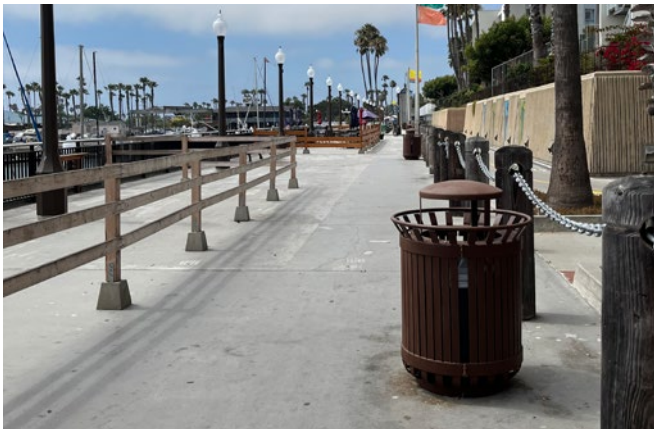
- The 1,545-foot-long Basin 3 bulkhead is a reinforced concrete L-shaped wall with a toe (cut-off) wall built in 1962. The top of wall and adjoining sidewalk are at a +7 feet mean lower low water (MLLW) elevation. These sit one to two feet below the parking lot level at Mole D, and several feet below the upper level of the Municipal Pier.
- As noted in a condition assessment performed in 2019 by the City's consultant, the bulkhead is in poor condition, with spalled concrete, exposed and corroding steel reinforcements, and vertical and horizontal cracks — conditions which have been confirmed as part of field walks for this study. The bulkhead has sustained damage over its lifetime. The floating dock mooring system caused damage to the cut-off wall, resulting in loss of material and destabilization of the footing portion of the L-shaped wall; a repair was performed in 1976. The repair involved pressure grouting behind the cut-off wall to seal the void created by the damage. Additional pressure grouting was performed above the L-shaped wall footing to densify the soil and improve soil conditions under the sidewalk. Lastly, rock was placed at the toe of the bulkhead to prevent undermining from erosion and overturning of the wall. The City's consultant

Ground level view of International Boardwalk

notes that no further improvements or repairs have been made since then, resulting in the bulkhead's poor current condition.

- An approximately two-foot-high timber wall was built atop the bulkhead, extending it to a +nine-foot MLLW elevation. There are openings at each gangway entrance, as well as degradation of the timber wall itself. The gap between the bottom of this timber extension and the bulkhead coping is sealed with sandbags. It appears that the intent of the timber wall extension is not to prevent flooding, but to limit splashing from swells and breaking waves in Basin 3.
- Given the condition of the bulkhead and gangway platforms, we agree with the previous assessment that the bulkhead is near the end of the its useful life and only temporary repairs are recommended until the bulkhead is replaced as part of a larger marina redevelopment project. No new loads should be placed on the wall, so any work performed on the buildings along International Boardwalk should take this into consideration. Also, a more robust, albeit temporary solution to seasonal flooding is recommended to seal the gap between the top of the wall and its extension and close openings at the gangway access points during high tide events.


Bike path at upper deck of International Boardwalk


Upper deck of International Boardwalk

Aerial view of Seaside Lagoon

Seaside Lagoon

The Seaside Lagoon is a designated open space amenity located off of Portofino Way, and is owned and operated by the City of Redondo Beach. The key features of the Lagoon include a 1.4-million-gallon man-made saltwater lagoon, a sandy beach area, children's play area, snack bar facilities, and other recreational areas. The surface area of the water in the lagoon is approximately one acre, with a maximum depth of seven feet. The Lagoon was originally constructed in 1962, and is open to the public seasonally from Memorial Day to Labor Day.

Seaside Lagoon is fed both by discharged cooling water from the gas-fired power plant, when it is in operation, and by seawater pumped in through an intake pipe. The tide gate on the intake pipe is often left open, resulting in water partially filling the lagoon to equilibrium with the current tide level. The City has left the hatch to the tide gate open after it has repeatedly been swung ajar by rushing water in the pipe. To prevent falls, this area is enclosed in a locked fence. Water overflows from the access hatch during high tide events. The lagoon is separated from the harbor by a rock revetment with underlying sand.

Saltwater lagoon

Lawn perimeter at Seaside Lagoon

Aerial view of Moonstone Park/Mole B

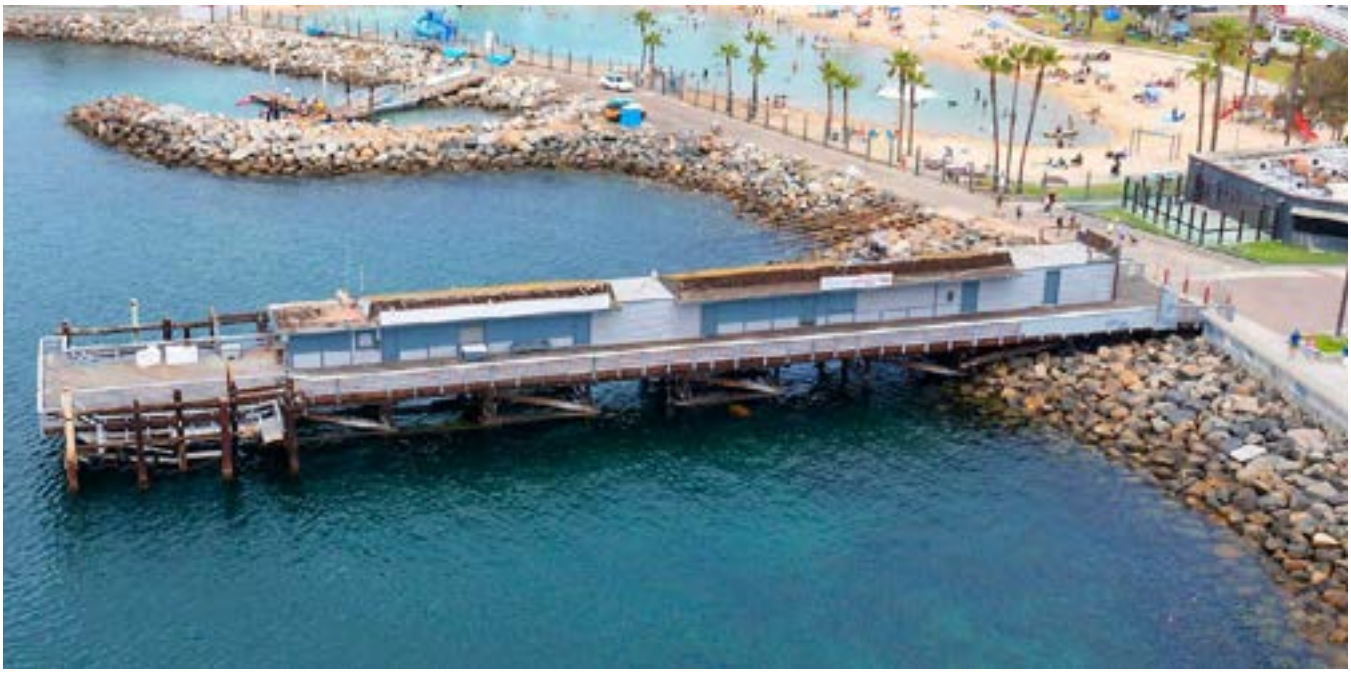
Moonstone Park

Moonstone Park is a public park located at the end of Marina Way at Mole B. Named after the moonstone gemstones that would once wash ashore in Redondo Beach in the early 1900s, the park features an open lawn and waterfront views. It is also home to the Lanakila and Nahoa Outrigger Canoe Clubs. These outrigger clubs currently operate on 13,000 square feet of the park, leaving the park's remaining 20,000 square feet of the park as an open lawn area. At the southern end of the park, the Redondo Beach Fire Department operates Fire Station 3 Marine Rescue. There is currently no restroom facility located on-site other than a portable one. Free pubic parking is located on the edge of the park. The Marina Way entrance, which provides vehicular access to the park, does not have sufficient signage to inform people of the park's location at Mole B.

There are two key factors that will determine the design and planning of Moonstone Park. The first is that per the Coastal Commission, 33 percent of the open space must be maintained on the site. The second is that a 110-foot-diameter clear area is required for emergency helicopter landing (H).

Temporary seating at Moonstone Park

Outrigger clubs' operations at Moonstone Park



Aerial view of Sportfishing Pier

Existing Sportfishing Pier

A structural inspection of the Sportfishing Pier was performed in 2017 and concluded that the structure was in serious condition and beyond feasible repair. It was subsequently closed to the public. Of primary concern were three timber piles needing immediate replacement due to complete section loss or displacement, which compromised the integrity of a portion of the structure. In addition to these, other timber piles exhibited damage from marine borer attack and dry rot, which have been worsened from the exposed location of the pier. The pier faces the opening in the breakwater, making it ideal for quick ocean access, but also exposes the pier to swell and wave impacts, resulting in damage.

The pier superstructure appeared to be in fair condition, but in need of solid piles on which to sit. The findings of the report noted that extensive repairs to the piles were required to bring the Sportfishing Pier back into serviceable condition. A portion of the pier was sagging from the previously noted pile failure. Portions of the pier, including timber bull rails and bracing, continue to fall off of their corroded steel bolts and connectors, a condition often worsened by wave action. The debris poses a navigational hazard, particularly at night when it is not readily identifiable.

Entrance to the pier

Existing infrastructure of Sportfishing Pier

Existing Hand Launch

Kayakers using the Hand Launch

Existing Small Hand Boat Launch

The existing hand-carried small Hand Launch is located west of the Sportfishing Pier and south of Seaside Lagoon near the interface between Moles C and D. It is made up of a 10-foot-wide timber-framed and decked sloped abutment founded on concrete footings, a 10-foot-wide timber gangway, and timber docks. The docks consist of a main float and a landing float roughly forming a "T" shape. The docks are supported by two 16-inch-diameter piles; one 16-inch-diameter, creosote-treated timber pile with HDPE wrap; one 12-inch-diameter creosote-treated timber pile that was rebuilt with a fiberglass-reinforced plastic jacket and structural grout; and one six-inch-diameter coated steel pipe pile connected to a three-pile timber dolphin.

City maintenance staff explained that the rebuilt timber pile was one of three that snapped near the mudline due to heavy wave action, which stressed the floating dock. The other two piles were replaced with the concrete piles. In addition, the dock that forms the leg of the "tee" was also replaced after being torn away from the main landing float and being displaced when the two timber piles securing it were broken. This information indicates that the non-motorized small boat launch is in a location that is susceptible to large wave forces based on swell and storm surge conditions. City maintenance staff also noted the existence of eddy current in the embankment, especially during winter months when swells from southern storms are more frequent. These eddy currents draw out sand in the embankment, reducing the exposed beach.

The main float does not have sufficient buoyancy at the gangway landing. The weight of gangway causes the main float to slope towards the gangway. To limit a steep gangway down to the dock at low tides, the pile-supported gangway abutment is sloped towards the dock. This has the unintended effect of inundation of this abutment at high tide events, estimated to be at +6.5 feet MLLW or higher. The abutment can also be over-topped by waves at lower high tides. Waves of one foot in height were observed, clearly indicating that water elevation of +5.5 feet MLLW could result in overtopping.

Lastly, the dock has a standard freeboard of 16 inches, which is suitable for motorized boats. However, this freeboard makes it difficult to enter and exit a hand-carried boat such as a kayak or stand-up paddleboard. A lower freeboard of eight inches or less is preferred for hand-carried watercraft.

The splash wall that runs along the waterfront path through Mole D

Main Channel Conditions

Moles

Mole B is protected by a rock revetment. Mole C has a recurved gravity splash wall atop the rock revetment to raise the pad grade and provide additional protection against flooding. The splash wall ends at Seaside Lagoon. The splash wall begins again east of the Sportfishing Pier and runs along the front of Mole D up to the Foss Marine building and docks. This wall provides protection to Samba by the Sea and other restaurant buildings. However, Mole D is at the original grade of approximately +8 feet MLLW.

Public/Private Docks

Basin 3 contains the Redondo Beach Marina, which is owned by the City and operated by a concessionaire. The docks in Basin 3 are at the end of their useful life. The gangway platforms were noted in the condition assessment performed of Basin 3 by the City's consultant in 2019 as being in poor condition, with spalled concrete and exposed and corroding steel reinforcements. These assessments were confirmed in the field as part of this effort. Planning for replacement of the docks in Basin 3 is recommended.

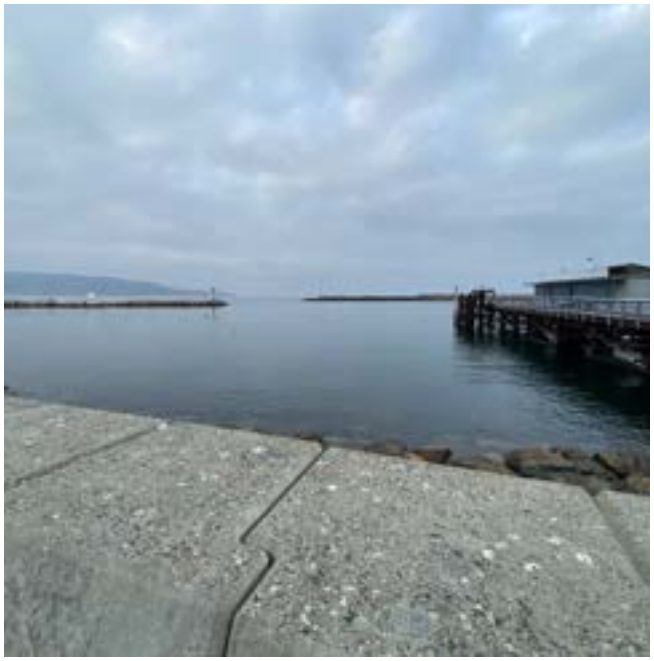
Basins 1 and 2, which are located off the Harbor's main channel, are excluded from this report. The privately owned and operated King Harbor, Port Royal, and Portofino marinas are located within these basins. These facilities are within water bodies owned by the City. However, both King Harbor and Port Royal marinas are in various stages of redevelopment planning. These marinas were not included in this analysis.

Breakwater and Channel

The existing breakwater is a rubble mound design constructed by the United States Army Corps of Engineers in the 1960s. The structure is porous, allowing swells to propagate through the structure. In addition, the bathymetric contours beyond the breakwater result in overtopping during storm events and southern swells. The porosity and overtopping of the breakwater should be considered in siting moorings within the harbor, and in determining the location of the proposed boat launch ramp facility.

There are a few moorings between the breakwater and main channel along Moles B and C. A few of the moorings were observed to be used. A review of historical aerials on Google Earth reveals that few moorings are in use at any given time. Their location, which is susceptible to wave overtopping and swell impacts, likely makes these moorings undesirable. Further study is warranted, with input from Harbor boaters,

Basin 3 docks



Existing breakwater

to develop an understanding of these moorings.

The fish bait barge is also located along the main channel near the Harbor entrance across from Mole C.

Mole B rock revetment

Mooring fields

3.2 Harbor Connectivity Framework

Framework Categories

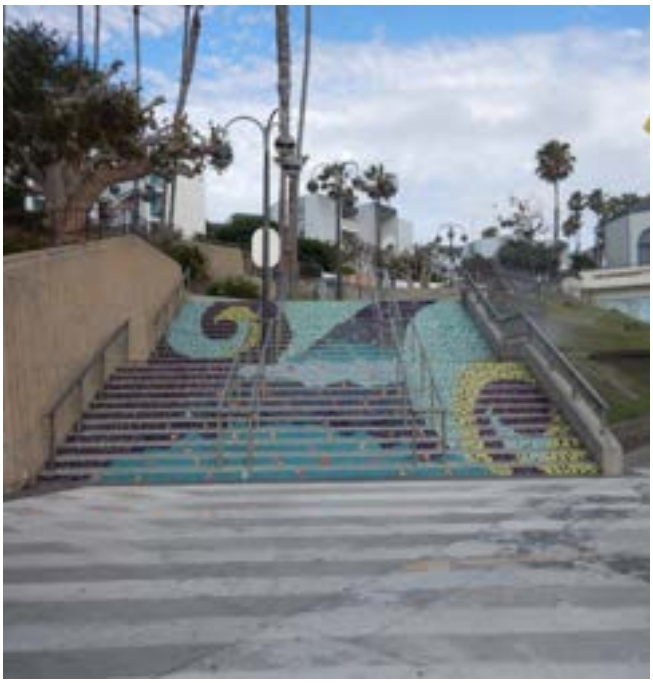
Framework Categories

The following pages will review the Harbor Connectivity Framework: movement (including site entry points, pedestrian circulation), bicycle/multi-modal and vehicular parking circulation; site design (including green space, tree types, and paving; site furniture); and sea level rise.

While reviewed individually, there is overlap between the framework elements as they relate to an overall cohesive plan.

Site Entry Points (Existing Conditions)

Stair at the north end of International Boardwalk



Stair at the south end of International Boardwalk

Movement: Site Entry Points/Access

Main Entry Points: Vehicular and Pedestrian

The three main entry points into King Harbor are vehicular and pedestrian-centric, and include Marina Way, Portofino Way, and Mole D Entry Drive. There are varying levels of public/private entries. Yacht Club Way was not considered in the scope of this project because it primarily serves areas managed by a master leaseholder, rather than directly by the city.

The Marina Way entrance is private and public, although it feels mostly private. The directional signage at the gated entrance highlights the King Harbor Marina Bay Club, and Blue Water Grill, as well as public parking. However, there is no signage for Moonstone Park or the outrigger clubs at the entrance. Sidewalks on both sides at the entrance connect to the waterfront path. The street turns into through lanes for the parking lot to the west.

Portofino Way is both private and public, with clear signage highlighting amenities. There is no gate at the entrance, and the drive aisle is widest at this entrance (42 feet). The drive aisle becomes more narrow at the end of the street (32 feet). There are sidewalks with planted buffers on both sides adjacent to the street.

Mole D Entry Drive is primarily public. There is gated access in which the drive aisle becomes more narrow at the end of the street (28 feet). A planted buffer is directly adjacent to the street followed by the path.

Main Entry Points: Pedestrian Only

There are two main entry points that are pedestrian only; these are located at the north and south ends of International Boardwalk and would lead visitors into the site from Harbor Drive and a parking lot from the north, or from the parking lot or the Village Apartments to the south. These are both accompanied by stairs and elevators.

Vehicular Entry Only

A majority of the mid-block entry points are designed for vehicles only. These are to be utilized by the restaurants along Harbor Drive and are out of scope, for this Amenities Plan. The vehicular entrance at Captain Kidd's is a "pinch point," where a vehicular entrance crosses over both a bike lane and a pedestrian path, which can be confusing for visitors who are new to the space.

Pedestrian Entry Only

There are only two additional pedestrian entries off of Harbor Drive: near the Shade Hotel, and near Captain Kidd's. The Captain Kidd's pedestrian entrance is a "pinch point,"

Marina Way entrance: private and public

Portofino Way: private and public

Mole D Entry Drive: primarily public

Entrance at Captain Kidd's

as mentioned previously. An additional, pedestrian-only entrance point is located at the Czuleger Park entrance.

Moving Forward

With regards to site entry points, the following should be considered when developing the plan:

- Public access into Moonstone Park: Consider promoting access to Moonstone Park from Marina Way, as the entrance currently feels private and not public.
- Pedestrian access: Consider enhancing the pedestrian experience by improving existing access points or addressing "pinch points" like the one at Captain Kidd's.
- Bicycle access: Consider adding bicycle access within the main entrances; the main entrances vary in width and should be considered when planning and designing for the future.
- Signage and wayfinding: In areas where it is difficult to navigate or where the entrance type is not clear, consider adding additional signage or wayfinding.
- Review ADA access requirements: All entrances should consider ADA access.

Pedestrian entrance into parking stalls

Pedestrian entrance at Marina Way

Pedestrian Circulation (Existing Conditions)

Gathering space along the waterfront walk

Dead-end along waterfront walk

Movement: Pedestrian Circulation

Overview

Pedestrian circulation around King Harbor varies greatly. Some routes are very clear, while some lead to dead ends. The width of the pedestrian paths also vary depending on the location of the path.

Primary Route

Primary route are the routes that are intended to be taken within the harbor. These are fairly clear to follow. Along the waterfront path, these are typically wider, at 15 feet; all other locations within the interior of the harbor are typically 5 feet wide.

Dead End

There are several locations of the primary path that cause visitors to reverse course or walk along a non-designated pedestrian path. This occurs at Moonstone Park, the beginning of Mole C, at the end of Mole D.

No Clear Route

Pedestrian circulation between areas of the harbor can also cause confusion, leading pedestrians to walk through large parking lots without a clear, optimal pedestrian path.

Interstitial pathways or secondary pedestrian routes are more difficult to navigate in between destinations

Gathering Space

There are several nodes or gathering spaces south of Portofino Way. These areas expand outwards, designating the space as a place to gather.

Vertical Transitions

The greatest pedestrian transitions at the harbor are at International Boardwalk, where there are five-stair vertical transitions and two elevators.

Moving Forward

With regards to pedestrian circulation, the following should be considered when developing the plan:

- Intermediate connections: Consider connecting paths, or introduce paths in parking lots,
- Gathering spaces: Consider enhancement opportunities at gathering spaces.
- Signage and wayfinding: Consider adding elements where the path of travel is unclear.

Bicycle Circulation (Existing Conditions)

Two-way bike lane at North Harbor Drive

Two-way bike lane at International Boardwalk

Movement: Bicycle Circulation

Overview

King Harbor is served by a two-way Class I Bike Lane along North Harbor Drive that was constructed in 2015. Within the King Harbor project plan area, there are no labeled bike paths. There is a proposed Class II Bike Lane, which was identified in the 2011 South Bay Bicycle Master Plan. This was proposed in the report, and could be considered for future implementation.

Existing Amenities

Bike routes: Currently, there are no labeled bike lanes along interior spaces or entrances within the harbor. The lanes along Harbor Drive and above International Boardwalk are the only existing routes within the plan area. Bicyclists still ride within the harbor, within parking lots, and along the waterfront path.

Bicycle racks: There are many racks located on-site for bikes, although their conditions vary. The fullest racks seem to be within Mole B along Marina Drive. Some cyclists also chain up their bikes to light poles, often along International Boardwalk.

Rentals: There are bicycle rentals available from Marina Bike Rentals at Portofino Way and Harbor Drive intersection.

Moving Forward

In regards to bicycle circulation, the following should be considered when developing the plan:

Bike routes along the main entrances should be reassessed. Multi-use nodes should be considered for options such as electric bikes, scooters, and skateboards. Bicycle racks should be further evaluated based on condition, location, and usage.

Bike locked against a light pole at International Boardwalk

Vehicular Circulation (Existing Conditions)

Harbor Drive is a multi-modal shared street

Parking circulation is not always clear

Movement: Vehicular Circulation

Circulation

Vehicular circulation within the harbor parking lots lack wayfinding, and can be confusing for those who don't frequent the harbor.

Types of Parking

Parking types range from pay-to-park, customer parking, free parking, and permit parking. Marina Way has both "Pay by App" parking, private (or permit) parking, and free customer parking. These options' viability are not clearly labeled or easy to identify. Mole D Entry Drive requires gated entry to use the pay-to-park function.

Condition of Parking Lots

The condition of the parking lots within the project scope area are deteriorated. The asphalt is cracking in many places and the striping has faded. Additionally, most planted medians are lacking plants without tree canopies for shade.

Events

Many events occur throughout the year that utilize the parking lot at Seaside Lagoon.

Moving Forward

In regards to vehicular circulation, the following should be considered when developing the plan:

The circulation within the parking lots needs to improve. The parking lots should consider events that occur throughout the year and continue to accommodate for them. The surfaces should be repaved and re-striped and new planting and trees should be added.

"Cruise at the Beach" classic car show during summer Fridays

Vegetation (Existing Conditions)

Natal plum in a buffer planter at Marina Way

Cacti and fire stick at a planter at International Boardwalk

Site Design: Vegetation

Summary

Vegetation is used throughout the plan area in varying levels. To understand the clusters of vegetation, two categories were established in the analysis: shrubs and ground cover versus lawn.

Shrub and Ground Cover

There is a high concentration of shrub planting north of Portofino Way. The condition of these plants is generally good and incorporates a variety of planting species. These are considered lush planting spaces. Some shrubs that are seen on site include fire stick, umbrella tree, cacti, hibiscus, agave, succulents, natal plum, ice plant, rosemary, and birds of paradise.

Lawn

Lawn planting is the primary ground cover along the waterfront walk and south of Portofino Way. The diamond shape planters within Seaside Lagoon's parking lot lack planting. The medians along Mole D Entry Drive are also lawn, void of planting. The only public open space lawn is at Moonstone Park. There is open lawn space within Seaside Lagoon, but this is not open to the public.

Moving Forward

Planting can be enhanced to show continuity and hierarchy and frame spaces. Planters can assist with pedestrian and automobile wayfinding, and should be considered in spaces that are void of plants. Open lawn space could be effective if it is of a nominal size.

Lawn along waterfront path

Trees (Existing Conditions)

Carrotwood trees in the parking lot

Melaleuca trees at Moonstone Park

New Zealand Christmas tree at International Boardwalk

Site Design: Trees

Types of Trees

The tree species within the plan area are either canopy trees, or palm trees, which were categorized as such to highlight their difference in form and function.

Palm Trees

Palm trees are a key identity and wayfinding element along the waterfront path and main entrances, where they create an allee. Most species are Mexican fan palm.

Canopy Trees

There are a variety of canopy trees in the harbor. These are primarily in parking lot planters, but some are located in pedestrian gathering spaces and larger planters at the International Boardwalk. Species include Carrotwood in the parking lot, Melaleuca at Moonstone Park, and New Zealand Christmas tree at International Boardwalk.

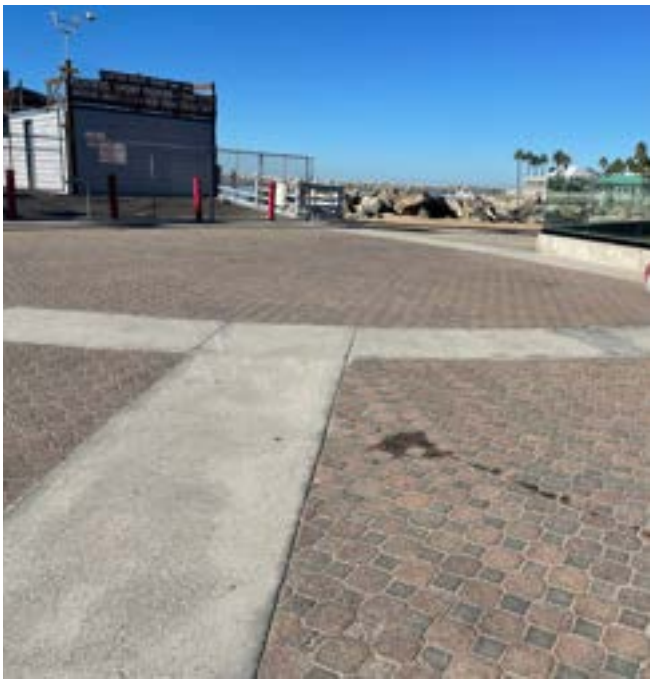
Moving Forward

Canopy trees should be added for shade and aesthetics along pedestrian nodes and in parking lots. Canopy trees should not block views of the waterfront path. Palm trees should continue to highlight primary entrances and the waterfront path.

Mexican fan palm allee

Hardscape (Existing Conditions)

Concrete path along waterfront path



Concrete pavers and band at the waterfront

Site Design: Hardscape

Types

There are five distinct hardscapes within King Harbor: asphalt, concrete, concrete pavers, brick pavers, and colored concrete.

Asphalt: Asphalt is the primary material throughout the site as much of the site is parking lots — roughly 68 percent. The asphalt is deteriorating and cracking near the Seaside Lagoon parking lot and Mole D parking lots and in some portions of Mole B. Portions of the waterfront path, near the Hand Launch, are made of asphalt as well as along International Boardwalk.

Concrete: The primary material for pedestrian walkways is gray concrete with scoring every few feet. This is mostly along the waterfront path, at some interior paths, and the pedestrian sidewalk along Harbor Drive.

Concrete pavers: At four of the key nodes, the concrete pavers are a mix of red and brown tones. There is a white concrete band around the nodes.

Colored bike lane: Along Harbor Drive, the bike lane is a green colored asphalt with a white-painted bicycle symbol. The bike lanes are in good condition.

Brick pavers: Above International Boardwalk, the bike lane is composed of brick pavers in red tones. The bike lanes are in good condition.

Moving Forward

Moving forward, the material condition and aesthetics should be reviewed in greater detail. The asphalt parking lots should be repaved and re-striped. If additional areas are repaved, the goal is to contain material continuity throughout the site. Paving can also be used as a wayfinding element.

Asphalt at the waterfront path near Seaside Lagoon

Primary furniture family

Various concrete picnic tables throughout the plan area

Furnishings: Site Furniture

Types

The primary furniture throughout the harbor is a dark brown metal family consisting of benches, trash receptacles, and bicycle racks. This family is layered throughout the site and is one unifying element. The condition of the furniture varies; some locations are in good shape while some show visual disrepair or graffiti. In the past year, benches within the harbor have been repainted a similar brown color.

In addition to the primary furniture family, a variety of picnic tables and benches are located across the plan area. Some of these areas include International Boardwalk and Seaside Lagoon.

Moving Forward

It is important to establish a furniture family that can be utilized across the site, whether that be maintaining and repairing the existing brown metal family or phasing in new furniture. There is an opportunity to develop and implement pedestrian-scale improvements to establish the harbor's unique character and provide linkages throughout the site. Different amenities can support different themes in furnishings.

Lighting families throughout the plan area

Various signage and educational elements

Furnishings: Signage and Lighting

Lighting Types

There are a variety of lighting fixtures throughout the site, including traditional poles at the International Boardwalk with string lights. More industrial lighting is located along the waterfront path and within the parking lots. Integrated seatwall lights are also located along the waterfront path.

Signage Types

Existing permanent signage includes directional, educational, historical, and regulatory signs, all of which have varying color schemes, fonts, and styles and therefore lack consistency. There are also temporary paper signs, whiteboards, and peel-and-stick signs located throughout the harbor.

Moving Forward

Existing lighting elements should be evaluated to confirm that they provide adequate nighttime illumination. There should be few types of fixtures within the harbor so that the lighting design feels consistent.

Development a signage plan that explores a cohesive color scheme, font, and style is recommended. The signage should be clear and concise, and not clutter the harbor.

Sea-Level Rise (Existing Conditions)

King Tides at International Boardwalk


King Tides flooding at Mole B

Environmental: Sea-Level Rise

Existing Conditions — Basin 3

The existing bulkhead within Basin 3 is estimated to have a top of wall elevation of +7 to +7.5 feet MLLW (the average height of the lowest tide recorded at a tide station each day during a 19-year recording period). These volumes are based on recent measurements, using tides and elevations noted in the Sea Level Rise Vulnerability Assessment for King Harbor (2019) and derived from Sea Level Rise Policy Guidance by the California Coastal Commission. The elevations are lower than originally designed due to subsidence in the area from oil extraction activities. The current top-of-wall elevation is too low to prevent overtopping from king tides as well as typical storm events.

The current short-term solution to address wave overtopping is a timber bulkhead extension with sandbags at the base of the extension. However, this current solution does not prevent water from getting through and flooding the International Boardwalk. The situation will become more frequent with anticipated sea level rise.

Per the Sea Level Rise Vulnerability Assessment referenced above, a 0.8 foot rise in sea level is estimated by 2030. The impacts of this increase would be primarily limited to the perimeter walkways around each marina basin.

Per the study, only Basin 3 has been evaluated for current conditions, while the other two basins remain unevaluated and are an unknown cost risk.

Businesses on the International Boardwalk in Basin 3 experience minor flooding several times a year, and face the most immediate threat from sea level rise.

By 2100, the projected 5.5 feet rise, concurrent with an extreme tide level of +7.5 feet, will cause significant inundation throughout King Harbor.

Moving Forward

Review of previous assessments and identification of opportunities of retreat from the sea walls, elevation above existing grades, and protection of existing grades at all three basins within King Harbor are recommended. Solutions should be both short- and long-term. These can be evaluated for cost and effectiveness.

Beach Life building, formerly On the Rocks sports bar

4.3 Buildings Assessment

Architectural Resources Group (ARG) has prepared the following existing conditions analysis for five selected buildings and public restroom amenities within King Harbor in Redondo Beach, California. The buildings for analysis were selected by committee based on their location and desirability for redevelopment or rehabilitation, and include the following: Beach Life (formerly On the Rocks sports bar), Ruby's Diner, the Charter Boat House/Foss Maritime, the Samba by the Sea restaurant, and Joe's Crab Shack restaurant. Additional analysis has been provided for the existing public restrooms located along the International Boardwalk. These restrooms were previously evaluated in 2017 as part of a site-wide restroom accessibility assessment (see accessibility report dated 5/27/2017 by Disability Access Consultants, LLC).

Methodology

ARG staff (Lindsey Miller, AIA and Grace Davis) conducted field investigations on October 28 and 29, 2021, to assess the existing conditions of the buildings. The investigations included a visual survey of building exteriors, interiors, and roofs. Conditions were documented through photographs and field notes. City personnel joined ARG staff during the visit to provide access to the buildings and brief background on the current tenants. The background information for the buildings was pulled from the 2015 Historic Resources Evaluation Report, prepared by Greenwood & Associates for the waterfront project's draft environmental impact report (EIR). Some information (related to tenant leases, etc.) was provided by the city during the site visit.

Beach Life (Formerly On the Rocks sports bar)

The Beach Life Building is located at 239 North Harbor Drive, along the waterfront between the Seaside Lagoon and the Sportfishing Pier. It was formerly occupied by On the Rocks, a sports bar and restaurant. It has remained vacant for some time, with short-term leases including the current lease for Beach Life, an event organizer who puts on a festival twice per year. The building was previously evaluated in 2015 and determined to have no historical significance.

It was constructed in 1971, and prior to Beach Life's occupancy, served as various restaurants. It consists of a single-story, concrete-and-wood-framed commercial building, with 5,379 square feet of restaurant space and an additional 3,130 square feet of outdoor patio space. The building is irregularly shaped, with two outdoor patio spaces: a large outdoor patio space along the north side (enclosed, no ocean view) and a smaller patio on the west side facing

Localized corrosion (rust) at standing seam roofing

Building interior is generally compliant with ADA paths

the ocean and enclosed by glass walls. Exterior walls are clad with painted stucco. The main entrance is located on the south facade; the north and east walls face the parking areas, and are generally devoid of fenestration and contain only service entrances. There are wooden windows along the south and west facades. The former dining room has been converted to a large open space, while the kitchen was gutted when the last tenant moved out. The building has a complex roofline composed of hipped, shed, and flat roofs. The hipped building roofs are covered with standing-seam metal; the flat building roofs are covered with single-ply membrane; and the shed and hipped roof canopies and entrances are covered with corrugated sheet metal.

Overall, the building appears to be in fair condition, with the biggest issue being the leaking roof, which is in poor condition. It is serviceable and can continue to be used as commercial or restaurant space as desired. The building is structurally sound but will require some maintenance-level work for its continued use and operation.

ARG noted the following damage or deterioration. The full list of imagery is included in Appendix 1 of this Report.

- Deteriorated membrane roofing and flashings, poor previous repairs
- Localized corrosion (rust) at standing seam roofing, typically near eaves
- Warped or bent corrugated roofing sheets at front entrance canopy
- Corroded and bent edge flashings
- Deteriorated sealants at wall and roof flashings; poor previous repairs
- Cluttered flat roofs, limits drainage
- Abandoned openings and equipment at roof
- Sections of cracking and spalling of stucco facades; paint loss
- Abandoned conduit/fixtures at stucco walls
- Soiling, guano, graffiti at building walls
- Checking, splitting and wood decay at entrance columns
- Wood decay at exposed rafter tails
- Wood decay and peeling paint at window sills/apron trim
- Wood decay and deteriorated flashing at base of doors

Wood decay and deteriorated flashing at base of doors

- Wood decay and peeling paint at exposed eaves/ overhangs
- Wood decay and damage at patio fencing
- Wood decay and incomplete repairs at side entrance steps
- Broken glass at windows; covered with plywood
- Damaged exterior light fixtures/fans
- Enclosed and corroded crawlspace vents
- Corrosion and paint loss at building wall louvers
- Soiling/bio growth at concrete sidewalks
- Bio growth at roof-side and tops of parapet walls
- Interior ceiling finish loss and wall damage at previous leak location in kitchen
- Localized interior floor damage
- Corrosion at base of toilet stalls (men's room)
- General soiling/wear and tear from use

Accessibility Observations: The building appears to be generally compliant, with ramped entrances, handrails at ramps, and an accessible path-of-travel to the exterior patio spaces. Minor non-compliant items include:

- Non-compliant exterior door thresholds on all three main doors (higher than 1/2-inch)
- The restrooms do not appear to be compliant:
    - The accessible stall in the women's restroom does not have an adequate path-of-travel from entrance door
    - Sinks do not appear to have maneuvering space
    - Door pulls do not appear compliant

Charter Boat House (Foss Maritime Co.)

Charter Boat House (Foss Maritime Co.)

The Charter Boat House is located at 161 North Harbor Drive, situated at the entrance to Basin 3 along the north side of the channel. It is currently occupied by Foss Maritime Co., a contractor to Chevron Oil, who service Chevron's boats and oil rigs. Foss is required to be within 20 minutes of Chevron's rigs (near El Segundo). Our understanding is that Marina del Rey and King Harbor are the only suitable areas within the 20-minute requirement of Chevron's rigs. The building is manned 24-hours.

The 1,196-square-foot building is a two-story, wood-framed rectangular structure, with a nearly flat (low slope) shed roof. Exterior walls are clad with alternating sections of wood shingles and plywood panels with batten strips. At the northeast corner, there is an octagonal "lighthouse" tower feature, which is also clad with wood shingles. The fenestration includes two- and three-part sliding aluminum sash windows and grouped double-hung windows. On the south side of the building, there is also a single-story cantilevered concrete slab that extends out toward the channel. On the east side of the building, there is also a large storage container with roll-up door access.

There are several structures that are also considered part of the Charter Boat House. These include two large boat hoists composed of steel I-beams and fitted with track-mounted electric hoists; a small wood-framed single-person control office; and a small single-story, wood-framed restroom building. The restroom building is L-shaped, with partial wood shingle and partial stucco/wood-batten-covered exterior walls. It has a low-sloped gabled roof, covered with asphalt shingles, and featuring two small roof monitors. There is a large accessible ramp on one side. The restrooms are not for public use; they are designated for Redondo Beach Marina slip tenants only.

The building was originally constructed between 1962 and 1964 as a one-story office building for the marina boat hoists, fuel pumps, and the Catalina Express excursion boat. In 1977, a second story and western extension were added, along with the corner "lighthouse" tower feature. At that time, it was operated by Johnson Boat Rentals/Redondo Boat Hoist company. The three original boat hoists from 1961 were replaced with two larger hoists in 1985, and the adjacent wood-framed restroom building and control office were added to the marina in 1989-1990

The building was previously evaluated in 2015. At that time, the noted historical appearance of the building had been substantially altered by the construction of the second story and other additions. The associated boat hoists have also been altered. Because of the loss of integrity and lack

of historical associations, the building is not viewed as a historical resource. The adjacent control structure and restroom building are also not eligible due to being more recent construction.

In general, the Charter Boat House is in poor condition, and will require some significant repairs and improvements for continued use. It is our understanding that the current occupant (Foss Maritime) has also outgrown the current space.

ARG noted the following damage or deterioration:

- Heavy cracking and possible structural failure at cantilevered concrete slab; cracking noted at both ends of slab. The city noted that a structural engineer has evaluated this slab and some upcoming repairs (epoxy injections) are anticipated. We recommend a structural report to determine if the interior area is safe to occupy.
- Heavy wall and roof eave damage at southeast corner; missing areas of plywood and wood trim, peeling paint, and wood decay
- Loose shingles at "lighthouse" tower
- Paint loss at "lighthouse" tower base; gaps in shingles
- Weathering/paint loss at harbor elevations
- Splits in plywood siding, peeling paint
- Splits in wood eave trim/barge boards
- Corroded and bent edge flashings at roof eaves
- Corrosion at storage container entrance door/frame
- Cracking and spalling at concrete marina wall, adjacent to storage container
- Deteriorated membrane roof over cantilevered single-story section; open seams and soiling/debris throughout; poor drainage and deteriorated wall flashing
- Minor interior floor damage
- Deteriorated threshold at entrance

The restroom building is in fair condition, and only requires some maintenance level repairs. ARG noted the following damage or deterioration:

- Weathered wood trim/paint loss at roof monitors
- Wood decay at building corners and base of walls
- Wood decay at eave trim
- Soiling/bio growth at wood shingles
- Corrosion at door operators; rust stains at doors
- Minor corrosion and cracking of concrete at ramp railing

The control room is also in fair condition. ARG noted the following damage or deterioration:

- Paint loss, abrasion damage, etc. from use at wood entrance door, frame, and threshold
- Minor soiling/bio growth at wood trim
- Minor wood decay at base of trim and shingle walls

The existing boat hoists appear to be in good, operable condition. ARG did not observe them in operation at the time of survey. Steel surfaces appear to be in good condition, with only minor surface corrosion noted.

Accessibility Observation: The building has many non-compliant features. ARG observed the following:

- Path of travel too narrow (door widths, corridor widths)
- No accessible path of travel around furniture, etc.
- Second story not accessible
- Exterior door thresholds not compliant
- Exterior door hardware not compliant
- Equipment at non-compliant heights
- No accessible path of travel (striping) from building to restrooms

However, given the nature of Foss Maritime's work, it is likely that workers must be able-bodied to work on and service the boats. Many of these compliance issues are not critical for a private building with able-bodied staff. It may be difficult to upgrade this building for accessibility if opened to the public.

Formerly Ruby's

Ruby's

The Ruby's building is located at 245 North Harbor Drive. It is sited inland and adjacent to the Seaside Lagoon. The building was constructed in 1995 for Ruby's Diner, an American restaurant chain. It is L-shaped and contains 4,766 square feet of commercial space. The building is single-story, with stucco walls and a flat membrane roof. In keeping with the Ruby's Restaurant theme, the building is designed to mimic the aesthetics of diners from the swing era (1933-47). It features Streamline Moderne architectural details, including rounded building corners, a continuous horizontal eyebrow canopy, wraparound windows with rounded ends, porthole windows, a lighted tower feature with glass block, and neon signs. There is also a large, enclosed patio/dining space on the south end, encompassing approximately 1,500 square feet.

The main entrance faces the parking lot, and loading areas are located to the north. The building has an order window adjacent to seaside lagoon, and patrons were able to walk up and order from ruby's window from the lagoon side. Interiors include typical diner-style booths and counter seating, glass block details, rounded corners, and aluminum or stainless-steel trim, among other features. The building was previously evaluated in 2015 and determined to have no historical significance. It is currently vacant; Ruby's vacated the building in 2021 and left most of the interior (including the kitchen) intact.

In general, the building remains in good condition, and it appears that the tenant maintained the building regularly. ARG did not observe any structural damage or heavy damage or deterioration that will require immediate repair. Conditions noted are generally related to wear from use or minor deterioration associated with the marine environment.

Bio growth at roof-side of parapet walls

Samba by the Sea

ARG noted the following damage or deterioration:

- Some deteriorated membrane seams and flashings at membrane roof; poor previous repairs
- Large area of poor previous repair; appears low spot/ poor drainage
- Corrosion and paint loss at sheet metal parapet wall copings
- Bio growth at roof-side of parapet walls
- Trash/debris blocking roof drains
- Remains of restaurant use in kitchen
- Stucco cracking and spalls at trash enclosure walls
- Stickers and graffiti at door glass

Accessibility Observations: The building is generally compliant. ARG observed no major compliance issues – the parking, path of travel, main entrance, and restrooms appear to be complaint overall, and only minor upgrades may be anticipated. This is likely due to Ruby's being a national chain that invested in routine accessibility upgrades.

Samba by the Sea

Samba by the Sea is located at 207 North Harbor Drive, along the waterfront at Mole D. The building was constructed in 1991, and is occupied by Samba by the Sea, a Brazilian steakhouse. The building is roughly rectangular, with 9,841 square feet of commercial space. It is a single-story, wood-framed building, with exterior walls clad with a combination of wood siding and decorative artificial stone cladding. Dining spaces face the waterfront and have large expanses of glass; other facades are utilitarian, with smaller windows and service door openings. The main entrance is from the parking lot. The building has a complex hipped roof, with overlapping roof planes covered with standing seam metal roofing, and an area of flat membrane roofing. There is a

Minor soiling/ debris at clear corrugated roofing

Samba by the Sea

ship's mast feature at the highest peak. The interior of the building features three separate main areas: for dining, the bar, and a large event space with dedicated restrooms. The building features tall, ocean-facing windows across the west facade. There is a 396-square-foot outdoor dining area on the west side, which is somewhat small given the size of the restaurant. Discussions with the tenant revealed that the event space is rented out seasonally – in the fall by college student organizations, and in the summer for weddings and other gatherings.

Interiors are contemporary, with wood floors, walls, and ceilings. Portions of the dining space have vaulted ceilings due to the roof forms, with glass-enclosed cut-outs at the masted form. There is also an outdoor covered dining area along the waterfront, which is enclosed by glass and clear corrugated roof panels. The building was previously evaluated in 2015 and determined to have no historical significance.

In general, the building remains in good condition. ARG did not observe any structural damage or heavy damage or deterioration that will require immediate repair. Conditions noted are generally related to wear from use or minor deterioration associated with the marine environment.

ARG noted the following damage or deterioration:

- Graffiti at wood siding
- Bowed wood siding board at projecting soffit
- Minor soiling/ debris at clear corrugated roofing
- Localized interior floor damage
- Poor previous repairs at interior floor
- Soiling and peeling paint at windows
- Debris at membrane roofing
- Possible area of poor drainage/water ponding at membrane roofing
- Openings at roof parapet walls
- Deteriorated sealant/ poor previous repair at wall flashings
- Corrosion at edge of standing seam roofing eaves
- Voids at exterior window sills
- Deteriorated sealant at glass enclosed openings near mast
- Concrete curb/site wall damage and bio growth

Joe's Crab Shack

Accessibility Observations: The building is generally compliant. ARG observed no major compliance issues – the parking, path of travel, main entrance, and restrooms appear to be compliant overall, with only minor upgrades anticipated. This is likely due to the current tenant investing in upgrades to the building.

Joe's Crab Shack

Joe's Crab Shack is located at 230 Portofino Way. It is sited along the waterfront at Mole C, near the Seaside Lagoon. It was constructed in 1988 for Joe's Crab Shack, an informal American seafood chain restaurant. The building is roughly rectangular, with 6,635 square feet of commercial space. It is a single-story, wood-framed building, with wood siding covered walls. It has a complex roofline including flat, gabled, and shed roof forms. Flat roofs are covered with a single ply TPO membrane; other areas are covered with standing seam roofing or corrugated sheet metal roofing. Dining spaces face the waterfront and have large expanses of glass; other facades are utilitarian with smaller windows and service door openings. The main entrance is from the parking lot, and includes a projecting gable roof, elevated porch, and accessible ramp. There is also a large outdoor dining patio along the waterfront. The building and interiors are designed in the corporate restaurant chain style, with distressed surfaces to mimic age and cabin or shack-style architecture. The building was previously evaluated in 2015 and determined to have no historical significance.

In general, the building remains in good condition, with the exterior patio being in fair condition. ARG did not observe any structural damage or heavy damage or deterioration that will require immediate repair. Conditions noted are generally related to wear from use or deterioration associated with the marine environment, mostly at the outdoor patio.

ARG noted the following damage or deterioration:

- Roof debris/soiling at flat roofs
- Weathered wood siding and paint loss at patio enclosure walls
- Wood decay and paint loss at service area
- Deteriorated sealant, soiling/salts at window walls
- Stains and corrosion at service entrance/loading dock
- Downspout disconnected from gutter
- Minor ceiling damage at kitchen
- Minor floor damage at outdoor patio
- General wear and tear from use

Downspout disconnected from gutter

Accessibility Observations: The building is generally compliant. ARG observed no major compliance issues – the parking, path of travel, main entrance, and restrooms appear to be compliant overall, and only minor upgrades are anticipated. Like Ruby's, this is likely due to being a national chain that invested in routine accessibility upgrades.

International Boardwalk Public Restrooms

Restroom Evaluation

There are two public restrooms on the boardwalk: one located near the center of Basin 3 ("Restrooms Next to Stairs") and one located at the far south end of the boardwalk ("Restrooms Next to Courtyard"). Each is approximately 225 square feet. The restrooms were evaluated in 2017 as part of a site-wide restroom accessibility assessment. Refer to City of Redondo Beach, Redondo Beach Pier – Accessibility Report (May 2017), prepared by Disability Access Consultants, LLC.

In general, the restrooms have several compliance issues, mostly related to the accessible toilet stalls, location of reflective surfaces (mirrors) and non-compliant accessories (dispensers, grab bars, etc.). The non-compliant items noted in the study had not been corrected as of ARG's October 2021 site visit.

While each of the four (4) restrooms evaluated had an accessible stall, most of the compliance issues were inside these stalls, ranging from non-compliant grab bars to toilet location within the stall.

Materials were not evaluated as part of the 2017 study, and our observations on materials are below. Based on the 2017 photographs, additional material deterioration, such as damage at tile bases and graffiti, has occurred.

Restrooms Near Stairs

Men's Restroom

- Accessible Features: The same compliance issues that were noted in the 2017 are still present, except mirrors having been removed from above the sinks. Since 2017, large, gender-specific signage has been painted on the front wall.
- Materials: In general, the men's restrooms are in fair condition. Most of the material issues are related to general wear and tear for busy public restrooms, and include:
    - Cracks at tile wall
    - Damage at entrance door base and frame base
    - Cracked, mismatched patching material at door base.

