



October 27, 2017

TO: Park Board Chair and Commissioners
FROM: General Manager - Vancouver Board of Parks and Recreation
SUBJECT: Jericho Beach Park Pier Renewal - Concept Approval

RECOMMENDATION

- A. THAT the Vancouver Park Board approve the proposed conceptual design for the reconstruction of Jericho Beach Park Pier as outlined in this report;
- B. THAT the Board direct staff to finalize a memorandum of understanding with the Disabled Sailing Association of BC (DSA) that outlines roles and responsibilities for funding, community engagement, planning, design, procurement, and development of the Jericho Beach pier and accessible floating dock, subject to the satisfaction of the Park Board General Manager and City of Vancouver Director of Legal Services; and
- C. THAT the Board direct staff to develop a fundraising plan, engaging all levels of government for contributions, as well as exploring opportunities for corporate donations and sponsorships.

BOARD AUTHORITY / PREVIOUS DECISIONS

As per the [Vancouver Charter](#), the Park Board has exclusive jurisdiction and control of all areas designated as parks in the City of Vancouver. This includes structures, programs and activities, fees, and any improvements that occur within these parks.

At the [February 25, 2013, Committee Meeting](#), the Board approved the staff recommendation to allow the Disabled Sailing Association of BC to undertake a [feasibility study for an accessible floating dock at the Jericho Sailing Centre](#) (JSC), in Jericho Beach Park, with input and advice from staff. The Board also directed staff to report back on the findings of this study and possible next steps.

At the [September 29, 2014, Committee Meeting](#), the Board approved the [development of a memorandum of understanding](#) to formalize a working partnership with the Disabled Sailing Association of BC (DSA) for the redevelopment of the Jericho Beach Pier and accessible floating dock.

BACKGROUND

Jericho Beach Park Pier, also known as Discovery Pier, is a wooden pier located within Jericho Beach Park at the north end of Discovery Street. Historic photographs indicate that a pier structure has existed at this location at least since 1942. The current structure was constructed in 1977 through a refurbishment of the existing piles and structure which explains the unusual deck shape. Situated on the west side of the Jericho Sailing Centre (JSC), the pier provides an opportunity for residents and visitors to walk out from the shoreline to

experience a remarkable view of Vancouver's scenic Burrard inlet. The pier is a popular fishing and crabbing spot and has a ramp and float on its east side which is used by emergency vessels. The pier includes a timber breakwater structure along its west edge that shelters the JSC from wave action along the Locarno and Jericho Beaches.

The existing pier is composed of a wood structure on creosote-infused piles which connects to the shore through a rubble mound embankment. Given its age, condition, and exposure, the structure requires regular and significant capital maintenance. For example, a major repair was completed in 2013. In addition, this location experiences great tidal fluctuations, especially in the winter months, which coupled with storm surges and king tides can result in periodic inundation and closure of the pier. This will be exasperated with climate change and rising sea levels in the future. Photographs of the existing pier condition and issues are included in [Appendix A](#).

The DSA is an independent, charitable society dedicated to enriching the lives of people with physical disabilities through adapted leisure and competitive sailing. DSA began offering sailing opportunities at the JSC in 1989 and over the next decade continued to advance the sport in Canada and internationally through the formation of the Mobility Cup annual regatta and developing mouth-operated sip 'n' puff systems that allow quadriplegics to sail. Today, the DSA operates 8 specially designed sailboats and hosts between 800-1000 sailing experiences at JSC each year. Few other activities can offer this level of freedom for people with high levels of physical disabilities. Adaptive sailing has spread across Canada and became a medal sport at the Sydney 2000 Paralympic Games.

As a result of its success, the program at JSC has reached capacity and the facilities need improvement. There is also a great need for dignified access for disabled sailors at JSC. Presently, disabled sailors are hoisted on a Hoyer lift into a boat on shore in plain view and are cabled to and from the water once seated. The development of a separate accessible floating dock will allow the DSA to increase its capacity and provide more sailings by reducing launch times and eliminating time lost due to low tides.

DISCUSSION

The Park Board retained Moffatt & Nichol, a marine structural engineering firm, and Connect Landscape Architecture to undertake the conceptual design of a new pier structure that could accommodate an accessible floating dock. The project objectives were:

- Replace the aging pier structure and provide more amenities like seating and accessible washrooms while allowing existing uses and activities, like fishing and crabbing, to continue;
- Improve accessibility to the pier for users of all ages and abilities as well as provide a dedicated accessible floating dock for DSA's adaptive sailing program;
- Accommodate climate change and future sea level rise by raising the pier elevation and accounting for more severe storm events; and
- Provide a high level cost estimate.

Conceptual Design

The DSA, the JSC, City and Park Board staff reviewed the proposed concepts and collaboratively refined the design to meet the needs of the stakeholders and satisfy the design objectives. The final concept can be divided into three components:

Accessible Floating Dock

The accessible gangway and wide concrete floats provide universal access to the ocean for disabled or adaptive sailing for all ages and abilities. The dock will be the base of operation for the DSA programs throughout their operating season and has been located to allow operation even during low tide. The dock will be furnished with Hoyer lifts and storage cabinets to support DSA's programs. The docks will also include a parking area for wheelchairs and scooters. The accessible dock can accommodate at least 15 sailboats and provide capacity for hosting sailing regattas and competitions such as the Mobility Cup. The dock will also provide a float for use by emergency marine vessels.

Pier and Plaza

A new steel and concrete structure will replace the aging creosote pile pier. The pier will be built 2.5 m higher to accommodate future sea level rise and storms. Connection between Locarno and Jericho beaches will be maintained through an accessible ramp and granite steps on either side. The new entry plaza and pier will continue to provide panoramic views of English Bay as well as provide recreational fishing and crabbing opportunities.

Additional seating on the pier and at the entry plaza will provide visitors with spaces to relax, read, and take in the views. The pier will also be restored to its full width to accommodate more visitors during special events and will provide a flexible public space. An accessible public washroom facility will be provided at the entry plaza for use by all visitors. Finally, the pier may be illuminated in the evening.

Upland Enhancements

The upland area will be gradually raised to meet the new elevation of the pier and entry plaza. Foreshore habitat will be enhanced through introduction of coastal native species while invasive species are carefully managed with input from the local Rabbit Advocacy group. Existing multi-use pathway will be improved to allow universal access and an additional gravel pathway will provide access to Locarno Beach. Circulation from the parking area will be provided through the west side of the JSC as well as through the introduction of a ramp on the north side of the JSC to allow access from the JSC yard. Finally, the existing drop-off zone near the entrance to the Jericho Sailing Centre will be improved for easier pick-up and drop-off and direct access to the pier.

A concept plan and artist's rendering of each component are included in [Appendix B](#).

Public Engagement

An open house was held on Saturday, September 16, 2017, from 11:00 am to 2:00 pm at Jericho Beach Park Pier. Approximately 250 people attended the open house and reviewed six presentation panels that included analysis of the existing condition as well as details of features proposed in the conceptual design. Participants were encouraged to provide comments by filling in hard-copy questionnaires available at the open house or through the online questionnaire which was live for 4-weeks after the event. Project information was also disseminated through social media and the [project web page](#).

In total, 867 questionnaires were received. A majority of the respondents were supportive of replacing the pier (76%) and liked the proposed concepts for the pier and entry plaza (79%) and the upland enhancements (81%). Universal access was the top reason in support of the project while cost was the top concern. Requests for accommodation of crabbing and fishing, concerns about visual porosity through the underpart of the pier, and an interest in expanded swimming