International Boardwalk Public Restrooms near courtyard

- Mismatched wall panel in accessible restroom
- Approximately 16-foot-long section of damaged wall with peeling paint
- Missing portion of ceiling covered by vinyl sheet, secured with visible screws
- Crack running through "toe" of coved base, throughout

Women's Restroom

- Accessible features: The same compliance issues that were noted in the 2017 are still present. Since 2017, large, gender-specific signage has been painted on the front wall.
- Materials: In general, the women's restroom is in poor-to-fair Condition. Most of the material issues are related to general wear and tear for busy public restrooms, and include:
  - Large crack and section of missing tile at wall base
  - Water damage observed at ceiling, with several sections of peeling paint
  - Stained, discolored light fixture lenses
  - Heavy damage at base of entrance door frame, including an approximately two-inch-high section of the frame which has completed corroded
  - Missing tile/concrete section under the corroded door frame.
  - Crack running through "toe" of coved base, throughout. Some sealant appears to have been applied to address this crack
  - Graffiti on mirror
  - Large crack in concrete pad outside of restrooms

Restrooms Near Courtyard

Men's Restroom

- Accessible Features: The same compliance issues that were noted in the 2017 are still present, except for the following:
  - Mirrors have been removed from above the sinks
  - Toilet seats are missing in the accessible stall and one other stall
  - Accessibility symbol has been removed from entrance door

International Boardwalk Public Restrooms near stairs

- Since 2017, the entrance doors have been painted, door pulls changed out, and new larger, gender-specific signage painted on the wall that is more visible from the courtyard.

- Materials: In general, the men's restrooms are in fair condition. Most of the material issues are related to general wear and tear for busy public restrooms and include:
  - Loose plaster/damaged portion of ceiling in corner of room
  - Heavy graffiti on the baby changing station
  - Damage at the base of the toilet stall partitions and partition walls throughout
  - Damage/scratches at the bottom of the wall (no base)
  - Stained/dirty concrete floors and dirty ceilings

Women's Restroom

- Accessible features: The same compliance issues that were noted in the 2017 are still present, except for the following:
  - Stainless steel hand dryer has been moved to opposite wall, and a new electric hand dryer/ paper towel dispenser installed
  - The toilet seat is missing in the accessible stall
  - Accessibility symbol has been removed from entrance door
  - Since 2017, the entrance doors have been painted, door pulls changed out, and new larger, gender-specific signage painted on the wall that is more visible from the courtyard

- Materials: In general, the Women's restrooms are in Fair Condition. Most of the material issues are related to general wear and tear for busy public restrooms.
  - Broken mirror (we recommend fixing this as soon as possible since it is a safety concern)
  - Damage at the base of the toilet stall partitions and partition walls (not as heavily damaged as men's restroom) and damage/scratches at the bottom of the wall (no base)
  - Stained/dirty concrete floors and dirty ceilings

4

COMMUNITY PARTICIPATION SUMMARY

Redondo Beach Pier pop-up, photo courtesy SWA Group

King Harbor Amenities Plan timeline

4.1 Community Participation Plan

Summary

Approach

The Community Participation Plan included virtual and in-person outreach methods. This allowed the integration of multiple generations and diverse voices who were interested in participating in this Public Amenities Plan. The community participation was grouped into four key phases:

- Virtual community meetings
- Online surveys
- Pop-up events
- Social Media

Virtual Community Meetings

Community Meeting Summary

The purpose of the first community meeting was to introduce the project and goals to the community. The team delivered a high-level analysis of the waterfront's connectivity and design, and then spoke to all of the key interest areas. As it was not safe to hold an in-person meeting at this time due to the prevalence of Covid-19, SWA facilitated an online webinar to collect community input on preliminary ideas. This included was an interactive survey with questions, polls, and word clouds during the meeting, as well as a live question and answer at the end. The survey was made available prior to and after the meeting for those who could not attend.

After SWA met with the community, the working committee, and the city, Phase 1 survey results were analyzed to create plans of the key interest areas and a draft of the harbor framework. As it was not safe to hold an in-person meeting at this time, due to prevalence of Covid-19, a webinar format was conducted in which participants could choose to voice their opinion or ask questions. Participants could

Redondo Beach Pier pop-up: December 11, 2021

Perry Park pop-up: February 28, 2022

choose to go into one or all three of the breakout rooms discussing boat facilities, parks, or the boardwalk and pier. Concept options were presented and discussed. These were facilitated by SWA members with assistance from the city and Working Committee members.

It was possible to conduct the final meeting in person, but it was also broadcast live from the city council chambers. Those who could not attend in person or who wanted to view it at a later time were able to do so. The meeting discussed the Phase 2 community participation summary, the vision for King Harbor, and the draft recommendations for the key interest areas. The bulk of the time was spent on feedback and community comments. The community was able to speak in person or over Zoom. The feedback was organized by parks and public realm, boating facilities, and harbor connectivity. The meeting concluded with closing remarks.

For all meetings, notes were taken and recorded along with responses in chat functions, to be incorporated within the feedback section.

Community Meeting Dates

- Virtual Meeting #1 via Zoom: December 15, 2021 at 6:00pm-7:30pm with 206 attendees
- Virtual Meeting via #2 via Zoom: March 7, 2022 at 6:00pm-7:30pm with 188 attendees
- Hybrid Meeting #3: May 31, 2022 at Redondo Council Chambers and via Zoom at 6:00pm-8:00pm with an estimated more than 100 in-person attendees

Online Surveys

Summary

There were two surveys created during the outreach process. The first was implemented in Phase 1 during the first community meeting to gauge a general understanding of the harbor and community needs. The second survey was launched during Phase 2 to provide input on the framework plan and concepts of the key interest ares.

Community Survey Dates

- Phase 1 Online Survey: Open from December 21, 2021 - December 20, 2021
- Phase 2 Online Survey: Open from April 1, 2022 - April 17, 2022

Hybrid Meeting #3 at Redondo Council Chambers

Pop-Up Events

Summary

In addition to the community meetings and surveys, SWA conducted a series of pop-up events throughout the plan process to further promote the project and continue to gather community feedback. The purpose of the pop-ups was to provide a hassle-free way to engage for those who would not typically make it out to a community meeting. The events included printed materials and visuals as a means to collect in-person feedback. People were also directed to the website to sign-up for project updates, and to take an online poll.

SWA created colorful surf boards to help attract the community and get them engaged in conversation. The boards showed images of the key interest areas and had open pegs on which to place flags. The community could place flags in spaces they frequently visited, areas that needed improvement, or areas they never visit. They were also able to add comments to the flags. Some people chose to converse with the team rather than placing a flag. Each event lasted at least four hours, resulting in an estimated 230 total responses on flags.

The pier pop-ups occurred both during the week and during the weekend, when spaces are most active with visitors and guests. The goal for hosting four pop-ups at different times and locations was to hear from a diverse group of voices, similar to those who are typical users of the space. By varying the locations of the pop-ups, we saw a wide variety of the community.

Pop-Up Events in Redondo Beach

The four events and locations:

- Pop-Up #1: Veteran's Park Farmers Market, December 2, 2021.
- Pop-Up #2: Redondo Beach Pier, December 11, 2021
- Pop-Up #3: Riviera Village Farmers Market, February 20, 2022
- Pop-Up #4: Perry Park, February 28, 2022

Social Media

Summary

Social media campaigns and an interactive project website were designed and produced by SWA and Murakawa to be implemented for the community participation program. Social media posts promoted surveys, meetings, and

announcements. These were posted to all accounts as well being available on the project website, City platforms, and in local newspapers.

An email account was created to capture input and feedback during the duration of the planning process. Responses were recorded internally and incorporated into the plan.

A mailing list, which was maintained for the duration of the project, was compiled from the website and from those who attended meetings. This was used for e-blasts and communications.

The city also created a video to promote community engagement and publicize upcoming meetings. This was also posted on the website.

Social Media Channels

- Facebook: https://www.facebook.com/KHPublicAmenitiesPlan/
- Twitter: https://twitter.com/harbor_plan?lang=en
- Instagram: https://www.instagram.com/kingharborpap/
- Website: https://www.khamenitiesplan.com/
- Email: KHAmenitiesPlan@Redondo.org
- Mailing list
- Online video

Social media content

Promotional video on website

Outreach Analysis

Survey Feedback Analysis

The surveys were comprised of multiple choice and written responses. All of the written responses were collected and categorized into sub groups in order to establish a ranking system. The synthesis of this data, among feedback from the city and Working Committee, formed the initial concepts. The concepts were then later refined per the community's feedback.

Community Meeting #1: December 15, 2021

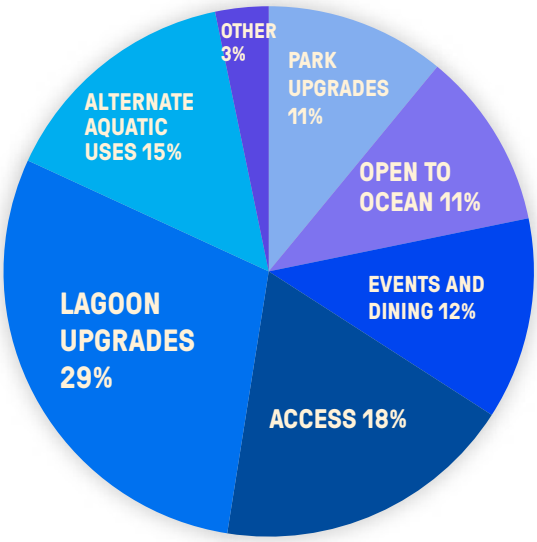
FEEDBACK ANALYSIS TRAIN

1. Community Responses

EXAMPLE RESPONSE

"More events with music, food and beverages. Night time events, after the lagoon is closed, with alcohol and music (no swimming.) Get a new vendor in the Ruby's building asap."

2. Synthesizing Data



3. Exploring Concepts

4. Refining Plans

Planning and design process at SWA's Los Angeles office, photo courtesy SWA Group

Redondo Beach Pier pop-up: December 11, 2021

4.2 Phase #1 Survey Summary

Survey #1 Summary — Launch & Listen

Summary of Survey

Community input was collected during the Phase 1 pop-up events and the first online community meeting, as well as via the online survey.

The questions that were asked in Survey 1 were developed with project consultants, the Working Committee, and the City. The goal was to start with a broad understanding of the current uses of the site and begin to explore future improvements to the existing amenities and opportunities for new amenities within the harbor. Questions were kept open-ended to encourage the community to provide candid feedback.

The Phase 1 survey included a total of 615 survey responses.

General Harbor Questions

What amenities are missing from King Harbor?

Of the top 12 of 35 response categories, this is what we heard were the top missing amenities at King Harbor:

1ST	Restrooms and Showers
2ND	Dining and Shopping
3RD	Boat Launch
4TH	Dinghy Dock
5TH	Cohesive Walkways and Parking
6TH	Green Space and Gathering Space
7TH	Dog Park and Dog Walking
8TH	Educational Center and Resources
9TH	Concerts, Events, and Entertainment
10TH	Bike Lanes and Parking
11TH	Dry Boat Storage
12TH	Seating

The remaining 23 response categories had eight or fewer survey respondents.

What are your primary reasons for visiting King Harbor?

Of the 12 category responses, this is what we heard were the primary reasons for visiting King Harbor:

1ST Marina Recreation
2ND Dining, Shopping, and Bars
3RD Exercise, Recreation, Walk, Run, and Cycle
4TH Socializing and Taking Visitors
5TH Events and Entertainment
6TH Views and the Beach
7TH Fishing
8TH Work
9TH Park and Open Space
10TH Proximity to Home
11th Local Charm
12th Curiosity

What best describes you? How far away do you live? How often do you visit the Harbor?

There were a variety of respondents. Half identified as local, with about 37 percent living in or within one mile of the harbor. About 79 percent of respondents reported visiting the harbor a few times per month or more.

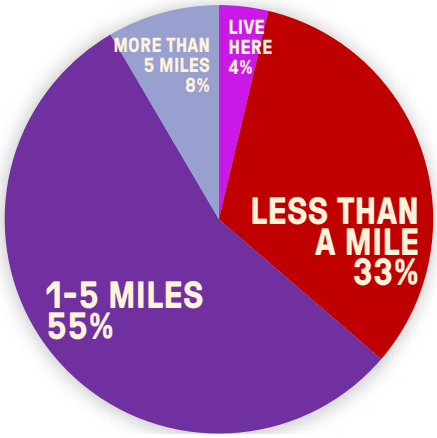
Key Interest Area Questions

Summary of Key Interest Area Questions

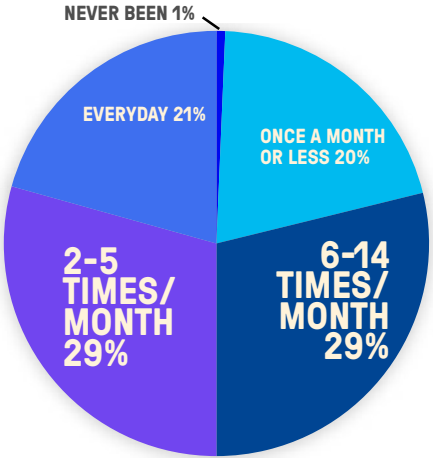
The diagrams on the following pages will focus on individual key interest areas in more detail.

Q . What best described you?

Q. How far away do you live?

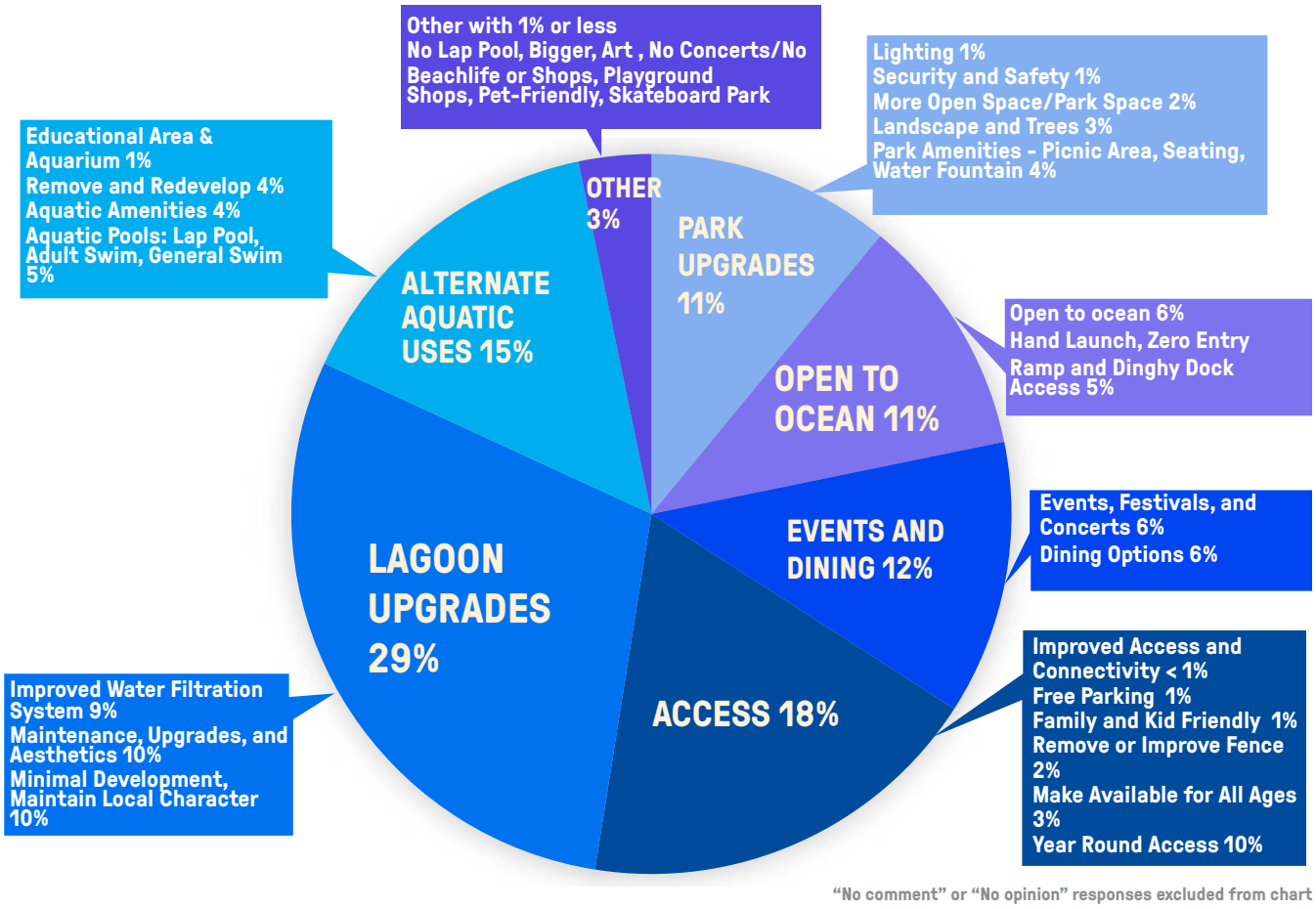


Q. How often do you visit the Harbor?



SEASIDE LAGOON

Question: What improvements would you like to see (626 responses)?



"No comment" or "No opinion" responses excluded from chart

Summary of Responses

Existing Usage

When asked about current usage of Seaside Lagoon, 35 percent of respondents listed events, festivals and concerts as their primary reason for visiting. Sixteen percent have never been and 11 percent mentioned swimming at the beach.

Improvements

About a third of the survey respondents noted that they would like to keep a lagoon structure at Seaside Lagoon. This included maintenance and upgrades with a desire to maintain the local character of the space. This was compared to the 15 percent of respondents who wanted to see the removal of the lagoon with new aquatic amenities. Amenities mentioned included lap pools, wave pools, adult swim or general swim opportunities, slides, and splash pads. Park upgrades accounted for 11 percent with a desire for more open space, landscape and tree, and picnic space.

Accessibility was very important, with 10 percent requesting year round access and 3 percent noting the amenities should be available for all ages.

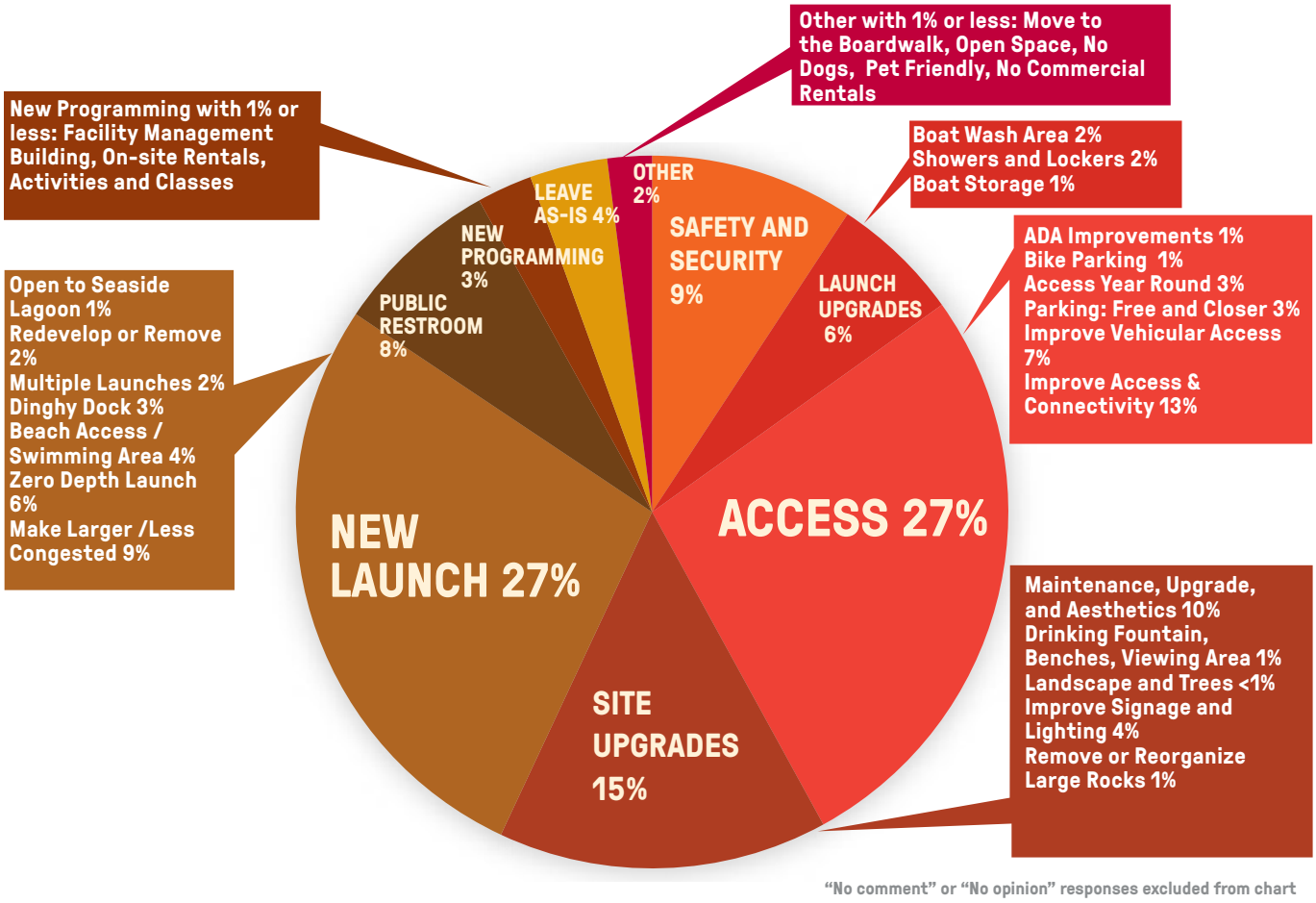
About 12 percent of the respondents indicated that they would like to continue to see concerts and events at Seaside Lagoon while providing new dining options

Informing the Design

The design began to consider aquatic amenities versus lagoon amenities with an inclusion of public open space for the next round of surveys. The concepts acknowledged year-round access, dining options, and accommodation for future events and concerts.

HAND LAUNCH

Question: What improvements would you like to see (196 responses)?



"No comment" or "No opinion" responses excluded from chart

Summary of Responses

Existing Usage

Nearly a third of the survey respondents don't use the Hand Launch. About 27 percent are paddleboard users, followed by kayakers (18 percent).

Improvements

Around 27 percent of survey respondents noted that a new launch was necessary. In addition, safety and security were priorities. New amenities mentioned included a boat wash area, showers, and lockers.

Accessibility was given similar value to that reported for a new launch amenity. In particular, improved access and connectivity. Additional access requests listed ADA improvements, parking improvements with closer options, free or cheaper options, and vehicular access. As the current launch is not always open due to maintenance and operational issues, it was requested that the launch be available year-round.

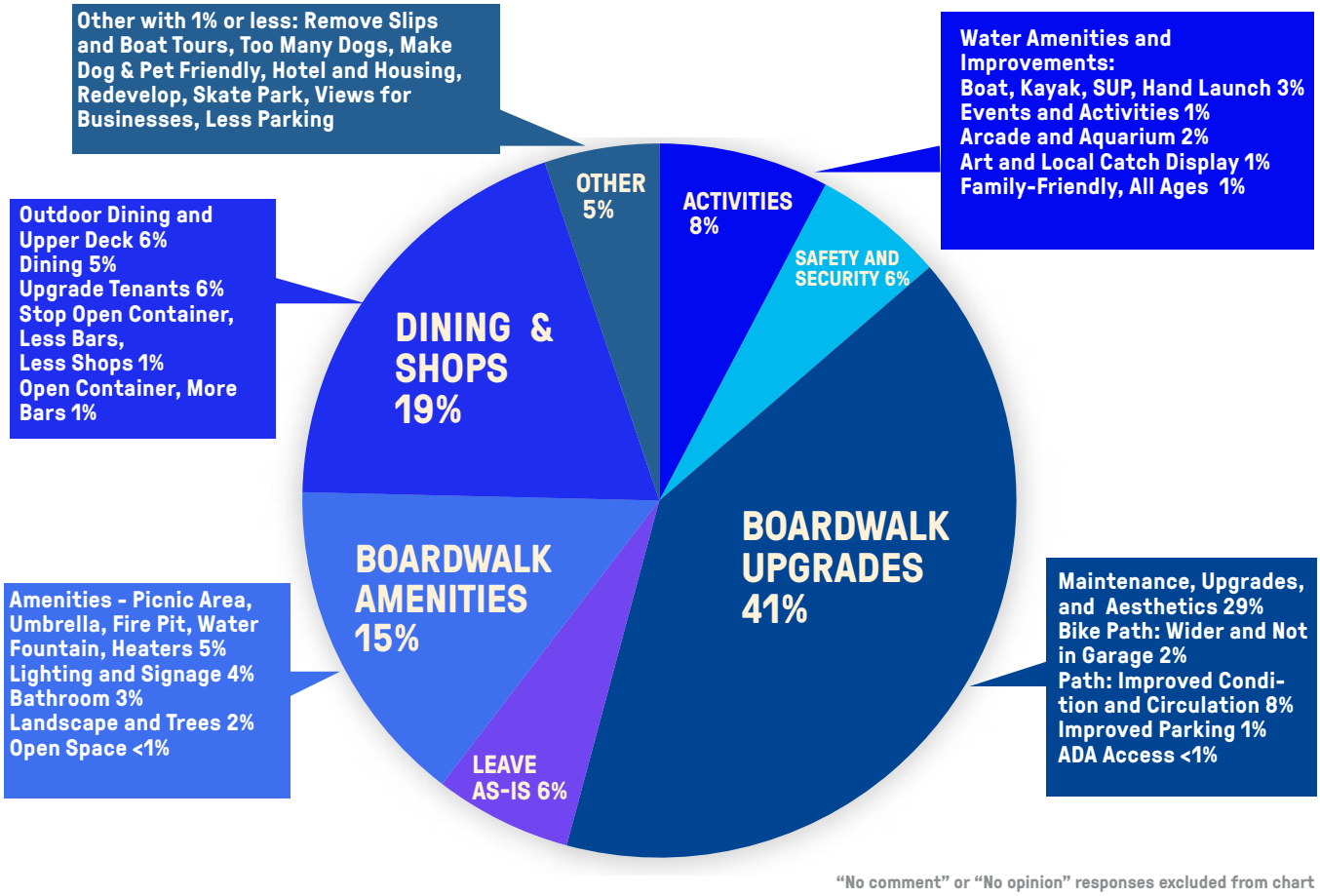
About 8 percent of respondents indicated that they would like to see a public restroom nearby.

Informing the Design

The design began to consider incorporating a zero-depth entry launch with an ADA path with a floating dock. A sandy beach and swimming was considered, with stepped seating for views. Access was improved via the addition of a direct path from the parking lot through the existing Seaside Lagoon. A restroom was located nearby. Additional amenities, like a boat wash area, were incorporated.

INTERNATIONAL BOARDWALK

Question: What improvements would you like to see? 753 Responses



"No comment" or "No opinion" responses excluded from chart

Summary of Responses

Existing Usage

More than half of the survey respondents utilize the International Boardwalk for dining, bars, shoppings and entertainment. About 29 percent use this space for walking, biking, exercise, or relaxing.

Improvements

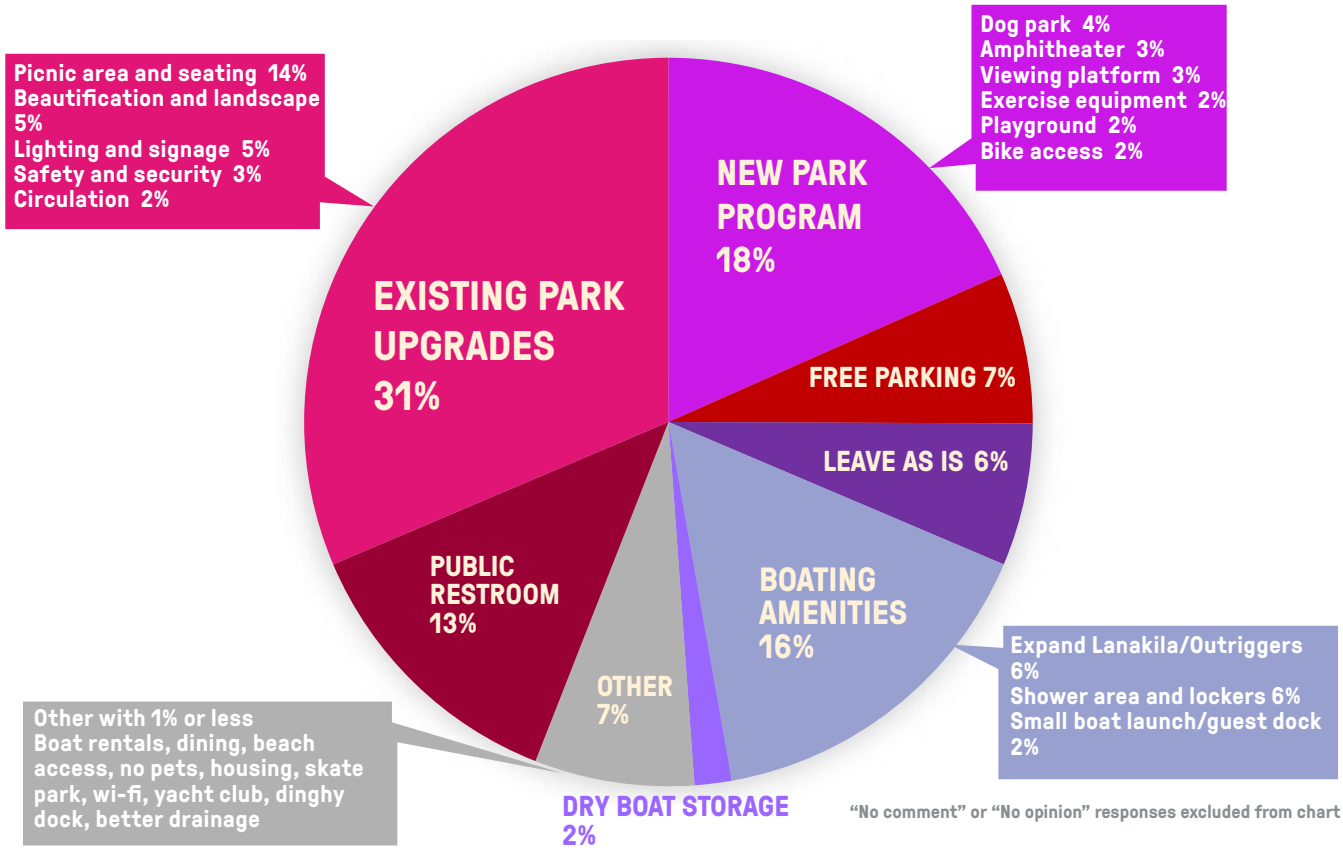
Boardwalk upgrades and additional amenities were a clear area of improvement among the respondents, at 56 percent. Boardwalk amenities and upgrades include maintenance, improved circulation, picnic areas, lighting and signage, bathroom upgrades, and more greenery. About 19 percent referenced dining, the importance of a variety of operators, and creating a permanent upper deck dining program. An additional 6 percent wanted to leave the space as it. Less than 5 percent of respondents listed new development.

Informing the Design

The design was informed by the overwhelming consensus to leave the infrastructure. but incorporate major upgrades like paving and materiality. Many people mentioned the existing local character and the importance of retaining and enhancing it. The upper deck space was converted to permanent upper deck dining, with improved circulation at the stairs.

MOONSTONE PARK

Question: What improvements would you like to see? 649 Responses



Summary of Responses

Existing Usage

A quarter of survey respondents did not know that Moonstone Park was available to the public. About 20 percent of the respondents utilize the park for the outrigger clubs, and 60 percent utilize the park space.

Improvements

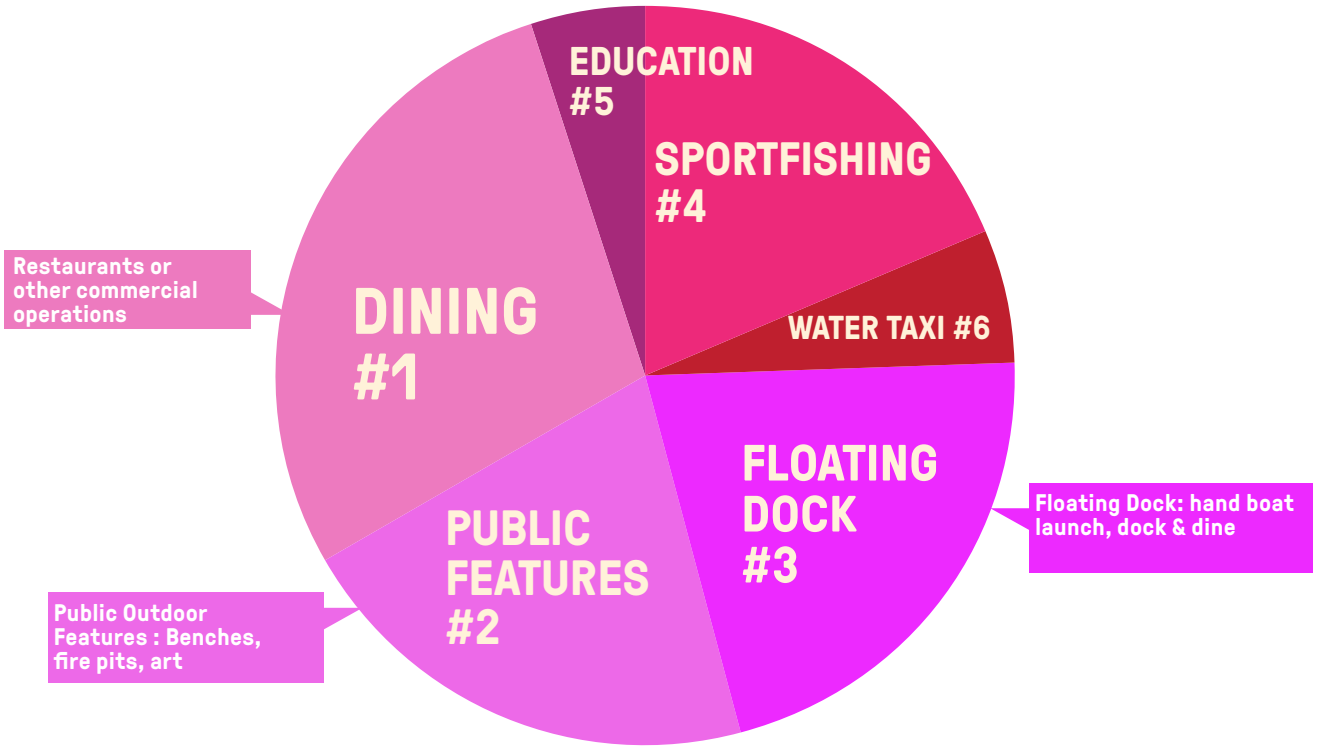
About half of the respondents want to see existing park upgrades or new park program implemented at Moonstone Park. This includes picnic areas and seating, landscape, lighting and signage, safety, a viewing platform, an amphitheater, a dog park, exercise equipment, a playground, and bike access. About 16 percent noted boating amenities, such as expanding the outrigger club space, showers and lockers, and an improved small boat launch. Thirteen percent mentioned a public bathroom.

Informing the Design

Several options were explored to accommodate users of the site. The green space remained in all options, but the remaining space was evaluated as additional green space, additional space for the outrigger clubs, and as additional storage space. All options incorporated a viewing deck, improved vegetation, and increased seating opportunities.

SPORTFISHING PIER

Question: What improvements would you like to see? 496 Responses



"No comment" or "No opinion" responses excluded from chart

Summary of Responses

Existing Usage

As the existing pier is closed, respondents were not surveyed on its usage.

Improvements

Dining was the primary improvement to a new Short Pier when the survey respondents were asked to rank the six amenities. Public features was ranked second, followed by a floating dock, sportfishing, an educational space, and a water taxi.

Informing the Design

The design considered the existing infrastructure and ways it could be leveraged to enhance user experience. New dining options were placed, with stepped seating elements; a small lawn was created for open space and public features. Fishing was located on the western edge of the pier, along with locations for dinghies and boats to pull up and dock.

Perry Park pop-up, photo courtesy SWA Group

Pop-Up #3: Riviera Village Farmers Market, February 20, 2022

4.3 Phase #2 Survey Summary

Survey #2 — Explore & Synthesize

Summary of Survey

The second survey was launched during Phase 2 to solicit input on a refined framework plan and concepts for the key interest ares. The Phase 2 survey included a total of 720 survey responses. The count of respondents increased by 15 percent from first the survey. About 53 percent identified as residents and 20 percent as visitors. Visitor feedback increased by 6 percent from the first survey.

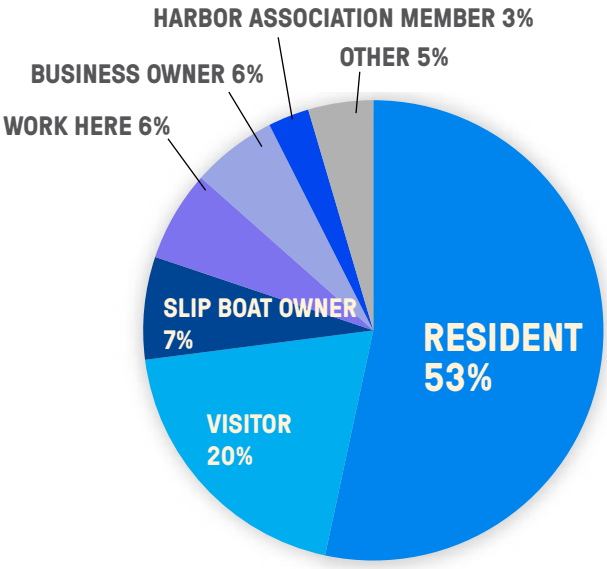
Key Interest Area Questions

Summary of Key Interest Area Questions

When asked about circulation and framework approaches, an average of 80 percent of respondents agreed with all or most components, while an average of 10 percent were undecided. When asked about key interest areas, an average of 79 percent agreed with all or most components, an average of 13 percent were undecided.

The diagrams on the following pages will focus on the individual key interest areas in more detail.

Q . What best describes you?



PEDESTRIAN PATHS

Summary of Responses

Support and Top Improvements

About 80 percent of respondents support all of some of the improvements to the pedestrian paths. Eleven percent were undecided.

Additional Written Responses

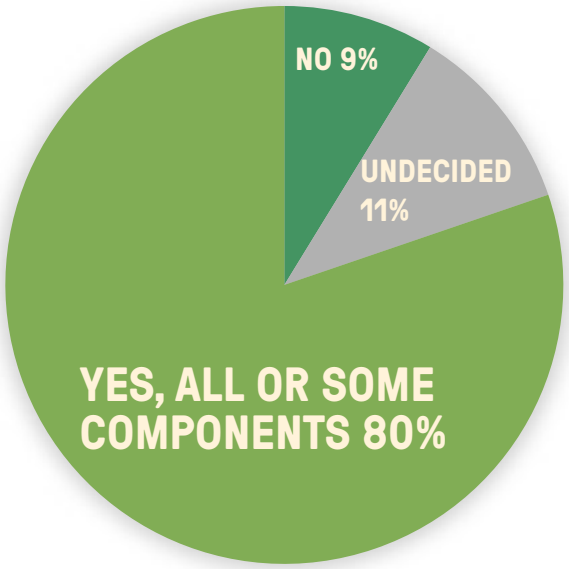
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Art; no path encroachment at Mole B near outrigger clubs; bike and pedestrian separation; wider paths; safety with skateboarders; signage; littering fines; pedestrians and bicycles restricted to Harbor drive until north of Yacht Club Way; ADA compliant/wheelchair friendly for views; “short cut” through to Monstaadt Pier; better entrance to Czuleger Park; connections to Hermosa Beach or inland towards Catalina; interior connections to waterfront paths at Portofino Way; straight paths; footbridge to Basin 3; a pedestrian loop; no cobblestone; consideration of king tides; separation between pedestrians and trailered boats; improved security gates with more foot traffic at marinas; trash/recycling containers that are fully covered; dog-friendly and fishing areas.

Informing the Design

The plan prioritized a balance between pedestrians, bicyclists, and boaters by keeping lanes separated and safe.

Q: Do you support this approach to improving pedestrian paths?



WATERFRONT NODES

Summary of Responses

Support for Improvements

Waterfront nodes received the highest support of the connectivity components, with 84 percent of respondents supporting all of some of the improvements to the bike lanes. Seven percent were undecided.

Additional Written Responses

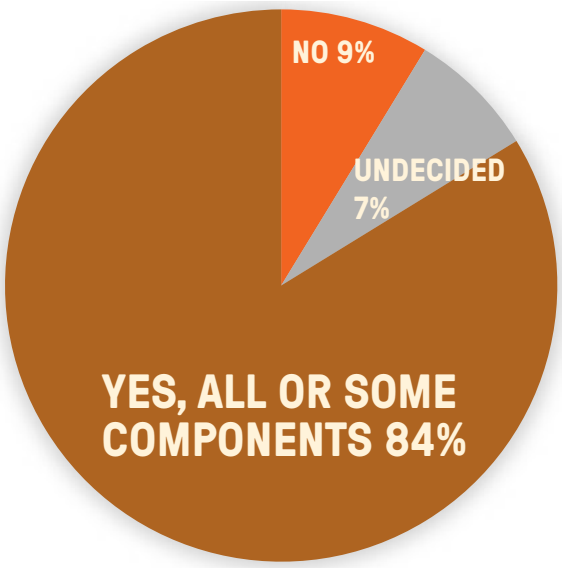
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Tree placement and concerns with breezes; views and tideland areas; utilizing native plants and natural materials; water conservation; palm trees for clear views; lighting to not impact vessel navigational; caps on top of lights to reduce light pollution; pathways to remain smooth; accent paving being ocean life oriented; art pieces; grass "turnouts" for dogs; fishing; play structures; water fountains and hand washing; trash and recycling at each node; views; "shade sails"; separate pedestrians at boat launch; walkways not interfering with slip leases; wider paths; clarification on how nodes connect to paths; ADA compliant; removal of outdated signs; only one node north and south of the boat launch ramp; and concerns with transient population on benches.

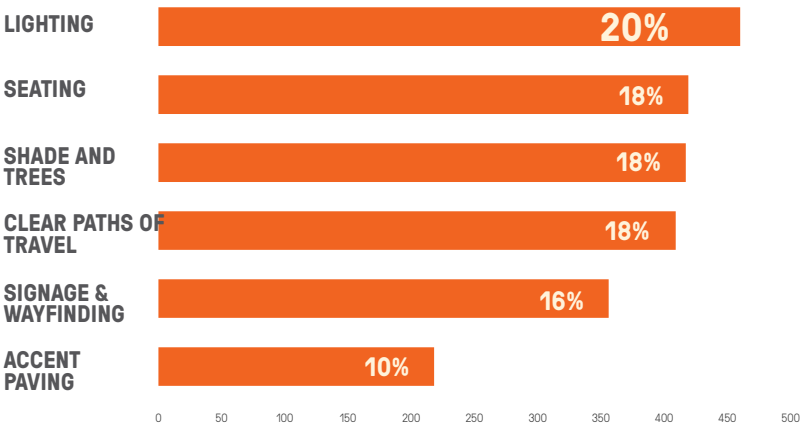
Informing the Design

- The responses were generally in favor of the nodes. The design developed spaced that were artful, but not too cluttered, with attention to materiality, vegetation, and the coastal environment.

Q: Do you support this approach for waterfront nodes?



Q: What features would you like to see for waterfront gathering spaces (waterfront nodes)? (Select all that apply)



BIKE PATHS

Summary of Responses

Support for Improvements

About 78 percent of respondents support all of some of the improvements to the bike lanes. Ten percent were undecided.

Additional Written Responses

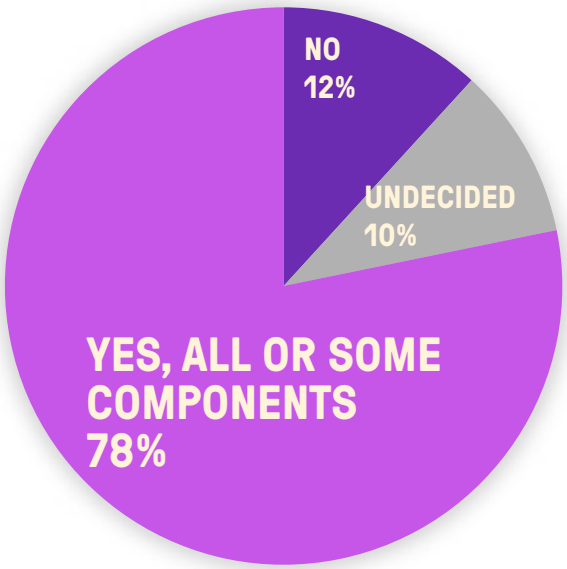
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Keep lanes separated; less cross over from pedestrians through bike lanes; bike hubs to fill tires; define what is at each hub; balance the right amount of hubs; re-evaluate route under parking structure; concerns with dotted lane bike sharrow; the need for adequate space for a separated bike lane along Portofino Way and to the Short Pier; bicycle paths to avoid interferences with boater access to their boats; neighborhood connections and connections to The Strand; improvement at Captain Kidd's paths; reduction in proposed lanes; and speed limits for e-bikes, e-skateboards, etc.

Informing the Design

The bike plan evolved to establish a better balance among pedestrians, bicyclists, and boaters. The lanes were simplified and sharrows replaced some bike lane striping. The bike hubs were reviewed to balance their quantities and locations.

Q: Do you support this approach to improving bicycle connections?



SIGNAGE AND WAYFINDING

Summary of Responses

Support for Improvements

Pedestrian directional signage was ranked as the top signage improvement at the harbor followed by enhanced water safety and monumental and landmark signage.

Additional Written Responses

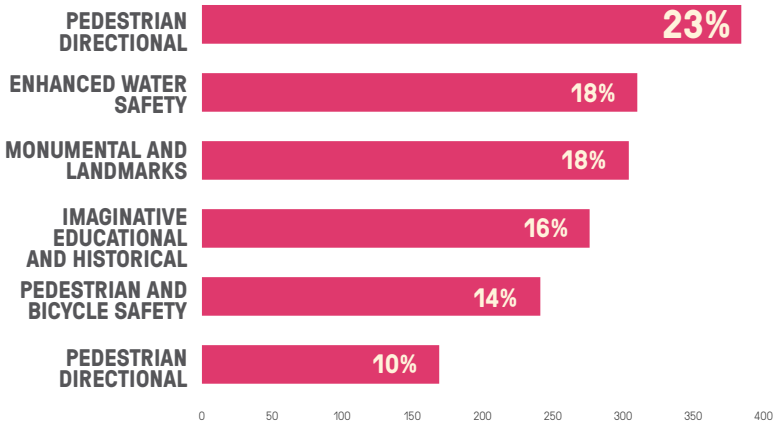
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Digital lighting; landmarks to provide history; educational elements about: sea life; water pollution; red tides; local wildlife; natural features; etc.; use of apps; murals; simple signage; less clutter on signage; fewer signs; signage that does not block views; consistent design theme; entertaining signs; QR code readers; text size; style; and color specific to indicate important points of interest and safety info; material that discourages graffiti; concerns with operating kiosk and costs; signage at Catalina and PCH; signs for littering fines; water usage and distances to amenities; and walks for tour groups.

Informing the Design

Signage evolved to prioritize safety for all user groups. Keeping signage consistent throughout the harbor and balancing art and technology were considered, while being cautious of clutter.

Q: What improvements would you like to see to Signage & Wayfinding? (Select all that apply)



SEASIDE LAGOON

Summary of Responses

Support and Top Improvements

There was a split preference on concept preference. Concept 1 had slightly higher support with 34 percent of respondents followed by Concept 2 and 3 both at 26 percent. Lagoon upgrades were ranked the highest requested feature at 18 percent.

Additional Written Responses

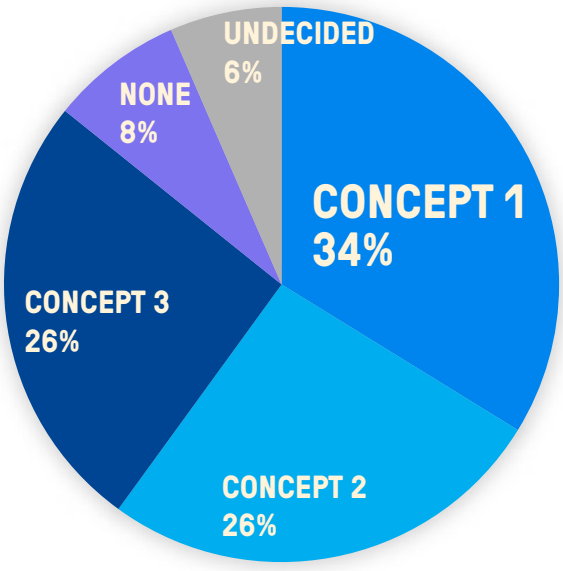
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Sun shades; parking lot converted into lagoon; jacuzzis; pools for swim and water polo clubs; more grass near shallow water; educational center away from the water; market hall; indoor/outdoor restaurant with two levels for views; playgrounds; redeveloped Ruby's and On the Rocks; maintained sandy beach saltwater experience; concerns with lawn sustainability; maintained Measure C and coastal dependent amenities; and efficient beach space around the water.

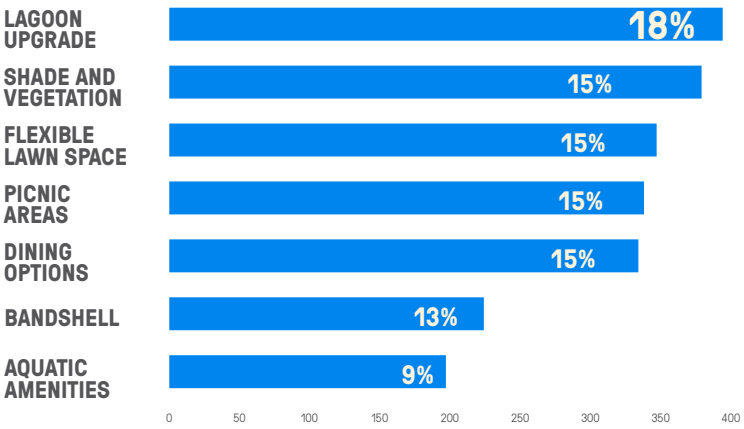
Informing the Design

The design evolved to incorporate the slight preference to concept 1 with a flexible lap pool while with providing enough space with the reduced lagoon/aquatic option.

Q: Which preliminary concepts for Seaside Lagoon do you support? (Select all that apply)



Q: What features would you like to see at the Seaside Lagoon? (Select all that apply)



Concept 1: Lagoon Upgrade & Great Lawn 34%

Concept 2: Aquatic Park & Great Lawn **26%**

Concept 3: Hybrid Aquatic/Lagoon Expansion & Linear Park **26%**

HAND LAUNCH

Summary of Responses

Support and Top Improvements

About 74 percent of respondents support all of some of the improvements at the Hand Launch. Fifteen percent were undecided. When asked to rank specific improvements, a zero-depth entry was ranked highest, followed by vehicular access, a boat wash, ADA accessibility, and a protected viewing area, all equally ranked.

Additional Written Responses

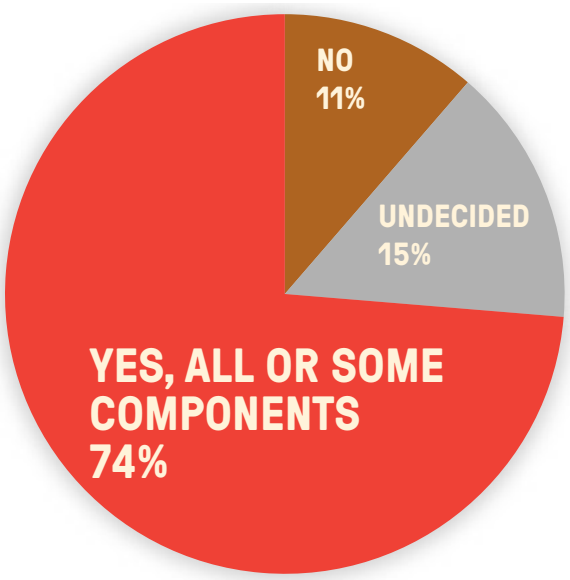
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Vehicular versus no vehicular access; ADA parking; concerns with path bifurcation through Seaside Lagoon; concerns with terraced seating; cart rentals versus no cart rentals; cost of rentals; dog area; sandy beach erosion; lockers; rentals; wash; accommodating small sailboats, outrigger canoes, paddle crafts, and small boats (14 feet or less); enforcement and regulation; fishing wire receptacles; and trash cans on the dock.

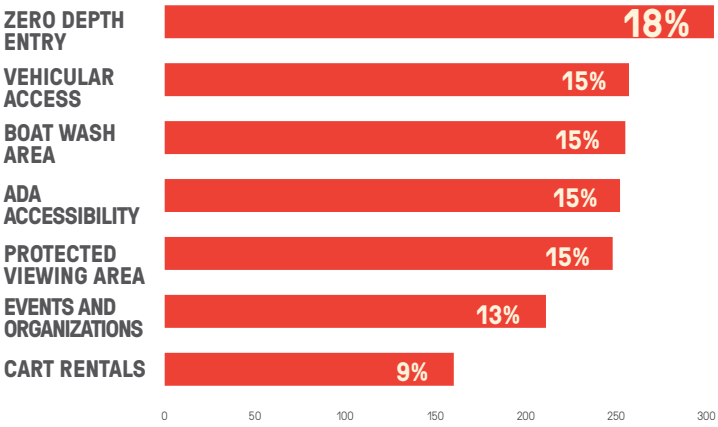
Informing the Design

The existing Hand Launch design continued to evolve, with consideration for split views on cart rentals for paddlecrafts and car access. Due to pedestrian safety, a pedestrian only path was pursued. Concerns about beached entry, ADA access, and terraced seating were addressed in the final plan.

Q: Do you support the proposed improvements to the Hand Launch?



Q: What features would you like to see at the Hand Launch? (Select all that apply)



SPORTFISHING PIER

Summary of Responses

Support and Top Improvements

About 78 percent of respondents support all or some of the improvements at Sportfishing Pier. Ten percent were undecided. When asked to rank specific improvements, restaurants/cafes and lighting and security ranked the highest followed by dock and dine.

Additional Written Responses

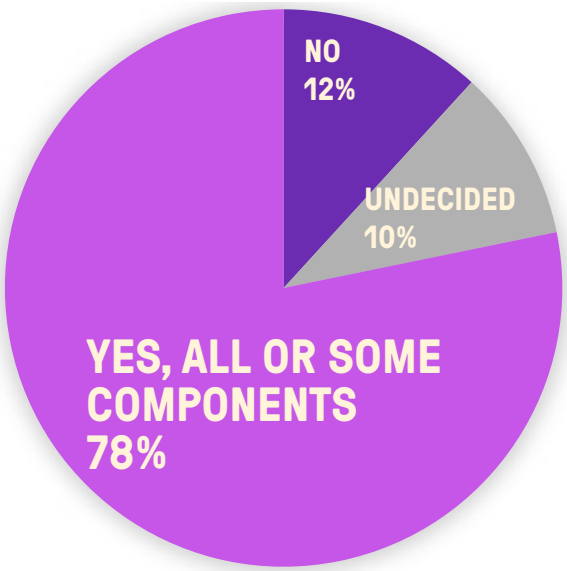
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Preference to keep versus exclude fishing; lack of fish in the area; removal of informational kiosk idea; dinghy dock and dock-and-dine; safe haven for kayaking and SUP from wakes; more dock space; supervision to control access/ traffic; restrooms; small aquarium or other educational feature instead of lawn; rename the pier; consideration of damage from storms; money from tourists; remove the pier; signage that says "don't consume certain wildlife"; pier extension; more trees versus no trees in Tidelands or on the pier; lawn space vs. no lawn space; and avoid lighting interference.

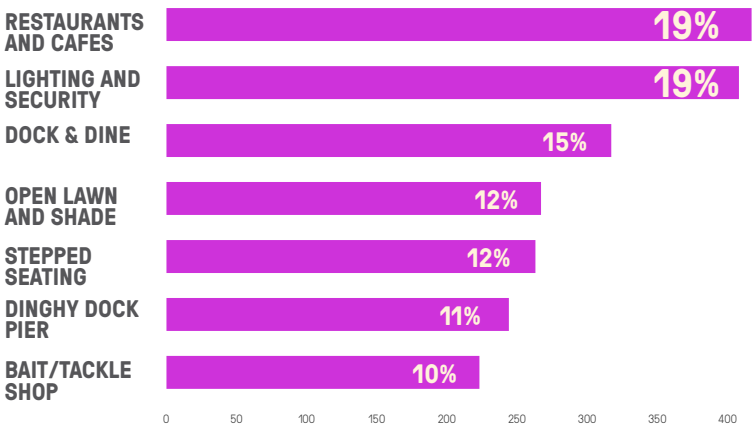
Informing the Design

The design continues to evolve from the first phase to address greater preference toward removing fishing at edge of the dock and preference for more spaces for dock-and-dine.

Q: Do you support the proposed Sportfishing Pier replacement concept?



Q: What features would you like to see at a new Sportfishing Pier (Select all that apply)



PUBLIC BOAT LAUNCH

Summary of Responses

Support and Top Improvements

There was a significant preference for a boat launch that utilized the Beryl Street entrance (Mole D Entry Drive exit). The community expressed great interest in keeping Captain Kidd's at its current location. Public restrooms were the top priority for new features at the proposed boat launch.

Additional Written Responses

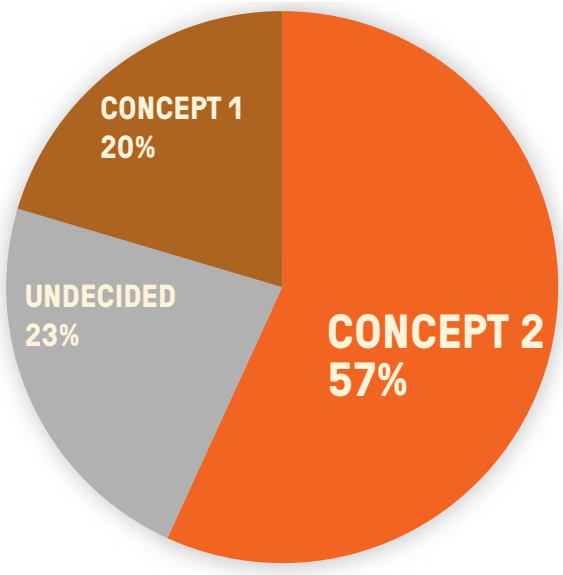
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Bifurcating Mole C and D concerns; Mole D Entry Drive entrance instead of Beryl Street; wave concerns; traffic concerns; removal of Short Pier; location near yacht club area; reservation system; protection of views; water quality with wash and engine flush; pedestrian concerns at launch; concerns with bikes at trailer entrances; and entrance fees.

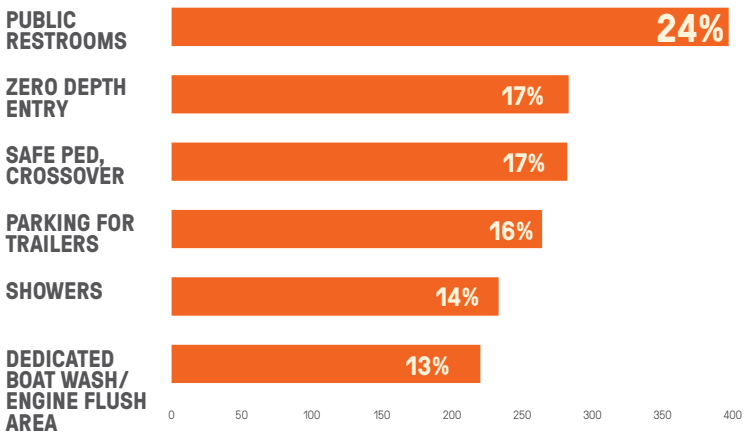
Informing the Design

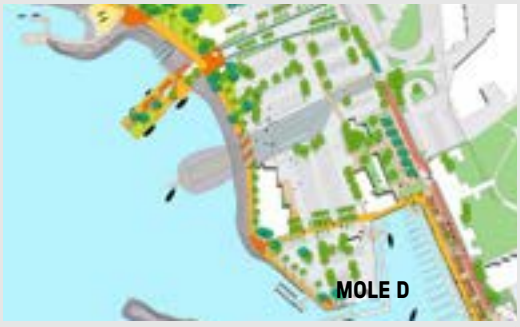
With the strong preference to keep Captain Kidd's, the plan continued with Concept 2, exploring ingress and egress options for trailers. Regardless of the survey results, zero-depth entry and wash down areas would be required and incorporated within the boat launch.

Q: Which entrance concept for the Public Boat Launch do you support? (Select all that apply)

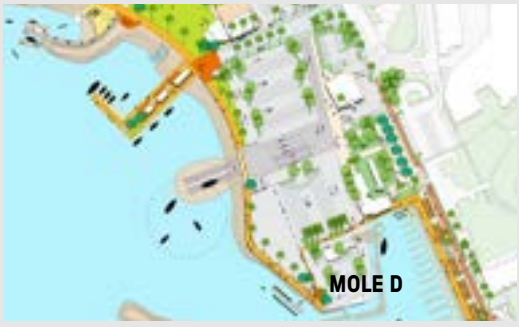


Q: What features would you like to see at a new Public Boat Launch? (Select all that apply)





Concept 1: Pacific Ave Entrance, Harbor Dr. Exit **20%**



Concept 2: Beryl St. Entrance, Harbor Dr. Exit **57%**

EXISTING BOAT HOIST

Summary of Responses

Support for Improvements

Of the 25 percent of respondents who use the boat hoist, 48 percent stated that they would continue to use the existing boat hoist or use both the boat hoist and the new launch.

Additional Written Responses

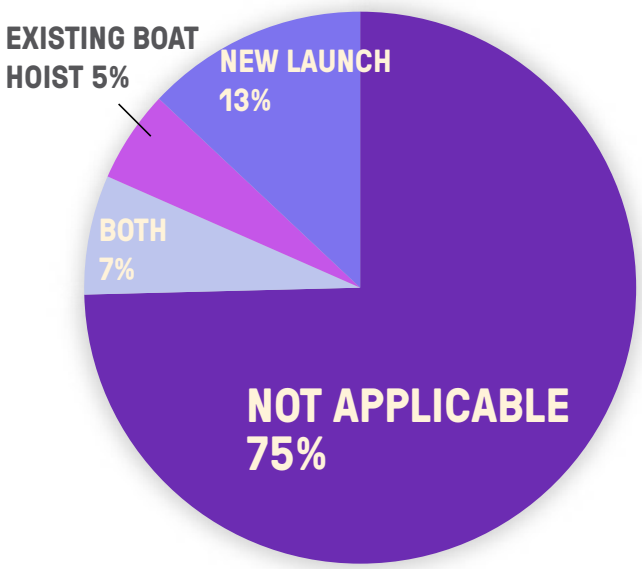
Survey respondents had the opportunity to address additional amenities or improvements. not mentioned in the survey. These included:

- Better for elderly and disabled; the hoist allows trailer to stay out of saltwater; backlog option for launch; slow through-put; expensive; an eye-sore; costly to maintain; requires staffing and has size/weight and time limitations; can be beneficial in emergent cases of a vessel taking on water; removed hoist could be used for transient dock-and-dining; boaters and marinas to share the cost of any upgrades; current hoist needs replacement; and need for a larger, more modern hoist standard using present-day materials.

Informing the Design

As nearly half of the respondents who use the boat hoist would continue to do so, the plan kept the hoist while managing circulation with a new boat launch.

Q: If you are a current user of the Boat Hoist, would you primarily use the New Public Boat Launch, the Existing Boat Hoist, or both?



DINGHY DOCK

Summary of Responses

Support and Top Improvements

Several locations have been evaluated for dinghy dock potential. All of the options had similar support from the survey respondents with Location 3 – at the new Short Pier (24 percent) and Location 1 – near the proposed boat launch (23 percent) being slightly higher followed by Location 2 - Expansion of existing excursion launch (19 percent). The preferred improvements at Dinghy Dock were connections to waterfront paths (22 percent) followed by public restrooms (20 percent) and dock and dine (20 percent).

Additional Written Responses

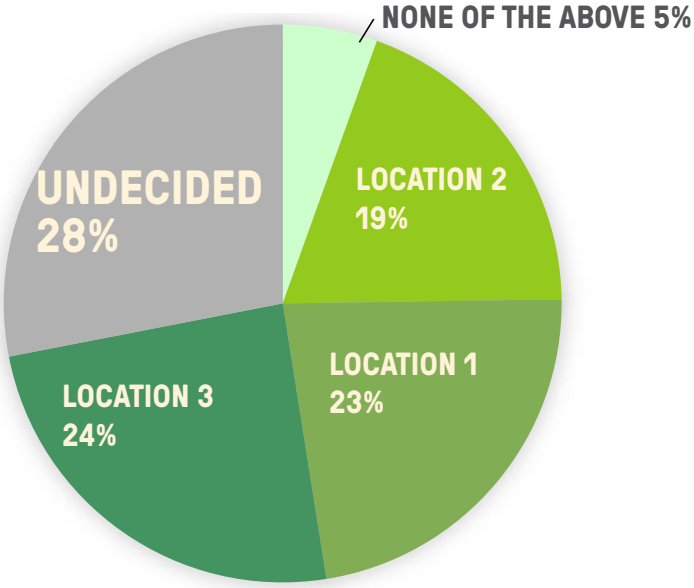
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Near dining; create a slip in Basin 3; locate at northern end of the marina; locate at R10 restaurant; remove Short Pier and replace with dinghy docks; avoid interactions with the boats coming off both the launch ramp and hoist; concerns with boaters entering/ leaving mouth of marina; issues with collision from boats launching; security cameras needed; support boats up to 23 feet; guest docks; make launch bigger for tie up; and ADA access.

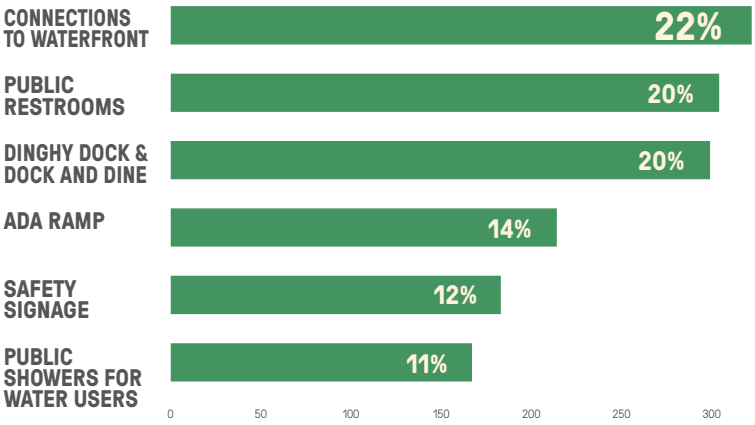
Informing the Design

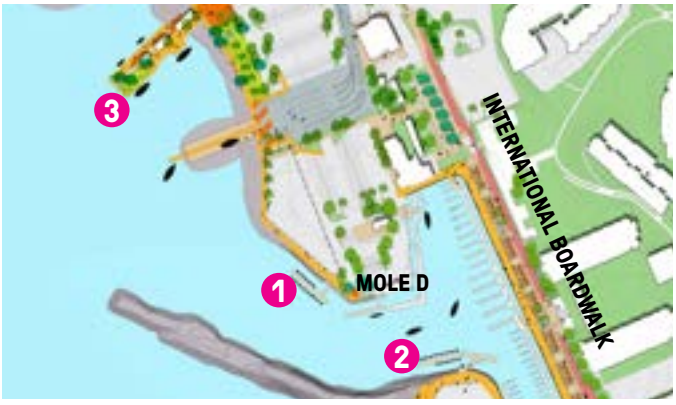
- There was a preference for multiple locations, all of which were assessed and found to be generally equally viable and supported. There was a slight priority towards the Short Pier location, but concerns about water traffic and the potential to add boat slips removed this location from consideration.

Q: Which location for the Dinghy Dock do you support? (Select all the apply)



Q: What features would you like to see at a new Dinghy Dock? (Select all that apply)





INTERNATIONAL BOARDWALK

Summary of Responses

Support and Top Improvements

International Boardwalk received the highest support of the key interest areas, with 85 percent of respondents supporting all or some of the improvements. Ten percent were undecided. When asked to rank specific improvements, improved paths and renovated restrooms were the highest.

Additional Written Responses

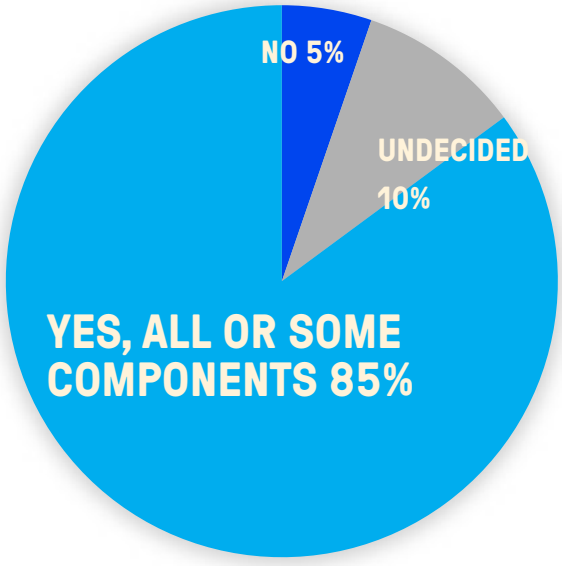
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Security and patrol; dog amenities; option to be dog friendly versus continuing no dog access; elevator Improvements; sustainability; dock and dine; upper deck dining with views; a markethall; noise control in residential areas; keeping historic pieces to be reused if the harbor gets remodeled; use of recycled material; removal of unkempt and derelict boats; improvement issues with parking garages; bike racks; better access between levels; ADA ramp; clearer separation of pedestrian and bikes; littering fees; and bright arrows on the ground.

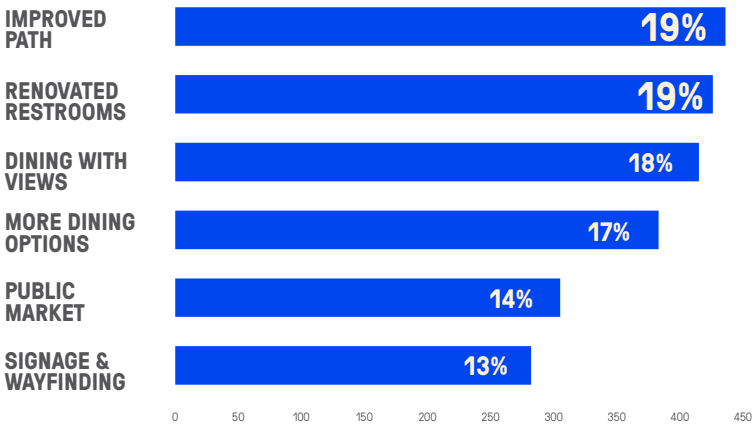
Informing the Design

The design continued to evolve from the first phase to incorporate designated upper deck dining spaces and public spaces, improved bathrooms, a clear delineation of bike and pedestrians, improved circulation, and exploration of sea-level rise mitigation options.

Q: Do you support the proposed improvements at International Boardwalk?



Q: What improvements would you like to see at International Boardwalk? (Select all that apply)



MOONSTONE PARK

Summary of Responses

Support and Top Improvements

Many iterations of Moonstone Park have been explored to accommodate the users. Concept 1, Enhancing the Existing Park, received 38 percent preference from the respondents, followed by Concept 4, New Public Hand Launch & Outrigger Club at 25 percent. Public restrooms (17 percent) were ranked as the top feature to incorporate at Moonstone Park, followed by the open lawn (16 percent) and seating (16 percent).

Additional Written Responses

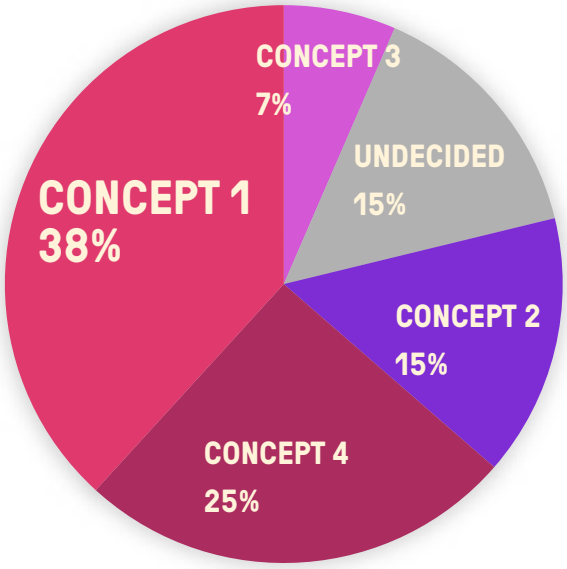
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- Sustainability; water usage concerns; amphitheater steps; community center building or small classrooms; educational opportunities; historical signage; dog friendly vs. existing no dog policy; a guest dock; storage with locker room; gated area; uncluttered green space; and annual passes for parking.

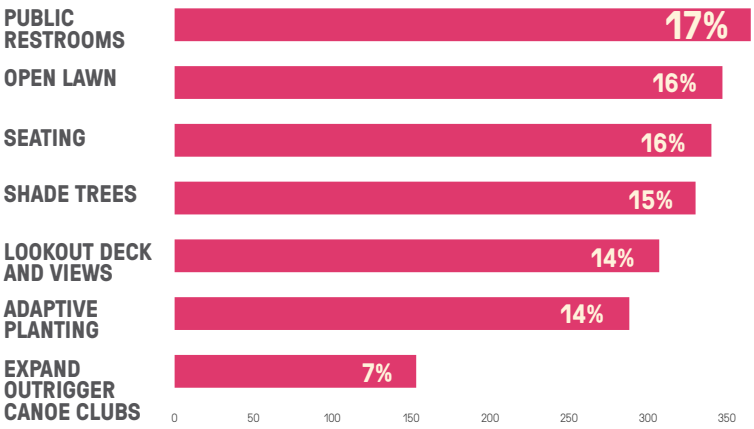
Informing the Design

The preference to enhance the existing park was coupled with the desire to slightly expand the outrigger clubs. The restroom was located west so as not to interfere with outrigger clubs.

Q: Which preliminary concepts for Moonstone Park do you support? (Select all that apply)



Q: What features would you like to see at Moonstone Park? (Select all that apply)



Preliminary Concept 1 | *Enhanced Existing Park* **38%**

Preliminary Concept 2 | *Enhanced Park with Outrigger Club Expansion* **15%**

Preliminary Concept 3 | *Minimal Park with Dry Boat Storage* **7%**

Preliminary Concept 4 | *New Public Hand Launch & Outrigger Club Expansion* **25%**

PUBLIC DRY BOAT STORAGE

Summary of Responses

Location and Type

One quarter of survey respondents were undecided about a location for dry boat storage within the harbor, followed by 18 percent off site or 16 percent for none at all. Moles C and D had similar percentages of 17 percent and 14 percent respectively. When asked about the type of storage between kayak, SUP and sailboats, the percentage breakout was 23 percent, 23%, and 19 percent, respectively.

Additional Written Responses

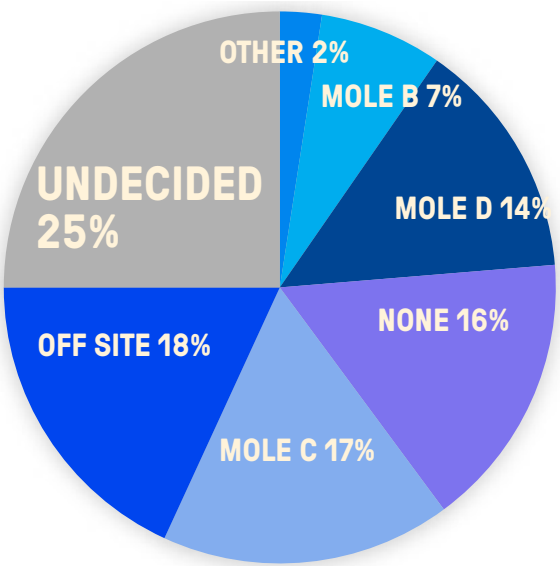
Survey respondents had the opportunity to address additional amenities or improvements not mentioned in the survey. These included:

- ADA access; mast-up sailboats in the harbor as they are hard to carry; utilizing several sites; the need to address additional vessels like surfski; small sail boats; row boats; whalers, rentals, and powerboats; removal of restaurants along Harbor Drive for storage; indoor and lockable storage, and avoid blocking views of the water or restaurants

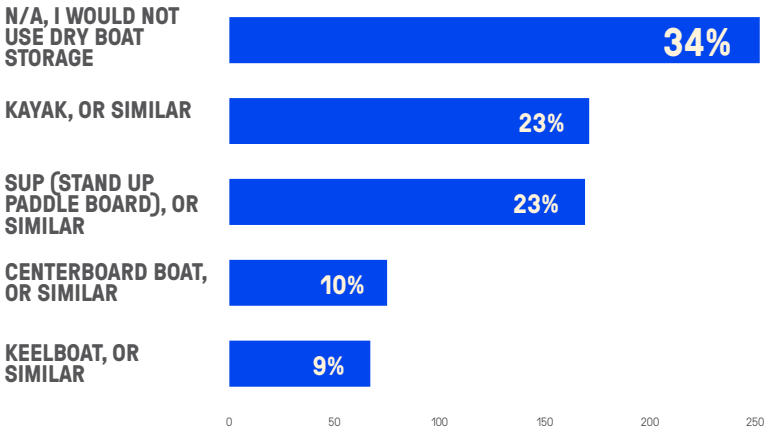
Informing the Design

Three locations were highlighted as potential public storage options if storage is pursued within the future.

Q: In regards to Dry Boat Storage, please indicate your preference below. (Select all that apply)



Q: If there were storage at King Harbor, which type of Dry Boat Storage would you like to see? (Select all that apply)?

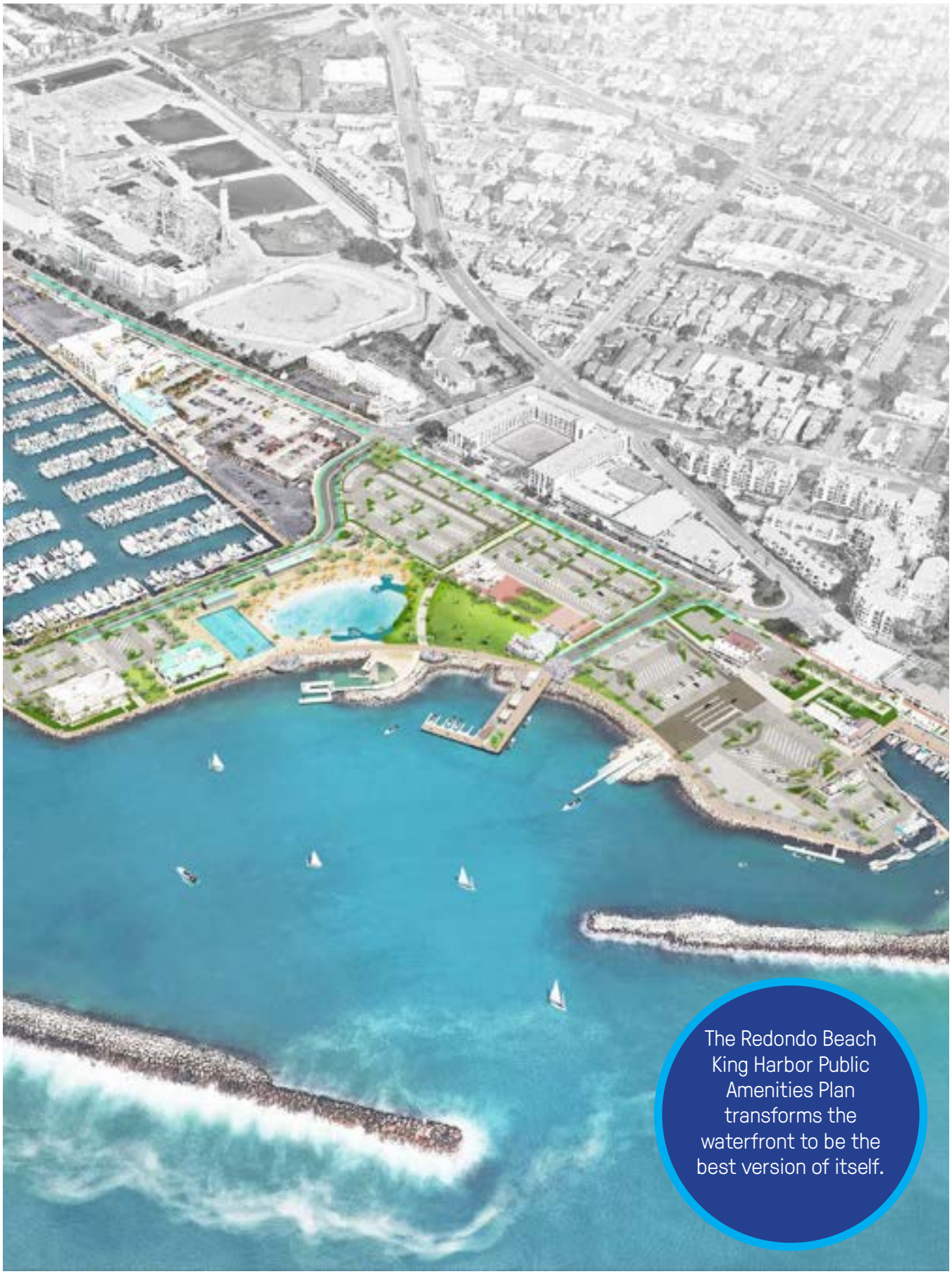


Other: AES in the future, previous Gold's Gym location or On the Rocks

5

KING HARBOR PUBLIC AMENITIES PLAN

CONNECTIVITY FRAMEWORK



King Harbor Public Amenities Plan vision

King Harbor Public Amenities Plan vision

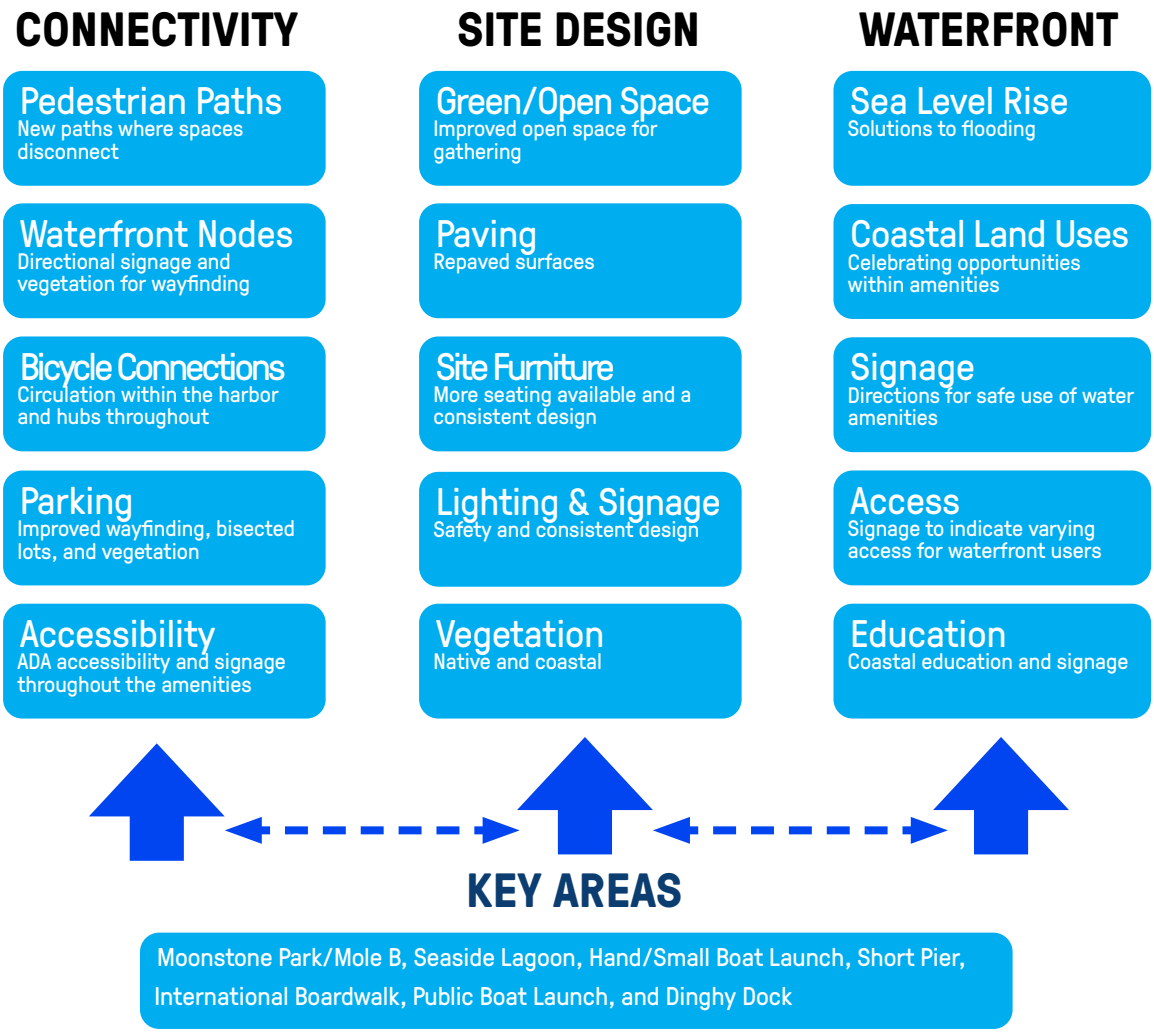
5.1 King Harbor Public Amenities Plan

A New Vision for King Harbor

Project Goals

There is consensus among the community to modernize the King Harbor Redondo Beach Waterfront in a way that is sensitive to its history and enhances the experience for residents and visitors. The King Harbor Public Amenities Plan seeks to accomplish the following:

1. **Make King Harbor the best version of itself:** It is recognized that King Harbor is a special place. There are many different micro-communities that make the harbor what it is. The goal of the Amenities Plan is to embrace and carry forward the local character of the harbor throughout the plan.
2. **Improve access to the waterfront:** Access to the waterfront is integral to the plan. Whether it be for boat use or to simply view the harbor, wayfinding and paths help direct visitors to the water
3. **Provide a cohesive pedestrian experience:** The vision is to establish the harbor as a destination encompassing individual key interest areas. By improving connectivity between these amenities, the visitors' experience will be greatly improved.
4. **Develop key interest areas:** The existing and proposed key interest areas were analyzed to identify the community's need for improvements or additions as the plan develops. This approach helps to prioritize what should be rebuilt/renovated.
5. **Maintain and expand open space:** Maintaining open space ensures places of respite and flexibility for events and programming. There is a priority to provide a variety of open or gathering spaces that allow visitors to enjoy nature and the coastal environment.
6. **Upgrade aesthetics:** Upgraded site design elements such as paving, vegetation, seating, and lighting will create thoughtfully designed, cohesive spaces that



Framework organization

support the identity of the individual amenities.

7. **Connect to nature:** Maintaining views and improving connections to the water ensures places of respite for those visiting the harbor. The connection to nature is both on land and in water, so both environments deserve to be enhanced.
8. **Promote sustainability:** Whenever possible, sustainable efforts should be researched and applied to future developments within the harbor. Efforts include, but are not limited to, sustainable materials, native plant research, reuse of materials, recycled water and water reuse, and waste reduction.

Design Framework

To create the Amenities Plan, a shared framework of elements was developed. These elements include connectivity, site design, and waterfront. Each of these framework elements were developed to influence the holistic approach of the Amenities Plan as well as to influence the design of key interest areas within the harbor.

Public Amenities Plan Organization

The first part of the King Harbor Public Amenities Plan will review the connectivity framework that works to provide a cohesive identity for King Harbor. The second portion of the plan will more closely examine the key interest areas with a focus on the site design and waterfront framework. Although viewed in two sections, all three framework elements must work together to create a successful plan.

CHARACTER ZONES

Waterfront character inspiration

5.2 Character Zones

Formation of Character Zones

What is a Character Zone?

Character zones focus on the way an area looks and feels and how it functions, instead of solely relying on its existing land use. Applying development strategies to character zones in King Harbor can preserve existing areas and help others function better and become more attractive. Zones can help the harbor become more identifiable, navigable, and successful.

Overview

Character zones in the harbor were identified based on their program and amenities. Guidelines for these zones help create the identity of the space while considering the general guidelines established for the cohesive harbor design.

Key Zones

Five Character Zones

The five character zones within the scope of the project are: King Harbor Hub, educational, commercial, natural, and coastal. The zones help shape and influence the overall connectivity of the harbor — and all connect back to the waterfront promenade.

Development

The zones were established early on in the planning process. Through establishment of the connectivity plans and key interest areas, the zones were further refined with identifying features. The look and feel of these zones will be further described in Section 6 after a review of the overall harbor criteria.

OVERALL CONNECTIVITY

Long Beach shoreline, Long Beach, CA

5.3 Overall Connectivity

Framework Recommendations

Creating a Connected Waterfront

There is a need and opportunity in King Harbor to create a pedestrian and bicycle experience that provides safe and active connections to the Redondo Beach Waterfront. The overall circulation recommendations provide:

1. A continuous or waterfront promenade, with a defined character and additional interior paths for improved connections
2. Improved pedestrian and bicycle pathways from Harbor Drive to the King Harbor Waterfront Promenade
3. More pedestrian gathering spaces (nodes)
4. Improved connections and facilities for bicycles

Connectivity Framework

Improvements to the site circulation and connectivity experience at King Harbor are proposed in three key categories. The circulation recommendations in the following pages include:

Pedestrian Paths

Improvements to existing and proposed pedestrian paths, and new paths where spaces disconnect

Waterfront Nodes

Improvements to new waterfront nodes (gathering spaces)

Bicycle Connections

Improvements to bicycle connections and bicycle amenities

Parking lots comprise a signification portion of hardscape at King Harbor. The ways in which each of these elements connect to the parking lot will also be considered: specifically, potential wayfinding improvements and opportunities to bisect parking lots with pedestrian paths.

ADA accessibility will also by top-of-mind for improvement at the waterfront for both existing improvements and future paths. Accessibility will also be encouraged at all future amenities.

PEDESTRIAN PATHS

Example of waterfront promenade

Example of interior path

5.4 Pedestrian Paths

Pedestrian Paths Recommendations

The King Harbor Waterfront Promenade

The King Harbor Waterfront Promenade will provide a clear visual waterfront experience for pedestrians. Proper signage and visual cues will establish cohesion. The promenade can start at the Horseshoe Pier or International Boardwalk and wrap around, creating one continuous waterfront journey all the way through Moonstone Park. This introduces a branding opportunity with an emphasis on exercise and healthy lifestyle. The promenade could be known as the "Waterfront Harbor Miler." The path considers the Portofino Hotel, boat hoist, and outrigger clubs in Moonstone Park, and wraps around these spaces. The plan recognizes that the Basin 2 waterfront promenade is shared with access to leased slips. Improvements and promotion of waterfront promenade usage in Basin 2 should take protection of these entrances or improved security gates into account.

Interior Path

Interior paths play a crucial role in the connectivity of King Harbor, and will ensure that there is clear pedestrian circulation at any point along the harbor. The new and updated interior paths will include new paving, widened paths, planted buffers, trees, and lighting. Generally, pedestrian paths are provided where parking lots span over 300 feet of distance, or where key amenities need improved access. New interior paths were developed where "desire lines" occur, or where pedestrians currently take shortcuts.

Safety Separation

The harbor is a space for boaters, pedestrians and bicyclists, where all groups can safely cohabitate. In order to establish balance among the three, lane separation or signage should be considered at crossroads.

ADA Accessibility

ADA accessibility upgrades are required throughout the waterfront. ADA-accessible paths are incorporated along the entire harbor waterfront promenade. Additional ADA requirements may require ramps at some marina path stairs, including the waterfront connection at Joe's Crab Shack.

Pedestrian Connections

Neighborhood connections should be further studied to consider pedestrian connections like east of Harbor Drive, to Czuleger Park, north to Hermosa Beach, and south to the Horseshoe Pier.

Character of the Pedestrian Paths

The look and feel, or materiality, of the paths is described in more detail in Section 6.

WATERFRONT NODES

Example of a waterfront node

5.5 Waterfront Nodes

Waterfront Nodes Recommendations

Waterfront Nodes

Waterfront nodes provide breaks along the waterfront promenade or where key paths intersect. These are locations where amenities are grouped to help activate and define a vibrant pedestrian environment. These areas can serve a variety of programs — for example, an area of respite when walking, a space for intimate music performers, a staging space for watercrafts, an intimate space for gathering, a viewing space, and more.

Connection to Paths

Nodes should seamlessly connect both to the waterfront promenade and to pedestrian paths. Hardscape should change or blend between the two so that node thresholds are clear.

Improvements

Each node can have variations in amenities and themes. Node improvements could include any combination of the following:

- Accent paving
- Benches or amphitheater seating
- Shade sail or trees
- A break in the path to stop & gather
- Lighting
- Vibrant planting
- Educational opportunities that may be interactive
- Signage and wayfinding for that particular node
- Grass “turnouts” for dogs
- Water fountains
- Trash receptacles
- Viewing points including spaces for children or elderly to see over the breakwall
- Sustainable or natural materials
- Central art pieces
- Fishing

After: A new vision and experience at the waterfront nodes after design interventions

1. Accent paving
2. Planting
3. Benches and amphitheater seating
4. Informational kiosk and educational signage
5. Trees and shade
6. Pedestrian lighting
7. Open space
8. Connection to pathways

Before: Existing waterfront node before design interventions

Waterfront node locations

Waterfront Node Identity

Establishing Placemaking Spaces

Each node presents an opportunity for a unique name and identity for variation in amenities. Most nodes are existing, but need to be enhanced and recognized. The following locations and branding are recommended:

1. **Moonstone Park Node:** Created as an extension to Moonstone Park, this node can incorporate natural vegetation and seating to the existing paved space.
2. **Portofino Node:** This existing node could be enhanced with seating opportunities, or potentially expanded in the future for a bigger footprint.
3. **Educational Node:** Depending on the future program of the education facility, this new node can serve as an extension. For example, it could be used as an overlook, a connection to water, or a learning space that relates to the particular coastal program.
4. **Launch Node**: Located near the Hand Launch, this existing space can be used for staging paddlecrafts or as a space for water amenities liker racks, cart rentals for paddlecrafts, or washdown areas. Pedestrian amenities, such as a lookout space and/or seating, can also be coupled at this space so that it serves both boaters and pedestrians.
5. **Harbor Hub Node**: This node will be the primary pedestrian entrance into the harbor. The space should remain open and inviting. Artful installations should be considered here along with seating.
6. **Dinghy Dock Node**: Located near the proposed boat launch and dinghy dock, this node should provide seating opportunities for those visiting from their dinghies or those who want to relax after taking their boat out of the water.

Character of the Waterfront Nodes

The look and feel, or materiality, of the waterfront nodes is described in more detail in Section 6.

BICYCLE CONNECTIONS

Separated bike lane

Bike repair station

5.6 Bicycle Connections

Bicycle Loop

King Harbor Loop

The King Harbor Bike Loop will provide much-needed bicycle connections within the harbor. The loop will provide additional points of entry for bicyclists riding along Harbor Drive to bring these visitors directly to the public amenities in the harbor. A bicyclist may enter through the new designated bike routes that will lead to bike hubs for dismounting. The goal is to reduce traffic conflicts and promote safety.

The bicycle connections are added near main pedestrian routes, although they are omitted from the waterfront for pedestrian safety.

Bicycle Lane Considerations

Proposed Bike Hub

Bike hubs, which provide additional areas for bicyclists to dismount and enjoy the harbor on foot, could include bike parking and bike repair stations.

Bicycle Safety

Bike lanes should be separated from pedestrians via either paving or physical barriers for less pedestrian crossover through bike lanes. Additional striping at the intersections of Harbor Drive and both Portofino Way and Marina Way may be needed, along with vehicular barriers so that cars do not turn into the Harbor Drive bike lanes. Mitigation measures should be the same throughout the harbor to avoid confusion.

Electric Bikes

Residents have expressed concerns about electric bikes and safety for pedestrians. Speed limits for electric bikes should be considered and enforced.

Bike Share

The City of Redondo Beach can work with South Bay Cities Council of Governments on a waterfront bike share program for the harbor if there is interest from the community.

Bicycle Connections

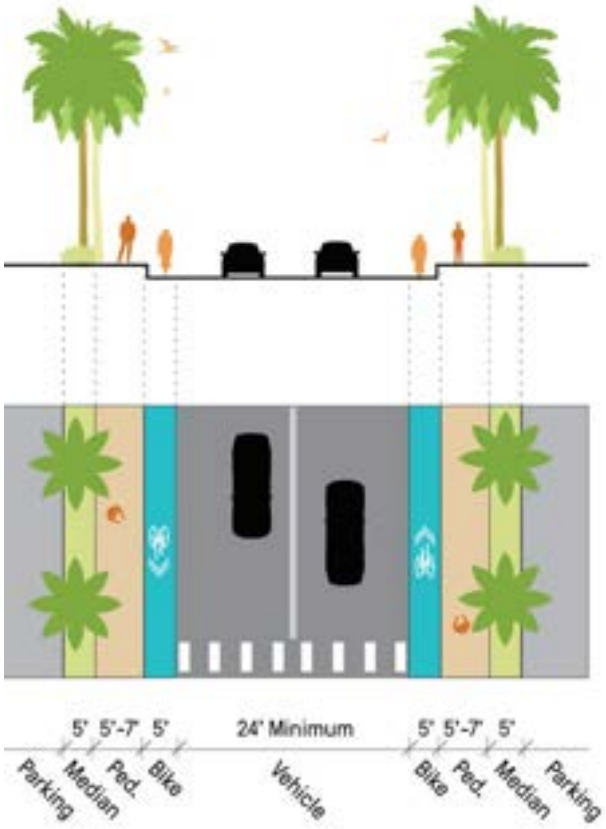
Neighborhood connections should also be further studied to consider bicycle connections to nearby streets and to The Strand to the north. An overall city-wide bicycle network review is recommended.

Bicycle Path Types

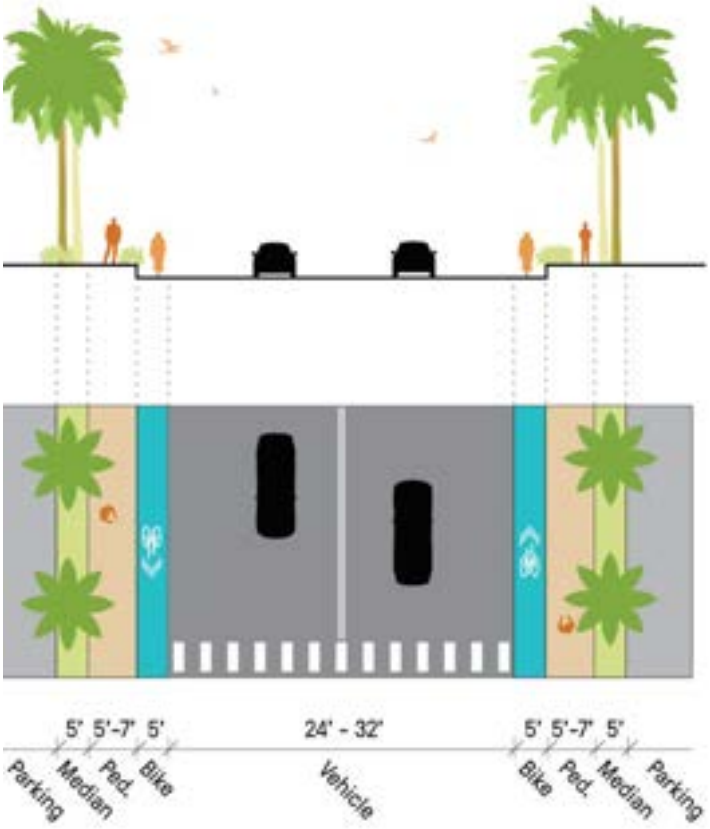
The two types of routes being introduced are Class II and Class III bike paths.

Character of Bicycle Routes

The look and feel, or materiality, of the paths is described in more detail in Section 6.



Bike lanes through Mole D Entry Drive

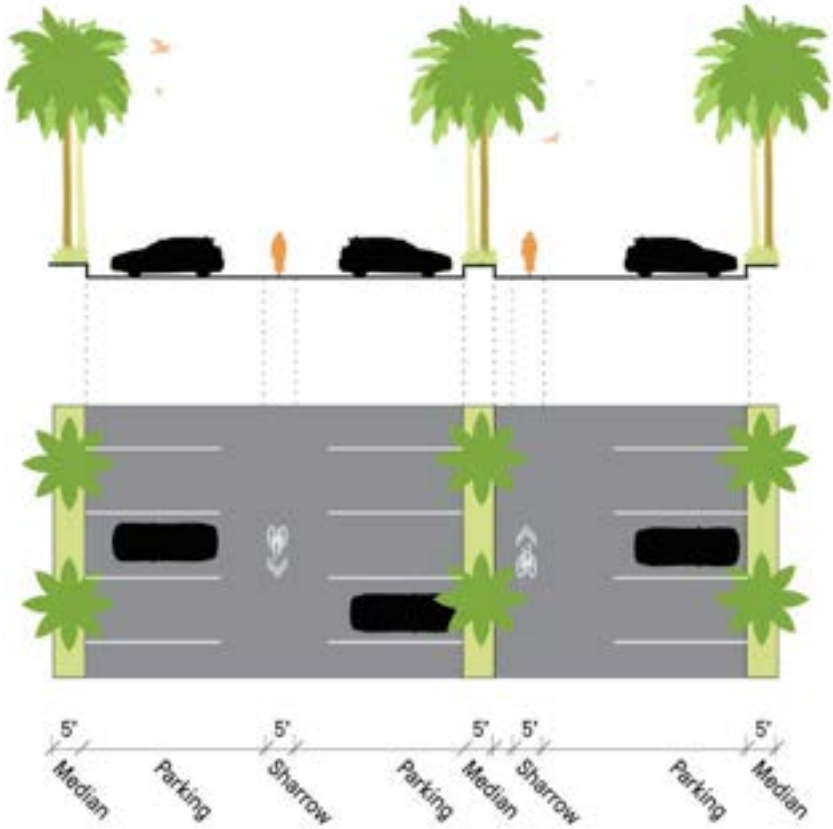


Bike lanes through Portofino Way

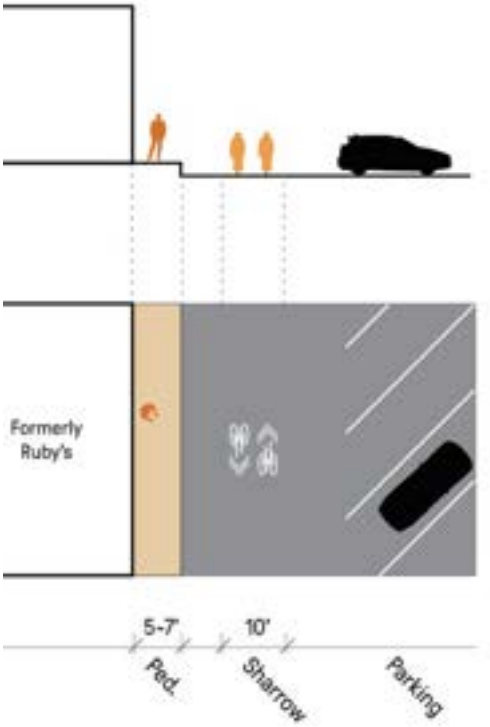
Class II lane example

Bike Lane (Class II)

The Class II Bike Lane will include a dedicated bike lane for bicyclists. This plan proposes a new dedicated path at Portofino Way and Mole D Entry Drive. Bike lanes are one-way facilities, striped adjacent to motor traffic traveling in the same direction. The striping can be accompanied by colored concrete to increase awareness of the bike lane. Following the same color currently seen on Harbor Drive is recommended for consistency. Portofino Way may have enough width to create two lanes; Mole D Entry Drive would need to be slightly expanded in order to incorporate two lanes.



Bike route through Marina Way parking lot



Bike route through Seaside Lagoon parking lot

Sharrow example

Bike Sharrow (Class III)

This denotes areas where markings will be included to identify shared use by bicyclists and vehicles. This will occur on Marina Way and through the Seaside Lagoon parking lot. Class III bikeways designate the preferred route through the parking lot through sharrow markings without a designated bike lane striping. This is essentially a non-dedicated bike lane indicative of the best place to ride, which will also alert car drivers that bicycles may be riding through the area. Without the marking, motorists will have less indication of where to expect bicyclists.

SIGNAGE & WAYFINDING

Vehicular directional

Pedestrian directional

Information/Educational

Boating signage

Safety and use signage

Monumental pedestrian signage

Murals

Technology

Concept imagery for design intent only

5.7 Signage & Wayfinding

Signage & Wayfinding Recommendations

Signage Framework

Signage and wayfinding is essential for waterfront connectivity. These elements can be used in spaces that need more direction and clarity, or as an art and educational tool. Signage can vary in scope and size; however, the style should be consistent with a cohesive design theme. The signs should be simple and free of clutter. The goal is to enhance rather than overwhelm the site with signs, and to avoid blocking views.

Types of Signage

- Vehicular directional: Vehicular signage should be located at the primary entrances of Marina Way, Portofino Way, and Mole D Entry Drive to assist with parking and wayfinding to the Harbor.
- Pedestrian directional: Pedestrian signage can help those walking through the site understand where amenities are located.
- Informational/Educational Signage: Educational signage can be located at waterfront nodes to highlight the harbor's history, local wildlife and sea life, water pollution, etc.
- Boating Signage: This signage will provide directions and hours of operation for the hand and boat launches.
- Safety and Use Signage: This signage will describe safety measures and best practices for the Hand Launch, boat launch, and dinghy docks.
- Monumental Pedestrian Signage: Overhead monumental signage can be used as a gateway element to highlight public amenities or major connections, such as the International Boardwalk or connections from Horseshoe Pier.
- Murals: Murals can be located on existing and proposed facades.
- Technology: The plan should consider creative elements like technology, digital screens, QR codes, and lighting.

Character of Signage and Wayfinding

The look and feel, or materiality, of signage is described in more detail in Section 6.

6

KING HARBOR PUBLIC AMENITIES PLAN

DESIGN GUIDELINES

Embarcadero, San Diego, CA

Jack London Square, Oakland, CA

6.1 King Harbor Design Identity

Cohesive Harbor Identity

Cohesive Identity

Harbor guidelines are a result of collaboration among SWA and its consultants, the Working Committee, the City of Redondo Beach, and the community. These guidelines will help to establish a cohesive identity and a comfortable harbor that promotes safety, equity, and healthy living.

Emphasizing the harbor's character as one place serving many micro-communities, the design guidelines should be consulted and their recommendations implemented on all future projects to reinforce all visitors' connections to the harbor. The harbor is home to many groups of people; each should be considered when designing for the future. Appropriately designed spaces can boost King Harbor's ability to further accommodate local visitors as well as tourists.

Harbor Guidelines

Each development should provide flexibility depending on its program. Standard criteria serve as a staring point for all projects. The guidelines can be enacted through the consideration of the following site amenity categories:

- Hardscape
- Landscape
- Furnishings and materiality
- Fixtures

The guidelines described below serve as precepts rather than "rules" for design of future projects. All design elements are subject to City and Planning Commission design review for approval.

Design Guidelines Format

Overall harbor identity should remain consistent throughout the King Harbor waterfront promenade; however, each character zone has differing and distinguishing elements. The first portion of the design guidelines will apply to the general harbor area and the waterfront. The second portion will explain the character zones in more detail.

Guidelines

Guidelines for a Cohesive Identity

The following guidelines and imagery serve only as guidance to design for future projects. All design elements are subject to the city and Planning Commission Design Review for approval.

Wood deck appearance

Concrete graphic

Textured cooler concrete

Smooth cooler concrete

Brick pavers in running bond

Concrete boarder

Textured warmer concrete

Smooth warmer concrete

Concept imagery for design intent only

6.2 Hardscape

Hardscape Guidelines

Hardscape Character

As the harbor continues to evolve, the composition of the hardscape and softscape will be key in unifying the harbor, creating hierarchical corridors that are intuitive and celebratory. Hardscape will serve as a wayfinding tool as visitors move throughout the harbor. A color palette will be defined so that the varying materials coordinate. All materials should work to combat the urban heat island effect through lighter materiality. The five primary circuits include:

- King Harbor waterfront promenade
- Waterfront nodes
- Interior paths
- Parking lot asphalt
- Bike lanes

In addition to these guidelines, hardscape regulations should adhere to Redondo Beach Municipal regulations. All path slopes must accommodate ADA access.

King Harbor Waterfront Promenade

1. Waterfront paths should be a minimum of 15 feet where space allows. Five feet is recommended in Basin 2.
2. Raising the waterfront promenade finished surface elevation should be considered as to improve views over the adjacent sea wall.
3. A variety of material can be selected for the waterfront path so long as it is rated for heavy pedestrian use. The path should be clear, stand out, and avoid dark colors.
4. Concrete or integral colored concrete can be incorporated as a more affordable option to establish a formal quality and feel.
5. Concrete joints or graphics can be added to integrate a design along the waterfront path.
6. Consider a long running bond pattern which is crafted to look like wood planks of a pier. This wood plank style is also seen along Fisherman's Wharf at Redondo Beach Pier. Continuing this style of hardscape will help connect these spaces.
7. Consider a sustainable material that is conducive for salt tolerance.

Waterfront Nodes

1. Consider the use of special paving materials, colors, and/or patters to accentuate the nodes and highlight their presence along the waterfront path.

Interior path concrete

Compact stalls

Bike lane

Bike crossing

Interior path concrete variation

Vegetated buffers

Bike sharrow

Harbor Drive bike lane

Concept imagery for design intent only

2. Hardscape along the nodes can have a band or border to help distinguish the space, or bleed into the waterfront path.

Interior Paths

1. Paths should be of sufficient width to accommodate pedestrians. It is recommended at least five feet for clear passage.
2. Identifying interior paths is critical for wayfinding throughout the interior of the harbor.
3. Concrete or integral colored concrete should be incorporated to establish a formal quality and feel.
4. The interior path should vary in color from the waterfront path as to assist with wayfinding but avoid dark colors.

Parking Lot Asphalt

- Per the California Municipal Code, "All driveways and parking pads shall be constructed of Portland cement concrete not less than three and one-half (3-1/2) inches thick or equivalent."
- All parking lots within the scope area should be resurfaced for improved quality and re-striping.
- Re-striping should consider compact cars, electric vehicle configurations, boat trailers, and bus parking where applicable.
- Parking lots shall be separated from street frontages and from abutting uses by planting areas. In addition, planting areas shall be interspersed among the parking stalls as feasible, including provision of trees for appearance and shade.
- New surface parking lots containing ten or more parking spaces shall provide a minimum of one shade tree for every six spaces if possible.

Bike Lanes

5. For Marina Way and the bike connection at Seaside Lagoon, Class III sharrows should be utilized. Sharrows should be placed at least 11 feet from the curb. Sharrows should be placed immediately after an intersection.
6. For Bike lanes at Portofino Way and Mole D Entry Drive, Class II Bike lanes shall be included within the street.
7. The bike lane shall have a minimum of five feet and be located on the travel lane side.
8. Pavement surface for the bike lanes should be smooth and free of structures where possible. The lane shall be striped by a white line at minimum for use on existing streets. If possible, asphalt coloring should be incorporated to match the bike lanes along Harbor Drive.

Mexican Fan Palm

Orchid Tree

Gold Medellian Tree

Canyon Prince Wild Rye

Carrotwood Tree

Coast Live Oak

Deergrass

California chollas cactus

Concept imagery for design intent only

6.3 Landscape

Landscape Guidelines

Landscape Character

New trees and shrubs should continue to celebrate the identity of the harbor while improving wayfinding, shade, individuals' health, and harbor sustainability. Vegetation offers a complementary layer of wayfinding that enhances the pedestrian experience. Adherence to the following landscape guidelines will help ensure that all harbor's landscape features work in harmony.

- Proposed additions of trees and shrubs should follow the "City of Redondo Beach List of Recommended Trees and Water Conserving Plants" and/or be adaptive species that are drought tolerant
- Landscaping and pervious surfaces should be incorporated with surface parking lots whenever possible to reduce stormwater, improve appearance, and shade pedestrians.
- Planting should be limited to low-to-moderate irrigation needs whenever possible
- In addition to these guidelines, landscaping regulations should adhere to the Redondo Beach Municipal regulations.

General guidelines for landscape include:

- Trees
- Understory
- Lawn

Trees

1. Existing tree selections have set precedent for the site; new trees should follow the hierarchy.
2. The preservation of existing trees within the harbor will be important in maintaining the existing landscape character. Future developments should avoid removing trees in good to fair condition if possible.
3. Select trees that hold up to coastal conditions, such as drought- and salt-tolerant species when possible, if trees are located near the waterfront.
4. Trees' character and form should be considered both with regards to their aesthetic and with an eye toward minimal interference with pedestrians.
5. Specimen trees and flowering trees will highlight nodes along the waterfront and special moments within the harbor. The use of trees as a buffer between adjacent parking lot uses is encouraged, as well as consideration

Big Red Kangaroo Paw

Yucca

Bougainvillea

Wheatgrass

Dudleya succulents

Purple Statice

Century Plant

Platinum Paspalum

Concept imagery for design intent only

of their visual interest near seating and as a defining destination element.

6. Although shade trees are generally recommended, Mexican fan palm tree allees should continue to line major entrances and gateways into the harbor. Palm trees should continue to line the King Harbor waterfront promenade as to not block views of the ocean.
7. Canopy and shade trees should be designed to not block views of the ocean.
8. Canopy trees shall be used in parking lots and areas with a high volume of hardscape to provide shade and breakup the monotony of hardscape over a vast space.

Understory

1. A minimum of a five-foot strip of planting or lawn is recommended as a buffer along the King Harbor waterfront promenade between adjacent amenities.
2. Berms are encouraged in larger swaths of landscape to provide views of the harbor and serve as a barrier between parking lots.
3. A variety of colors, textures, and forms of shrubs should be used throughout the harbor, creating a softening look.
4. Landscaping should be designed to effectively screen parking areas, walls, utilities, services areas, and along fences whenever possible.
5. The use of recycled water is encouraged for irrigation when and wherever possible.
6. Water-conserving plants should be considered for the site and in planters, including, but not limited to agaves, bougainvillea, lavender, sages, grass palm, and yucca.

Lawn

1. Lawn areas should be minimized except for where larger gathering spaces or recreation can occur. Turf should be avoided in parking lot planters or median strips. It is recommended that the use of turf shall be avoided in landscape areas with a dimension of less than eight (8) feet.
2. Larger lawn areas, such as that extant at the Harbor Hub Lagoon, should be salt- and drought-tolerant. Examples of salt and drought tolerant turf include but are not limited to perennial ryegrass, tall fescue, red fescue, wheatgrass, alkali grass, St. Augustine grass, zoysia, and bermuda grass.

1. Artificial turf should only be used in areas where growing conditions are not ideal. Within the key interest areas of the Amenities Plan, artificial turf is only located on Short Pier.
2. Artificial turf should be specified for saltwater-tolerant environments and areas of high traffic use.

Wood benches

Amphitheater seating

Round picnic tables

Metal picnic tables

Repainting existing benches

Metal benches

Modern picnic tables

Colorful picnic tables

Concept imagery for design intent only

6.4 Site Furnishings

Site Furnishings Guidelines

Site Furnishings Character

While there are existing furnishing elements within the harbor, the elements lack consistency and vary in condition. The type and material of the street furnishings should reflect the character and context of the harbor and of Redondo Beach while contributing to a sense of community identity. Furnishings should be a part of a larger family throughout the waterfront and interior, while distinguishing each character zone via its own unique furniture family. Styles should remain consistent to create cohesiveness. A color palette should be established and utilized throughout the harbor, and furniture styles should be coastal and modern. While there are a variety of furnishings that should be considered within the design, the primary features to be considered include:

- Benches
- Tables
- Bicycle Racks
- Garbage Receptacles
- Landmark Features
- Materiality

Benches

- Existing benches should be evaluated for condition and replacement, and potentially phased out over time. Repainting the existing metal benches may be a short=term option.
- Provision of a variety of informal seating options near areas of heavy foot traffic throughout the harbor is recommended.
- Simple bench elements should be located throughout the waterfront path and interior of the harbor.
- Nodes along the waterfront path should integrate more sculptural amphitheater seats or spaces where possible.
- Benches must be made of durable material.
- Bench pads should accommodate ADA access.
- Seat walls can be considered in areas where retaining walls are required along the waterfront path.

Tables

- Existing tables should be evaluated for condition and replacement, and potentially phased out over time.
- Permanent table features should be considered at a variety of scales.
- Moveable tables and chairs should be avoided in public areas that cannot be monitored.

Connected bike rack

Bike repair station

Trash, recycling, and compost

Existing bronze statue

Individual bike racks

Repainting existing bike racks

Covered garbage receptacles

Exiting stone monument

Concept imagery for design intent only

- Tables should accommodate ADA access.

Bicycle Racks

- Existing bicycle racks should be evaluated for condition and replacement, and potentially phased out over time.
- Adequate bicycle parking should be provided along bicycle nodes and throughout the harbor.
- Bicycle rack counts should reflect adjacent programs and potential future traffic studies.
- Hubs should be evaluated to incorporate micromobility parking such as e-bikes and scooters. Public safety must be considered along pedestrian and bicycle paths.

Garbage Receptacles

- Existing trash receptacles should be evaluated for condition and replacement, and potentially phased out over time.
- When integrating receptacles, location and quantity should be based upon the scale of open space or pedestrian paths.
- Receptacles should be proximate to seating areas and nodes where benches or tables are present.
- Recycling and compost receptacles should be considered if possible.
- Receptacles with closed lids are encouraged as to deter unwanted litter.
- Trash receptacles should accommodate ADA access.

Landmark Features

- Existing landmarks within the harbor, such as the bronze statures of Bill and Bob Meistrell at Seaside Lagoon or the L.C. Gurthrie, Jr. stone dedication near Moonstone Park, should be preserved or relocated if necessary.
- Future landmarks should consider materiality of the Harbor and adjacent amenities.

Materiality

1. Materiality should be appropriate for weather and salt conditions.
2. Aluminum, stainless steel, synthetic resin, and concrete should be considered for furnishings, railings, and other elements.
3. Consider sustainable materials that are environmentally friendly to land as well as coastal environments.
4. Future building facades should consider any hardscape material that is introduced to the harbor.
5. Incorporation of materials consistent with Horseshoe Pier is encouraged to within the Harbor.

International Boardwalk fixtures

Artful light canopy

String lighting

Touch screen map

Capped lighting

Lit directional markers

Parking lot lighting

Interactive signage

Concept imagery for design intent only

6.5 Lighting, Signage and Public Art

Lighting, Signage and Public Art Guidelines

Lighting, Signage and Public Art Character

Lighting, signage and public art are influenced by the program, safety, and aesthetic of the harbor. An established vocabulary of unique fixtures can strengthen the physical and psychological connections to the harbor. The following fixtures include guidelines for the public harbor, but each area should be closely evaluated for amenity context and regulation. General guidelines for all areas include:

- Lighting
- Signage
- Public Art

Lighting

- Existing lighting fixtures should be evaluated for condition and replacement, and potentially phased out over time.
- The recent replacement fixtures at International Boardwalk should be embraced and referenced for future lighting options.
- In some ares, a higher intensity of lighting fixtures is necessary, including in parking areas. Other areas, such as the waterfront path, require lower intensity lighting.
- For new developments, parking areas should have adequate lighting to provide visibility and security.
- The light source at parking lots should not be visible from the street or surrounding residential properties, and the lighting should be reflected away from adjacent residential premises.
- Lighting should be appropriately scaled for open spaces and for the waterfront promenade.
- Warm rather that white-toned lighting is recommended along the waterfront. Warm lighting will encourage wildlife to navigate through the space.
- Lighting should not interfere with boats navigating the harbor between sunset and sunrise.
- Utilize caps on top of lights to reduce light pollution.
- Lighting should be designed to shine downward to avoid glare along the waterfront promenade.
- Lighting can be artful at waterfront nodes or special locations.
- The style and design of lighting should consider local themes and color palettes.

Map signage

Amenity signage

Mosaic mural at King Harbor

Shade sails at Horseshoe Pier

Wayfinding signage

Historic signage

Signage mural

Coastal mural

Concept imagery for design intent only

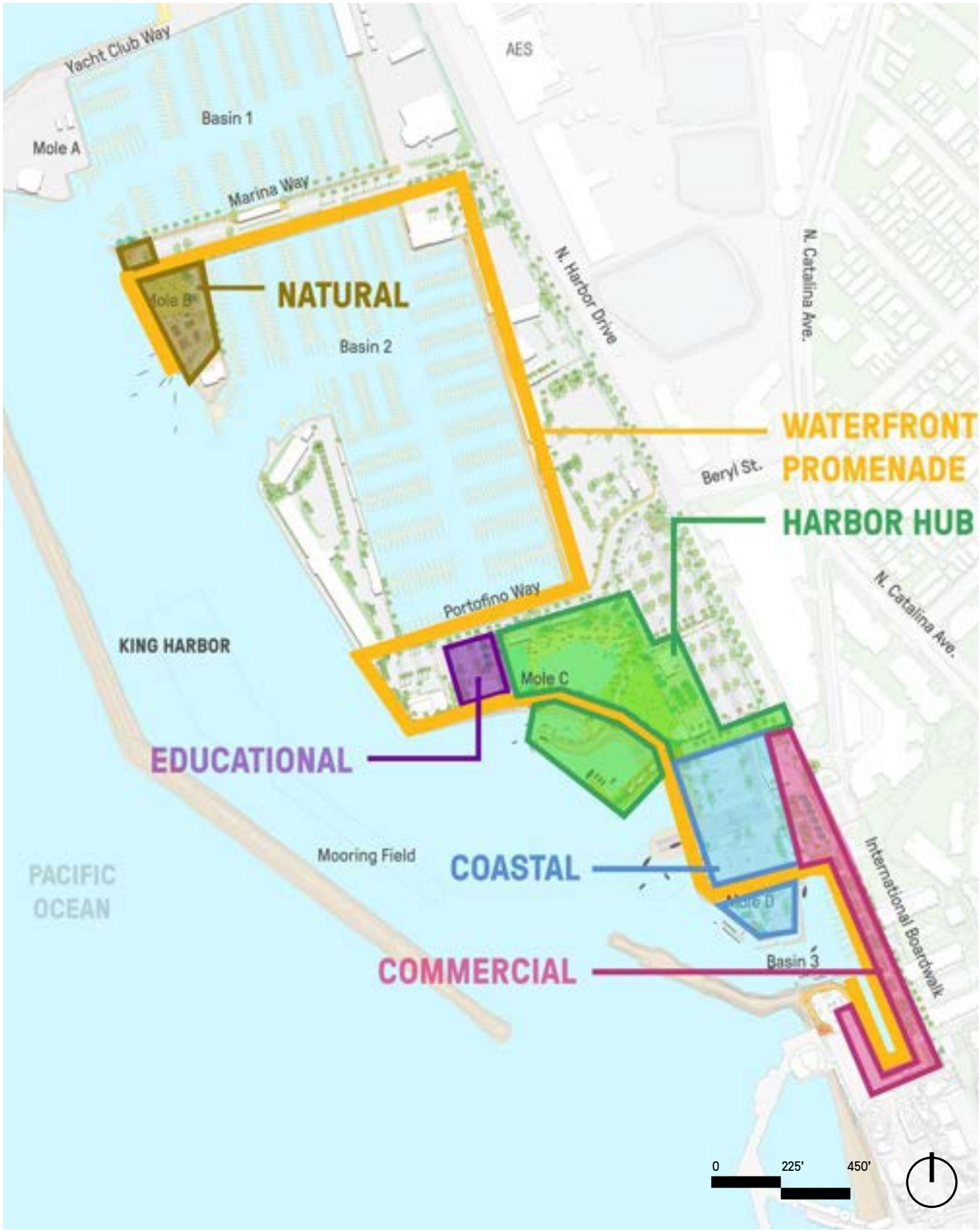
Signage

- Existing signage should be evaluated for condition and replacement, and potentially phased out over time
- A coordinated system of signage and maps should be provided to direct visitors through the harbor and to specific amenities.
- Graphic communication on signage should be uncluttered, concise, and legible.
- Identification, directional, educational, and information signage should have a nautical-themed color palette similar to that extant on the directional markers within the harbor.
- Public access signage and user safety should be located near future Hand Launch and Public Boat Launch.
- New bike lanes in the harbor shall require signage to warn automobile and pedestrian traffic.
- General map and directional signage should be located at Portofino Way, Mole D Entry Drive, and International Boardwalk at a minimum; these serve as the harbor's main gateways.
- Artful overhead signage should be considered for its potential to engage pedestrians.
- A separate signage master plan study is recommended to study cohesive signage elements and aesthetics throughout the harbor.

Art

- Embrace and enhance existing art components around the harbor, such as the "Ocean Steps" mosaic tiles at the International Boardwalk and the inlayed ceramic tiles that retain the The Village and Seaside Apartments from the walkway at the International Boardwalk.
- If future construction occurs and requires removal of existing art, pieces should be salvaged and repurposed elsewhere on the project if possible.
- Art shall be considered an integrated component where applicable, to establish locations for contemplation.
- Explore opportunities for educational interpretive signage to highlight historical events within the harbor.
- Future art installations should consider the following for inspiration: marine education; historical events at King Harbor and Redondo Beach; aquatic-themed murals; historical photographs murals (as seen in the Pier parking structure); the sails shade sculpture at Horseshoe Pier; and the sea life design sandblasted on the concrete at Horseshoe Pier.

Character Zones



Waterfront character inspiration

6.6 Character Zones' Guidelines

Guidelines

Guidelines for Character Zones

The following guidelines and imagery serve only as design precepts for future projects. All design elements are subject to City and Planning Commission Design Review for approval.

Key Zones

King Harbor Hub

One of the greatest opportunities in King Harbor is to create a new civic space that merges several disconnected amenities along the waterfront. The King Harbor Hub integrates Seaside Lagoon, the Hand Launch, and the Short Pier (Previously Sportfishing Pier) into a civic zone where people can gather and participate in various waterfront activities.

Educational

The educational zone is a prime location for a future educational center. The educational center will be related to coastal uses and be a place for hands-on learning.

Commercial

The commercial zone is an active and vibrant place where visitors can shop, dine, and stroll. The International boardwalk is the centerpiece of the commercial zone.

Natural

The Natural Zone will provide a passive and open experience in King Harbor. The zone is generally further back from the other highly active areas of the harbor, and will continue to operate water recreational uses (outriggers). Visitors can access this area through Marina Way, although it will also be connected via the waterfront promenade.

Coastal

The primary use within the coastal zone will be the new Public Boat Launch, which will be a great regional attraction for those seeking to access the water by boat. The existing boat hoist will remain in this area and provide additional opportunities to access the water. This area will also balance the Public Boat Launch's functional needs while providing a strong identity throughout the waterfront promenade.

Harbor Hub and Educational character zone boundary

6.7 Harbor Hub and Education Character Zone

Guidelines

Character

King Harbor Hub is exactly as its name implies: the main hub of the or gateway to the harbor. Thus, the area should be inviting and exciting. The zone in and around Seaside Lagoon is characterized as a "soft edge," although its materials will be more people-friendly, tactile, and vibrant. This zone has the largest variety of amenities; as such, it requires cohesive space to unify them.

Look and Feel

- The Short Pier (previously Sportfishing Pier) should pay homage to the existing wood frame pier, wood planking, and wood railings that were once functionable.
- Facade styles along the pier should look to restaurants located on Horseshoe Pier for inspiration to help connect the overall harbor.
- Most of the great lawn should remain open, but the edges can incorporate colorful planting and shade trees. The interior should remain void of planting to allow for flexible uses of the space.
- Seating in the Harbor Hub may be more colorful, but should continue to follow a modern, coastal theme.
- In addition to waterfront benches, specialty seating should be considered, such as colorful adirondack chairs within the lawn and picnic tables within the dining plaza.
- Colorful umbrellas or larger shade options should be considered within Seaside Lagoon
- The edge of the redeveloped lagoon can be more tropical and lively, creating a new destination for the harbor.
- Although there will be a fence separating the great lawn from the lagoon features, it should feel as if the lawn is connected. Planting and materiality should bleed across these spaces.
- The educational area may provide its own theme; however, consideration of the themes determined elsewhere in the Harbor Hub is recommended.
- Flexible spaces and moveable furniture are recommended in the educational space to allow for a variety of events and learning opportunities.

Vibrant planting along edges

Modern railings

Seatwalls integrated at the waterfront promenade

Colorful seating sprinkled throughout the Harbor Hub

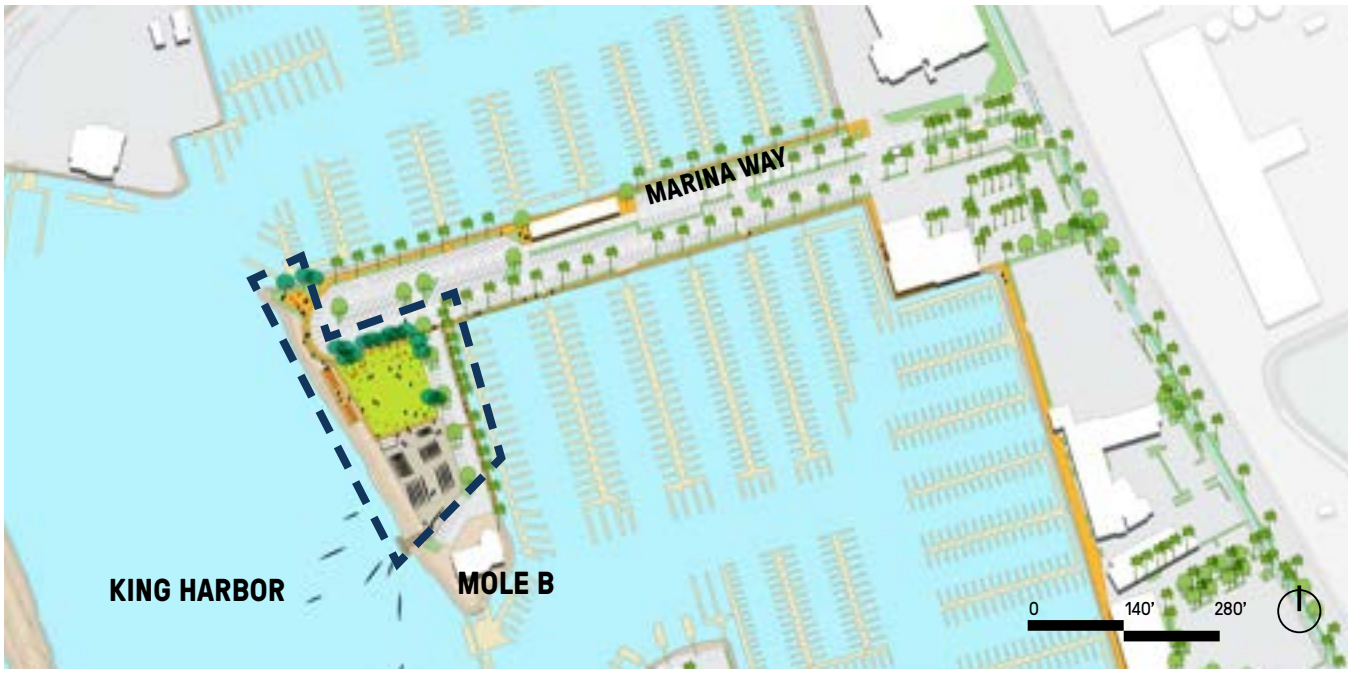
Tropical lagoon

Coastal education spaces

Olympic lap pool

Open, flexible lawn

Concept imagery for design intent only



Natural character zone boundary

6.8 Natural Zone

Guidelines

Character

Moonstone Park is characterized as a "soft edge." The materials within this zone will be slightly more natural and soft in comparison to other parts of the Harbor. The existing lawn space will be celebrated in this space through minimal but thoughtful enhancements. The park should become a more inviting and distinctive community space.

Look and Feel

- The edges of the lawn and near the rip rap should be enhanced will tall grasses that tolerate salt spay, strong winds, and heat. Pockets of focal planting in specific areas can add to the aesthetic.
- In addition to the melaleuca trees on site, canopy trees on the perimeter would provide shade. Trees cannot be placed within the 110-foot diameter clearance zone for emergency helicopter landing. To avoid interference with the watercrafts,trees should not be placed directly north of the outrigger club boundary.
- A deck addition overlooking the harbor would increase viewing opportunities. The deck could be constructed over the rip rap as not to interfere with the breakwall. A natural-looking railing surrounding the deck is recommended to maintain the character of the park. ADA access to the stepped deck must be ensured via a ramp. Parts of the lawn edge can remain open to provide a variety of views. The walkway between the park and the outrigger clubs can be comprised of the same deck material to create a large wrap-around deck experience. The deck's materiality should consider a faux wood concrete style.
- Permanent furniture should be provided on the deck and on the edge of the lawn. Adirondack chairs could be utilized on the deck, while picnic tables could be provided on the northwest and northeast corners of the lawn. The material should reflect a natural and modern character. Metal bases with wood features are recommended.
- The restroom located on the edge of park should blend in with the park; natural, coastal colors should be considered for its facade.
- All design considerations should consider the outrigger club as a neighbor and respect its boundaries. The clubs can help influence the design of the space to create one cohesive public amenity.

Tall native grasses near the rip rap edge

Coastal trees for shade

Picnic benches within the park

Adirondack chairs on the deck

Deck wrapping the park

Deck outlook experience

Bathroom facade with natural tones

Natural railing look

Concept imagery for design intent only

Commercial zone boundary

6.9 Commercial Zone

Guidelines

Character

The highest concentration of commercial activity will be centralized along International Boardwalk, extending north to connect to existing restaurants and plaza space. King Harbor's commercial zone will be vibrant, eclectic, and inviting. Furnishings, planting, and fixtures should reflect a colorful, nautical palette.

Look and Feel

- Shade structures — either temporary and moveable umbrellas or permanently installed infrastructure — should be made available for upper deck dining. Additionally, potted trees can provide shade.
- If the concept of separating dining areas is pursued, planters can help separate dining areas from public spaces. Planters can have a variety of shrubs or trellises with vines to serve as barriers between spaces. Planters should be rectilinear to conserve space, but can be provided in a variety of colors.
- In addition to the lighting family used along the King Harbor waterfront promenade section of the International Boardwalk, decorative or string lighting can help create an intimate experience at the upper deck.
- A variety of seating should be provided at each dining space, including four-top tables and bar-top seating. Materiality could include vibrant powdercoated metal for a distinctive experience.
- Counter seating can be provided at the edge of the upper deck dining area to serve as a lookout, either along the entire edge or broken into segments. Tables and chairs can be of several colors, but should follow a specific color palette.
- Guardrails at the edge of the upperdeck dining are required, but should not feel too heavy. Transparent material, like glass, should be considered to emphasize views at the upper deck.
- The design style should bleed into the plaza space to the north to establish an International Boardwalk gateway experience for those entering the site from North Harbor Drive.

Colorful drought tolerant planting

String lights on the upper deck dining

Planter separation between upperdeck dining spaces

Bar seating with views

Colorful and coastal tables and chairs

Permanent shade infrastructure

Moveable and durable high top seating

Umbrella shade options

Concept imagery for design intent only

Coastal zone boundary

6.10 Coastal Zone

Guidelines

Character

The area around the new Public Boat Launch is a boating zone, and characterized as a "hard edge." The materials and character of this area will include steel, white metal, and maritime features. While boating is the primary amenity within this zone, the space should be safe and inviting for pedestrians bypassing the launch.

Look and Feel

- Concrete paving and parking lot striping comprise a majority of the hardscape within this zone. Colored concrete or arrows, in addition to signage, should clearly delineate boat lanes and wash-down lanes.
- The Public Boat Launch should be made of concrete for both lanes, while the center boarding float should be comprised of concrete or steel piles with hinged float sections, allowing it to articulate with the tide.
- Concrete, timber, and aluminum should be considered for dinghy dock materials. If multiple locations are pursued, these should be made of the same material.
- Where the King Harbor waterfront promenade intersects the boat launch, colored striping is highly recommended. Striping, along with signage, will help warn pedestrians of boat launching in the area.
- Pedestrians should have the option to walk around the Public Boat Launch through an interior pathway north and south of the boat ramp, if they choose to not use the waterfront promenade in the area.
- In areas of the coastal zone where planting areas are available, drought-tolerant plants should be incorporated, with pockets of focal planning for aesthetics.
- The restroom located north of the launch should employ natural, coastal colors for its facade.

Boat wash station

Native planting

Timber dinghy dock

Aluminum dinghy dock

Bathroom facade with natural tones

Concrete boat launch

Pavement striping at boat launch

Trailer parking striping

Concept imagery for design intent only

7

KING HARBOR PUBLIC AMENITIES PLAN

KEY AREA RECOMMENDATIONS

KEY AREAS

King Harbor key areas' recommendations

SEASIDE LAGOON PRIMARY ITERATION

Seaside Lagoon | Hybrid Aquatic/Lagoon and Great Lawn

1. Great lawn
2. Refined fence boundary (when lagoon is open)
3. Reconfigurable fence (when lagoon is closed)
4. Boardwalk plaza
5. Facility restroom
6. Community center
7. Area for educational center
8. Community pool/lap pool
9. Lagoon renovation
10. Water park amenities
11. Direct path to oceanfront
12. Flex open space/dining
13. Dining option/restaurant potential
14. Mechanical equipment
15. Dedicated bus parking
16. Bike sharrows

A new vision and experience for Seaside Lagoon at the Harbor Hub

7.1 Seaside Lagoon

Seaside Lagoon

Seaside Lagoon is a cherished amenity in Redondo Beach, and its renovation will play a crucial role in creating a vibrant space in the King Harbor Hub. The upgraded Seaside Lagoon will include a renovated lagoon pool and sandy beach. New aquatic uses include an Olympic-sized lap pool and water park features such as splash pads. A great lawn is to be added as a public open space.

The preferred, or primary, concept at Seaside Lagoon seeks to accomplish the following three goals, which emerged from the community participation process.

1. **Accessible Year Round:** The lagoon's current operating season limits the activities that can take place during off-seasons. The upgraded facilities will allow for additional programming during off-season. The reconfiguration of the fence boundary will allow for public access all-year round.

2. **Flexible for Community Events:** The lagoon area is currently home to several annual events. The community would continue to see additional events and entertainment occur here. Additionally, the additional open space is vital to a community where it is currently limited.

3. **Multi-Generational:** The current lagoon is mostly targeted towards families and young children. Upgraded facilitates, such as a large pool and aquatic elements, will provide various age groups the opportunity to enjoy this treasured waterfront amenity.

4. **Harbor Hub Connectivity:** With future redevelopment, connectivity between Seaside Lagoon, the future educational center, and the Hand Launch should be clear and blend seamlessly to help establish the Harbor Hub.

Retractable fence used for events

Lagoon feature adjacent to an aquatic pool

Program Elements

Great Lawn

The Great Lawn is a significant new Seaside Lagoon feature that will open up this area throughout the year. The lawn also provides flexibility for various events and activities, as further described in the programming section below. This lawn will be comprised of drought- and salt-tolerant turf so as to require the least amount of maintenance and impact to the environment. A future study at Seaside Lagoon should be completed to analyze recycled water options.

Direct Path to the Oceanfront

Another key feature of the revised plan is the introduction of a new pedestrian path that brings visitors directly the oceanfront and Hand Launch area. This breaks up the large swath of parking and increases wayfinding within the harbor.

Refined Fence Boundary

With the development of the Seaside Lagoon area, the fence boundary will need to be reconfigured. Detailed fence boundaries will need to be further developed during the Request for Proposals (RFP) process however it is recommended that the lawn is accessible and fenced during Seaside Lagoon operable months. When the lagoon is not operating, the fence can be removed from the lawn. It is recommended that "fancy fence" be implemented that can be retracted during larger events. Water safety requirements and codes need to be considered when selecting a fence near the aquatic recreation area. The gate can be participially opened to the lawn, and monitored if more open space is needed for the lagoon. Closure of the lagoon and aquatic features is recommended during larger events if the gate is fully retracted.

Facility Upgrades

The interior boardwalk plaza provides for additional flexible programming and improved circulation surrounding the lagoon area. Upgraded restrooms and a community center are also proposed to complement the future amenity.

Aquatic Features

Seaside Lagoon should consider introducing a new Olympic sized pool that is 50 meters long and 25 meters wide. This pool can be used in various ways: by adult swimmers and high school/extracurricular teams as well as for community swimming events. The pool can also support coastal-dependent activities such as swim lessons for future watercraft uses, paddlecraft lessons, scuba-diving lessons, and for radio-controlled model sailboats. It is recommended that year-round heating be required for the pool. Additional waterpark amenities, like splash pads, can be incorporated within the lagoon upgrades. Surf or wave pools are also sought-after by the public; however, space requirements may restrict this amenity's feasibility. An Olympic pool addition to Seaside Lagoon is subject to successful design options per the existing RFP for Seaside Lagoon.

Outdoor, interactive marine education

Lagoon Renovation

The amenity plan calls for the complete renovation of the existing lagoon, as its current system cannot continue to operate. Efforts to restore operability should explore sustainable technology and/or heating options if applicable. The reshaping of the lagoon should allow enough space for visitors to picnic and relax on lawn and sand surrounding the lagoon.

Dining Option/Restaurant

There are a variety of dining opportunities east of the Great Lawn. The former Ruby's location should be redeveloped into a new eating establishment that services Seaside Lagoon as well as the entire harbor.

Flex Open Space/Dining

The flex space remains open, and is intended as either additional open space for dining, a restaurant in its own right, or redevelopment in the future as needed.

Outdoor Dining/Tables

Shared space for dining and picnicking can be located adjacent to the lawn. This can be shared with the "Dining Option/Restaurant" and with the "Flex Open Space/Dining" option. It can also serve as an entrance into the park from the parking lot.

Area for Educational Center

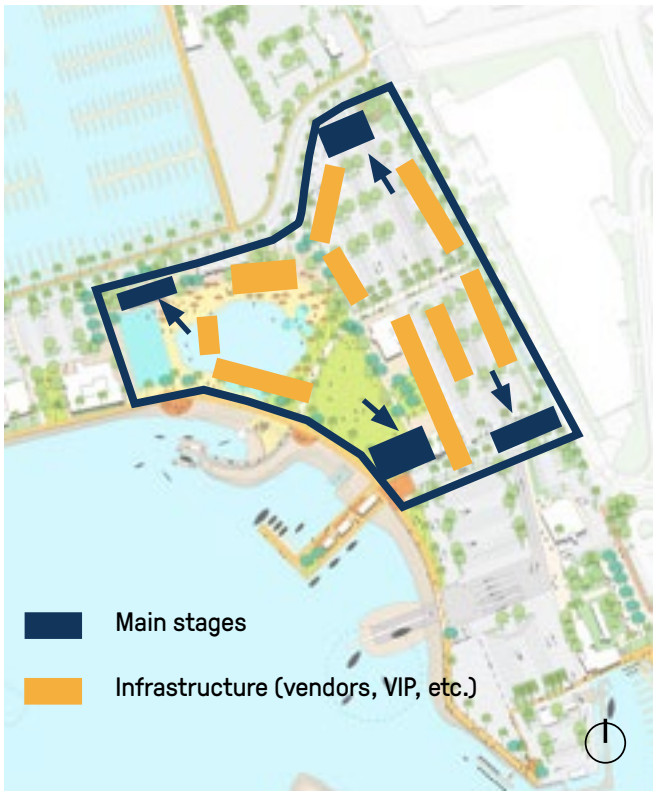
The educational center should be an interactive experience for both children and adults that celebrates ocean-centered marine education. The educational center can benefit the local community as well as tourists wanting to learn about the local sea. Locating the center near the waterfront allows the educational experience to can leverage the harbor with access through a balcony, the water, or a jut into the harbor. Themes and experiences can vary at the center, but should consider local marine education and preservation; "White Seabass Grow Out;" "White Shark Program;" tidepool displays; oyster farming; aquaponics and aquaculture; hands-on studio learning; and paddlecraft and sailboat education and training. The facility can also host harbor tours.

Mechanical Equipment

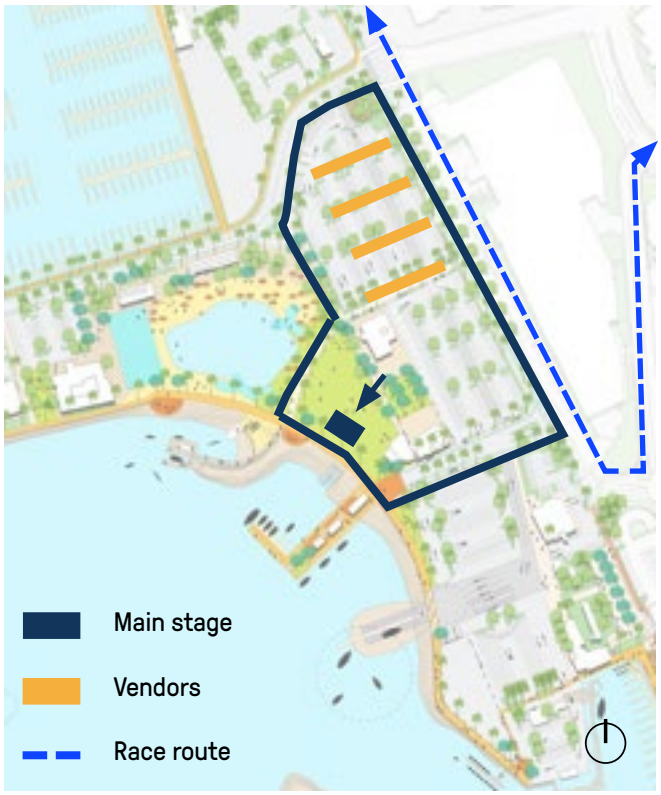
Space for mechanical and operational equipment should be specified within the Harbor Hub to support day-to-day activities and stages for special events. Mechanical equipment should not be highly visible or near park entrances; the southeast corner of the lawn is recommended as a location. Trees or shrubs can be used to screen the equipment.

Parking

Parking lot usage and requirements should be further



Programming Diagram: High Volume Event like Beach Life Festival



Programming Diagram: Moderate Volume Event like 5k/10k

studied as part of the lagoon redevelopment. Dedication Park, located at the northeast corner of the current Seaside Lagoon parking lot, should be preserved and enhanced during parking lot redevelopment.

Dedicated School Bus Parking

Seaside Lagoon already draws a big crowds of students during summer days; it is anticipated that this number will grow as the new educational center is built. The lagoon hosts the city summer camp of about 600 participants. Dedicated school bus parking spots are recommended for the parking lot near the future educational center and east of the Lagoon are recommended. Usage and requirements should be further studied as part of redevelopment of the lagoon.

Programming Diagrams

Flexibility for Events

Seaside Lagoon is home to numerous events and programs throughout the year. Maintaining a space that allows these spaces to continue to function, and that promotes additional programming, is at the core of the concept for Seaside Lagoon.

Seaside Lagoon holds regular events, such as marathons and food festivals, which can serve more than 25,000 patrons. Other notable annual events includes the Beachlife Festival, Lanakila Classic, Lobster Festival, Superbowl 10K, Fourth of July fireworks, RocktoberFest, Smackfest, and the Cruise at the Beach car show. It is highly recommended that the plan continue to incorporate these events.

The programming diagrams shown above provide a site/sizing layout on how event spaces could function for high-volume events such as the Beach Life Festival as well as for moderate volume events such as the Redondo Beach 5k/10k. These events can still operate in the Harbor Hub with the redevelopment of the lagoon and aquatic features. The lagoon and pool can be drained and covered. The events would benefit from a lawn space for staging and maintenance as opposed to a sandy beach. Current events utilize the beach or cluster around the linear perimeter lawn.

Event Zone Ready

During the redevelopment of Seaside Lagoon and the surrounding areas, the addition of infrastructure will ensure that the area is proofed for future events.

Beach Life Festival

Vendors at Redondo Beach 5k/10k run

Lobsterfest

Smacktoberfest

Underground utility lines and connections to power should be provided. Additionally, this area should be Wi-fi-enabled. These plans should be documented in AutoCAD drawings so that they are accessible to future event planners and organizers.

These elements should be located throughout the site, with direct power sources connections near potential stages.

A permanent bandshell was previously incorporated within the design, but was removed due to the needs of varying events that require different sizing and infrastructure for stages. A one-size-fits-all approach is therefore not recommended.

Recommendations for Existing Buildings

Existing Building — Joe's Crab Shack

The area for the proposed educational center, currently occupied by Joe's Crab Shack, is located within the redevelopment area of Seaside Lagoon at Mole C. This site has been identified as a good location for an educational center. The chain restaurant building was constructed in 1988, and designed specifically for Joe's Crab Shack in the chain's corporate style. It is a single-story, wood-framed building, clad with wood siding. It was previously evaluated in 2015 and determined to have no historical significance. It remains in good condition, with some deterioration noted. However, adaptively reusing the restaurant as an educational center could be problematic. The center's program, likely including exhibition space, classrooms, and conference spaces, is very different from that of a dining facility with a commercial kitchen. Full demolition is recommended, with design and construction of a new educational facility in this location that will be better fit for purpose. This plan can be phased, perhaps using portions of the existing restaurant dining area in a temporary fashion until the new education center can be constructed

	Existing Seaside Lagoon (When Fully Operating Total SF ~135,654)		Proposed Seaside Lagoon Amenities (When Fully Operating Total SF ~144,657)			
Metrics	Lagoon	Sand and Lawn	Lagoon Water body	Sand and Lawn Adjacent to Lagoon	Great Lawn East of Fence	Olympic Pool
Square Footage (SF)	43,560	92,094	36,770	53,897	40,542	13,448
Count of People (1,800 total per high volume attendance)	578	1,222	458	670	505	167
SF provided (per person)	75	75	80	80	80	80
Annual Usage	3.5 months	3.5 months	3.5 months	3.5 months	Year Round	Year Round Potential

Usage assumptions for Seaside Lagoon, attendance counts provided from the City of Redondo Beach

Existing Building — On the Rocks

On the Rocks was constructed in 1971. It has housed various restaurants, including the On the Rocks sports bar, and most recently was leased by the Beach Life festival event organizers. It is a single-story wood-framed building, clad in stucco, and features two large outdoor patio spaces. It is currently in fair condition, with roof leaks and other repairs needed. It is sited on a prominent corner of the existing lawn space at Seaside Lagoon. The building was previously evaluated in 2015, and determined to have no historical significance. Either renovation and upgrades or demolition for a new tenant is recommended.

Existing Building — Ruby's

The closed Ruby's Diner is sited adjacent to the proposed improvements to Seaside Lagoon. It was constructed in 1995 for Ruby's Diner, an American restaurant chain. It is single-story, clad in stucco, and features streamlined modern details such as rounded building corners, a horizontal eyebrow canopy, glass block, and neon signs. It is currently in good condition and could remain as-is. However, the 1930s-era diner design may limit the types of restaurant tenants who would be interested in leasing the building. The building was previously evaluated in 2015 and determined to have no historical significance. Either renovation and upgrades or demolition for a new tenant is recommended.

Existing Attendance

Seaside Lagoon draws over an estimated 100,000 participants per year, from Memorial Day to Labor Day. This equates to 101 days, or 3.5 months. On a high-volume day, there are an estimated 1,800 visitors; slow days see about 250 people. Comparing the high-volume attendance at the existing lagoon versus the proposed design, the following can be assumed:

- Total size of the proposed Seaside Lagoon amenities area increased by ~9,003 square feet. For the table above, the total count of people assumes the high visitor day of 1,800 split equally by size of amenity for both existing and proposed.
- The current lagoon is 43,560 square feet and accommodates ~578 of the 1,800 people while the proposed lagoon and Olympic pool accommodates ~625 of the 1,800 people.
- The current sand and lawn is 92,094 square feet and accommodates ~1,222 of the 1,800 people while the proposed sand and lawn and Great Lawn accommodates 1,175 of the 1,800 people.

Seaside Lagoon Alternate Concepts

As part of the planning and analysis process, SWA developed a series of concept iterations for Seaside Lagoon and presented them for community feedback in Phase 1 and Phase 2 Outreach. The following three (3) iteration concepts show the evolution of the seaside lagoon plan process, which ultimately led to the primary option. The primary plan option includes elements of these alternate concepts.

ITERATION 1 - SEASIDE LAGOON (NOT PRIMARY OPTION)

Iteration Concept 1 | *Lagoon Upgrade & Great Lawn*

1. Direct path to oceanfront
2. Refined fence boundary
3. Boardwalk plaza
4. Restroom
5. Community center
6. Lagoon renovation
7. Public open lawn
8. Potential location for bandshell
9. Dining option
10. Tables and small food vendors
11. Potential for educational center

Iteration Concept 1

This iteration incorporates a maintained lagoon and sandy beach. The connection pathway opens to waterfront, and the lawn and picnic area is reshaped to be open public space.

ITERATION 2 - SEASIDE LAGOON (NOT PRIMARY OPTION)

Iteration Concept 2 | *Aquatic Facility & Great Lawn*

1. Direct path to oceanfront
2. Refined fence boundary
3. Stroll park with native planting
4. Restroom
5. Community center
6. Water park amenities, lap pool, and wave pool
7. Public open lawn
8. Potential location for bandshell
9. Dining option
10. Tables and small food vendors
11. Potential for educational center

Iteration Concept 2

In this iteration, the traditional lagoon is replaced with aquatic uses such as a wave pool, lap pool, splash pad, and water park features. Similar to Concept Iteration 1, the connection pathway opens to the waterfront lawn, and the picnic area is reshaped as open public space.

ITERATION 3 - SEASIDE LAGOON (NOT PRIMARY OPTION)

Iteration Concept 3 | *Hybrid Aquatic/ Lagoon Expansion & Linear Park*

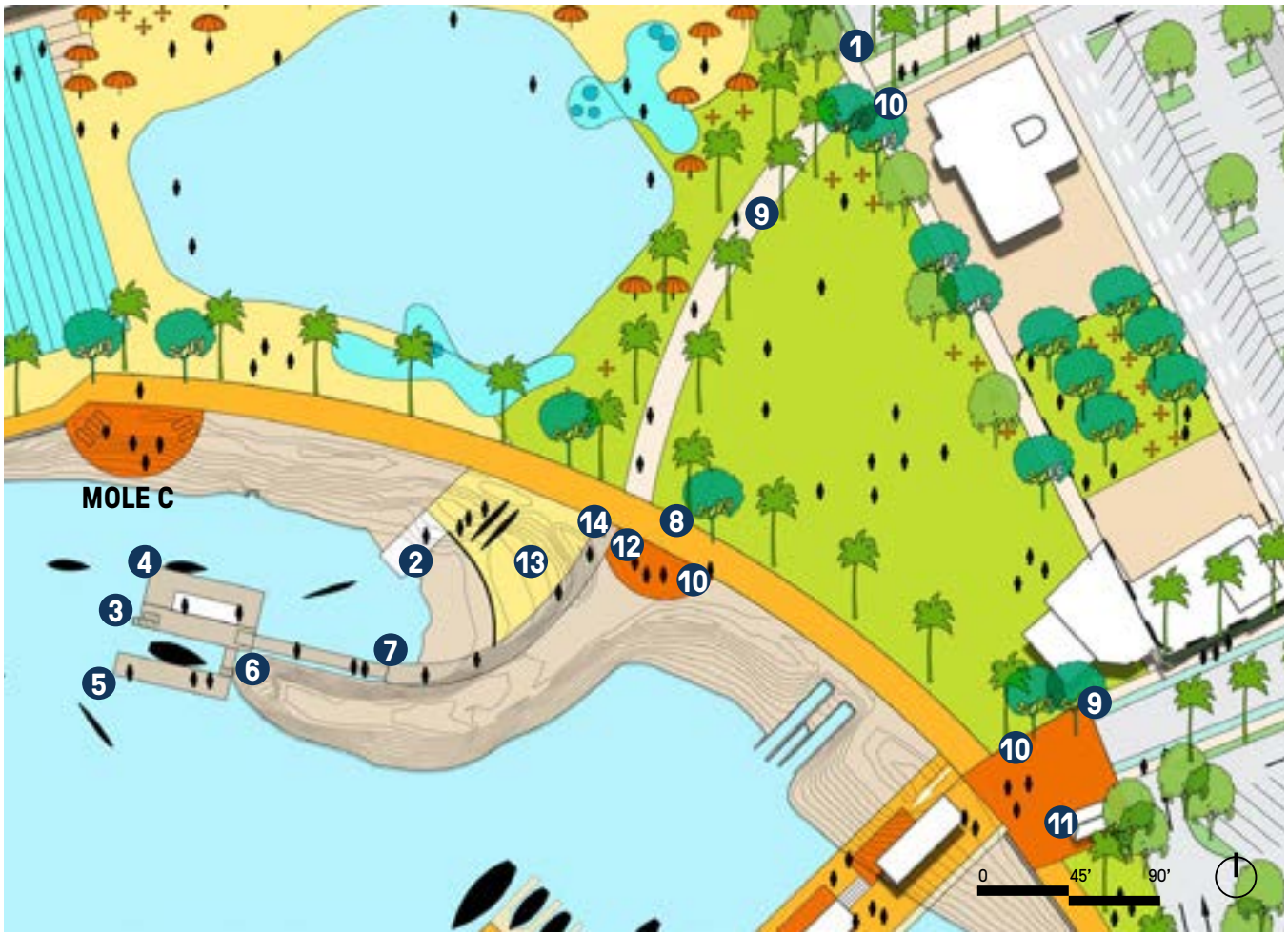
1. Direct path to oceanfront
2. Refined fence boundary
3. Stroll park with native planting and lawn
4. Restroom
5. Community center
6. Water park amenities
7. Dining option
8. Lagoon renovation
9. Lap pool or wave pool
10. Potential for educational center

Iteration Concept 3

In this iteration, the lagoon pool and sandy beach are maintained. Aquatic uses are also introduced and expanded towards the existing Joe's Crab Shack, The aquatic uses include a wave pool, lap pool, splash pad, and water park features. The linear park is reshaped as open public space.

HAND LAUNCH PRIMARY ITERATION

Hand Launch | *Zero Depth Launch*



1. Direct pedestrian path to oceanfront
2. Zero depth entry
3. Standard dock
4. Low-freeboard dock and ramp
5. Wave attenuator and ramp
6. Slip for Harbor Patrol only
7. ADA gangway
8. Temporary vehicular drop off for events
9. Pedestrian path
10. Cart rentals for paddlecrafts
11. Public restrooms
12. Shower and craft wash down station
13. Sandy beach for staging
14. Potential paddle craft rack

A new vision and experience for the Hand Launch

7.2 Hand Launch

Hand Launch

Hand Launch Overview

The existing Hand Launch will be reconstructed to provide a preferred option consisting of zero-depth entry, ADA gangway, floating dock, and sandy beach staging area. Additional amenities will also support the Hand Launch area with improved safety and use signage, a waterfront node, and a restroom facility.

Program

Pedestrian-Only Path

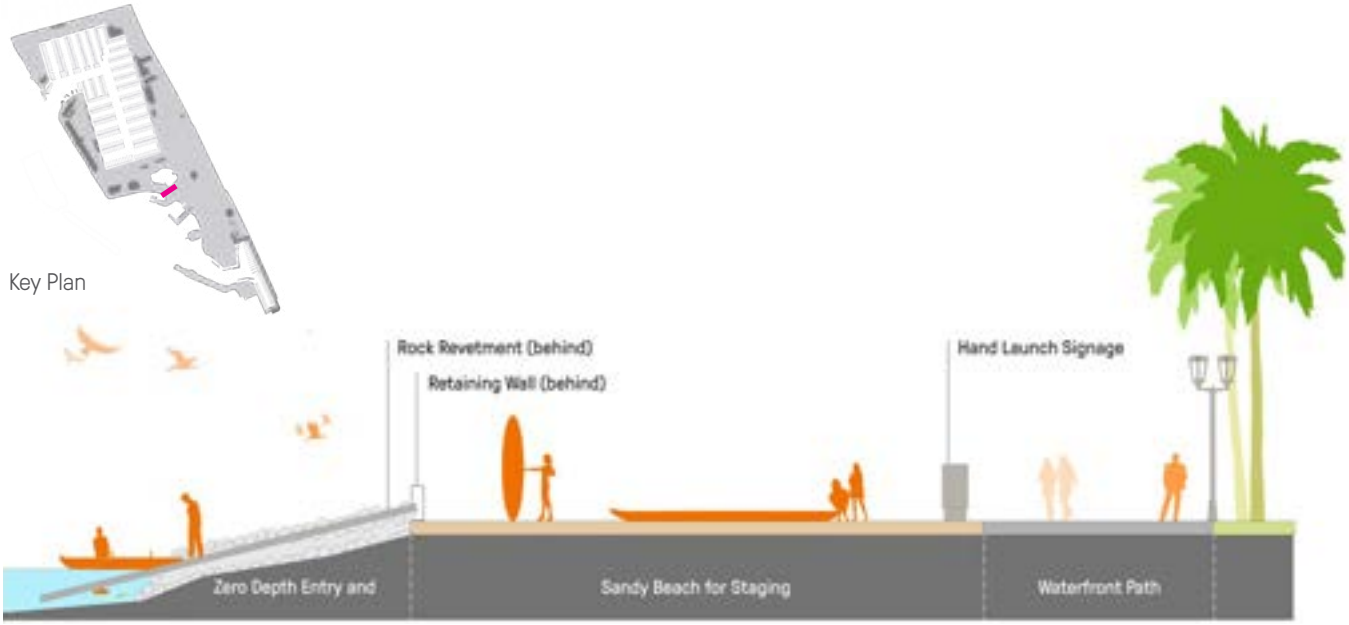
While there has been interest in adding vehicular drive-up access directly to the Hand Launch, given the activity level at the vital pedestrian intersection, it is recommended that the waterfront promenade in front of the Hand Launch be pedestrian-only, with flexibility for vehicular access for larger events. Removable bollards will be located at the edge of the Hand Launch waterfront node to ensure that vehicles do not access the path during authorized times. Consideration for nearby ADA parking is recommended at the closest stalls or at the temporary loading zone.

Cart Rentals for Paddlecrafts for Paddlecrafts

For those bringing their own kayak or SUP to the Hand Launch who require assistance to unload, Kayak Cart Rental Stations are recommended at three key areas around the Hand Launch and parking areas. The stations will be self-serving and allow users to rent a cart at a low cost for a specified amount of time. Stations can require credit cards, and carts can be equipped with a GPS tracking chip to discourage theft and loss.

Public Restroom

The construction of a new public restroom is recommended



Zero depth entry Hand Launch

near the Hand Launch. The restroom will be bathrooms-only, with a water bottle refilling station, and serve those visiting the Hand Launch as well as the waterfront promenade and great lawn by Seaside Lagoon. It is recommended that the restroom is within walking distance of the launch.

Shower and Craft Wash Down Station

A new wash-down station will allow users to rinse off their watercraft after use. The boat wash area should be something that will require minimal upkeep, with features such as an auto-retracting or hanging commercial hose/ shower system. This could be located on a pad near the sandy beach or at the adjacent node. The existing shower or a new shower should be located near the wash down station to establish one water hose connection.

Sandy Beach for Staging

Due to public access and safety concerns, the sandy beach is meant to be reserved for boat staging only. The community will be discouraged from loitering in this location. A two-foot wall will be located between the rip rap and the sand to assist maintenance and address safety issues. The sand will erode in at this location over time, and the wall will also help discourage people from climbing the rocks. It is recommended that the wall be above the high-tide mark to assist with sand erosion issues.

Potential Paddle Craft Rack

A paddlecraft rack could be located near the Hand Launch so that people may store their equipment and visit other amenities, like the Short Pier. This rack could be located on a concrete pad at the sandy beach staging area, or located at the adjacent node. Small lockers may also be considered for temporary storage.

Safety Signage

As the Hand Launch would not monitored by personnel, signage would be required to indicate its hours of operation, usage, and best practices. Recreational swimming should be not be allowed near the launch area and this restriction should be clearly indicated.

ADA Gangway

To access the new float, a 10-foot-wide pathway atop the existing breakwater or a pier structure on the leeward side of the breakwater would be constructed, in a curved alignment mirroring the breakwater. Approximately 80 feet from the new Hand Launch dock, the path/pier would end. A proposed 80-foot-long by 7-foot-wide aluminum gangway would provide access to the Hand Launch dock under all tidal conditions. The length of the gangway complies with Americans with Disabilities Act (ADA) requirements, providing an ADA-compliant path of travel to the Hand Launch dock.

Cart rentals for paddlecrafts

Floating Dock

The existing Hand Launch location experiences eddy currents and high-energy waves depending on the strength and approach of surges through the main entrance channel of the harbor. Therefore, a 60-foot-long by 12-foot-wide wave-attenuating dock, with a four-foot draft and two-foot freeboard, is proposed to attenuate wave and surge action within the Hand Launch basin, acting as an extension of the existing rubble mound breakwater. This wave-attenuating dock is anticipated to provide protection to the landing float and low-freeboard dock on its leeward side. The landing float is parallel to the wave attenuating dock, and has similar dimensions. An accessible kayak launch is proposed at the end of the landing float, so that a kayak may be brought directly down the gangway and into the launch. The landing float would also have a bridged connection to the wave-attenuating dock, and provide a slip for Harbor Patrol vessels or chase boats for regattas. No public use would be allowed.

The low-freeboard would be 60 feet long by 20 feet wide and extend north from the landing float. Its freeboard is only eight inches compared to 16 inches for a standard dock, so an aluminum ramp will be required to access it. The 60-foot length was selected to accommodate a 6 person outrigger canoe. The standard and wave attenuating docks are proposed to be concrete floats, while the low-freeboard dock is proposed to be an aluminum-framed structure with composite decking. All docks are proposed to be secured by concrete or epoxy-coated steel guide piles, depending on recommendations from a geotechnical engineering investigation performed during the design process. The docks would be designed in accordance with the 2005 Layout and Design Guidelines for Marina Berthing Facilities by the California Department of Parks and Recreation Division of Boating and Waterways (2005 DBW Marina Design Guidelines).

ADA accessible launch

Zero Depth Launch

As noted, the existing Hand Launch location experiences eddy currents and high energy waves. Previous attempts at establishing a sand beach have resulted in the beach eroding until the site achieved equilibrium. Therefore, a typical sand beach will be difficult to maintain at this site. A concrete toe wall or rock revetment is proposed to provide a containment area for a sand beach on which to stage human-powered craft. A concrete toe wall could be outfitted with ladders or concrete steps to allow independent access to and from the water for swimmers, while concrete steps would be the only access option for a rock revetment. A 10-foot-wide ramp is proposed within this area to allow permanent zero-depth entry into the harbor. The ramp would have a smaller v-groove surface, similar to a boat launch ramp, for sure footing during launch and retrieval of non-motorized watercraft. The materiality of the ramp should be slip resistant for ease of launching.

During development of the future Hand Launch, the existing sandy shoal should be further evaluated for entry potential into the water.

Hand Launch Alternate Concept

The following iteration concept shows the progression of the Hand Launch process, which ultimately led to the primary option. The primary plan option includes elements of the alternate concept.

Zero depth entry Hand Launch inspiration

ITERATION 1 - HAND LAUNCH (NOT PRIMARY OPTION)

Iteration Concept 1 | *Terraced Steps and Zero Depth Launch*

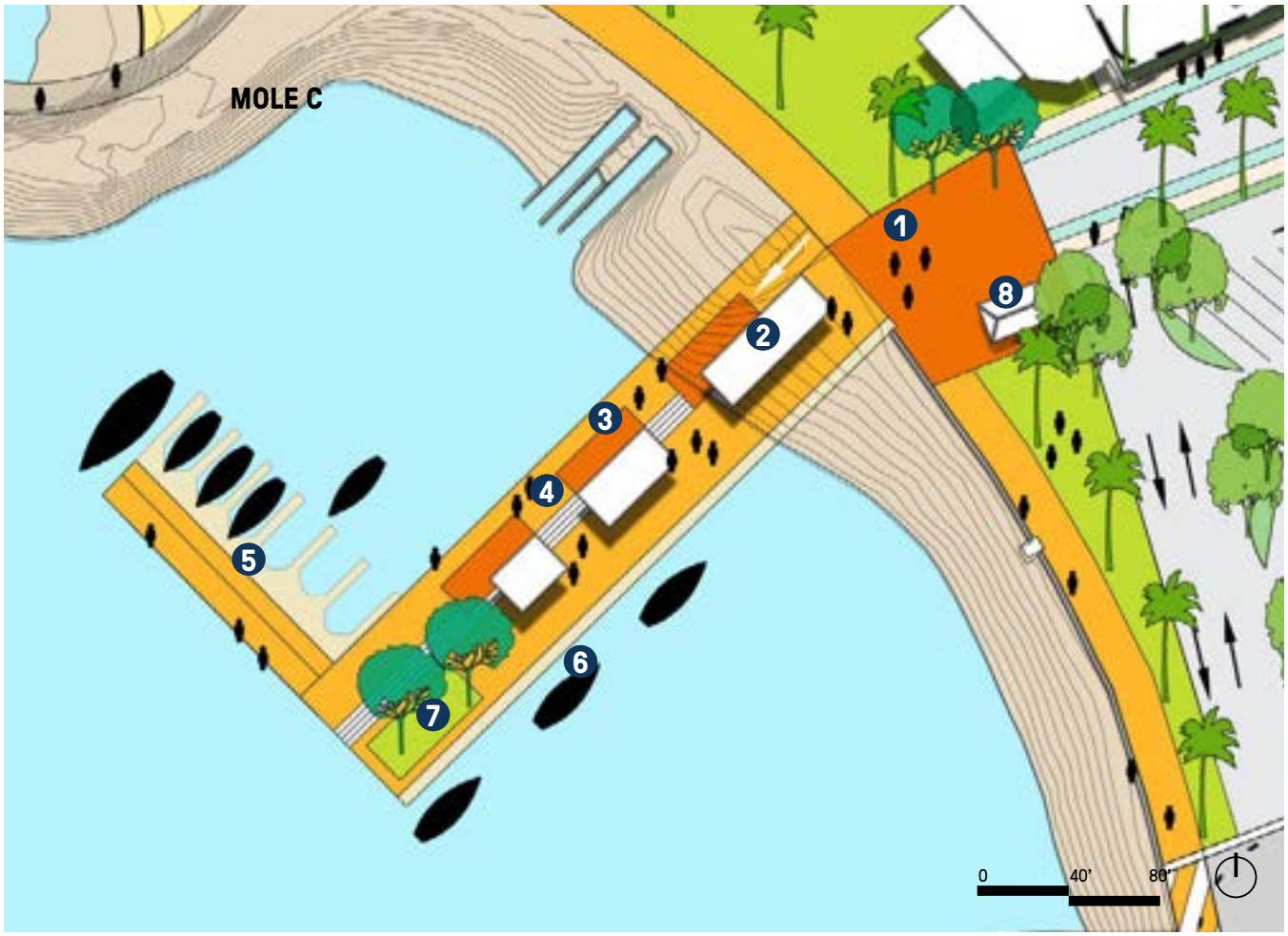
1. Direct pedestrian path to oceanfront
2. Zero depth entry
3. Protected terraced seating
4. ADA gangway and floating dock
5. Temporary vehicular drop off for events
6. Pedestrian path
7. Cart rentals for paddlecrafts
8. Public restrooms
9. Wash-down station
10. Sandy beach for staging

Iteration Concept 1

This iteration includes an enlarged breakwater and sheltered cove enhancement, terraced seating platforms for ocean views, zero depth entry concrete ramp, sandy beach for staging, and an enlarged floating dock with ADA access.

SHORT PIER PRIMARY ITERATION

Short Pier | *Replacement of Sportfishing Pier with New Amenities*



1. Digital signage
2. Restaurant/cafe
3. Seating
4. Stepped seating
5. Guest docks or Dock and Dine
6. Boat pull up
7. Flexible, artificial lawn space
8. Public restroom

A new vision and experience for the future Short Pier

7.3 Short Pier

Short Pier

New Amenities

The Short Pier (previously Sportfishing Pier) will be completely revamped into an active public space for people to dine, socialize, and enjoy views of the harbor. In previous years, prior to its closure, the Polly's on the Pier restaurant brought many families and visitors to the pier; since its closure, there is a need to bring a new interest in this area. The renovated Short Pier will include dining opportunities, stepped seating, open lawn space, and guest docks. The guest docks have potential to accommodate private vessels for dock-and-dine and visiting vessels of public interest in the preferred option.

It is recommended that the pier remain in the same location,

Existing Sportfishing Pier

Stepped seating

as it provides a necessary buffer between the Hand Launch facility, where people will operate non-motorized crafts, and the new Public Boat Launch. The pier itself will be demolished and reconstructed into a new pier, as it is not operable in its current condition.

Program

Cafes/Restaurants

The key programming at the pier is the introduction of new cafes and restaurants. These can be permanent or rotating vendors.

Dock and Dine

Areas for guests to dock their boats are severely limited in the harbor. The inclusion of guest docks at Short Pier is a necessary amenity and will help enable a dock-and-dine culture that is missing from King Harbor, and will promote tourism and visitors to the local restaurants. The slips can be utilized by 30- to 50-foot boats. Dinghy tie-up was originally considered on the north edge of the Short Pier but was later located at the dinghy dock location(s). The type of docked boats (motorized vs. non motorized) and location (north and south of the pier) are subject to further engineering studies. Docking locations north and south of the pier need to consider adjacent Boat Launch and Hand Launch facilities. The actual shape of the pier and connecting docks need to be further evaluated during development of the Short Pier.

Flexible Lawn

The end of the pier will open up to an open lawn area, providing open space for people to gather and enjoy the views. It also provides flexibility for public or private events along the pier. The lawn will be artificial turf, which can be saltwater-tolerant and conducive for high traffic. Trees added near the lawn should be placed so as to avoid blocking views of the harbor.

Seating and Stepped Seating

A variety of seating options should be provided, including benches, tables near dining establishments, and the terraced steps. The terraced steps create a hierarchy of space while also establishing harbor viewing opportunities. Small concerts or performances events can occur within these spaces.

Restaurants on the pier

Fishing

Fishing at the Short Pier was considered as an amenity at the eastern edge of the pier, along with a bait shop. Through iterations of the plan and community engagement, a stronger desire to keep this pier devoid of fishing and direct fishing to the Horseshoe Pier emerged. This would help avoid conflicts between fishing poles and diners or boaters. Therefore, a bait and tackle shop is not recommended on the pier. With the recommended removal of fishing on the pier, re-branding, which will be described in the next section, is recommended.

Branding Opportunities

Re-Branding

From the community participation process, the recommendation emerged to keep fishing off the new Sportfishing Pier while letting it remain in other areas of Redondo Beach Harbor.

Given that fishing is not recommended in the proposed concept, there is community interest in renaming the Sportfishing Pier altogether. There is an opportunity for the City to build on this momentum and engage the community in the renaming process. The City can sponsor a contest, or open up a survey for people to submit their ideas for a new name for the pier that honors and reflects the local community and history.

Reconstruction Recommendations

Like-Kind Replacement

The simplest approach from a regulatory permitting perspective is to rebuild the pier in-like-kind, but with environmentally sensitive materials such as steel or concrete piles, steel or concrete superstructure, and concrete, composite, or untreated timber decking in lieu of the existing treated timber piles and structure. However, the topside design of the pier can change while the footprint would remain the same. Therefore, features such as various concessions, different levels to the pier with integrated step seats, and other unique elements can be incorporated into the new structure without additional shading impacts. If the pier were to were to shift, there would be additional impacts,

Dock and Dine

Small lawn on the pier

and permitting would need to be considered in that light.

Materials and Future Studies

The selection of concrete or epoxy-coated steel piles would be dependent on embedment depths, sizing, and other factors evaluated by the geotechnical and structural engineers during the design process. Both pile material types have been used in or proposed for recent pier construction in Southern California. In addition to a geotechnical engineering investigation, hydrographic (i.e. bathymetric) and topographic surveys, a marina biology report, and a coastal hazards report would be required for design.

Given the Coastal Commission's mission of expanding access to the water, including increasing boating opportunities, it is believed that they would be supportive of the addition of transient boat slips and dinghy docks at the Short Pier. In order to provide safe harbor at this exposed location, construction of a wave-attenuating dock and/or a wave wall incorporated into the pier structure would be needed. A wind and wave analysis (also known as a metocean study) would be required to determine wave design criteria for the docks. The high energy of this location would also favor concrete as the preferred dock material, but the suitability of timber and aluminum docks would be evaluated. Lighting and fire protection utilities would be required, with water and electrical services desired — especially if these docks are used for dock-and-dine. All docks are proposed to be secured by concrete or epoxy-coated steel guide piles depending on recommendations from a geotechnical engineering investigation performed during the design process. ADA-compliant aluminum gangways would be proposed to access these docks.

Short Pier Alternate Concept

The following iteration concept shows the progression of the Short Pier process, which ultimately led to the primary option. The primary plan option includes elements of the alternate concept.

ITERATION 1 - SHORT PIER (NOT PRIMARY OPTION)

Iteration Concept 1 | *Replacement of Sportfishing Pier with New Amenities*

1. Information kiosk/educational center
2. Restaurant/cafe
3. Bait/tackle shop
4. Stepped seating
5. Flexible lawn space
6. Dock and dine
7. Dinghy pull-up
8. Seating
9. Public restroom

Iteration Concept 1

Iteration Concept 1 program elements include a revamped active public space where people can dine, a small open lawn, seating and stepped seating to enjoy views of the harbor, a public restroom nearby, dock-and-dine facilities, dinghy pull-ups, and a bait/tackle shop.

MOONSTONE PARK PRIMARY ITERATION

Moonstone Park | *New Public Hand Launch & Outrigger Club Expansion*

1. Open space
2. Seating and tables
3. Trees and shade
4. Deck overlook
5. Existing outrigger canoe clubs
6. Connected path circulation
7. Signage for free parking
8. King Harbor Bike Loop
9. Trailer parking
10. Outrigger clubs' flex area
11. Public restroom

A new vision and experience for Moonstone Park

7.4 Moonstone Park

Moonstone Park

Experience on the Redondo Beach Waterfront

Moonstone Park is a hidden treasure in King Harbor. It is home to a public park and the Nahoa and Lanakila Outrigger clubs. The proposed improvements in this plan seeks to integrate this area into the cohesive Redondo Beach oceanfront experience. The renovated Moonstone Park will incorporate new park amenities, shade, seating, and an iconic overlook deck, while maintaining existing space for outrigger clubs. The proposed concept seeks to create a memorable place where people can be in nature, enjoy vistas of the water, and be mesmerized by the movement of outriggers in the water. Moonstone Park should remain and open space while paying homage to the vast history of the site, from Native American occupancy to the storms that deposited moonstones along the shores. The goal of design here is "less is more,"' meaning that the existing park should not be overly designed. Enhancements to Moonstone Park will be coupled with a slight reduction in space to allow more room for outrigger club use in the preferred option.

Program

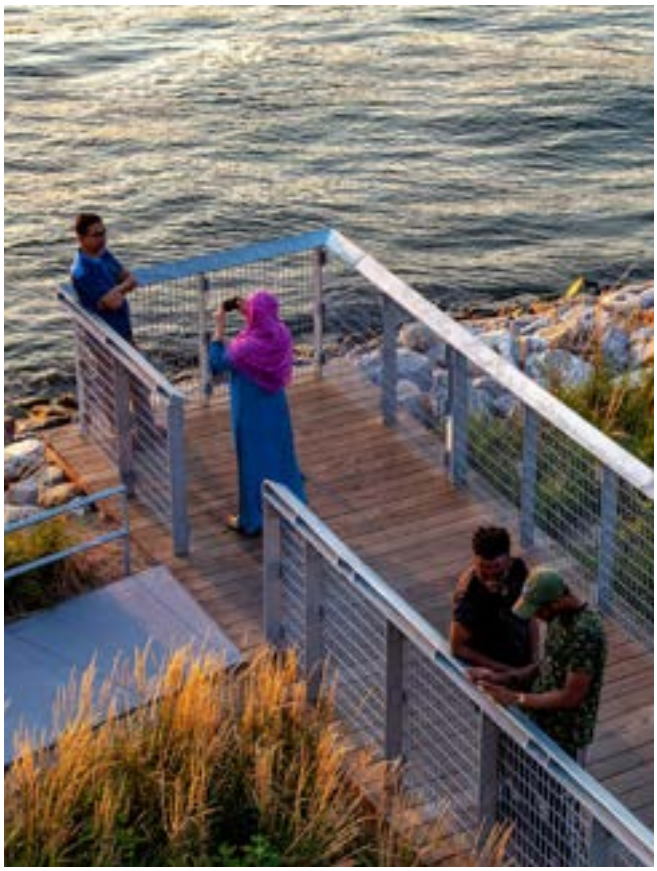
Deck Overlook

The overlook deck will provide a new experience and way to enjoy the oceanfront. It will be a great attraction, and provide space for what many already do at Moonstone Park — which is to watch the outriggers. It will also draw people in for other events that happen along the harbor, such as boat parades or fireworks. The deck will be ADA-accessible and connected to the King Harbor waterfront promenade.

Park Amenities

The inclusion of new park amenities will help make Moonstone Park a destination. Lighting, seating, and picnic areas will provide the necessary elements for people to

Open lawn



Overlook deck

experience the park. In addition, shade trees and planting will create warmth and the sense of connection to nature. The open space can be used for passive actives or educational activities like city sailing and outrigger training. A future study at Moonstone Park should be completed to analyze recycled water options.

Pedestrian Access and Mobility

Visitors will be able to visit Moonstone Park though Marina Way by vehicle, by foot on the King Harbor waterfront promenade, or by bicycle on the King Harbor Bike Loop.

Outrigger Flex-Area

A portion of the park adjacent to the park space is to remain free of trees or structures. This is designated as a flex area for outriggers to utilize. The current layout of canoe clubs includes:

- 23 45-foot outrigger canoes
- 150 one- and two-man canoes for training
- Two 40-foot trailers to transport canoes for races

The additional 2,500-square-foot flex space would be for large boat storage and operations on the pad. A flexible layout, in combination with this minor expansion of the canoe area, will improve the outrigger club operations allowing canoes to get on the water and onto trailers much faster. It is expected that this will have a minimal impact on Moonstone Park.

The existing outrigger clubs' launch is in poor condition. It is recommended that the city examine the opportunity to improve the launch. This would first and foremost improve safety for users, but would also improve access to the water. An ADA facility is recommended.

Helicopter Landing Clearance

A helicopter clearance with a 110-foot radius is required for emergency landing. The plan incorporates this radius and ensures the area is clear of any trees or obstructions.

Outrigger clubs during Novice Day

Parking

The community expressed a need to reevaluate the parking process along Marina Way and within Mole B. Most often, community members requested free parking or monthly passes for park goers. The city should consider parking options within Mole B to accommodate updates to the park.

Sea-Level Rise

Basin 2

The 2019 Sea Level Rise Vulnerability Assessment for King Harbor modeled that, by 2030, there would be flooding along the promenade facing King Harbor Marina in Basin 2. The existing bulkhead and promenade elevation around Basin 2 is low (approximately +7 to +7.5 feet MLLW), but the Moonstone Park site is one to two feet higher. Elevations are lower than in the original design due to subsidence in the area from oil extraction activities. The current top-of-wall elevation is too low to prevent overtopping from king tide events. Continued subsidence may occur. By 2050, the model predicted minor flooding of the Moonstone Park site during king tide events. In 2100, Moonstone Park is predicted to experience major flooding, while the drive aisle and parking areas along Marina Way will experience moderate flooding. Raising the finish grade elevations of Moonstone Park, Marina Way, and adjacent parking areas should be considered. These sites have no major structures, so constructing retaining walls and filling to new design grades would have minimal impact to buildings. However, the weight of additional fill on utilities should be considered. Sea level rise mitigation should be considered for the harbor as a whole as opposed to just this single location, because one vulnerable location could allow water to flank mitigation measures.

Moonstone Park Alternate Concepts

The following four iteration concepts show the progression of the Moonstone Park process, which ultimately led to the primary option. The primary plan option includes elements of these alternate concepts.

ITERATION 1 - MOONSTONE PARK (NOT PRIMARY OPTION)

Iteration Concept 1 | *Enhanced Existing Park*

1. Open space
2. Seating and tables
3. Trees and shade
4. Deck overlook
5. Existing outrigger canoe club
6. Connected path circulation
7. Signage for free parking
8. Stepped seating
9. Public restroom

Iteration Concept 1

Iteration Concept 1 enhances Moonstone Park within its existing boundaries. The existing park is enhanced with new amenities including a deck overlook, shade trees, seating and tables, and connected circulation. The Lanakila and Nahoa Outrigger Canoe Clubs boundary remains the same.

ITERATION 2 - MOONSTONE PARK (NOT PRIMARY OPTION)

Iteration Concept 2 | *Enhanced Park with Outrigger Club Expansion*

1. Open space
2. Seating and tables
3. Trees and shade
4. Deck overlook
5. Expanded outrigger canoe club
6. Connected path circulation
7. Signage for free parking
8. Trailer parking
9. Public restroom

Iteration Concept 2

Iteration Concept 2 enhances Moonstone Park with reduced open space to allow maximum room for Outrigger Club use. The existing park reduces open space, but still introduces new amenities, including a deck overlook, shade trees, seating and tables, and connected circulation.

ITERATION 3 - MOONSTONE PARK (NOT PRIMARY OPTION)

Iteration Concept 3 | *Minimal Park with Dry Boat Storage*

1. Open space
2. Seating and tables
3. Trees and shade
4. Deck overlook
5. Existing outrigger canoe clubs
6. Connected path circulation
7. Signage for free parking
8. Trailer parking
9. New public boat storage
10. Public restroom

Iteration Concept 3

Concept 3 introduces public dry boat storage on site, and reduces the Moonstone Park open space. The existing park reduces open space, but still introduces new amenities including a deck overlook, shade trees, seating and tables, and connected circulation.

ITERATION 4 - MOONSTONE PARK (NOT PRIMARY OPTION)

Iteration Concept 4 | *New Public Hand Launch & Outrigger Club Expansion*

1. Open space
2. Seating and tables
3. Trees and shade
4. Deck overlook
5. Existing outrigger canoe club
6. Connected path circulation
7. Signage for free parking
8. Trailer parking
9. Shared-use lawn with outrigger clubs
10. Public restroom
11. New public Hand Launch

Iteration concept 4

Concept 4 introduces a new Hand Launch on site that can be accessed by the public, and provides more room for the outrigger club. New park amenities are introduced. A new Hand Launch is also introduced that can be shared by the public and outrigger club. The park is reconfigured to allow for the Hand Launch and expanded outrigger uses.

PUBLIC BOAT LAUNCH PRIMARY ITERATION

Public Boat Launch Park | *Beryl Street Entrance, Mole D Entry Drive Exit*

1. Trailer enter and exit
2. Trailer parking
3. Launch queuing lanes
4. Wash down lanes
5. Turning circle
6. Ramps and boarding float
7. Public restroom and showers
8. Existing hoist
9. Pedestrian path
10. Car entry and exit
11. Flexible stalls
12. ADA trailer parking
13. ADA car parking
14. Boat egress preparation zone
15. Striped pedestrian crossing

Public boat ramp and boarding float

7.5 Public Boat Launch

Public Boat Launch

What is a Public Boat Launch?

A Public Boat Launch provides access for larger boats on trailers to be launched directly to the water. The Public Amenities Plan identifies a preferred location for a new boat launch in King Harbor, which was ranked as the third top missing amenity in the Phase 1 Survey.

Preferred Location at Mole D

Public Boat Launch at Mole D offers opportunities for access and provides for a distinct separation of motorized versus human-powered craft access to the harbor waters

Mole C was considered as a potential location for the Public Boat Launch. Upon further review, Mole C is not an optimal location for the Public Boat Launch. Mole C would provide limited access, reduced stall counts, and cause crossover traffic between motorized and human-powered craft at intercept locations.

Mole A and Mole B were removed from consideration in Measure C, and ultimately not considered. At Mole A, storm surges overtop the breakwall, and would reduce the feasible number of trailer stalls by 20 to 30. At Mole B, the location is unable to accommodate the required trailer stalls

Program

Launch Ramps

The boat launch is designed in accordance with the 2021 Layout and Design Guidelines for Boat Launching Facilities by the California Department of Parks and Recreation Division of Boating and Waterways (2021 DBW BLF). It is proposed to have two v-grooved concrete launch lanes, which have 18 feet in clear width, and an 8-foot-wide by 190-foot-long boarding float between the launch lanes. This is in accordance with 2021 BLF requirements and Measure C, and gives an resulting ramp width of 44 feet. A rip rap slope encircles the launch ramp per 2021 DBW BLF requirements. Concrete or steel piles are envisioned down the center of the boarding float, allowing easy access to vessels from both sides. The boarding float would consist of hinged float sections, allowing it to articulate (move up and down) with the tide. The proposed launch ramp layout provides ample water space on either side of the ramp to allow vessels to queue on busy days without impacting harbor vessel traffic.

PUBLIC BOAT LAUNCH

Public Boat Launch | *Trailer Ingress and Egress Circulation*

Turning Circle

The turning circle at the top of the boat launch has a diameter of 80 feet to comply with American Association of State Highway and Transportation Officials (AASHTO) Greenbook requirements for passenger vehicles/trucks with boat trailers. The minimum turning circle for a 19-foot-long vehicle pulling a 20-foot boat (42 feet overall length) is 48 feet in diameter, in accordance with Figure 2-31 in the AASHTO Greenbook, which is less than the minimum 60-foot turning circle specified in the 2021 DBW BLF Guidelines. The same vehicle pulling a 32-foot boat (54 feet overall length) requires a turning circle approximately 80 feet in diameter.

Striped Pedestrian Crossing

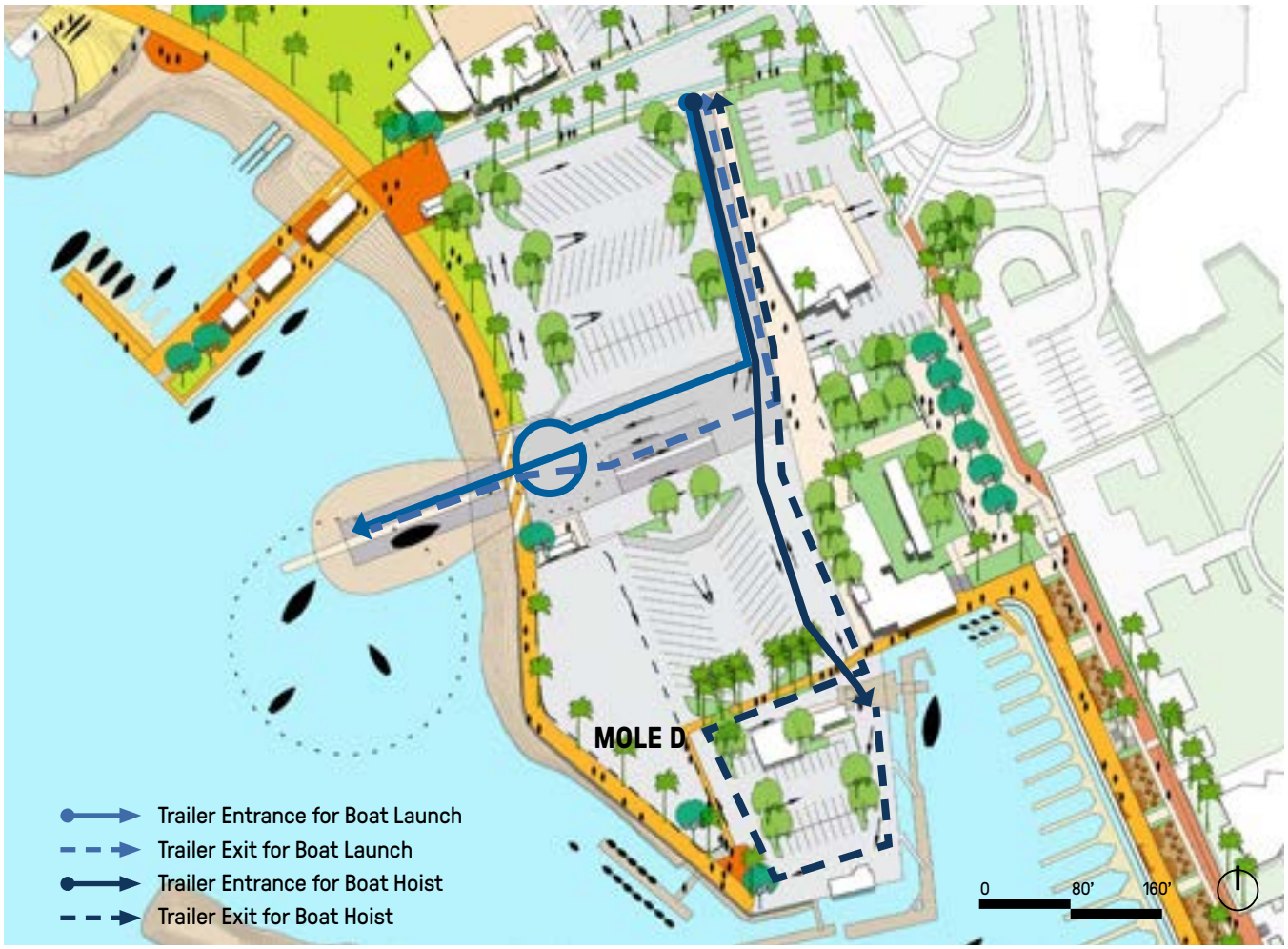
Where the waterfront promenade intersects the boat launch, colorful striping and signage will be utilized to warn pedestrians of boat launching in the area. Pedestrians will also have an option to walk around the launch through an interior pathway north and south of the boat ramp if preferred.

Queue Lanes

Three "make-ready" lanes are proposed prior to the turning circle to allow vehicles to queue and patrons to prepare their boats and trailers for launch. This expedites the launch process. There are two exit lanes, with washdown pedestals, wash water capture, and filtration. There also are two auxiliary lanes – one adjacent to each parking area – to bypass the "make-ready" and washdown lanes and access the parking areas.

PUBLIC BOAT LAUNCH

Public Boat Launch Park | *Public Boat Launch and Hoist Circulation*



Parking

There are two parking areas: one on either side of the boat launch ramp. Sixty dedicated boat trailer stalls are proposed, of which 13 stalls are 55 feet in length. Three boat trailer stalls are ADA compliant. There are also flexible stalls within this parking lot which can be used for up to 11 additional boat trailer parking stalls or up to 22 standard car parking stalls, depending on demand. This is in addition to two dedicated standard accessible parking stalls. All boat trailer stalls are the pull-through design.

Wash Down Lanes

Washdown lanes will be made of concrete and contain two pedestals with separate grate drains. The engine flush and wash water will be captured in a system that prevents wastewater from ending up in the bay.

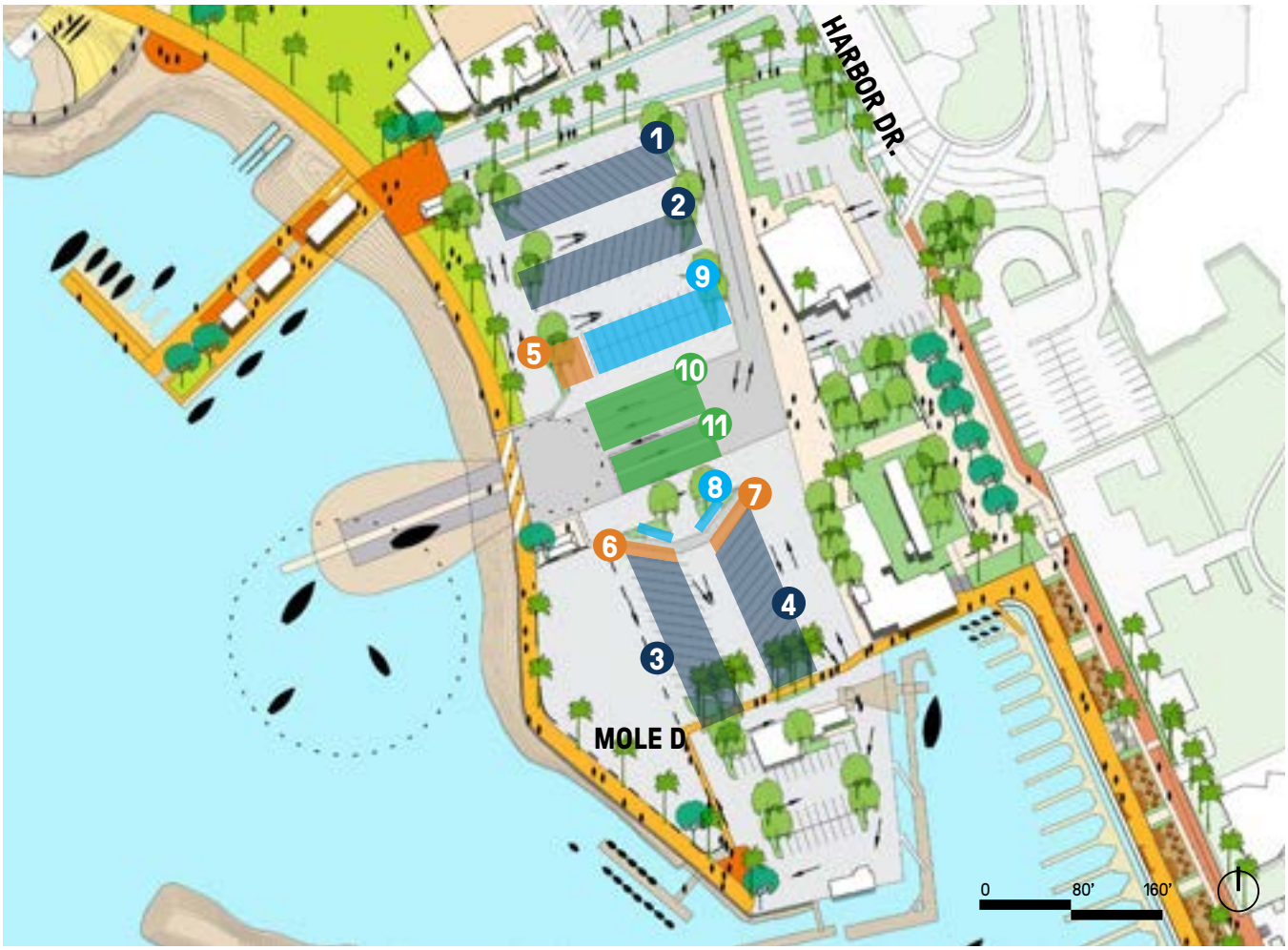
Existing Boat Hoist

Today, the only way to launch a boat is to utilize the existing boat hoist near Basin 3. The boat hoist is a service that lowers boats into the water, which is especially important for those physically unable to launch their own boats via a ramp. Maintaining the existing boat hoist, in addition to the new Public Boat Launch, will ensure access for those unable to utilize the new boat launch.

The King Harbor boat hoist is one of only a handful of public hoists along the California coastline. Boats are launched by professional staff, increasing access to the ocean.

PUBLIC BOAT LAUNCH

Public Boat Launch Park | *Stall Allocation Counts*



Trailer Stall Counts

1. 15 stalls- 40' long
2. 14 stalls- 40' long
3. 14 stalls- 55' long
4. 14 stalls- 45' long

ADA Trailer Count

5. 3 stalls- 40' long
6. 1 stall- 55' long
7. 1 stall- 45' long

Car Stall Counts

8. 2 stalls- ADA
9. 22 stall- flexible stalls

Boat Launching

10. 3- Launch queuing lanes
11. 2- Washdown lanes

Vehicular Circulation

The plan proposes an entrance from Beryl Street, with a dedicated boat queue lane in the parking lot. A drive aisle, with one lane in each direction to enter and exit the parking lot, is provided. There is also a return lane from the trailer parking, running parallel to the entrance lane.

The one-way access road from Beryl through the parking lot will mitigate boating traffic on Harbor, and would reduce boat congestion on Harbor Drive in the AM peak hours. An 80-foot diameter turn around is provided in front of the ramp.

Due to the queuing lane being "on-site," there could be potential conflicts with new pedestrian and bicycle paths and connections. To mitigate conflicts, clear pedestrian crossing points will be located along the queue lane, which will have notice and signage to keep area clear.

Boat Egress

An area just south of the boat launch is highlighted as a boat egress preparation zone. This will allow boats to stall as they wait their turn to exit the water with their trailer.

Queuing docks are an option to help reduce congestion in the basin around the Public Boat Launch. The docks would help prepare boats with egress as they get ready to pull out of the water. An egress zone and queuing dock should both be evaluated for boat egress with a future launch.

Recommendations for Existing Buildings

The existing restaurant on site was constructed in 1991, and is currently occupied by Samba by the Sea, a Brazilian steakhouse restaurant. It is a single-story, wood-framed building, clad with wood siding and artificial stone, and features an interesting ship's mast design in the complex hipped roof. It remains in good condition with some minor damage observed. The proposed boat launch facility would require, at minimum, a partial tear-down of Building 13 in order to provide the necessary queuing space for vehicular/boat traffic. The building was previously evaluated in 2015 and determined to have no historical significance. A partial tear-down could be performed, but likely at a higher cost and with significant impact to the existing dining areas. Full demolition is recommended. In the future, a new restaurant or other amenity could be provided at this location.

Additional Recommendations

Future Studies and Reports

Similar to the Short Pier, a geotechnical engineering investigation and report, hydrographic (i.e., bathymetric) and topographic surveys, a marina biology report, and a wind and wave analysis would be required for the design of the boat launch and boarding float. Given the proximity of the two sites, combining the geotechnical investigation, surveys, and coastal engineering studies (i.e., wind and wave analyses and coastal hazards report) would provide cost savings. Marine biology reports must be performed close in time to actual project work, so individual reports may be required based on project timing. An additional traffic circulation and parking lot study is required to further study the parking lot space counts and connections to the proposed Public Boat Launch and existing hoist.

Public Boat Launch Alternate Concept

The following iteration concept shows the progression of the Public Boat Launch process, which ultimately led to the primary option. The primary plan option includes elements of this alternate concept.

ITERATION 1 - PUBLIC BOAT LAUNCH (NOT PRIMARY OPTION)

Iteration Concept 1 | *Pacific Avenue Entrance, Mole D Entry Drive Exit*

1. Trailer enter and exit
2. Trailer parking
3. Launch queuing lanes
4. Wash down lanes
5. Turning circle
6. Ramps
7. Public restroom
8. Existing hoist
9. Pedestrian crossover path
10. Car entry and exit

Iteration Concept 1

Iteration Concept 1 includes parking stalls, pull through trailer spaces, wash down station, 80-foot diameter turn around, and a public restroom. Ingress and egress into the site occurs through a new vehicular entrance at Pacific Avenue.

ITERATION 1 - PUBLIC BOAT LAUNCH - CIRCULATION (NOT PRIMARY OPTION)

Iteration Concept 1 | *Trailer Ingress and Egress Circulation*

Iteration Concept 1 — Vehicular Circulation

Concept 1 proposes a new entrance from Pacific Avenue. Boats will enter via a dedicated lane that will cross through the existing Captain Kidd's building location. Captain Kidd's will continue operating, but will need to move to a new location within the Harbor. Benefits of having a Pacific Avenue entrance include: a boat queuing lane would be "off-site" on Pacific Avenue, pedestrian and bicycle conflicts would be minimized, and boat congestion on Harbor Drive in the AM peak hours would be minimized. Concerns with this iteration include traffic impacts on Pacific Avenue. the need for Captain Kidd's to be relocated within the harbor, and the impact of new boat traffic on nearby neighbors.

DINGHY DOCK PRIMARY ITERATION

Dinghy Dock | *Proposed Locations*

1. Expansion of existing excursion launch
2. Near proposed boat launch
3. Northern slip within Basin 3

Dinghy dock ramp and dock

7.6 Dinghy Dock

Dinghy Dock Recommendations

Dinghy Dock Overview

Dinghies are primarily used to carry passengers from visiting boats. Visitors anchor their large boats in the mooring field, and take a smaller boat — a dinghy — to access the waterfront, businesses, restaurants, and amenities. The preferred plan proposed the inclusion of floating dinghy docks at two locations, with the potential to serve both visiting (anchored in the harbor's mooring field), and local craft excursions for local dining opportunities.

Access to Shops and Restaurants

A dinghy dock would enable docking and dining for visitors from the mooring field, for King Harbor boaters with small vessels, and for paddlecraft.

The integration of multiple dinghy docks will help transform the boating experience at King Harbor, and will enable an increase of visitors from neighboring marinas.

Accessibility

ADA should be required at future dinghy dock locations.

Dinghy Dock Locations

Expansion of Existing Excursion Launch

A dinghy dock at the excursion launch would provide access to ample parking and commercial amenities at the International Boardwalk. The excursion launch would be extended within the main channel, along the revetment towards the harbor entrance. Because the gangway to the excursion launch is not secured, an on-dock security gate could be provided to gain access to the proposed dinghy dock extension. Different dock material types, such as concrete, timber, and aluminum could be evaluated for this location, with an aluminum slide plate bridging a small water gap between the existing excursion dock and proposed dinghy dock, which would move independently of one another. If required, a new, accessible aluminum gangway and concrete gangway platform could be constructed.

Near Proposed Boat Launch

An independent dinghy dock between the proposed boat launch and existing instruction sailing dock would be adjacent to parking and boater bathrooms. A new aluminum gangway and concrete gangway platform would be required.

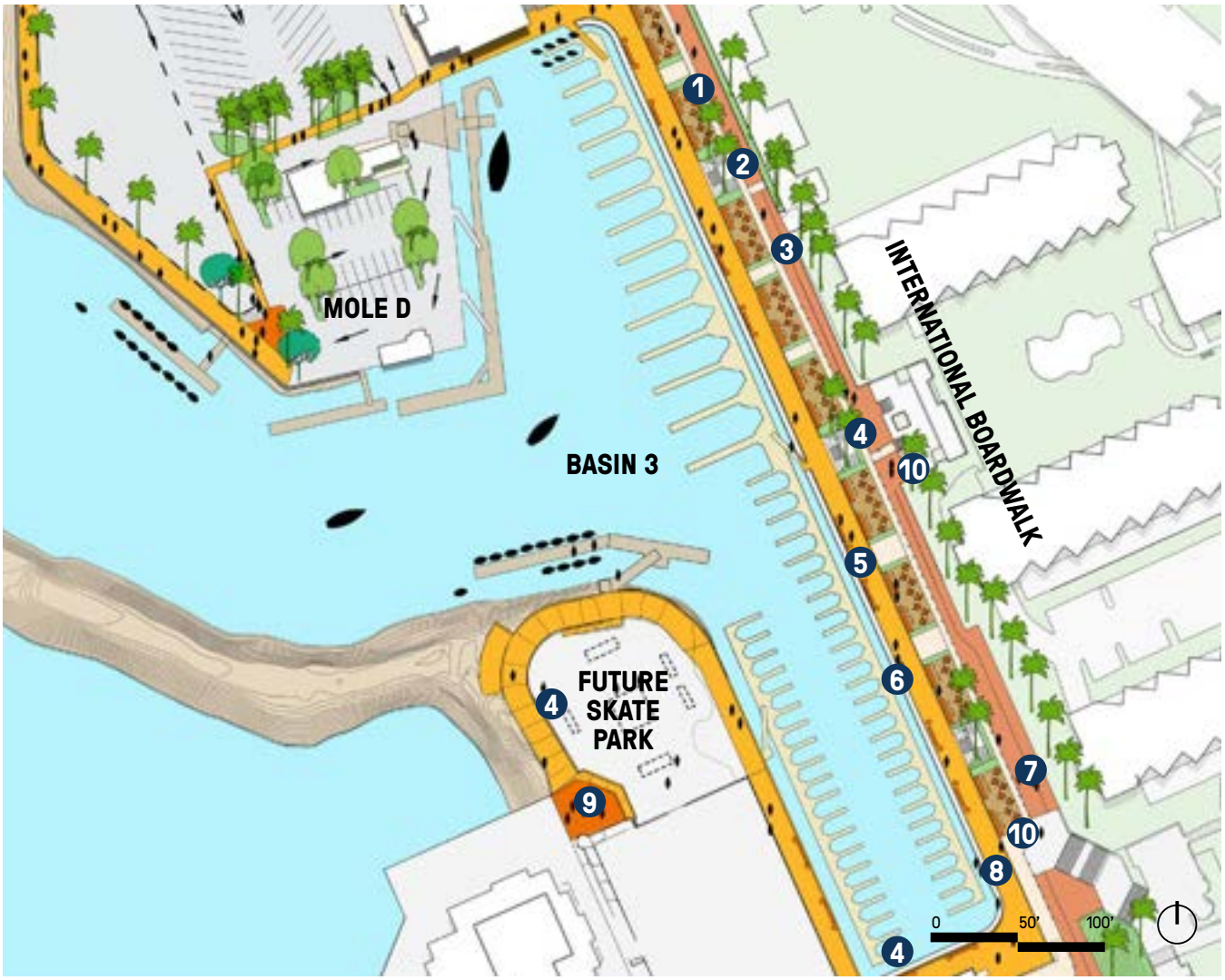
Northern Slip within Basin 3

An existing slip within Basin 3 can be converted into a dinghy slip utilizing the existing dock and gangway platform for access. This slip would create direct access to International Boardwalk.

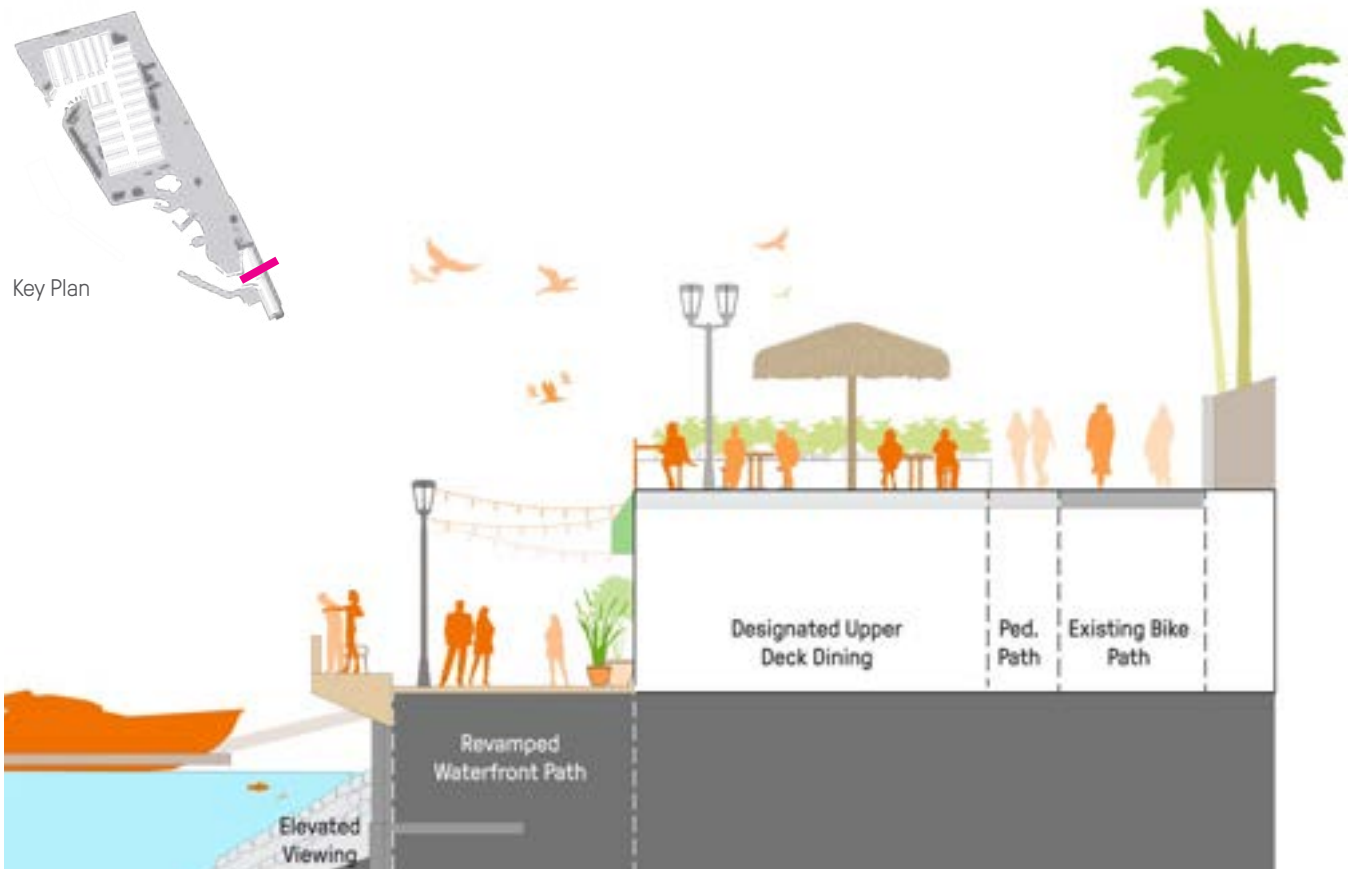
Dinghy docks should be considered in every basin within the harbor if it increases access to public amenities. Additional dinghy dock locations should be considered based on future demand and usage of proposed locations.

INTERNATIONAL BOARDWALK PRIMARY ITERATION

International Boardwalk | *Revitalized Boardwalk and Amenities*



1. Upper deck dining spaces
2. Prominent staircases to upper deck
3. Viewing decks
4. Updated restrooms
5. Pathway improvements
6. Revised sea wall design
7. Separation of pedestrian and bike path
8. Improvements to furnishings
9. Node: improved connection to Horseshoe Pier
10. Additional bike parking nodes



International Boardwalk section

7.7 International Boardwalk

International Boardwalk Recommendations

International Boardwalk — Overview

International Boardwalk will receive improvements that allow its foundational infrastructure to remain intact. As part of the Phase 1 upgrade, updates to the International Boardwalk include pathway improvements, updated signage, and improved furnishings to enhance the user experience. It is important to embrace the local charm of International Boardwalk and not to over-design the space.

Clearer transitions between the boardwalk and upper deck will be included, with upper deck amenities for both tenant and public uses. Delineation of bike and waterfront pathways will provide improved wayfinding and establish sense of place. More advanced redevelopment of International Boardwalk may be revisited in the future as a Phase 2 redevelopment; however, this will not be studied as part of the Public Amenities Plan.

Pathway Improvements and Upgrades

Prioritization of immediate improvements to International Boardwalk will provide an enhanced visitor experience. A new, repaved pathway along the boardwalk (in front of the restaurants) provides much-needed cosmetic improvements. Along the path updated seating, tables, planters, and lighting provide a design refresh. Designs should avoid blocking views from restaurants at the lower levels. Updated restrooms at all three locations on International Boardwalk are also recommended.

Connection to Horseshoe Pier

International Boardwalk is an important connector between King Harbor and the Redondo Beach Horseshoe Pier.

International Boardwalk will be anchored at the end with a new waterfront node, that will provide additional amenities such as shade, seating, and lighting as well as a place to gather. This node, along with clear directional signage and visual cues will ensure that the International Boardwalk

A new vision and experience for upper deck dining at International Boardwalk

provides a continuous pathway for pedestrians.

New Upper Deck Experience

The existing staircases from the lower level to the upper deck of International Boardwalk are recommended for renovation into more prominent staircases. The existing planters in these areas can be removed, which will allow a for the staircases extended. This would permit the upper and lower deck to be more open and visually connected, allowing for clearer pedestrian access and circulation between these areas. The staircases can also be repainted or redesigned with artistic elements that are true to the character of International Boardwalk.

Existing upper deck dining at International Boardwalk

Upper Deck Dining and Viewing Decks

In recent years, the upper deck has been utilized for outdoor dining for the restaurants located at International Boardwalk. The City is currently in the process is making this a permanent program. The eventual permanent outdoor

A new vision and experience for lower boardwalk at International Boardwalk

dining program would create a standard design for every upper deck area. The upper deck will allow visitors to take advantage of the ocean views while dining at the local establishments. Future designs should consider transparent material, like glass, to emphasize views.

It is also essential that the upper deck continue to be a public amenity and a pedestrian and bicycle connector along King Harbor. The inclusion of breaks along the upper deck that are dedicated viewing areas for public use, clearly separated from dining seating, will ensure that the public continues to access and benefit from this space. It is recommended that at least one side of a staircase be accessible as a viewing deck. While there are bike racks along the International Boardwalk currently, they should be reviewed and potentially reoriented so that bike parking is near the stairs and elevators on both ends, and located at one of the public overview decks. This public deck can be dedicated for dismount and for bike racks.

Existing lower boardwalk at International Boardwalk

Upper deck dining at night

Vendors

The community has expressed interest in a range of vendors including grab-and-go eateries, bars, fish markets, upscale dining, souvenir shops, and boating shops at the International Boardwalk. A variety of options should be considered, including local vendors.

Separated Bike and Walk Path

Another key site circulation improvement is upgrades of the upper deck path to clearly delineate between bicycle and pedestrian uses. A separated pedestrian path will provide a more cohesive pedestrian experience between the dining areas and bike lanes.

Sea-Level Rise Recommendations

Sea Level Rise Concerns

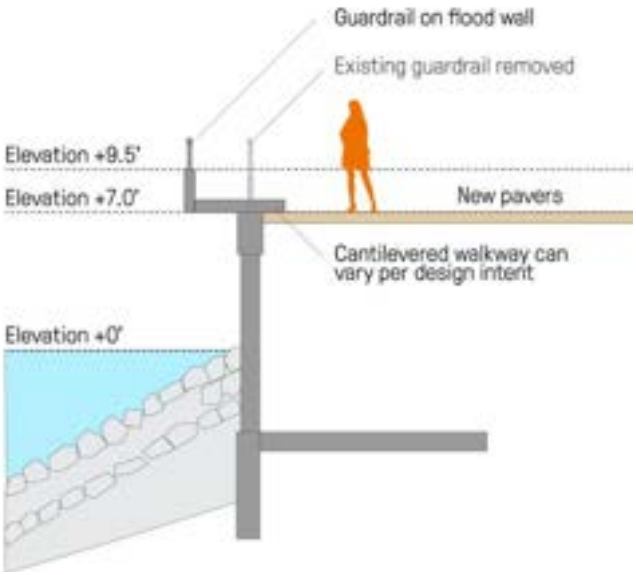
Cumulative surge, swell, and wave effects from offshore storms and local winds impact the existing International Boardwalk. The existing retaining wall and guardrail do not sufficiently protect the path and vendors. Several short- and long-term solutions have been studied. All options should be reviewed to determine which is best for implementation based on cost and effectiveness.

Parameters

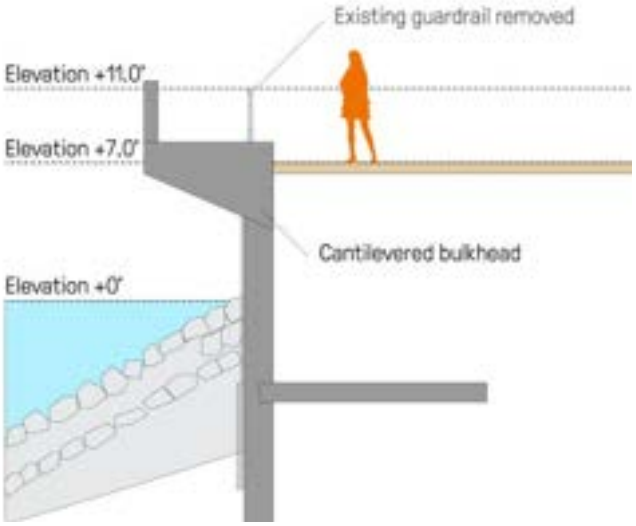
The height above Mean Lower Low Water (MLLW) varies between short- and long-term. MLLW refers to the measurement of the lowest of the two low tides per day, averaged over a 19-year period. Based on the 2019 Sea Level Rise Vulnerability study, it is assumed that an astronomical king tide event would be 7.5 feet above MLLW. This value, coupled with sea-level rise assumptions, generate the need for the new treatments to be 9.5 feet above MLLW in the short term (5-10 years) or 11 feet above MLLW in the long term (10 or more years)

Short-Term Solution

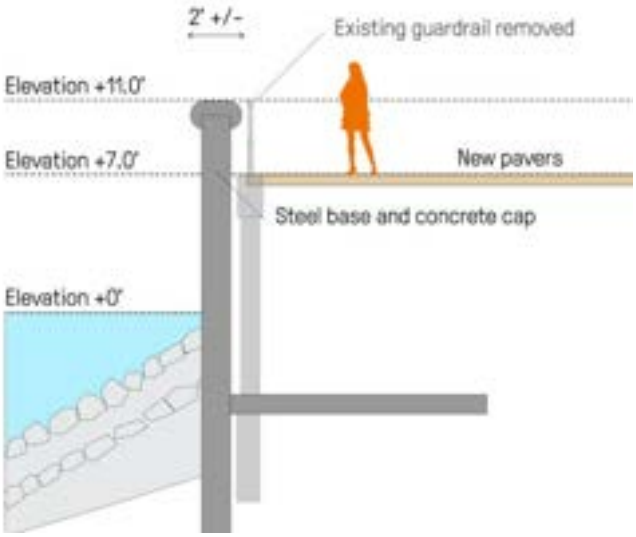
A short-term solution consisting of a cantilevered reinforced concrete platform and integrated reinforced concrete stem wall is proposed. The top of wall would be set at +9.5 feet MLLW, which is two to 2.5 feet higher than the existing top-of-wall. This would provide adequate protection from wave overtopping in the short term until a replacement structure is designed, permitted, and constructed. A keyed counterweight would be required to balance the cantilevered structure. To mitigate the damaged asphalt, paver blocks



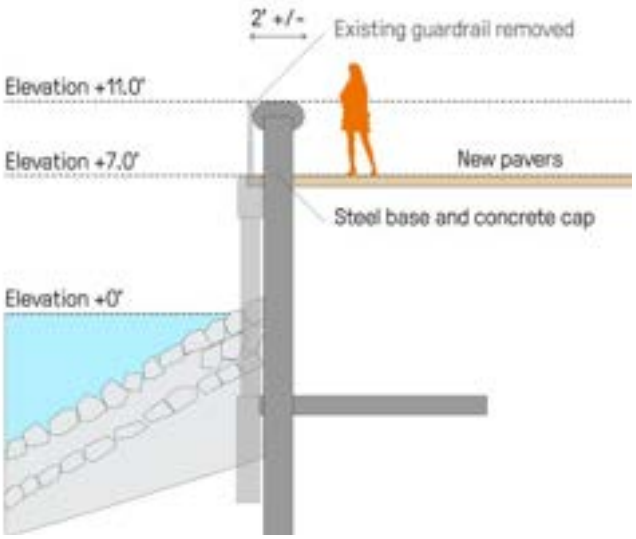
Sea level rise solution: short term cantilever



Sea level rise solution: mid-term retro fit and cantilever



Sea level rise solution: long term bulkhead replacement - option 1



Sea level rise solution: long term bulkhead replacement - option 2

are proposed. The cracks in the asphalt are likely caused by a poor subgrade and loss of fill material over time from tidal action. Paver stones can be easily repaired until the existing bulkhead is replaced. Furthermore, floodgates and steps should be provided for the gangway locations to the Redondo Beach Marina so that these flood prevention/access measures can be deployed when high tides or storm events are predicted.

Retrofit and Cantilevered Boardwalk — Mid-Term Solution

This option consists of performing repairs and retrofit to the existing bulkhead as outlined in a 2019 assessment. It is estimated that these repairs would provide an additional 20 to 30 years of useful life for the 60-year-old bulkhead (i.e. a total useful life of up to 90 years). A reinforced concrete boardwalk with an integrated parapet wall would be cantilevered over the retrofitted wall. The cantilevered boardwalk would be independent of the existing bulkhead, and be designed to not impact the repaired bulkhead. This differs from the short-term solution, wherein the parapet

Seating potential along cantilevered edge of sea wall

wall has a top of wall height of +11 feet MLLW to account for potential sea level rise as well as wave overtopping. To mitigate the damaged asphalt, paver blocks are proposed. Paver stones can be easily repaired until the existing bulkhead is replaced. Furthermore, flood gates and steps should be provided for the gangway locations to the Redondo Beach Marina, so that these flood prevention/access measures can be deployed when high tides or storm events are predicted.

Permanent Solution —Bulkhead Replacement

Given the structural condition assessment of the bulkhead, the retrofits performed several decades ago, and its remaining useful life, planning for the replacement of the bulkhead within Basin 3 should begin soon to allow for vetting of options and procurement of regulatory permits. Various options were evaluated, but the two most cost-effective options involve steel sheet pile walls.

Bulkhead Replacement — Option 1

One option would drive the sheets landward of the existing bulkhead, while the other options would place the new sheets in the water just beyond the existing bulkhead. The landside option would require some excavation behind the stem wall and partial demolition of the footing, because the sheets would likely be driven using push-in (i.e. silent) or vibratory methods to minimize impact to adjacent buildings. Similarly, if the sheets are driven on the waterside of the bulkhead, rocks within the toe wall revetment would need to be removed. Both long-term options would raise the top of wall to a height of +11 feet MLLW, with the structural ability to raise the top of wall further if sea levels rise further.

Recent projects provide precedence for installing sheets on the water side of the bulkhead as close as possible to the existing structure. The gap between the structures would be grouted with the existing bulkhead being abandoned in place. This option reduces the water space within Basin 3, but the existing docks are already set back ten feet from the existing bulkhead because of the rock toe wall revetment. Therefore, it is possible that usable water space is gained. This also widens the boardwalk and usable patio space for dining establishments and pedestrians.

Bulkhead Replacement — Option 2

If the sheets are installed on the landside of the bulkhead, that would increase the water space and potentially allow more dock layout options for the replacement of the Redondo Beach Marina in Basin 3. However, this option reduces the promenade and impedes upon adjacent shops and restaurants.

Any option should take into consideration access to the floating docks. A new marina can incorporate gangway platforms at a higher elevation, but greater vertical distances from the top of each gangway to the docks increases the steepness of the ramps.

Bulkhead Replacement — Option 2 with Cantilevered Boardwalk

This option is similar to Option 1, wherein the replacement steel sheet piling is driven on the water side of the existing bulkhead. However, the new sheets would only extend to a top elevation of approximately +7 feet MLLW. A reinforced concrete boardwalk with an integrated parapet wall would be cantilevered from the new bulkhead. The new cantilevered boardwalk would be structurally integrated with the new bulkhead and be level with the repaired waterfront promenade. This would provide a smooth transition between the waterfront promenade and boardwalk. The parapet wall would have a top-of-wall elevation of +11 feet MLLW to accommodate potential sea level rise as well as wave

Riviera Village, Redondo Beach

overtopping.

Any option should take into consideration access to the floating docks. A new marina can incorporate gangway platforms at a higher elevation, but greater vertical distances from the top of each gangway to the docks increases the steepness of the ramps.

Recommendations for Existing Buildings

International Boardwalk

The proposed plan for King Harbor includes improvements to the International Boardwalk. The International Boardwalk was part of the original design for the harbor, and appears in the master plan by architects Arthur Froehlich and Rex Lotery. It consists of a row of commercial spaces that wraps four sides of Basin 3 and is accessed by a broad walkway at the marina's edge. It was meant to bring visitors close and enliven the marina. However, when completed in the mid-1960s, the spaces remained undeveloped and unoccupied, and were eventually enclosed for storage. By the late 1970s, the spaces were leased for commercial functions. The promenade above the boardwalk was also created at that time, when a subterranean parking structure was added to the east. Buildings at the north and south ends were also added at that time. Over the years, the businesses changed frequently, as did their respective facades. A general renovation occurred in 1989, when the metal-clad pent roof was added, and changes were made to the stairways.

The International Boardwalk was evaluated in 2015, and due to its extensive alterations, it was not considered to be a historic resource. However, it remains one of the earliest structures at the harbor and can continue to function as it was intended by enlivening the marina. The proposed plan will enhance the user experience with dining spaces, viewing decks, updated restrooms, pathway improvements, signage, and furnishings. It is recommended that the overall cast-in-place structure, form, and organization of the Boardwalk remain, but there is considerable flexibility in the design of commercial fronts and other items that can enhance the visitor experience.

Charter Boat House

The Charter Boat House is in poor condition and will require significant repair for continued use. The boat house was originally constructed in 1962-1964 as a one-story office building for the marina boat hoists, fuel pumps, and the Catalina Express excursion boat. In 1977, a second story and western extension were added, along with the corner "lighthouse" feature. It is currently leased by Foss Maritime Co., a contractor to Chevron Oil. The building is currently in poor condition, with heavy cracking and possible structural failure at a cantilevered concrete slab. Reportedly, a structural engineer has evaluated this slab and some upcoming repairs are anticipated. In the meantime, temporary stabilization and/or tenant relocation may be necessary. The building was previously evaluated in 2015, and determined not to be eligible for historic designation. Its original appearance has been substantially altered and there are no known historical associations with the building design or use. However, the boat house is a recognizable building, with local value for its long-term association with the waterfront. Immediate temporary stabilization and future rehabilitation is recommended.

Three locations have been identified as potential future dry boat storage if the market demands a location

7.8 Small Watercraft Storage

Dry Boat Storage

Dry Boat Storage Description

Dry boat storage can vary in size and use. Mast-up storage areas are for trailerable sailboats that range from 15 to 31 feet long with the mast up. Another option is small watercraft storage for smaller vessels (kayaks, canoes, paddle boards, etc.).

Currently, there is no public dry boat storage (mast-up or paddlecraft) within King Harbor. It has been noted that there is also a waiting list for the private storage of over 40 boats and 25 paddlecraft within the harbor.

Based on community feedback, a third of the responses did not request dry boat storage. About 46 percent requested paddle crafts and about 19 percent requested storage for sailboats. It is clear that there is a divided opinion amongst the community with regard to desire to locate public dry boat storage at King Harbor. In addition to community feedback, it local harbor organizations such as the City Manager's Harbor Working Group, the King Harbor Boater's Advisory Panel, the Harbor Visioning Group, and the Harbor Commission have expressed that there may be a need for dry boat storage. The Coastal Act and Tidelands Trust states that increased recreational boating use of coastal waters shall be encouraged, including development dry storage areas, among several measures.

Dry boat storage should continue to be evaluated as an opportunity within the harbor and flexible depending on the market demand. Due to the split in community feedback, public storage would need to be pursued by a private entity in the future and not part of the current amenities plan.

1. Parking lot of future educational center
2. Parking lot of Seaside Lagoon
3. Near future boat launch at Samba by the Sea

Stacked paddlecraft storage

Sailboat storage

Locations for Potential Future Dy Boat Storage

Community feedback varies with regards to a location for dry boat storage if it were to be located within the harbor. Both Moles C and D individually had two times the votes when compared to Mole B. Due to the size of Mole B, the lack of a nearby launch, and disinterest from the community, this location is not recommended for future dry boat storage.

Locations within the Harbor

Three locations within Moles C and D have been identified as potential locations that could compliment the amenities plan. The intent is that the storage be located near the Hand Launch for paddlecrafts or, potentially, for centerboard sailboats — or near the boat launch for mast-up storage.

Location 1 storage near the future education center could double as an educational opportunity for clubs and organizations who are learning to use a variety of watercraft. Location 2 storage could serve as temporary storage, utilizing the existing parking lot striping as the harbor develops or the parking can be converted to a permanent location. Location 3 storage is a flexible space depending on future community needs. This could be a location for larger mast-up vessels that need access through to the boat launch. If storage is located adjacent to the water, ocean views may be blocked, which is a concern. Additional measures, such as height requirements for stacking, would need to be evaluated at this location.

Locations Offsite

Dry boat storage can be pursued off site, while still being associated with the Harbor. Recommendations from the community include the AES site, the previous Gold's Gym location, or further east of Harbor Drive. Power boats would be best suited of-site.

Considerations

The following amenities and operations shall be considered if dry boat storage is to be pursued within King Harbor:

- Operation by private vendor
- Stacked storage height restrictions for views
- Fence with locked gate for security purposes
- Fence screening
- Clear operating hours
- Affordable pricing
- Maintenance considerations for both operator and renter

Public restrooms, existing and planned

7.9 Restrooms

New Restrooms

Restrooms and Shower Count Recommendations

Public restrooms were the number-one missing amenity based off of the first community survey. Two locations are recommended to offer showers, at Moonstone Park and near the Public Boat Launch. The three new bathroom locations include:

- Restroom 1: Three bathrooms, two showers per gender, 450 square feet
- Restroom 2: Three bathrooms per gender, 360 square feet
- Restroom 3: three bathrooms, two showers per gender. 450 square feet

Sizing capacity of the bathrooms should be further evaluated as amenities get developed.

1. New Restroom: Bathroom and Shower
2. New Restroom: Bathrooms Only
3. New Restroom: Bathroom and Shower
4. Renovated Restrooms
5. Renovated Restrooms
6. Renovated Restrooms

Potential locations for a flex open space dining or a markethall

7.10 Flex Open Space Dining/ Markethall

Recommendations

Potential Locations

As part of the community participation process, the idea of flex open space dining or a markethall space that could be used for dining was named as a new amenity the community would like to see. In Phase 1 of the outreach process, many expressed interest of flex open space or a markethall at International Boardwalk.

The flex open space dining could be one or two stories, the markethall could include a single building or an aggregation of multiple smaller buildings. The Public Amenities Plan provides three options where flex open space dining or a markethall could be located.

1. Near Seaside Lagoon
2. Samba by the Sea Building
3. Near International Boardwalk Courtyard

Option 1: Seaside Lagoon

The first location for flex open space dining is near Seaside Lagoon by the existing Ruby's Diner. Although Ruby's Diner is officially closed at the time of this writing, there is potential for a new restaurant to utilize this space, or for the space to be completely renovated for dining. The Public Amenities Plan considers a zone around Ruby's Diner as a prime location for future flex open space dining or dining-only options.

Option 2: Replacing Samba by the Sea

A second location for potential flex open space dining would replace the Samba by the Sea building. In order to have the best configuration for the Public Boat Launch, this building will need to be demolished. The majority of the parcel then would be open for future development, such as a new dining experience along the waterfront.

Option 3: International Boardwalk Plaza

A potential location for a markethall would be near the upper deck plaza by International Boardwalk and R10 Social House. This area is currently underutilized. The Public Amenities Plan will improve the pedestrian connection in front of the existing buildings and improve the ramp from the parking lot. These circulation improvements would create a special node for people to gather and dine.

8

IMPLEMENTATION STRATEGY

PHASING DIAGRAM

8.1 Implementation Strategy

Implementation Strategy

Overview

This chapter provides Redondo Beach City staff and policymakers with strategies to implement the elements of the King Harbor Public Amenities Plan. The purpose of the Amenities Plan is to provide an overall framework and clear direction for public amenities based on community feedback. Additional steps are required to bring these ideas to life, which include identifying funding sources, building partnerships with vendors and developers, and advancing the design and construction of the proposed improvements.

During the duration of the planning process, the team considered how this project will be implemented and funded, keeping strategic improvements and cost-effectiveness in mind.

The implementation strategy provides resources and clear direction on next steps to achieve and advance these goals. The elements of the implementation strategy are:

- Project Action List and Phasing Diagram — The project action list generates a strategy of build out for each of the projects. Because not all of the projects can be built at once, the project action list helps prioritize those that should be built first. The phasing diagram supports the action list highlighting the three phases (short-term, mid-term, and long-term) or phases in between.
- List of Potential Funding Sources — The funding sources section highlights the relevant funding sources the City could pursue. This includes existing city funding and proposed funding for the Waterfront/Marine and the Public Realm/Active Transportation. Additional funding opportunities should be further researched to exhaust all options.
- Cost Estimate — The cost estimate provides an opinion of probable cost for the key elements of the King Harbor Public Amenities Plan. The estimates provide market-related, cost effectiveness projections for several concept iterations and materials throughout the harbor.
- Zoning Plan — A zoning plan was created to serve as a future planning control tool for regulating the built environment. The plan identifies where amenities are placed.
- Additional Ideas from the Community — The scope of the Public Amenities Plan covers the harbor framework connectivity and the key interest areas. Additional recommendations and ideas have been introduced from the outreach process and are highlighted in this section. The city should consider the opportunity to explore these additional topics.

8.2 Phasing

Phasing Diagram Key

Short-Term (1-5 years)

Project or action items identified as short term are items that should be provided in the next 1 to 5 years. Project or action items may be a combination of short term and mid term.

Mid-Term (6-10 years)

Project or action items identified as mid term are items that should be provided in the next 6 to 10 years. Project or action items may be a combination of mid term and long term.

Long-Term (11-20 years)

Project or action items identified as long term are items that should be provided in the next 11 to 20 years.

8.3 Project and Action List

Plan Cross Reference Section	Project or Action	**Priority:** Short-Term Mid-Term Long-Term
	Future Studies	
N/A	Traffic and Parking Studies: Initiate traffic and parking studies by a traffic consultant to assess existing and future traffic demands, parking level counts, allocation of parking, and financial analysis for recreational parkings vs. retail parking for all areas within the Public Amenities Plan	Short-Term
N/A	Assessment of Existing Parking Garage: Provide an assessment of the existing parking garage. Although not in the plan area of this report, during the community outreach meetings and surveys, many community members expressed concern of the structural integrity of the parking garage, as well as providing a clearer bike lane route within the structure	Mid-Term
N/A	Redondo Beach Pier Repair: Provide an assessment on the Redondo Beach Pier structural repairs	Long-Term
N/A	Climate Resiliency and Sea Level Rise: Study innovative technologies that can promote climate resiliency and adaptability	Long-Term
	Circulation	
N/A	Parking Assessment and Re-Striping: Conduct a parking and re-striping assessment for the King Harbor Area to recoup parking spaces lost in the Public Amenities Plan	Short-Term
N/A	Parking Strategy: Develop a parking strategy that will identity overall parking management, payment systems and strategies, shared use parking, compact space, and EV charging spaces	Short-Term
7.5	Boat Queue Lane: Work with the City of Redondo Beach Public Works and Traffic Engineers to assess the traffic circulation of the Public Boat Launch	Short-Term
5.4/5.6	Interior Paths and Bicycle Connections: Develop an RFP process for the design and construction of new interior paths, new interior bike lanes, and bike amenities	Short-Term
5.4/5.5	Waterfront Promenade and Nodes Phase 1: Develop an RFP process for the design and construction of a new waterfront promenade for the initial waterfront promenade phase	Short-Term
5.4/5.5	Waterfront Promenade and Nodes Phase 2: After the construction of the Public Boat Launch, develop an RFP process for the design and construction of the remaining waterfront path segment	Mid-Term
7.7a	International Boardwalk Bike Lane: Study the option of clearly separating the bike lane and pedestrian at the upper deck of International Boardwalk, mitigation options can be short and/or long term	Short-Term
5.6	Signage and Wayfinding: Develop a comprehensive signage and wayfinding program that includes improvements to vehicular directional, pedestrian directional, and public art components, develop an RFP process for the design and construction	Short-Term

Plan Cross Reference Section	Project or Action	**Priority:** Short-Term Mid-Term Long-Term
	Site Work	
7.9	Existing Restroom Immediate Repairs: Although the recommendation is for a full renovation of the existing restrooms, address any current safety concerns as soon as possible Current safety issues include: – The broken mirror in the women's restroom next to the courtyard – Secure any loose sections of drywall/plaster ceiling to avoid fall hazards	Short-Term
7.9	Existing Restroom Renovations: Fully renovate the existing restrooms located at International Boardwalk	Short-Term
7.1	Power Connections and Underground Utilities: Consult with utility engineers on existing and future power connections and underground utilities at the Harbor Hub	Short-Term
7.1	5G and Wi-Fi: Consult with utility engineers on future 5G and Wi-Fi capabilities within the harbor hub	Short-Term
3.3	Charter Boat House: Develop a long-term solution for the tear down, replacement and future use of the Charter Boat House area, study if other areas along the waterfront can be used to operate the existing services	Mid-Term
7.1b	Ruby's: Pursue redevelopment or demolition from interested parties	Short-Term
7.1e	On the Rocks: Pursue redevelopment or demolition from interested parties	Short-Term
	Site Development	
7.1c	Seaside Lagoon Part 1: Issue RFP for redevelopment of Seaside Lagoon (City RFP process is underway), apply for grant funding for additional funding needed to fund the project	Short-Term
7.2	Hand Launch: Prepare demolition of existing Hand Launch and consult with design team on construction of a new Hand Launch	Mid-Term
7.3	Short Pier: Utilize existing funding and apply for additional funding as necessary for the Short Pier, develop RFP process for the design and construction of the pier	Mid-Term
7.4	Moonstone Park: Issue RFP for the redevelopment of Moonstone Park and associated amenities such as a new restrooms, shade, seating, and overlook deck	Short-Term
7.5a	Public Boat Launch: Apply for funding for the Public Boat Launch, Develop RFP process for the design and construction of the launch and associated amenities such as a new restroom/shower, boat queue lane, and parking striping	Short-Term
7.5b	Samba by the Sea: Prepare demolition of existing building during construction of Public Boat Launch (short-term) and temporary usage for storage or other temporary use, develop long term use of the space as square footage is determined (mid-term)	Short- to Mid-Term

Plan Cross Reference Section	Project or Action	**Priority:** Short-Term Mid-Term Long-Term
	Site Development (continued)	
7.6	Dinghy Dock: Begin development of one dinghy dock location, adding additional locations as community usage grows	Mid-Term
7.7b	International Boardwalk Upper Deck Dining: Continue city process of developing a strategy and plan for permanent upper deck dining at International Boardwalk considering the city's future "Upper Deck Dining Program" and "International Boardwalk Storefront Improvement Program"	Short-Term
7.7b	International Boardwalk Upgrades: Develop an RFP process for upgrades at International Boardwalk	Short-Term
7.7c	International Boardwalk Sea Wall: Reconstruct the sea wall at International Boardwalk with a steel base and concrete cap (mid-Term) or a five-foot cantilever (long-term)	Mid- to Long-Term
7.1d	Educational Center: Pursue existing interested parties in developing an Educational Center at the existing Joe's Crab Shack in conjunction with (7.8) dry boat storage potential	Short-Term
	Land Use	
7.10	Flex Open Space Dining : Develop a campaign with the Redondo Beach Economic Development Council to seek interest from developers for potential new flex open space near Seaside Lagoon	Mid-Term
7.10	Market Hall: Develop a campaign with the Redondo Beach Economic Development Council to seek interest from developers for potential new markethall at the plaza north of International Boardwalk	Long-Term
7.8	Dry Boat Storage: As part of the parking and re-striping study, analyze the feasibility of locating dry boat storage for small vessels (kayaks, SUPs) at Mole C and/or large vessels (sailboats) at Mole D in conjunction with (7.1d) the Educational Center	Short-Term
	Operations and Management	
7.8	Dry Boat Storage: Develop a operations and management plan for a dry boat storage facility for small vessel (kayaks, SUPs) at Mole C. Outreach to vendors for interest in 3rd party operators	Mid-Term
7.1a	Seaside Lagoon Great Lawn: Develop an operations and management procedure for the new public great lawn located near Seaside Lagoon	Short-Term
N/A	Reconfiguration of Basin 3: Develop strategy for aesthetic improvements and possible reconfiguration of Basin 3 boat slip layout	Mid-Term

8.4 Funding Sources

Existing City Funding (Waterfront/Marine)

Overview

The City of Redondo Beach has existing funding sources for three specific areas or amenities within the harbor. The programs are:

- Seaside Lagoon
- Mole B
- Short Pier

Seaside Lagoon

Funding for Seaside Lagoon has been secured, surmounting to $10 million. The funding is currently undergoing an application from the City of Redondo Beach for official appropriation.

Mole B

In September 2012, the City of Redondo Beach signed an agreement with Chevron Products Company allowing temporary use of Mole B. Chevron would use the space for water delivery of heavy equipment that would be used at El Segundo refinery during 2013. The agreement from Chevron includes funding for implementation and conceptual design of Mole B. To compensate the city for the use of Mole B, Chevron contributed $2.4 million for the implementation of the Mole B conceptual design plan. According to the November 6, 2012 Administrative Report, the approved Mole B conceptual design includes programming on both city property and adjacent leasehold, Marina Cove. The scope of work is limited to improvements on City property but includes provisions to coordinate with Marina Cove Leaseholder. The original RFP stipulated that preparation and development of construction consider these components: public park space, public restroom, picnic furniture at the park, 80-foot diameter clearance for emergency helicopter landing, outrigger and small craft open storage and launch, parking lot resurfacing and landscape, a seawall, and a public art component. These elements need to be reviewed to reflect the current demand for development.

Short Pier

City Council recently approved a five-year capital improvement project which includes funding for the Short Pier. This funding includes demolition and reconstruction of the Short Pier structure. The Tidelands Funds is funding the project with $6 million and an estimated schedule of fiscal year 2024-2025.

Potential Funding Sources (Waterfront/Marine)

Overview

Various grant and loan programs are available from and administered by the California Department of Parks and Recreation Division of Boating and Waterways (DBW). Money for these programs come from state and federal sources. The City of Redondo Beach has made use of some of these programs in past and current years. The programs are:

- Boating Infrastructure Grant (BIG) Program with two funding tiers
- Boat Launching Facilities Grant
- Shoreline Erosion Control and Public Beach Restoration
- Aquatic Center Education Program
- Marina Loan Program

Boating Infrastructure Grant (BIG) Program

The BIG Program is funded by the United States Fish and Wildlife Service and administered by DBW. The program has two funding tiers. Tier I provides up to $200,000 per grant, although more than one grant can be awarded per project over multiple years. Tier II provides up to $1.5 million per project. Only $10 million is available nationally for Tier II grants. The City has received a Tier I grant recently to replace its boat pumpout dock.

Boat Launching Facilities Grant

The Boat Launching Facilities Grant Program is need-based; funds are determined upon availability of other project funding sources and the project benefit to the public. This program is only applicable to the proposed boat launch facility, and the design for the proposed facility needs to be reviewed and approved by DBW.

Shoreline Erosion Control and Public Beach Restoration

The Shoreline Erosion Control and Public Beach Restoration program can be used for planning and construction of soft projects like restoration and hard structures like revetments. It might be possible to apply to this program for funding of a

Hand Launch zero entry beach.

Aquatic Center Education Program

The City of Redondo Beach was awarded $20,000 in the 2020-2021 fiscal year for the Aquatic Center Education Program. Awards up to $42,000 may be granted, and this money could be used for boating education.

Marina Loan Program

The Marina Loan Program has fallen into disfavor, and DBW is reviewing its possible disbandment. However, the City of Santa Barbara funded its replacement of Marina One by securing funding from this program on annual basis. If this program is still available when the City replaces the Redondo Beach Marina and constructs dinghy docks, this program may a good source to secure low-cost funding in lieu of issuing bonds.

Potential Funding Sources (Public Realm/ Active Transportation)

Overview

There are a number of different ways to obtain funding for active-public realm and transportation projects. State and local governments typically match federal funds and, increasingly, initiate their own programs. Additional state public revenue sources to explore for funding include:

- Land and Water Conservation Fund
- California Active Transportation Program
- California Natural Resources Agency
- California Transportation Commission

Land and Water Conservation Fund

Land and Water Conservation Fund (LWCF) grants provide funding for the acquisition or development of land to create new outdoor recreation opportunities for the health and wellness of Californians. Since 1965, more than 1,000 parks have been created or improved with LWCF assistance throughout California.

California Active Transportation Program

The California Active Transportation Program (ATP) encourages increased use of active modes of transportation, such as biking and walking. The ATP consolidates various federal and state transportation programs, including the Transportation Alternatives Program, Bicycle Transportation Account, and State Safe Routes to School, into a single program.

California Natural Resources Agency- Urban Greening

The Urban Greening Program supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. The developments must include at least one of the following measures:

- Sequester and store carbon by planting trees
- Reduce building energy use by strategically planting trees to shade buildings
- Reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes, or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools.

California Transportation Commission- Local Streets and Roads (LSR) Program

The purpose of the program is to provide approximately $1.5 billion per year to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system.

California Transportation Commission-Solutions for Congested Corridors (SCCP)

The purpose of the program is to provide funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state. This statewide, competitive program makes $250 million available annually for projects that implement specific transportation performance improvements, and that are part of a comprehensive corridor plan by providing more transportation choices while preserving the character of local communities and creating opportunities for neighborhood enhancement.

Private Funding Sources

Overview

Funding from private sources is also recommended for exploration. Partnerships with private sources may provide additional flexibility with design and funding.

8.5 Cost Estimates

Overview of Proposed Cost Estimates

Overview

The cost estimate provides an opinion of probable cost for the key elements of the King Harbor Public Amenities Plan. The estimates provide market-related, cost effectiveness projections for several concept iterations and materials throughout the harbor.

Credits

A Note from Cumming Construction Management, Inc.

The information contained within this estimate is confidential and should not be distributed or copied for any reason without the consent of either Cumming Construction Management, Inc. or the intended client.

Cumming has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions.

This opinion of the probable cost of construction is made on the basis of the experience, qualifications, and best judgment of a professional consultant familiar with the construction industry. However, Cumming cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

This document reflects fair market value construction costs obtainable in a competitive bidding market in Los Angeles, California. Cumming assumes a minimum of three (3) competitive bids from qualified general contractors, with bids from a minimum of three (3) subcontractors per trade. This statement is a determination of fair market value for the construction of the project and is not intended to be a prediction of low bid.

Please note that experience indicates a fewer number of bidders may result in a higher bid amount, thus more bidders may result in a lower bid result.

The Cumming staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

Areas for Pricing

- Circulation Improvements
- Seaside Lagoon
    - Seaside Lagoon – Iteration Concept 1
    - Seaside Lagoon – Iteration Concept 2
    - Seaside Lagoon – Iteration Concept 3
- Hand Launch
- Short Pier
- Public Boat Launch
- Dinghy Dock
- International Boardwalk
- Moonstone Park
    - Moonstone Park- Iteration Concept 1
- Design Option for Short Pier (2)
- Design Option for International Boardwalk Sea Wall (4)
- Dry Boat Storage (3)

Executive Summary of Cost Estimates

Project Description

The King Harbor Public Amenities Plan will serve as a frame work to improve the existing public waterfront amenities, genrally located between Portofino Way to the North and International Boardwalk to the South. The project goals are:

- Improve pedestrian experience alng the waterfront and from Mole C to the Horseshoe Pier

- Advance community plans for Moonstone Park/Mole B and Seaside Lagoon

- Prioritize what should be rebuilt/renovated and locate new elements

- Enhance pedestrian experinece and overall site character

- Consider large public events, additional amenities, educational featues, visitor attractions and public art

Project Control Metrics

Site Development Area:	585,193 SF
Construction Schedule (Assume):	June 1, 2024
Construction Duration (Assume):	48 Months
Delivery Method:	Design-Bid-Build (with Multiple Phasings)

Scope of Work	***Total Cost - Options***	**Area**	**$ / SF**	**Total Cost**
Circulation Improvements		**120,791 SF**	$105	$12,702,868
Seaside Lagoon		**226,472 SF**	$145	$32,764,546
(Seaside Lagoon - Iteration Concept 1)	***$27,220,846***			
(Seaside Lagoon - Iteration Concept 2)	***$34,582,929***			
(Seaside Lagoon - Iteration Concept 3)	***$41,978,941***			
Hand Launch		**7,945 SF**	$337	$2,677,914
Sportfishing Pier		**15,877 SF**	$1,617	$25,668,113
Public Boat Launch		**127,229 SF**	$82	$10,412,698
Dinghy Dock		**1,872 SF**	$952	$1,782,267
International Boardwalk		**44,189 SF**	$399	$17,628,164
Moonstone Park		**40,818 SF**	$82	$3,357,758
(Moonstone Park - Iteration Concept 1)	***$3,762,786***			
Total Construction Cost		**585,193 SF**	**$183**	**$106,994,328**

Note: *Escalation is included to Midpoint of Construction of 05/29/2026 based on the schedule above.*

DESIGN OPTIONS: (Cost Includes GC Mark-ups)

Option 1: Sportfishing Pier - Steel/Wood Structure & Docks (In Base)	***$22,749,273***
Option 2: Sportfishing Pier - Concrete Structure & Docks	*$18,208,510*
Option 1: International Boardwalk Sea Wall - Short Term Mitigation	*$4,491,070*
Option 2: International Boardwalk Sea Wall - Replace Option 1	*$14,568,205*
Option 3: International Boardwalk Sea Wall - Replace Option 2	*$23,823,728*
Option 4: International Boardwalk Sea Wall - Repair & Cantilever (In Base)	***$7,269,190***
Option 5: International Boardwalk Sea Wall - Replace Option 2 & Cantilever	$16,989,226
Option 1: Boat Storage Space #1	$570,464
Option 2: Boat Storage Space #2	$479,507
Option 3: Boat Storage Space #3	$615,424

Construction Cost Summary

Scope of Work		Circulation Improvements 120,791 SF		Seaside Lagoon 226,472 SF		Hand Launch 7,945 SF		Short Pier 15,877 SF	
		Total Cost	$ / SF	Total Cost	$ / SF	Total Cost	$ / SF	Total Cost	$ / SF
Demolition		$301,978	$2.50	$685,880	$3.03				
Utilities		$2,171,128	$17.97	$2,597,023	$11.47	$206,570	$26.00	$420,741	$26.50
Earthwork		$392,571	$3.25	$724,710	$3.20				
Hardscape		$3,372,129	$27.92	$2,099,298	$9.27	$15,624	$1.97	$30,825	$1.94
Landscape		$1,085,235	$8.98	$847,189	$3.74			$19,944	$1.26
Site Furnishings		$535,027	$4.43	$327,425	$1.45	$19,418	$2.44	$79,816	$5.03
Site Structures		$94,500	$0.78	$6,720,085	$29.67	$20,650	$2.60	$1,276,000	$80.37
Water Featues				$6,510,470	$28.75				
Special Construction						$1,414,233		$14,242,069	
Sub-total		***$7,952,567***	***$65.84***	***$20,512,080***	***$90.57***	***$1,676,495***	***$211.01***	***$16,069,394***	***$1,012.12***
Design Contingency	15%	$1,192,885	$9.88	$3,076,812	$13.59	$251,474	$31.65	$2,410,409	$151.82
Market Escalation	16.64%	$1,522,242	$12.60	$3,926,323	$17.34	$320,907	$40.39	$3,075,926	$193.73
Sub-Total Direct Cost		**$10,667,694**	**$88**	**$27,515,215**	**$121**	**$2,248,876**	**$283**	**$21,555,729**	**$1,358**
General Conditions	7.00%	$746,739	$6.18	$1,926,065	$8.50	$157,421	$19.81	$1,508,901	$95.04
General Requirements	4.00%	$426,708	$3.53	$1,100,609	$4.86	$89,955	$11.32	$862,229	$54.31
Bonds	1.50%	$160,015	$1.32	$412,728	$1.82	$33,733	$4.25	$323,336	$20.37
General Liability Insurance	1.80%	$213,141	$1.76	$549,754	$2.43	$44,933	$5.66	$430,683	$27.13
Overhead & Profit	4.00%	$488,572	$4.04	$1,260,175	$5.56	$102,997	$12.96	$987,235	$62.18
Sub-Total Indirect Cost		**$2,035,174**	**$17**	**$5,249,331**	**$23**	**$429,039**	**$54**	**$4,112,385**	**$259**
Total Construction Cost		**$12,702,868**	**$105**	**$32,764,546**	**$145**	**$2,677,914**	**$337**	**$25,668,113**	**$1,617**

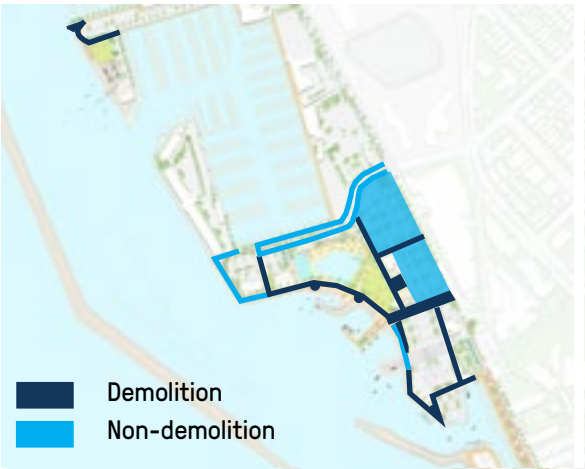
Construction Cost Summary Continued

Scope of Work		Public Boat Launch		Dinghy Dock		International Boardwalk		Moonstone Park		Total Cost	
		127,229 SF		1,872 SF		44,189 SF		40,818 SF		585,193 SF	
		Total Cost	$ / SF	Total Cost	$ / SF	Total Cost	$ / SF	Total Cost	$ / SF	Total Cost	$ / SF
Demolition		$342,460	$2.69			$71,143	$1.61	$122,454	$3.00	$1,523,914	$2.60
Utilities		$1,526,748	$12.00	$135,000	$72.12	$751,213	$17.00	$571,452	$14.00	$8,379,875	$14.32
Earthwork		$175,929	$1.38			$82,088	$1.86	$153,068	$3.75	$1,528,365	$2.61
Hardscape		$890,587	$7.00			$945,620	$21.40	$333,697	$8.18	$7,687,780	$13.14
Landscape		$193,704	$1.52			$29,700	$0.67	$242,195	$5.93	$2,417,966	$4.13
Site Furnishings		$40,599	$0.32			$539,156	$12.20	$107,727	$2.64	$1,649,167	$2.82
Site Structures		$247,500	$1.95			$4,066,265	$92.02	$571,515	$14.00	$12,996,515	$22.21
Water Featues										$6,510,470	$11.13
Special Construction		$3,101,291		$980,779		$4,550,840				$24,289,213	$41.51
Sub-total		***$6,518,818***	***$51.24***	***$1,115,779***	***$596.04***	***$11,036,024***	***$249.75***	***$2,102,107***	***$51.50***	$66,983,264	*$114.46*
Design Contingency	15%	$977,823	$7.69	$167,367	$89.41	$1,655,404	$37.46	$315,316	$7.72	$10,047,490	$17.17
Market Escalation	16.64%	$1,247,801	$9.81	$213,577	$114.09	$2,112,462	$47.81	$402,375	$9.86	$12,821,612	$21.91
Sub-Total Direct Cost		**$8,744,441**	**$69**	**$1,496,723**	**$800**	**$14,803,890**	**$335**	**$2,819,799**	**$69**	**$89,852,365**	**$154**
General Conditions	7.00%	$612,111	$4.81	$104,771	$55.97	$1,036,272	$23.45	$197,386	$4.84	$6,289,666	$10.75
General Requirements	4.00%	$349,778	$2.75	$59,869	$31.98	$592,156	$13.40	$112,792	$2.76	$3,594,095	$6.14
Bonds	1.50%	$131,167	$1.03	$22,451	$11.99	$222,058	$5.03	$42,297	$1.04	$1,347,785	$2.30
General Liability Insurance	1.80%	$174,714	$1.37	$29,905	$15.97	$295,782	$6.69	$56,340	$1.38	$1,795,250	$3.07
Overhead & Profit	4.00%	$400,488	$3.15	$68,549	$36.62	$678,006	$15.34	$129,145	$3.16	$4,115,166	$7.03
Sub-Total Indirect Cost		**$1,668,257**	**$13**	**$285,544**	**$153**	**$2,824,274**	**$64**	**$537,959**	**$13**	**$17,141,962**	**$29**
Total Construction Cost		**$10,412,698**	**$82**	**$1,782,267**	**$952**	**$17,628,164**	**$399**	**$3,357,758**	**$82**	**$106,994,328**	**$183**

Construction Cost Detail: Circulation Improvements

CIRCULATION IMPROVEMENTS

Site Controls



Hardscape	266,344 SF	87%
Landscape	40,123 SF	13%
Total	**306,467 SF**	

Notes and Assumptions

Scope: Circulation improvements exclude all key interest areas, which will be priced individually

Demolition: Occurs in redeveloped areas or spaces where asphalt paths become a concrete path as noted above

Non-demolition: Occurs in spaces where asphalt can be slurried and re-striped and concrete paths can be resurfaced with integral colored concrete

Utilities: Square footage reflects the total square footage of circulation improvements; waterfront path pole lighting excludes International Boardwalk; waterfront node lighting includes the major 5 nodes within the scope boundary

Hardscape: Waterfront paths and interior paths are integral color concrete (new and resurfaced), waterfront nodes are a concrete 'faux wood' look, Mole D Entry Drive is expanded and incorporates colored asphalt bike lanes, bike sharrow symbols are added to Marina Way and Seaside Lagoon parking lot

Landscape: Assumes new planting, shrub, ground cover and open lawn spaces

Site Furnishings: Includes primarily signage, bike hubs, and tables and chairs

Site Structures: Includes concrete benches at waterfront nodes

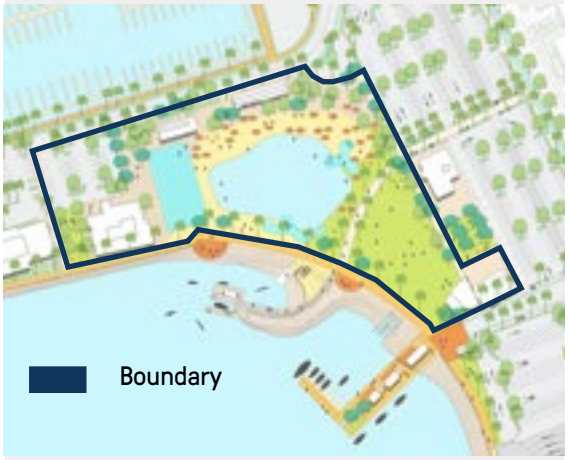
Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**120,791**	**SF**	**$2.50**	**$301,978**
Existing paving, landscape, etc.	120,791	SF	$2.50	$301,978
Utilities	**306,467**	**SF**	**$7.08**	**$2,171,128**
Storm Drainage	306,467	SF	$1.50	$459,701
General Electrical, lighting at parking, etc.	306,467	SF	$3.00	$919,401
Waterfront Path Pole Lighting, 10' high including conduit/wire	67	EA	$7,500.00	$502,500
Waterfront Nodes Lighting	5	EA	$15,000.00	$75,000
AV/Telecomm/Security POC only	306,467	SF	$0.70	$214,527
Earthwork	**120,791**	**SF**	**$3.25**	**$392,571**
General site grading	120,791	SF	$2.50	$301,978
Erosion Control	120,791	SF	$0.75	$90,593
Hardscape	**266,344**	**SF**	**$12.66**	**$3,372,129**
Waterfront Promenade Path - integral colored concrete	18,444	SF	$34.00	$627,096
Interior pathway - integral colored concrete	35,232	SF	$34.00	$1,197,888
Waterpront Nodes - concrete faux wood	10,189	SF	$40.00	$407,560
General parking, resurfacing and stripping	154,651	SF	$4.00	$618,604
Parking driveway - resurfacing and stripping	11,504	SF	$4.00	$46,016
Mole D Entry Drive - asphalt	12,803	SF	$9.50	$121,629
Bike Lanes - South Harbor Drive - Class II - new asphalt	4,000	SF	$9.50	$38,000
Integral color concrete resurfacing on (E) concrete path	7,656	SF	$14.00	$107,184
Color surfacing to bike lane asphalt	11,865	SF	$4.00	$47,460
Bike Sharrow - Marina Way - Class III	1,782	LF	$6.00	$10,692
Concrete curb - allowance	6,000	LF	$25.00	$150,000
Landscape	**40,123**	**SF**	**$27.05**	**$1,085,235**
Landscape area - planting, shrubs & ground cover	29,259	SF	$16.50	$482,774
Lawn	10,864	SF	$3.00	$32,592
Trees, 48" box	47	EA	$3,375.00	$158,625
Palm Trees, 24' high	35	EA	$3,600.00	$126,000
Waterfront Nodes Trees and planting	5	EA	$8,500.00	$42,500
Soil preparation, fertilizer and grading	40,123	SF	$1.75	$70,215
Irrigation systems	40,123	SF	$4.30	$172,529
Site Furnishings	**306,467**	**SF**	**$1.75**	**$535,027**
Site Furnishing & Signage, Arts	306,467	SF	$0.70	$214,527
Signage & Wayfinding				
Vehicular Directional	3	EA	$5,000.00	$15,000
Pedestrian Directional	6	EA	$7,500.00	$45,000
Informational/Educational, touch screen	5	EA	$20,000.00	$100,000
Monumental Pedestrian Signage	1	EA	$25,000.00	$25,000
Boating Signage	3	EA	$3,500.00	$10,500
Safety and Use signage	5	EA	$5,000.00	$25,000
Bike hub - including bike parking and bike repair stations	10	EA	$10,000.00	$100,000
Table with 4 chairs	10	SET	$4,000	$40,000
Site Structures	**306,467**	**SF**	**$0.31**	**$94,500**
Waterfront Nodes Benches - Concrete	315	LF	$300.00	$94,500
TOTAL DIRECT COST			**$26.01**	**$7,972,567**

Construction Cost Detail: Seaside Lagoon

SEASIDE LAGOON

Site Controls

Hybrid Aquatic/Lagoon & Great Lawn



Building Footprint	15,613 SF	7%
Hardscape	100,006 SF	42%
Landscape	66,047 SF	28%
Water Features	54,427 SF	23%
Total	**236,093 SF**	

Notes and Assumptions

Scope: Includes Seaside Lagoon, Joe's Crab Shack, and On the Rocks

Demolition: Primarily site demolition, including On the Rocks

Non-demolition: Joe's Crab Shack and portions of adjacent parking lot

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Pedestrian paths are integral color concrete, boardwalk plaza is decorative paving, educational center parking lot is resurfaced and re-striped

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing; includes basic irrigation system and controls, lawn assumes space adjacent to the lagoon, and the Great Lawn is east of the path

Site Furnishings: Includes seating, trash receptacle, bike racks, drinking fountain, general signage, umbrellas, and art

Site Structures: Convert existing Joe's Crab Shack to Education Center, Seaside Lagoon Restroom is new, Community Center Building is renovated, the fence boundary is located around the water features with the retractable portion west of the Great Lawn

Water Features: Assumes a new community pool and splash pads and a renovation of the existing lagoon

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**226,472**	**SF**	**$3.03**	**$685,880**
Existing paving, landscape, etc.	219,632	SF	$2.50	$549,080
Demo existing building formerly "On the Rocks"	6,840	SF	$20.00	$136,800
Utilities	**236,093**	**SF**	**$11.00**	**$2,597,023**
Storm Drainage	236,093	SF	$1.50	$354,140
Water	236,093	SF	$2.00	$472,186
Sewer	236,093	SF	$2.00	$472,186
General Electrical, etc.	236,093	SF	$2.50	$590,233
Lighting	236,093	SF	$2.00	$472,186
AV/Telecomm/Security POC only	236,093	SF	$1.00	$236,093
Earthwork	**226,472**	**SF**	**$3.20**	**$724,710**
General site grading	226,472	SF	$2.50	$566,180
Erosion Control	226,472	SF	$0.70	$158,530
Hardscape	**100,006**	**SF**	**$20.99**	**$2,099,298**
Direct Path to oceanfront - integral colored concrete	3,682	SF	$34.00	$125,188
Boardwalk Plaza decorative paving	40,642	SF	$38.00	$1,544,396
Integral concrete paving	7,645	SF	$34.00	$259,930
Dedicated car and bus parking, re-surfacing and re-striping	16,461	SF	$4.00	$65,844
Sand, 6"	31,576	SF	$2.50	$78,940
Concrete curb - allowance	1,000	LF	$25.00	$25,000
Landscape	**66,047**	**SF**	**$12.83**	**$847,189**
Great lawn	43,610	SF	$3.00	$130,830
Lawn	19,361	SF	$3.00	$58,083
Landscape area - planting, shrubs & ground cover	3,076	SF	$16.50	$50,754
Trees, 48" box	57	EA	$3,375.00	$192,375
Palm Trees, 24' high	19	EA	$3,600.00	$68,400
Soil preparation, fertilizer and grading	66,047	SF	$1.75	$115,582
Irrigation systems	66,047	SF	$3.50	$231,165
Site Furnishings	**226,472**	**SF**	**$1.45**	**$327,425**
Table with 4 chairs	19	SET	$4,000	$76,000
Umbrella, 16' diameter	17	EA	$2,800	$47,600
Site Furnishing & Signage, Arts	226,472	SF	$0.90	$203,825
Site Structures	**15,613**	**SF**	**$430.42**	**$6,720,085**
Facility Restroom Building - New	2,272	SF	$550.00	$1,249,600
Community Center Building - Renovation	3,203	SF	$370.00	$1,185,110
Education Center Building - Renovaton	10,138	SF	$375.00	$3,801,750
Refined fence boundary	1,295	LF	$275.00	$356,125
Retractable fence boundary - East of the Path	255	LF	$500.00	$127,500
Water Features	**54,427**	**SF**	**$119.62**	**$6,510,470**
Community pool/Lap pool	13,850	SF	$250.00	$3,462,500
Water Park Amenities - Splash pad	4,829	SF	$150.00	$724,350
Lagoon Renovation	35,748	SF	$65.00	$2,323,620
TOTAL DIRECT COST			**$86.88**	**$20,512,080**
Mark-ups	59.73%			$12,252,466
Total Construction Costs				**$32,764,546**

Construction Cost Detail: Seaside Lagoon, Iteration Concept 1 with Lagoon and Lawn

SEASIDE LAGOON - ITERATION CONCEPT 1

Site Controls

Concept 1 - Lagoon Upgrade & Great Lawn

Building Footprint	15,586 SF	7%
Hardscape	108,920 SF	48%
Landscape	49,862 SF	22%
Water Features	52,451 SF	23%
Total	**226,819 SF**	

Notes and Assumptions

Scope: Includes Seaside Lagoon, Joe's Crab Shack, and On the Rocks

Demolition: Primarily site demolition

Non-demolition: Joe's Crab Shack and adjacent parking lot; On the Rocks

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Pedestrian paths are integral color concrete, interior boardwalk plaza is decorative paving, educational center parking lot is resurfaced and re-striped

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing; includes basic irrigation system and controls, lawn assumes space adjacent to the lagoon, and the Great Lawn is east of the path

Site Furnishings: Includes seating, trash receptacle, bike racks, drinking fountain, general signage, umbrellas and art

Site Structures: Convert (E) Joe's Crab Shack to Education Center, Seaside Lagoon Restroom, and Community Center Building; the fence boundary is located around the water features with the retractable portion west of the Great Lawn

Water Features: Assumes renovation of the existing lagoon

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**226,819**	**SF**	**$2.50**	**$567,048**
Existing paving, landscape, etc.	226,819	SF	$2.50	$567,048
Utilities	**226,819**	**SF**	**$11.00**	**$2,495,009**
Storm Drainage	226,819	SF	$1.50	$340,229
Water	226,819	SF	$2.00	$453,638
Sewer	226,819	SF	$2.00	$453,638
General Electrical, etc.	226,819	SF	$2.50	$567,048
Lighting	226,819	SF	$2.00	$453,638
AV/Telecomm/Security POC only	226,819	SF	$1.00	$226,819
Earthwork	**226,819**	**SF**	**$3.20**	**$725,821**
General site grading	226,819	SF	$2.50	$567,048
Erosion Control	226,819	SF	$0.70	$158,773
Hardscape	**108,920**	**SF**	**$19.41**	**$2,114,372**
Direct Path to oceanfront - integral colored concrete	4,455	SF	$34.00	$151,470
Boardwalk Plaza decorative paving	39,048	SF	$38.00	$1,483,824
General paving and open space - integral colored concrete	7,145	SF	$34.00	$242,930
General parking, re-surfacing and re-striping	43,645	SF	$4.00	$174,580
Sand, 6"	14,627	SF	$2.50	$36,568
Concrete curb - allowance	1,000	LF	$25.00	$25,000
Landscape	**49,862**	**SF**	**$18.64**	**$929,339**
Public open lawn	43,660	SF	$3.00	$130,980
Landscape area - planting, shrubs & ground cover	6,202	SF	$16.50	$102,333
Trees, 48" box	86	EA	$3,375.00	$290,250
Palm Trees, 24' high	40	EA	$3,600.00	$144,000
Soil preparation, fertilizer and grading	49,862	SF	$1.75	$87,259
Irrigation systems	49,862	SF	$3.50	$174,517
Site Furnishings	**226,819**	**SF**	**$1.64**	**$371,537**
Tables, 14' x 10'	8	EA	$7,000.00	$56,000
Small food vendors				NIC
Table with 2 chairs	11	SET	$3,000.00	$33,000
Umbrella, 16' diameter	28	EA	$2,800.00	$78,400
Site Furnishing & Signage, Arts	226,819	SF	$0.90	$204,137
Site Structures	**15,586**	**SF**	**$412.49**	**$6,429,035**
Restroom Building - Renovation	2,245	SF	$450.00	$1,010,250
Community Center Building - Renovation	3,203	SF	$370.00	$1,185,110
Education Center Building - Renovaton	10,138	SF	$375.00	$3,801,750
Refined fence boundary	1,087	LF	$275.00	$298,925
Retractable fence boundary at walkway	266	LF	$500.00	$133,000
Water Features	**52,451**	**SF**	**$65.00**	**$3,409,315**
Lagoon Renovation	52,451	SF	$65.00	$3,409,315
TOTAL DIRECT COST			**$75.13**	**$17,041,474**
Mark-ups	59.73%			$10,179,372
Total Construction Costs				**$27,220,846**

Construction Cost Detail: Seaside Lagoon, Iteration Concept 2 with Aquatic Features and Lawn

SEASIDE LAGOON - ITERATION CONCEPT 2

Site Controls

Concept 2 - Aquatic Facility & Great Lawn

Building Footprint	17,323 SF	8%
Hardscape	104,489 SF	46%
Landscape	66,250 SF	29%
Water Features	38,757 SF	17%
Total	**226,819 SF**	

Notes and Assumptions

Scope: Includes Seaside Lagoon, Joe's Crab Shack, and On the Rocks

Demolition: Primarily site demolition

Non-demolition: Joe's Crab Shack and adjacent parking lot; On the Rocks

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Pedestrian paths are integral color concrete, Boardwalk Plaza is decorative paving, the educational center parking lot is resurfaced and re-striped

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing; includes basic irrigation system and controls, lawn assumes space adjacent to the lagoon, and the Great Lawn is east of the path

Site Furnishings: Includes seating, trash receptacle, bike racks, drinking fountain, general signage, umbrellas and art

Site Structures: Convert (E) Joe's Crab Shack to Education Center, Seaside Lagoon Restroom is new, Community Center Building is renovated, the fence boundary is located around the water features with the retractable portion west of the Great Lawn, and the bandshell is new

Water Features: Assumes new aquatic features

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**226,819**	**SF**	**$2.50**	**$567,048**
Existing paving, landscape, etc.	226,819	SF	$2.50	$567,048
Utilities	**226,819**	**SF**	**$11.00**	**$2,495,009**
Storm Drainage	226,819	SF	$1.50	$340,229
Water	226,819	SF	$2.00	$453,638
Sewer	226,819	SF	$2.00	$453,638
General Electrical, etc.	226,819	SF	$2.50	$567,048
Lighting	226,819	SF	$2.00	$453,638
AV/Telecomm/Security POC only	226,819	SF	$1.00	$226,819
Earthwork	**226,819**	**SF**	**$3.20**	**$725,821**
General site grading	226,819	SF	$2.50	$567,048
Erosion Control	226,819	SF	$0.70	$158,773
Hardscape	**104,489**	**SF**	**$23.07**	**$2,410,888**
Direct Path to oceanfront - integral colored concrete	4,873	SF	$34.00	$165,682
Boardwalk paving around water amenities, decorative paving	35,653	SF	$38.00	$1,354,814
General paving and open space - integral colored concrete	20,318	SF	$34.00	$690,812
General parking, re-surfacing and re-striping	43,645	SF	$4.00	$174,580
Concrete curb - allowance	1,000	LF	$25.00	$25,000
Landscape	**66,250**	**SF**	**$18.43**	**$1,220,832**
Public open lawn	37,962	SF	$3.00	$113,886
Lawn around water amenities	5,794	SF	$3.00	$17,382
Landscape area - planting, shrubs & ground cover	11,724	SF	$16.50	$193,446
Stroll park with native planting	10,770	SF	$17.50	$188,475
Trees, 48" box	88	EA	$3,375.00	$297,000
Palm Trees, 24' high	43	EA	$3,600.00	$154,800
Soil preparation, fertilizer and grading	48,732	SF	$1.75	$85,281
Irrigation systems	48,732	SF	$3.50	$170,562
Site Furnishings	**226,819**	**SF**	**$1.45**	**$328,637**
Table with 2 chairs	29	SET	$3,000.00	$87,000
Small food vendors, 10' x 22' to 27'	8	EA		NIC
Large food vendors, 26' x 42'	2	EA		NIC
Umbrella, 16' diameter	15	EA	$2,500	$37,500
Site Furnishing & Signage, Arts	226,819	SF	$0.90	$204,137
Site Structures	**17,323**	**SF**	**$432.52**	**$7,492,585**
Restroom Building - New	2,824	SF	$550.00	$1,553,200
Community Center Building - Renovation	3,203	SF	$370.00	$1,185,110
Bandshell	1,158	SF	$375.00	$434,250
Education Center Building - Renovation	10,138	SF	$375.00	$3,801,750
Refined fence boundary	1,361	LF	$275.00	$374,275
Retractable fence boundary at walkway	288	LF	$500.00	$144,000
Water Features	**38,757**	**SF**	**$165.38**	**$6,409,650**
Water Park Amenities/Splash pad	32,796	SF	$150.00	$4,919,400
Lap pool / wave pool	5,961	SF	$250.00	$1,490,250
TOTAL DIRECT COST			**$95.45**	**$21,650,469**
Mark-ups	59.73%			$12,932,459
Total Construction Costs				**$34,582,929**

Construction Cost Detail: Seaside Lagoon, Iteration Concept 3 with Expansion into Joe's Crab Shack

SEASIDE LAGOON - ITERATION CONCEPT 3

Site Controls

Concept 3 - Hybrid Aquatic/Lagoon Expansion & Linear Park

Building Footprint	12,298 SF	5%
Hardscape	89,633 SF	36%
Landscape	34,658 SF	14%
Water Features	113,642 SF	45%
Total	**250,231 SF**	

Notes and Assumptions

Scope: Includes Seaside Lagoon, Joe's Crab Shack, and On the Rocks

Demolition: Primarily site demolition; Joe's Crab Shack and adjacent parking lot

Non-demolition: On the Rocks

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Pedestrian paths are integral color concrete, interior boardwalk plaza is decorative paving, the educational center parking lot is resurfaced and re-striped

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing; includes basic irrigation system and controls, and lawn assumes space adjacent to the lagoon

Site Furnishings: Includes seating, trash receptacle, bike racks, drinking fountain, general signage, umbrellas and art

Site Structures: Convert (E) Joe's Crab Shack to aquatic features, Seaside Lagoon Restroom is new, and Community Center Building is renovated; the fence boundary is located around the water features with the retractable portion east of the lagoon feature, education center is located at Ruby's (not included in boundary scope)

Water Features: Assumes renovation of the existing lagoon with new aquatic features

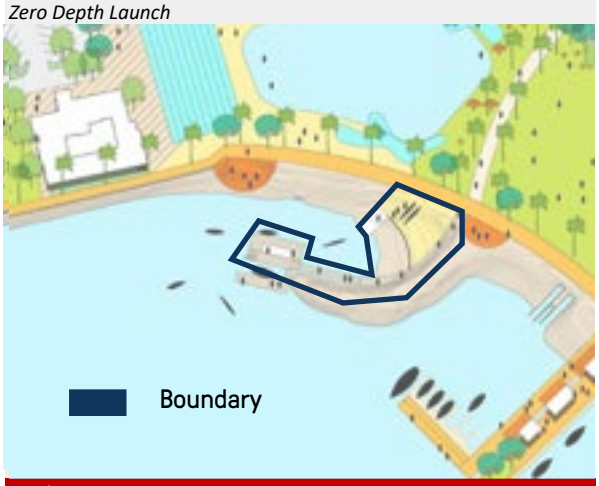
Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**250,231**	**SF**	**$3.31**	**$828,338**
Existing paving, landscape, etc.	250,231	SF	$2.50	$625,578
Remove (E) Joe's Crab Shack Building	10,138	SF	$20.00	$202,760
Utilities	**250,231**	**SF**	**$11.00**	**$2,752,541**
Storm Drainage	250,231	SF	$1.50	$375,347
Water	250,231	SF	$2.00	$500,462
Sewer	250,231	SF	$2.00	$500,462
General Electrical, etc.	250,231	SF	$2.50	$625,578
Lighting	250,231	SF	$2.00	$500,462
AV/Telecomm/Security POC only	250,231	SF	$1.00	$250,231
Earthwork	**250,231**	**SF**	**$3.20**	**$800,739**
General site grading	250,231	SF	$2.50	$625,578
Erosion Control	250,231	SF	$0.70	$175,162
Hardscape	**89,633**	**SF**	**$25.96**	**$2,326,596**
Direct Path to oceanfront - integral colored concrete	2,692	SF	$34.00	$91,528
Boardwalk paving around water amenities, decorative paving	38,876	SF	$38.00	$1,477,288
General paving and open space - integral colored concrete	19,845	SF	$34.00	$674,730
Sand, 6"	28,220	SF	$2.50	$70,550
Concrete curb	500	LF	$25.00	$12,500
Landscape	**34,658**	**SF**	**$29.96**	**$1,038,415**
Lawn around water amenities	1,560	SF	$3.00	$4,680
Landscape area - planting, shrubs & ground cover	3,960	SF	$16.50	$65,340
Stroll park with native planting	29,138	SF	$17.50	$509,915
Trees, 48" box	67	EA	$3,375.00	$226,125
Palm Trees, 24' high	14	EA	$3,600.00	$50,400
Soil preparation, fertilizer and grading	34,658	SF	$1.75	$60,652
Irrigation systems	34,658	SF	$3.50	$121,303
Site Furnishings	**250,231**	**SF**	**$1.31**	**$328,208**
Table with 2 chairs	11	SET	$3,000.00	$33,000
Umbrella	28	EA	$2,500	$70,000
Site Furnishing & Signage, Arts	250,231	SF	$0.90	$225,208
Site Structures	**12,298**	**SF**	**$526.31**	**$6,472,610**
Restroom Building - New	2,255	SF	$550.00	$1,240,250
Community Center Building - Renovation	3,203	SF	$370.00	$1,185,110
Education Center Building - New	6,840	SF	$500.00	$3,420,000
Refined fence boundary	1,531	LF	$250.00	$382,750
Retractable fence boundary at walkway	652	LF	$375.00	$244,500
Water Features	**113,642**	**SF**	**$103.25**	**$11,733,260**
Water Park Amenities/Splash pad	37,709	SF	$150.00	$5,656,350
Lap pool or wave pool	6,169	SF	$250.00	$1,542,250
Lagoon Renovation	69,764	SF	$65.00	$4,534,660
TOTAL DIRECT COST			**$105.03**	**$26,280,706**
Mark-ups	59.73%			$15,698,235
Total Construction Costs				**$41,978,941**

Construction Cost Detail: Hand Launch

HAND LAUNCH

Site Controls

Zero Depth Launch



Hardscape	3,906 SF	49%
Dock, Pier & Ramp	4,039 SF	51%
Total	**7,945 SF**	

Notes and Assumptions

Scope: Existing Hand Launch and existing breakwater

Demolition: Existing Hand Launch

Non-demolition: Existing breakwater

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes sandy beach for staging

Landscape: n/a

Site Furnishings: Includes seating, trash receptacle, signage, art, and wash down station

Site Structures: Includes retaining wall adjacent to sandy beach

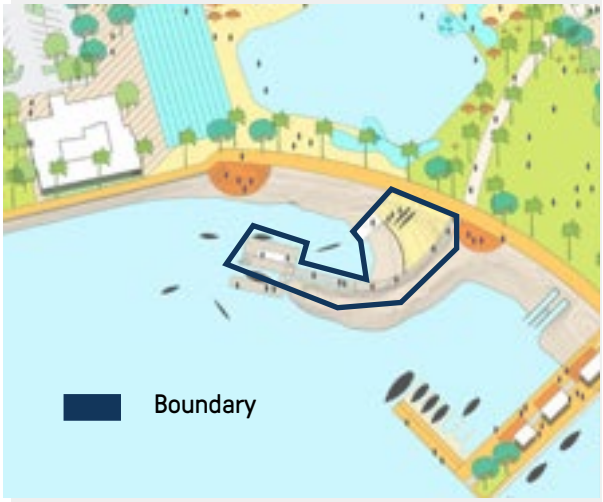
Special Construction: As noted

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition				
Demolition			Included in Special Construction	
Utilities	**7,945**	**SF**	**$26.00**	**$206,570**
Water	7,945	SF	$5.00	$39,725
Sewer	7,945	SF	$5.00	$39,725
General Electrical, etc.	7,945	SF	$8.00	$63,560
Lighting	7,945	SF	$6.00	$47,670
AV/Telecomm/Security POC only	7,945	SF	$2.00	$15,890
Earthwork				
Hardscape	**3,906**	**SF**	**$4.00**	**$15,624**
Sandy beach for staging	3,906	SF	$4.00	$15,624
Landscape				
Site Furnishings	**7,945**	**SF**	**$2.44**	**$19,418**
Trash receptacle, signage, arts and site accessories	7,945	SF	$1.50	$11,918
Wash down hose station	1	EA	$7,500.00	$7,500
Site Structures	**7,945**	**SF**	**$2.60**	**$20,650**
Retaining wall, 24" high	70	LF	$295.00	$20,650
Special Construction - Pier & Dock	**4,039**	**SF**	**$350.14**	**$1,414,233**
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$100,000.00	$100,000
Water Quality BMPs (plans,equipment, and turbidity curtain	1	LS	$20,000.00	$20,000
90-ton Truck Crane (daily rental)	3	DAY	$3,080.00	$9,240
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	2	WK	$9,240.00	$18,480
Diver	1	DAY	$9,856.00	$9,856
Demolition				
Floating Docks	940	SF	$6.72	$6,317
Guidepiles	7	EA	$1,540.00	$10,780
Gangways	1	EA	$1,232.00	$1,232
Gangway Approaches	510	SF	$22.40	$11,424
Platform Piles	6	EA	$1,848.00	$11,088
Boat Launch Ramp				
Rock Revetment (12"+, placed)	145	TON	$86.39	$12,526
Rock Revetment (B-500, placed)	270	TON	$153.86	$41,542
Zero-Entry Conc. Launch	568	SF	$43.12	$24,492

Construction Cost Detail: Hand Launch Continued

HAND LAUNCH

Site Controls



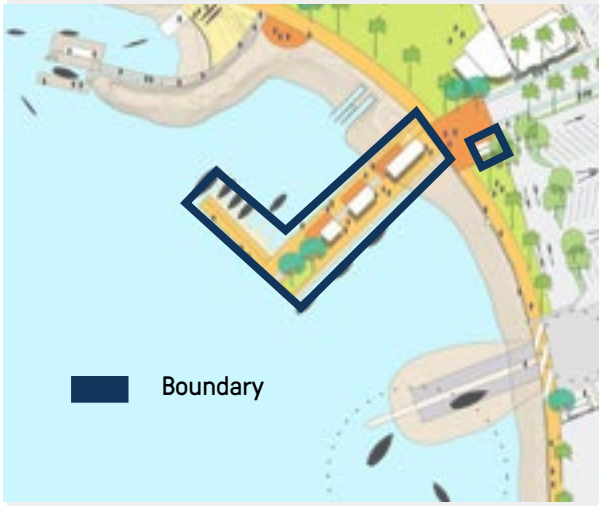
Scope of Work	Quantity	Unit	$ / SF	Total Cost
New Docks & Accessories				
Conc. Fingers & Headwalks	810	SF	$112.00	$90,720
Conc. Wave Attenuator	720	SF	$235.20	$169,344
Low-Freeboard Alum. Dock	1,200	SF	$140.00	$168,000
Conc. Guidepiles (14" - 18" SQ)	10	EA	$13,552.00	$135,520
Aluminum Ramp	298	SF	$61.50	$18,326
ADA Kayak Launch	1	EA	$3,080.00	$3,080
Gangways/ Platforms				
Wide ADA Gangway/s	1	EA	$95,200.00	$95,200
Gangway/Crane Platform/s	443	SF	$364.00	$161,252
Platform Support Piles	6	EA	$13,552.00	$81,312
Dock Utilities				
Light Bollards (30' on-center)	6	EA	$1,400.00	$8,400
Light Poles	5	EA	$3,920.00	$19,600
Emergency Telephone	1	EA	$1,400.00	$1,400
Plumbing per boat, incl fire	1	EA	$2,520.00	$2,520
Fire Hose Cabinet	1	EA	$3,920.00	$3,920
Landside Allowances				
Fencing, Gates, and Security	250	LF	$264.88	$66,220
Sidewalk Approach	1,193	SF	$16.80	$20,042
TOTAL DIRECT COST			**$211.01**	**$1,676,495**

Construction Cost Detail: Short Pier

SHORT PIER

Site Controls

Replacement of Sportfishing Pier with Steel/Wood Structure



Dock, Pier & Ramp	15,877 SF	100%
Hardscape		
Landscape		
Total	**15,877 SF**	

Notes and Assumptions

Scope: Existing pier and proposed restroom

Demolition: Existing pier

Non-demolition: n/a

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes platforms below the cafes

Landscape: Includes artificial turf and 48" box trees

Site Furnishings: Includes seating, trash receptacle, interactive signage, and art

Site Structures: Includes restaurant/cafes, public restroom at the node, and amphitheater steps

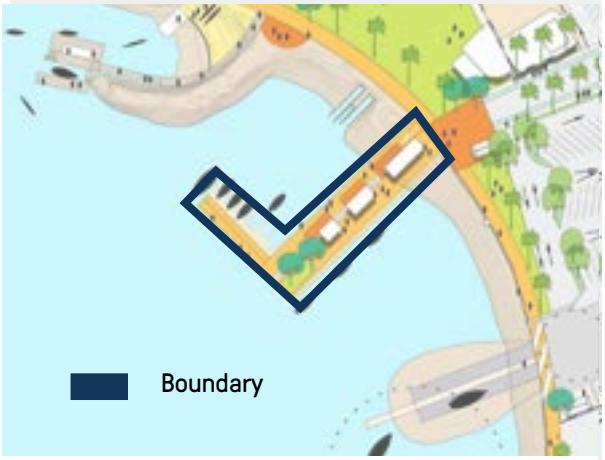
Special Construction: Assumes steel /wood structures for pier & docks

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**15,877**	**SF**		
Demo pier - complete			Included in Special Construction	
Utilities	**15,877**	**SF**	**$26.50**	**$420,741**
Storm Drainage	15,877	SF	$2.00	$31,754
Water	15,877	SF	$4.50	$71,447
Sewer	15,877	SF	$4.50	$71,447
General Electrical, etc.	15,877	SF	$9.00	$142,893
Lighting	15,877	SF	$5.00	$79,385
AV/Telecomm/Security POC only	15,877	SF	$1.50	$23,816
Earthwork				
Hardscape	**1,233**	**SF**	**$25.00**	**$30,825**
Seating paving/platform - below café	1,233	SF	$25.00	$30,825
Landscape	**733**	**SF**	**$27.21**	**$19,944**
Flexible lawn space, artificial turf	733	SF	$18.00	$13,194
Trees, 48" box	2	EA	$3,375.00	$6,750
Site Furnishings	**15,877**	**SF**	**$5.03**	**$79,816**
Information Kiosk / Interactive signage	1	EA	$20,000.00	$20,000
Table with 2 chairs	12	EA	$3,000.00	$36,000
Trash receptacle, signage, arts and site accessories	15,877	SF	$1.50	$23,816
Site Structures	**3,305**	**SF**	**$386.08**	**$1,276,000**
Restaurant/Café	1,893	SF	$500.00	$946,500
Public Restroom # 2	360	SF	$550.00	$198,000
Amphitheater stepped seating, concrete	1,052	SF	$125.00	$131,500
Special Construction - Pier & Dock	**15,877**	**SF**	**$897.03**	**$14,242,069**
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtain	1	LS	$100,000.00	$100,000
150-ton Truck Crane (weekly rental)	40	WK	$11,088.00	$443,520
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	2	WK	$9,240.00	$18,480
Diver	5	DAY	$9,856.00	$49,280
Demolition				
Fixed Pier (Complete)	7,200	SF	$106.40	$766,080

Construction Cost Detail: Short Pier Continued

SHORT PIER

Site Controls



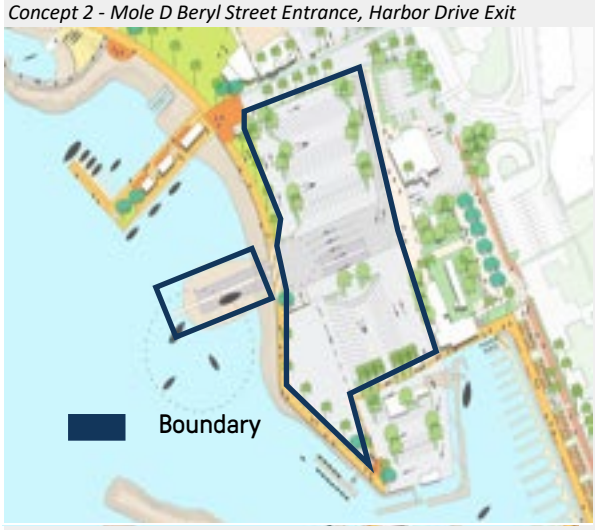
Scope of Work	Quantity	Unit	$ / SF	Total Cost
New Fixed Pier				
Steel Pier Piles	60	EA	$28,028.00	$1,681,680
Steel Fixed Pier Superstructure	12,917	SF	$700.00	$9,041,900
Timber Decking	12,917	SF	$50.40	$651,017
Railings	534	LF	$168.00	$89,712
New Docks & Accessories				
Conc. Fingers & Headwalks	2,960	SF	$112.00	$331,520
Conc. Wave Attenuator	1,200	SF	$235.20	$282,240
Conc. Guidepiles (14" - 18" SQ)	15	EA	$13,552.00	$203,280
Gangways/ Platforms				
ADA Gangway/s	2	EA	$72,800.00	$145,600
Dock Utilities				
Light Bollards (30' on-center)	12	EA	$1,400.00	$16,800
Emergency Telephone	2	EA	$1,400.00	$2,800
Plumbing per boat	4	EA	$2,520.00	$10,080
Fire Hose Cabinet	4	EA	$3,920.00	$15,680
TOTAL DIRECT COST			**$1,012.12**	**$16,069,394**

Construction Cost Detail: Public Boat Launch

PUBLIC BOAT LAUNCH

Site Controls

Concept 2 - Mole D Beryl Street Entrance, Harbor Drive Exit



Building Footprint	450 SF	0%
Hardscape	122,709 SF	96%
Landscape	4,070 SF	3%
Total	**127,229 SF**	

Notes and Assumptions

Scope: Includes existing parking lot, Samba by the Sea, and ramp in water

Demolition: Samba by the Sea and path near launch area

Non-demolition: Primarily slurry and re-striping existing asphalt

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes the parking lot and water pedestal for wash down stations

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing; includes basic irrigation system and controls

Site Furnishings: Includes seating, trash receptacle, general signage, and art

Site Structures: Includes public restroom

Special Structures: As noted

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**54,132**	**SF**	**$6.33**	**$342,460**
Existing paving, landscape, etc.	42,296	SF	$2.50	$105,740
Demo existing building "Samba by the Sea"	11,836	SF	$20.00	$236,720
Utilities	**127,229**	**SF**	**$12.00**	**$1,526,748**
Storm Drainage	127,229	SF	$2.00	$254,458
Water	127,229	SF	$1.00	$127,229
Sewer	127,229	SF	$1.00	$127,229
General Electrical, etc.	127,229	SF	$3.00	$381,687
Lighting	127,229	SF	$4.00	$508,916
AV/Telecomm/Security POC only	127,229	SF	$1.00	$127,229
Earthwork	**54,132**	**SF**	**$3.25**	**$175,929**
General site grading	54,132	SF	$2.50	$135,330
Erosion Control	54,132	SF	$0.75	$40,599
Hardscape	**122,709**	**SF**	**$7.26**	**$890,587**
Trailer enter and exit driveway, slurry and re-striping	10,848	SF	$4.00	$43,392
Trailer parking, slurry and re-striping	42,272	SF	$4.00	$169,088
General Parking - slurry and re-striping	31,813	SF	$4.00	$127,252
Turning circle - new asphalt	6,105	SF	$10.00	$61,050
General paving - asphalt paving	23,892	SF	$7.50	$179,190
Launch queuing lanes, - concrete	4,241	SF	$25.00	$106,025
Wash down lanes - concrete with trench drain	3,538	SF	$55.00	$194,590
Water pedestal	2	EA	$5,000.00	$10,000
Landscape	**4,070**	**SF**	**$47.59**	**$193,704**
Landscape area - planting, shrubs & ground cover	4,070	SF	$16.50	$67,155
Trees, 48" box	27	EA	$3,375.00	$91,125
Palm Trees, 24' high	3	EA	$3,600.00	$10,800
Soil preparation, fertilizer and grading	4,070	SF	$1.75	$7,123
Irrigation systems	4,070	SF	$4.30	$17,501
Site Furnishings	**54,132**	**SF**	**$0.75**	**$40,599**
Trash receptacle, signage, arts and site accessories	54,132	SF	$0.75	$40,599
Site Structures	**450**	**SF**	**$550.00**	**$247,500**
Public Restroom/shower #3	450	SF	$550.00	$247,500

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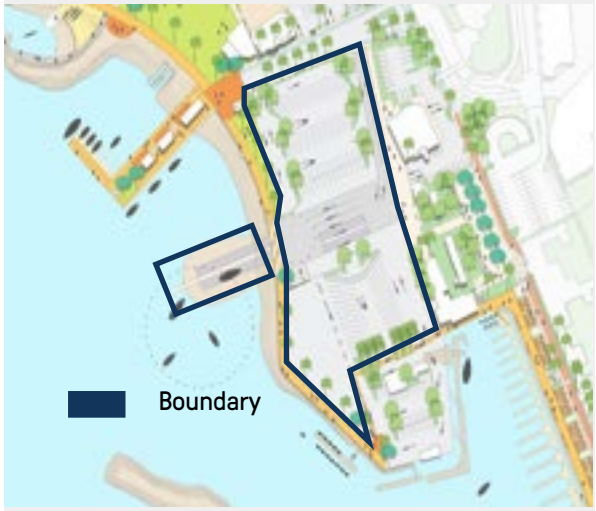
Construction Cost Detail: Public Boat Launch Continued

PUBLIC BOAT LAUNCH

Site Controls



Scope of Work	Quantity	Unit	$ / SF	Total Cost
Special Construction - Boat Launch Ramp	**6,160**	**SF**	**$503.46**	**$3,101,291**
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$250,000.00	$250,000
Water Quality BMPs (plans,equipment, and turbidity curtain	1	LS	$100,000.00	$100,000
90-ton Truck Crane (daily rental)	5	DAY	$3,080.00	$15,400
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	8	WK	$9,240.00	$73,920
Diver	15	DAY	$9,856.00	$147,840
Boat Launch Ramp				
Conc. Launch Ramp	6,160	SF	$104.72	$645,075
Rock Revetment (12"+, placed)	3,733	TON	$86.25	$321,963
Rock Revetment (B-500, placed)	6,933	TON	$154.01	$1,067,733
New Docks & Accessories				
Conc. Staging Dock	1,520	SF	$184.80	$280,896
Conc. Guidepiles (14" - 18" SQ)	7	EA	$13,552.00	$94,864
Dock Utilities				
Light Bollards (30' on-center)	8	EA	$1,400.00	$11,200
TOTAL DIRECT COST			**$51.24**	**$6,518,818**

Construction Cost Detail: Dinghy Dock

DINGHY DOCK

Site Controls		
Proposed Locations		
		
Hardscape	1,872 SF	100%
Landscape		
Total	**1,872 SF**	

Notes and Assumptions

Scope: Proposed dinghy dock locations

Demolition: n/a

Non-demolition: Dinghy docks

Utilities: Square footage reflects the total square footage of scope boundary ry

Hardscape: n/a

Landscape: n/a

Site Furnishings: n/a

Site Structures: n/a

Special Structures: As noted as separate docks, north and south

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	1,872	SF		
Utilities	1,872	SF	$72.12	$135,000
Water - coonections	1	LS	$20,000.00	$20,000
Sewer - connectios	1	LS	$20,000.00	$20,000
General Electrical, etc.	1	LS	$50,000.00	$50,000
Lighting	1	LS	$30,000.00	$30,000
AV/Telecomm/Security POC only	1	LS	$15,000.00	$15,000
Earthwork				
Hardscape				
Landscape				
Site Furnishings				
Site Structures				
Special Construction - Dock	1,872	SF	$523.92	$980,779
(Cost provided by Anchor QEA, LLC)				
Dinghy Dock - North (Mole D)				***$578,371***
General Requirements				
Mobilization/ Demobilization	1	LS	$100,000.00	$100,000
Water Quality BMPs (plans,equipment, and turbidity curtain	1	LS	$20,000.00	$20,000
90-ton Truck Crane (daily rental)	3	DAY	$3,080.00	$9,240
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	1	WK	$9,240.00	$9,240
New Docks & Accessories				
Conc. Fingers & Headwalks	896	SF	$112.00	$100,352
Conc. Guidepiles (14" - 18" SQ)	4	EA	$13,552.00	$54,208
Gangways/ Platforms				
ADA Gangway/s	1	EA	$72,800.00	$72,800
ADA Platform/s (add'l area)	80	SF	$364.00	$29,120
Platform Support Piles	4	EA	$13,552.00	$54,208
Dock Utilities				
Light Bollards (30' on-center)	5	EA	$1,400.00	$7,000
Emergency Telephone	1	EA	$1,400.00	$1,400
Plumbing per boat	2	EA	$2,520.00	$5,040
Fire Hose Cabinet	2	EA	$3,920.00	$7,840
Landside Allowances				
Fencing, Gates, and Security	36	LF	$431.20	$15,523

Construction Cost Detail: Dinghy Dock Continued

DINGHY DOCK

Site Controls

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Dinghy Dock - South (Excursion Dock Extension)				***$402,408***
General Requirements				
Mobilization/ Demobilization	1	LS	$100,000.00	$100,000
Water Quality BMPs (plans,equipment, and turbidity curtain	1	LS	$20,000.00	$20,000
90-ton Truck Crane (daily rental)	3	DAY	$3,080.00	$9,240
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	1	WK	$9,240.00	$9,240
New Docks & Accessories				
Conc. Fingers & Headwalks	896	SF	$112.00	$100,352
Conc. Guidepiles (14" - 18" SQ)	3	EA	$13,552.00	$40,656
On-dock Gate	1	LS	$9,240.00	$9,240
Dock Utilities				
Light Bollards (30' on-center)	5	EA	$1,400.00	$7,000
Emergency Telephone	1	EA	$1,400.00	$1,400
Plumbing per boat	2	EA	$2,520.00	$5,040
Fire Hose Cabinet	2	EA	$3,920.00	$7,840
TOTAL DIRECT COST			**$596.04**	**$1,115,779**

Construction Cost Detail: International Boardwalk

INTERNATIONAL BOARDWALK

Site Controls

Revitalized Boardwalk and Amenities

Deck	14,289 SF	32%
Hardscape	28,910 SF	65%
Landscape	990 SF	2%
Total	**44,189 SF**	

Notes and Assumptions

Scope: Existing scope boundary as noted

Demolition: Existing asphalt paving at lower boardwalk

Non-demolition: Primary infrastructure and upperdeck dining

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes new colored concrete at lower boardwalk and resurfacing of existing concrete path at upper deck

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing and includes basic irrigation system and controls

Site Furnishings: Includes seating at upper deck and lower boardwalk, trash receptacles, bike racks, drinking fountains, general signage, and art

Site Structures: Includes faux wood concrete spaces, expansion of three staircases along the boardwalk, public restroom renovation which assumes complete remodel with new fixtures and surfaces, new upper deck railings, and new shade structures similar to TUUCI-Ocean Master Max Cantilever style

Special Structures: As noted

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**21,890**	**SF**	**$3.25**	**$71,143**
Existing paving, landscape, etc.	21,890	SF	$3.25	$71,143
Utilities	**44,189**	**SF**	**$17.00**	**$751,213**
Storm Drainage	44,189	SF	$2.00	$88,378
Water	44,189	SF	$3.00	$132,567
Sewer	44,189	SF	$3.00	$132,567
General Electrical, lighting etc.	44,189	SF	$8.00	$353,512
AV/Telecomm/Security POC only	44,189	SF	$1.00	$44,189
Earthwork	**21,890**	**SF**	**$3.75**	**$82,088**
General site grading	21,890	SF	$3.00	$65,670
Erosion Control	21,890	SF	$0.75	$16,418
Hardscape	**28,910**	**SF**	**$32.71**	**$945,620**
Integral colored concrete at lower boardwalk	21,890	SF	$34.00	$744,260
Integral colored concrete resurfacing at (E) concrete path	7,020	SF	$18.00	$126,360
Concrete curb - allowance	3,000	LF	$25.00	$75,000
Landscape	**990**	**SF**	**$30.00**	**$29,700**
Landscaping at Upper Deck (11 location)	990	SF	$20.00	$19,800
Irrigation	990	SF	$10.00	$9,900
Site Furnishings	**44,189**	**SF**	**$12.20**	**$539,156**
Table with 4 chairs at upper deck	72	SET	$3,500.00	$252,000
Bar tops with seating (5 stools each) , 20' L (upper deck dining)	18	EA	$5,000.00	$90,000
Signage, trash receptacle, bike rack, drinking fountain, arts	44,189	SF	$4.00	$176,756
Bench at lower boardwalk, 5'	12	EA	$1,700.00	$20,400
Site Structures	**14,289**	**SF**	**$284.57**	**$4,066,265**
Upper deck dining area, faux wood concrete	9,833	SF	$175.00	$1,720,775
Upper deck, concrete	2,554	SF	$150.00	$383,100
Prominent staircase to upper deck (expanded stairs at 3 loc)	1,902	SF	$145.00	$275,790
Renovated restrooms #4, #5, #6	1,350	SF	$450.00	$607,500
Upper deck railings, stainless steel	837	LF	$300.00	$251,100
Shade structure at upper deck, fabric and aluminum	36	EA	$23,000.00	$828,000
Special Construction - Sea Wall				**$4,550,840**
(Cost provided by Anchor QEA, LLC)				
Option 4 - Repair & Cantilever				
General Requirements				
Mobilization/ Demobilization	1	LS	$200,000.00	$200,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$45,000.00	$45,000
90-ton Truck Crane (daily rental)	16	WK	$9,856.00	$157,696
Shoreline Protection				
Reinforced Concrete Cantilevered Cap	1,295	LF	$1,848.00	$2,393,160
Structural Repairs/Retrofit - Concrete wall	1,295	LF	$1,355.20	$1,754,984
TOTAL DIRECT COST			**$249.75**	**$11,036,024**

Construction Cost Detail: Moonstone Park

MOONSTONE PARK

Site Controls

New Public Hand Launch & Outrigger Club Expansion

Building Footprint	2,706 SF	7%
Hardscape	19,565 SF	48%
Landscape	18,547 SF	45%
Total	**40,818 SF**	

Notes and Assumptions

Scope: Existing open lawn, parking, and outrigger clubs

Demolition: Existing open lawn

Non-demolition: Parking and outrigger clubs

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes new colored concrete, repaved asphalt due to existing condition, and artificial turf for outrigger clubs

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing, includes basic irrigation system and controls, new open lawn

Site Furnishings: Includes seating, trash receptacles, bike racks, drinking fountains, general signage, and art

Site Structures: Includes faux wood deck overlook, three contrete steps, railing, and new public restroom with shower

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**40,818**	**SF**	**$3.00**	**$122,454**
Existing paving, landscape, etc.	40,818	SF	$3.00	$122,454
Utilities	**40,818**	**SF**	**$14.00**	**$571,452**
Storm Drainage	40,818	SF	$2.00	$81,636
Water	40,818	SF	$2.50	$102,045
Sewer	40,818	SF	$2.50	$102,045
General Electrical, etc.	40,818	SF	$2.50	$102,045
Lighting	40,818	SF	$3.50	$142,863
AV/Telecomm/Security POC only	40,818	SF	$1.00	$40,818
Earthwork	**40,818**	**SF**	**$3.75**	**$153,068**
General site grading	40,818	SF	$3.00	$122,454
Erosion Control	40,818	SF	$0.75	$30,614
Hardscape	**19,565**	**SF**	**$17.06**	**$333,697**
Waterfront Path - integral colored concrete	865	SF	$34.00	$29,410
Interior pathway - integral colored concrete	1,528	SF	$34.00	$51,952
General parking and driveway, new asphalt	14,590	SF	$9.50	$138,605
Open space - outrigger Club Flex-Area, artificial turf	2,582	SF	$15.00	$38,730
Existing Outrigger Canoe Club				To Remain
Concrete curb	3,000	LF	$25.00	$75,000
Landscape	**18,547**	**SF**	**$13.06**	**$242,195**
Lawn open space	16,790	SF	$3.00	$50,370
Landscape area - planting, shrubs & ground cover	1,757	SF	$16.50	$28,991
Trees, 48" box	15	EA	$3,375.00	$50,625
Soil preparation, fertilizer and grading	18,547	SF	$1.75	$32,457
Irrigation	18,547	SF	$4.30	$79,752
Site Furnishings	**40,818**	**SF**	**$2.64**	**$107,727**
Tables with 4 chairs	3	SET	$3,500.00	$10,500
Signage for free parking	1	EA	$1,000.00	$1,000
Bench, 10' long	14	EA	$2,500.00	$35,000
Signage, trash receptacle, bike rack, drinking fountain, arts	40,818	SF	$1.50	$61,227
Site Structures	**2,706**	**SF**	**$211.20**	**$571,515**
Deck Overlook including steps up - 'faux wood concrete'	2,256	SF	$110.00	$248,160
Three Steps	103	LF	$285.00	$29,355
S/S Railing to overlook	155	LF	$300.00	$46,500
Public Restroom/Shower # 1	450	SF	$550.00	$247,500
TOTAL DIRECT COST			**$51.50**	**$2,102,107**
Mark-ups	59.73%			$1,255,650
Total Construction Costs				**$3,357,758**

Construction Cost Detail: Moonstone Park, Iteration Concept 1 with Primarily Lawn

MOONSTONE PARK - ITERATION CONCEPT 1

Site Controls

Concept 1 - Enhanced Existing Park

Building Footprint	4,031 SF	10%
Hardscape	20,037 SF	47%
Landscape	18,217 SF	43%
Total	**42,285 SF**	

Notes and Assumptions

Scope: Existing open lawn, parking, and outrigger clubs

Demolition: Existing open lawn

Non-demolition: Parking and outrigger clubs

Utilities: Square footage reflects the total square footage of scope boundary

Hardscape: Includes new colored concrete and repaved asphalt due to existing condition

Landscape: Assumes 20% 15-gallon, 40% 5-gallon, 40% 1-gallon plant mix in shrubs areas at 24" on center spacing, includes basic irrigation system and controls, new open lawn

Site Furnishings: Includes seating, trash receptacles, bike racks, drinking fountains, general signage, and art

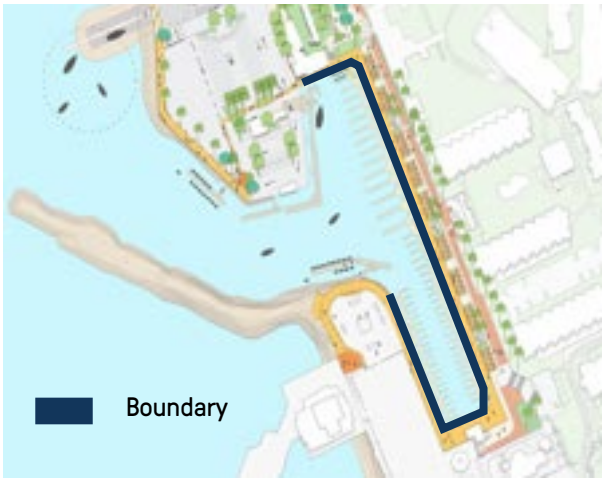
Site Structures: Includes faux wood deck overlook, three contrete steps, railing, and new public restroom with shower

Scope of Work	Quantity	Unit	$ / SF	Total Cost
Demolition	**42,285**	**SF**	**$3.00**	**$126,855**
Existing paving, landscape, etc.	42,285	SF	$3.00	$126,855
Utilities	**42,285**	**SF**	**$14.50**	**$613,133**
Storm Drainage	42,285	SF	$2.00	$84,570
Water	42,285	SF	$2.50	$105,713
Sewer	42,285	SF	$2.50	$105,713
General Electrical, etc.	42,285	SF	$3.00	$126,855
Lighting	42,285	SF	$3.50	$147,998
AV/Telecomm/Security POC only	42,285	SF	$1.00	$42,285
Earthwork	**42,285**	**SF**	**$3.75**	**$158,569**
General site grading	42,285	SF	$3.00	$126,855
Erosion Control	42,285	SF	$0.75	$31,714
Hardscape	**20,037**	**SF**	**$19.90**	**$398,803**
Waterfront Path - integral colored concrete	1,912	SF	$34.00	$65,008
Interior pathway - integral colored concrete	3,535	SF	$34.00	$120,190
General parking and driveway - asphalt	14,590	SF	$9.50	$138,605
Existing Outrigger Canoe Club				To Remain
Concrete curb	3,000	LF	$25.00	$75,000
Landscape	**18,217**	**SF**	**$12.89**	**$234,726**
Lawn open space	17,042	SF	$3.00	$51,126
Landscape area - planting, shrubs & ground cover	1,175	SF	$16.50	$19,388
Trees, 48" box	16	EA	$3,375.00	$54,000
Soil preparation, fertilizer and grading	18,217	SF	$1.75	$31,880
Irrigation	18,217	SF	$4.30	$78,333
Site Furnishings	**42,285**	**SF**	**$2.77**	**$116,928**
Tables with 3 chairs	3	SET	$2,500.00	$7,500
Signage for free parking	1	EA	$1,000.00	$1,000
Bench, 10' long	18	EA	$2,500.00	$45,000
Signage, trash receptacle, bike rack, drinking fountain, arts	42,285	SF	$1.50	$63,428
Site Structures	**4,031**	**SF**	**$175.31**	**$706,660**
Deck Overlook including steps up - 'faux wood concrete'	2,871	SF	$110.00	$315,810
S/S Railing to overlook	182	LF	$300.00	$54,600
Stepped seating	710	SF	$125.00	$88,750
Public Restroom	450	SF	$550.00	$247,500
TOTAL DIRECT COST			**$55.71**	**$2,355,673**
Mark-ups	59.73%			$1,407,113
Total Construction Costs				**$3,762,786**

	Quantity	Unit	Unit Cost	Total
Option 1: Short Pier - Steel/Wood Structure & Docks (In Base)				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$100,000.00	$100,000
150-ton Truck Crane (weekly rental)	40	WK	$11,088.00	$443,520
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	2	WK	$9,240.00	$18,480
Diver	5	DAY	$9,856.00	$49,280
Demolition				
Fixed Pier (Complete)	7,200	SF	$106.40	$766,080
New Fixed Pier				
Steel Pier Piles	60	EA	$28,028.00	$1,681,680
Steel Fixed Pier Superstructure	12,917	SF	$700.00	$9,041,900
Timber Decking	12,917	SF	$50.40	$651,017
Railings	534	LF	$168.00	$89,712
New Docks & Accessories				
Conc. Fingers & Headwalks	2,960	SF	$112.00	$331,520
Conc. Wave Attenuator	1,200	SF	$235.20	$282,240
Conc. Guidepiles (14" - 18" SQ)	15	EA	$13,552.00	$203,280
Gangways/ Platforms				
ADA Gangway/s	2	EA	$72,800.00	$145,600
Dock Utilities				
Light Bollards (30' on-center)	12	EA	$1,400.00	$16,800
Emergency Telephone	2	EA	$1,400.00	$2,800
Plumbing per boat	4	EA	$2,520.00	$10,080
Fire Hose Cabinet	4	EA	$3,920.00	$15,680
Markups				
Design Contingency	15.00	%	$14,242,069	$2,136,310
Market Escalation	16.64	%	$16,378,379	$2,726,148
General Conditions	7.00	%	$19,104,527	$1,337,317
General Requirements	4.00	%	$19,104,527	$764,181
Bonds	1.50	%	$19,104,527	$286,568
General Liability Insurance	1.80	%	$21,206,025	$381,708
Overhead & Profit	4.00	%	$21,874,301	$874,972
				$22,749,273

	Quantity	Unit	Unit Cost	Total
Option 2: Short Pier - Concrete Structure & Docks				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$100,000.00	$100,000
150-ton Truck Crane (weekly rental)	40	WK	$11,088.00	$443,520
Barge Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Barge Crane (weekly rental)	2	WK	$9,240.00	$18,480
Diver	5	DAY	$9,856.00	$49,280
Demolition				
Fixed Pier (Complete)	7,200	SF	$106.40	$766,080
New Fixed Pier				
Cocnrete Pier Piles	60	EA	$25,256.00	$1,515,360
Concrete Fixed Pier Superstructure	12,917	SF	$504.00	$6,510,168
Concrete Decking	12,917	SF	$39.20	$506,346
Railings	534	LF	$168.00	$89,712
New Docks & Accessories				
Conc. Fingers & Headwalks	2,960	SF	$112.00	$331,520
Conc. Wave Attenuator	1,200	SF	$235.20	$282,240
Conc. Guidepiles (14" - 18" SQ)	15	EA	$13,552.00	$203,280
Gangways/ Platforms				
ADA Gangway/s	2	EA	$72,800.00	$145,600
Dock Utilities				
Light Bollards (30' on-center)	12	EA	$1,400.00	$16,800
Emergency Telephone	2	EA	$1,400.00	$2,800
Plumbing per boat	4	EA	$2,520.00	$10,080
Fire Hose Cabinet	4	EA	$3,920.00	$15,680
Markups				
Design Contingency	15.00	%	$11,399,346	$1,709,902
Market Escalation	16.64	%	$13,109,248	$2,182,008
General Conditions	7.00	%	$15,291,256	$1,070,388
General Requirements	4.00	%	$15,291,256	$611,650
Bonds	1.50	%	$15,291,256	$229,369
General Liability Insurance	1.80	%	$16,973,294	$305,519
Overhead & Profit	4.00	%	$17,508,182	$700,327
				$18,208,510

Site Controls



	Quantity	Unit	Unit Cost	Total
Option 1: International Boardwalk Sea Wall - Short Term Mitigation				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$100,000.00	$100,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$20,000.00	$20,000
90-ton Truck Crane (daily rental)	6	WK	$9,856.00	$59,136
Shoreline Protection				
Reinforced Concrete CantileveredCap	1,295	LF	$1,848.00	$2,393,160
Landside Allowances				
Fencing, Gates, and Security	1,295	LF	$184.80	$239,316
Markups				
Design Contingency	15.00	%	$2,811,612	$421,742
Market Escalation	16.64	%	$3,233,354	$538,185
General Conditions	7.00	%	$3,771,539	$264,008
General Requirements	4.00	%	$3,771,539	$150,862
Bonds	1.50	%	$3,771,539	$56,573
General Liability Insurance	1.80	%	$4,186,408	$75,355
Overhead & Profit	4.00	%	$4,318,337	$172,733
				$4,491,070

	Quantity	Unit	Unit Cost	Total
Option 2: International Boardwalk Sea Wall - Replace Option 1				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$75,000.00	$75,000
90-ton Truck Crane (daily rental)	20	WK	$9,856.00	$197,120
Silent Driver Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Shoreline Protection				
Steel Sheet Piles (furnish & install,epoxy coated, no ex. wall mods)	1,295	LF	$5,852.00	$7,578,340
Reinforced Concrete Cap	1,295	LF	$677.60	$877,492
Markups				
Design Contingency	15.00	%	$9,120,352	$1,368,053
Market Escalation	16.64	%	$10,488,405	$1,745,774
General Conditions	7.00	%	$12,234,178	$856,392
General Requirements	4.00	%	$12,234,178	$489,367
Bonds	1.50	%	$12,234,178	$183,513
General Liability Insurance	1.80	%	$13,579,938	$244,439
Overhead & Profit	4.00	%	$14,007,890	$560,316
				$14,568,205

	Quantity	Unit	Unit Cost	Total
Option 3: International Boardwalk Sea Wall - Replace Option 2				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$25,000.00	$25,000
90-ton Truck Crane (daily rental)	25	WK	$9,856.00	$246,400
Silent Driver Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Demolition				
Bulkhead (concrete, removal)	1,295	LF	$2,094.40	$2,712,248
Rip Rap	11,803	TON	$24.64	$290,826
Shoreline Protection				
Steel Sheet Piles (furnish & install, epoxy coated, no ex. wall mods)	1,295	LF	$8,008.00	$10,370,360
Reinforced Concrete Cap	1,295	LF	$677.60	$877,492
Markups				
Design Contingency	15.00	%	$14,914,726	$2,237,209
Market Escalation	16.64	%	$17,151,935	$2,854,905
General Conditions	7.00	%	$20,006,840	$1,400,479
General Requirements	4.00	%	$20,006,840	$800,274
Bonds	1.50	%	$20,006,840	$300,103
General Liability Insurance	1.80	%	$22,207,592	$399,737
Overhead & Profit	4.00	%	$22,907,431	$916,297
				$23,823,728

	Quantity	Unit	Unit Cost	Total
Option 4: International Boardwalk Sea Wall - Repair & Cantilever (In Base)				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$200,000.00	$200,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$45,000.00	$45,000
90-ton Truck Crane (daily rental)	16	WK	$9,856.00	$157,696
Shoreline Protection				
Reinforced Concrete Cantilevered Cap	1,295	LF	$1,848.00	$2,393,160
Structural Repairs/Retrofit - Concrete wall	1,295	LF	$1,355.20	$1,754,984
Markups				
Design Contingency	15.00	%	$4,550,840	$682,626
Market Escalation	16.64	%	$5,233,466	$871,100
General Conditions	7.00	%	$6,104,566	$427,320
General Requirements	4.00	%	$6,104,566	$244,183
Bonds	1.50	%	$6,104,566	$91,568
General Liability Insurance	1.80	%	$6,776,068	$121,969
Overhead & Profit	4.00	%	$6,989,606	$279,584
				$7,269,190

	Quantity	Unit	Unit Cost	Total
Option 5: International Boardwalk Sea Wall - Replace Option 2 & Cantilever				
(Cost provided by Anchor QEA, LLC)				
General Requirements				
Mobilization/ Demobilization	1	LS	$300,000.00	$300,000
Water Quality BMPs (plans,equipment, and turbidity curtains)	1	LS	$75,000.00	$75,000
90-ton Truck Crane (daily rental)	20	WK	$9,856.00	$197,120
Silent Driver Crane (mob/demob only)	1	LS	$92,400.00	$92,400
Shoreline Protection				
Steel Sheet Piles (furnish & install, epoxy coated, no ex. wall mods)	1,295	LF	$5,852.00	$7,578,340
Reinforced Concrete Cantilevered Cap	1,295	LF	$1,848.00	$2,393,160
Markups				
Design Contingency	15.00	%	$10,636,020	$1,595,403
Market Escalation	16.64	%	$12,231,423	$2,035,896
General Conditions	7.00	%	$14,267,319	$998,712
General Requirements	4.00	%	$14,267,319	$570,693
Bonds	1.50	%	$14,267,319	$214,010
General Liability Insurance	1.80	%	$15,836,724	$285,061
Overhead & Profit	4.00	%	$16,335,794	$653,432
				$16,989,226

Design Options: Boat Storage Locations

Site Controls

	Quantity	Unit	Unit Cost	Total
Option 1: Boat Storage Space #1				
Patch and repair (E) asphalt paving	18,996	SF	$4.00	$75,984
Stacked storage	18,996	SF	$12.00	$227,952
Chainlink Fence screening, gate, 8' high	560	LF	$95.00	$53,200
Markups				
Design Contingency	15.00	%	$357,136	$53,570
Market Escalation	16.64	%	$410,706	$68,361
General Conditions	7.00	%	$479,068	$33,535
General Requirements	4.00	%	$479,068	$19,163
Bonds	1.50	%	$479,068	$7,186
General Liability Insurance	1.80	%	$531,765	$9,572
Overhead & Profit	4.00	%	$548,523	$21,941
				$570,464

	Quantity	Unit	Unit Cost	Total
Option 2: Boat Storage Space #2				
Patch and repair (E) asphalt paving	15,728	SF	$4.00	$62,912
Stacked storage	15,728	SF	$12.00	$188,736
Chainlink Fence screening, gate, 8' high	511	LF	$95.00	$48,545
Markups				
Design Contingency	15.00	%	$300,193	$45,029
Market Escalation	16.64	%	$345,222	$57,461
General Conditions	7.00	%	$402,683	$28,188
General Requirements	4.00	%	$402,683	$16,107
Bonds	1.50	%	$402,683	$6,040
General Liability Insurance	1.80	%	$446,979	$8,046
Overhead & Profit	4.00	%	$461,064	$18,443
				$479,507
Option 3: Boat Storage Space #3				
Patch and repair (E) asphalt paving	20,013	SF	$4.00	$80,052
Stacked storage	20,013	SF	$12.00	$240,156
Chainlink Fence screening, gate, 8' high	685	LF	$95.00	$65,075
Markups				
Design Contingency	15.00	%	$385,283	$57,792
Market Escalation	16.64	%	$443,075	$73,749
General Conditions	7.00	%	$516,824	$36,178
General Requirements	4.00	%	$516,824	$20,673
Bonds	1.50	%	$516,824	$7,752
General Liability Insurance	1.80	%	$573,675	$10,326
Overhead & Profit	4.00	%	$591,754	$23,670
				$615,424

Project Escalation Forecast

Cumming revises our escalation forecast on a quarterly basis. All rates subject to change with market conditions.

Estimate Date	08/05/22
Construction Start	06/01/24
Construction Midpoint	05/29/26
Construction Completion	06/01/28
Construction Duration	1,461 Days
Construction Duration	*48 months*

Year	Time	Rate	Total	Compounded Rate
2022	0.41	6.0%	2.45%	
2023	1.00	5.0%	5.00%	7.57%
2024	1.00	3.5%	3.50%	11.34%
2025	1.00	3.5%	3.50%	15.23%
2026	0.41	3.0%	1.2%	16.64%
			Total Escalation to Midpoint:	16.64%

Basis of Deliverables

Project Documents

Narratives:	Conceptual Design Report Connectivity Framework

Assumed Project Conditions

01	Project Delivery	Design Bid Build
02	Phasing	Multiple Phasings

Specific Exclusions

01	Soft Cost	Design and Consultant Fees
02	Soft Cost	Development fees
03	Soft Cost	Public Works Fees
04	Soft Cost	Utility Payments & Fees
05	Soft Cost	Land Cost / Option Payments
06	Project	Permanent dewatering
07	Project	Cost of Material impacts due to international tariffs not currently known
08	Project	Market escalation after the stated dates in the estimate.
09	Project	Unforeseen soil conditions / Blasting of caliche
10	Project	Lead and asbestos abatement
11	Project	Builder's Risk Insurance (by owner)
12	Project	FF&E allowance

Assumptions made in the Cost Estimate

01	Project	The site will accessible during the normal business hours between 7:00 AM to 5:00 PM
02	Project	Union labor wage determinations assumed.
03	Project	The GC is required to procure a payment and performance bond
04	Project	Subcontractor default insurance is carried by the GC
05	Project	Subcontractor's costs do not include bonding.

Schedule

Construction Start:	June 1, 2024
Construction Completion:	June 1, 2028
Construction Midpoint:	May 29, 2026
Construction Duration:	48 Months

8.6 Land Use Program

Program Plan

Overview

The zoning plan was created to serve as a future planning control tool for regulating the built environment. The plan identifies where amenities are placed and helps optimize future growth. Zoning boundaries extend beyond the scope of the Amenities Plan. Tidelands, or land that is submerged at high tide, are noted on the diagram for reference.

8.7 Ideas for Future Amenities

Ideas from the Community

Overview

As part of the outreach effort, the community presented several ideas for events and activities that could occur within King Harbor. Additionally, ideas have emerged from the planning and design process.

Promotion of activities for all ages and interests will help promote an active and vibrant waterfront. The City can encourage and implement additional programming and other activities as part of the revitalization effort.

If the new amenities are considered, they should first consider if they fit within the zoning plan and then continue with the Project Action List.

Marine and Water Amenities

Additional marine and water amenities to explore in the future include:

- Dive n' Surf connection or partnership within the harbor
- Evening waterbike rentals at seaside lagoon
- Oyster farming
- Surf contests at a future wave pool
- Jet ski rental
- Duffy boats
- Scuba diving and snorkeling
- Aquarium
- Fishing competitions
- Water taxi
- E-boats
- Boat sharing program
- Evaluating the condition of piers within each basin
- Consideration of marine habitat
- Living breakwater with sustainable concrete technology

Public

Additional public amenities to explore in the future include:

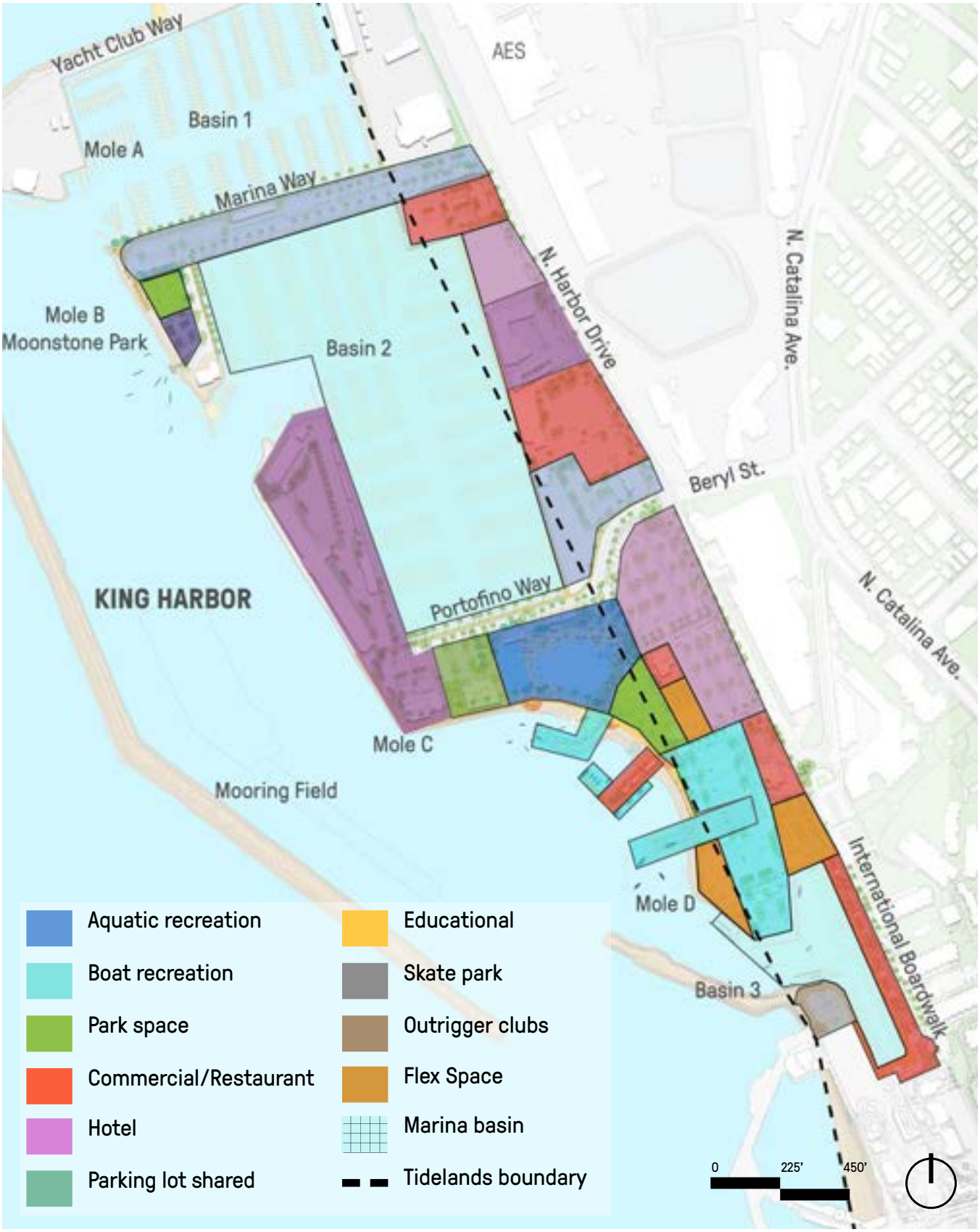
- Dog park and dog run
- "Fun-zone" entertainment replacement
- Carousel
- Review parking cost with meters
- Opportunity for monthly passes for parking
- Ecological art installations
- Incorporation of solar panels and green roofs
- History museum
- Playgrounds
- Farmers markets
- Exercise equipment
- Evaluating bike lanes through the parking structure
- Future of AES site
- Beach ambassadors to provide assistance at the harbor
- Vessel visits, including historical vessels, navy vessels, and tall ships

Improved Connections to Neighborhoods

Additional connectivity amenities to explore in the future include:

- Connecting more bike lanes at nearby streets
- Establishing stronger connection to the The Strand
- Improved public transit
- Marina Way and Harbor Drive bus stop for better access to Moonstone Park
- Safer transitions for bicycle lanes along Harbor Drive

LAND USE PROGRAM



9

COMPLIANCE CRITERIA

9.1 Measure C

Amenities Plan Compliance with Measure C

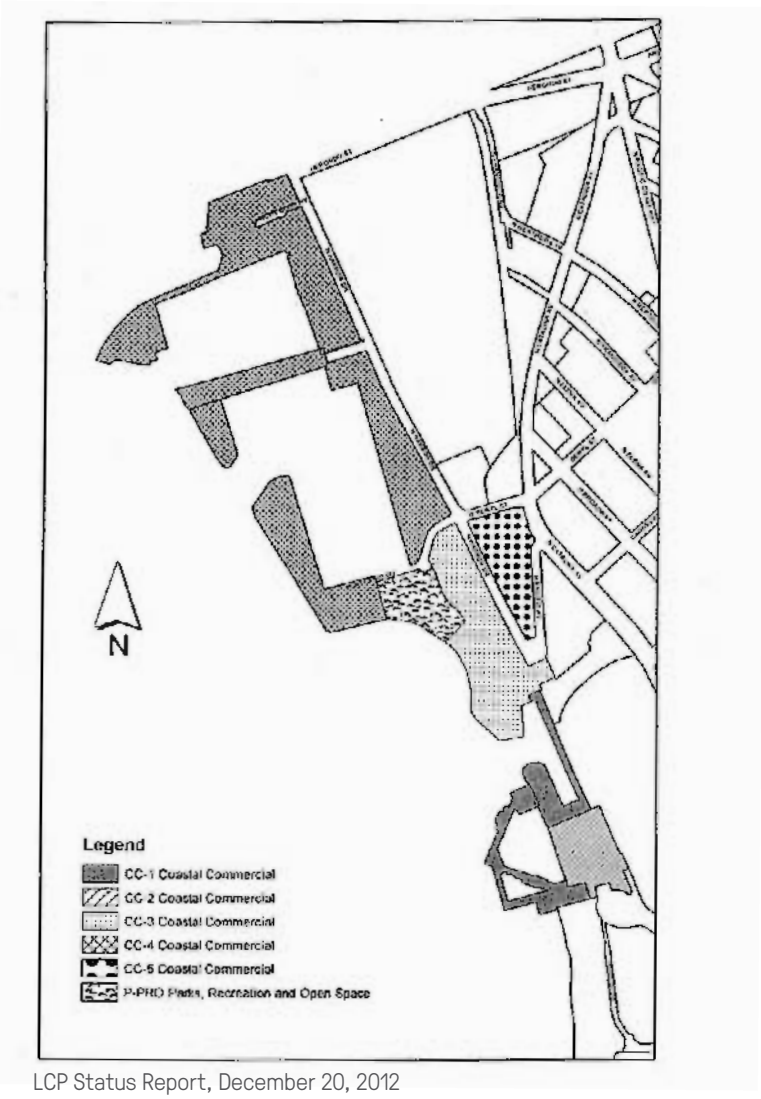
Overview

As stated in Section 2.1, Measure C was certified by the Coastal Commission in 2018 as a response to concerns over a significant redevelopment plan of the Harbor Area. Measure C was considered throughout the Amenities Plan process. Compliance with Measure C is further confirmed through the compliance matrix within this section.

The criteria of Measure C is as follows:

1. Require maintenance of the current Seaside Lagoon, or if that is not feasible, replacement of the Lagoon with a pool or similar swimming facility;
2. Prohibit the Lagoon from being opened to harbor waters;
3. Require that new development preserve a percentage of the existing views to the harbor and the ocean;
4. Institute new design and safety standards for the development of a required, future Public Boat Launch facility;
5. Prohibit new parking structures in one of the Coastal Commercial zones and prioritize coastal dependent parking;
6. Require detailed traffic studies for new development proposed within the harbor area;
7. Prevent a road connection of Harbor Dr. to Torrance Blvd. for vehicular traffic through the harbor; and,
8. Require that new development count the square footage of any new parking structures towards the square footage allowed pursuant to the existing development cap for the harbor.

Harbor and Pier Zoning Map Amendments



LCP Status Report, December 20, 2012

9.1 Compliance Matrix

Measure C Criteria	Fulfillment within Amenities Plan
1. Require maintenance of the current Seaside Lagoon, or if that is not feasible, replacement of the Lagoon with a pool or similar swimming facility	
2. Prohibit the Lagoon from being opened to harbor waters	
Additional Requirements	**Implementation Measures within the Amenities Plan**
Measure C changes the Implementation Plan of the Local Coastal Program development standards to require that the Seaside Lagoon open space that is "accessible by the public for water-oriented recreational activities" be expanded. However, if expansion of the park's acreage is infeasible, then the open space shall be preserved, which includes the salt water sandy-bottom swimming facility. Specifically, the amendment would prohibit conversion of the Lagoon to an open-water beach with connectivity to the harbor waters. If water quality standards or water supply issues require an alternative to the current Lagoon, then a replacement facility with equivalent water surface area, beach, and amenities (volleyball courts, showers, restrooms, concessions, picnic areas, play structures, and luau shelter) is required.	▪ The lagoon square footage decreased from 1 acre to .84 acres, however, with the Olympic pool, total water surface area increased to 1.15 acres ▪ Additional amenities, such as those listed within the additional requirements, are made available by the .93 acre Great Lawn
Pursuant to the amendment, no new or expanded structures, parking, streets or driveways adjacent to the Lagoon would be allowed to impact the open space or degrade the area. If the Lagoon were replaced, a pool or similar recreational facility of equal size must be provided on the site, and would be subject to all state safety and environmental health regulations. Swimming or wading in the opened harbor water would not suffice for a replacement facility.	▪ No new parking structure or parking stalls are replacing the square footage of the lagoon ▪ The lagoon is renovated with the addition of a pool ▪ Swimming or wading in the adjacent harbor is not a programmed activity within the Amenities Plan
The launch point for human powered watercraft (the existing Hand Launch facility located on the harbor side of the revetment) must be preserved and expanded within the vicinity of the Lagoon or otherwise at Mole C, D, Basin 1, 2 or 3. Public access signage would be required identifying the Lagoon and the Hand Launch as public facilities.	▪ Redevelopment of the Hand Launch is located within the same area as the existing footprint ▪ Signage would be improved at both Seaside Lagoon and at the Hand Launch to promote public access

LCP Status Report, December 20, 2012

Measure C Criteria	Fulfillment within Amenities Plan
3. Require that new development preserve a percentage of the existing views to the harbor and the ocean	
Additional Requirements	**Implementation Measures within the Amenities Plan**
Measure C adds a requirement that new development in CC-1 and CC-3 zones preserve existing harbor and ocean views, consistent with the views available as of January 1, 2016. Specific views to be protected include: 1) views along north Harbor Dr. (between Beryl St. and Pacific Ave.) where a minimum of 40% of the ground level view shall be preserved; and 2) a minimum of 60% of ground level views shall be preserved from Czuleger Park, subject to survey and verified by selecting specific viewpoints with the broadest ocean and harbor views, at 5 feet above the ground along the east side of the park, at the midpoint of the park on a line running east to west, and in the plaza on the west side of the park.	▪ Views along north Harbor Dr. (between Beryl St. and Pacific Ave.) are preserved as redevelopment of Seaside Lagoon and existing restaurants would be preserved at similar heights ▪ Views from Czuleger Park, specifically viewpoints with the broadest ocean and harbor views, are preserved as International Boardwalk would remain intact; the proposed Boat Launch would not restrict views from the park
The regulation also requires that story poles be erected 45 days prior to the first public hearing on a CDP application for new development in these zones, and the poles must accurately reflect the footprint, final height, and bulk of the development. The story pole requirement may be waived by the Community Development Director.	▪ Story poles are out of scope for the Amenities Plan

Measure C Criteria	Fulfillment within Amenities Plan
4. Institute new design and safety standards for the development of a required, future Public Boat Launch facility	
Additional Requirements	**Implementation Measures within the Amenities Plan**
The regulation would clarify that construction of a boat launch ramp and parking and accessory facilities are required as part of any project that proposes a net increase of 10,000 SF of floor area or more in any Coastal commercial zone in the harbor.	▪ The Public Boat Launch is included and required within the Amenities Plan
The requirements for the boat launch specify that it shall be constructed and fully operational prior to the issuance of the certificate of occupancy for a new structure, and it shall have a minimum of 2 lanes and shall provide no less than 30 double-length boat trailer/vehicle parking spaces per lane (i.e., a minimum of 60 spaces) that are within 500 feet or less of the ramp. At least 10%, but no more than 25% of the parking spaces shall be at least 55 feet long. No parking spaces shall be less than 40 feet long.	▪ Two launch lanes and three queuing lanes are included in the Amenities Plan ▪ The 60 double-length boat trailer/vehicle parking spaces are within 350 feet or less of the ramp ▪ About 23% of the parking spaces are 55 feet long with the remaining spaces being 40-45 feet
The ramp shall meet the requirements for Department of Boating and Waterways guidelines for layout, design and construction for small craft launching facilities and shall meet AASHTO roadway design standards for turn radii and maneuverability of vehicle-boat combinations.	▪ The concept design is for planning purposes and general design intent only. The parking layout including dimensions and ADA access, boarding float width, ramp lane width, and general layout conform with DBW guidelines and the apron turning circle at the top of the ramp is based on AASHTO turn radii design standards for a passenger vehicle-trailer combination. However, additional design requirements such as ramp slope, rip rap footings, runoff water capture, ramp construction materials including v-groove design, and other DBW, building code, and AASHTO standards will be addressed in the development of future construction documents.
Measure C would require that the ramp be designed to avoid net loss of any boat slips that are available as of January 2016, shall not have any adverse impact on public access or coastal dependent uses, and shall be located a safe distance from any human-powered watercraft launch point and swimming area.	▪ No slips are impacted with the primary plan ▪ The location of the Public Boat Launch within Mole D would not have any adverse impacts on public access or coastal dependent uses as the location is located at the existing seawall; removal of Samba by the Sea would be required ▪ By locating the launch at Mole D, there is over 500 feet distance to the Hand Launch
The ramp shall accommodate safe launch and recovery in surge conditions and shall not be located where waves topping the outer breakwall would create safety hazards during launching or recovery.	▪ Surge conditions would need to be further evaluated during the design phase

Measure C Criteria	Fulfillment within Amenities Plan
5. Prohibit new parking structures in one of the Coastal Commercial zones and prioritize coastal dependent parking	
Additional Requirements	**Implementation Measures within the Amenities Plan**
In addition, Measure C (§ 10-5.811(h)) would prohibit construction of new parking structures in the CC-3 zone. The existing Plaza parking structure can be maintained or replaced, but not expanded. It requires that parking in Coastal Commercial zones be designed to prioritize peak summer demand and coastal-dependent/water-oriented recreational uses. The uses shall not be subject to, or restricted by, valet, reservations, or offsite parking. Shared parking shall not decrease or restrict coastal dependent/water-oriented recreational uses, enforceable standards shall be applied for prioritizing any proposed shared parking, and compliance monitoring is required. Reduced parking fees would apply for frequent users of the harbor for coastal dependent uses.	▪ No new parking structures are proposed in the Amenities Plan ▪ Parking spaces that are removed as part of the primary design are intended to be replaced with an equal number of spaces within the Harbor area in accordance with the LUP ▪ Coastal dependent parking is prioritized through the following key amenities of the site: Moonstone Park, Hand Launch, Boat Launch, and Dinghy Docks ▪ Further parking studies would be required as part of design development of any of these key areas as noted in the Amenities Plan ▪ Bike lanes and hubs are proposed to promote multi-modal transportation usage at the site
6. Require detailed traffic studies for new development proposed within the harbor area	
Additional Requirements	**Implementation Measures within the Amenities Plan**
Measure C also adds a requirement (§ 10-5.811(i)) that any project within the Coastal Commercial zone provide a traffic analysis for peak weekend and weekday use.	▪ Traffic analysis is not within scope of the Amenities Plan but it noted for future designs
It also requires maintenance of the existing bike and pedestrian path connecting Torrance Blvd. with Harbor Dr.	▪ The pedestrian and bike path connecting North Harbor Drive thought International Boardwalk were improved as part of the Amenities Plan; pedestrian path and bike lane south of International Boardwalk connecting to Torrance Blvd. were not within scope of the Amenities Plan

Measure C Criteria	Fulfillment within Amenities Plan
7. Prevent a road connection of Harbor Dr. to Torrance Blvd. for vehicular traffic through the harbor	
Additional Requirements	**Implementation Measures within the Amenities Plan**
The area between Harbor Dr. and Torrance Blvd. would be maintained as it is currently, as a vehicular access point to the Pier parking, and could not be redeveloped as a road to provide vehicular traffic through the harbor. No new street would be allowed to connect those two roads, and motorized traffic would be limited to emergency vehicles.	▪ A vehicular road connecting Torrance Blvd. to Harbor Dr. was not included in the Amenities Plan

Measure C Criteria	Fulfillment within Amenities Plan
8. Require that new development count the square footage of any new parking structures towards the square footage allowed pursuant to the existing development cap for the harbor.	
Additional Requirements	**Implementation Measures within the Amenities Plan**
The existing LCP includes a development cap for net new development in the harbor: Cumulative development for Commercial Recreation district sub-areas 1 – 4 shall not exceed a net increase of 400,000 square feet of floor area based on existing land use on April 22, 2008. Measure C (§ 10-5.811(j)) modifies the above development cap provisions by requiring that any area for parking in parking structures shall be included in the computation of the cumulative existing development cap for Commercial Recreation district sub-areas 1 – 4 (Zones CC-1 through CC-4). As a result, the square footage of any new structured parking would be required to be counted against the development cap.	▪ Cumulative development within sub-areas CC-1 through CC-4 is below 400,000 square feet and within the city's marked scope area of the Amenities Plan

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REFERENCE LIST

10.1 Reference List

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APPENDIX

11.1 Imagery Around King Harbor

Additional Images of International Boardwalk

Additional Images of Seaside Lagoon

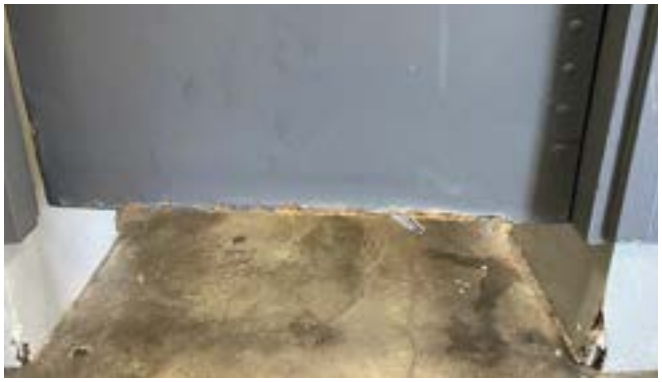
Additional Images of Hand Boat Launch

Additional Images of Moonstone Park

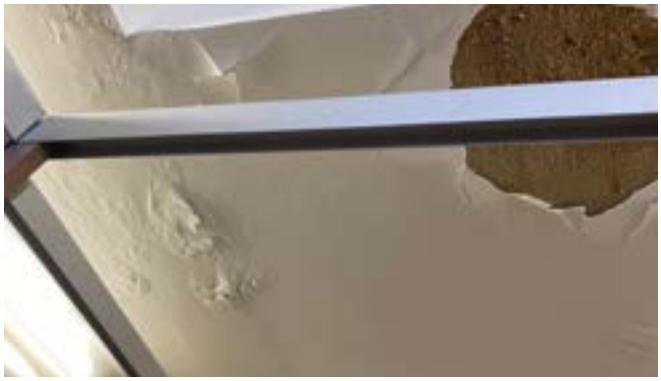
Additional Images of Sportfishing Pier

Additional Images of Joe's Crab Shack

Additional Images of Public Restrooms near future Skate park



Additional Images of Public Restrooms at International Boardwalk



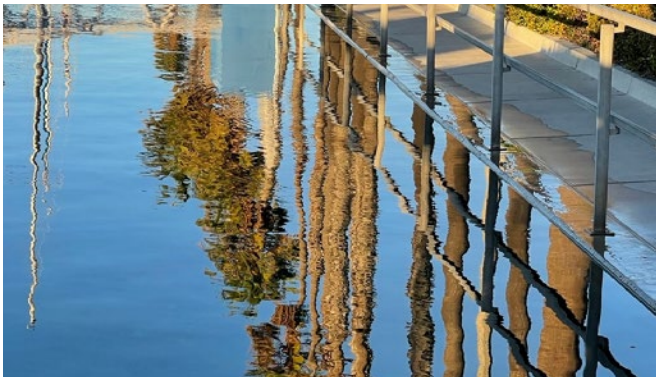
Additional Images of On the Rocks

Additional Images of Charter Boat House (Foss Meritime Co.)

Additional Images of Ruby's

Additional Images of Samba by the Sea

Additional Images of King Tides and Flooding



Additional Images of Bike Parking

Additional Images of Site Furniture

Additional Images of Vertical Transitions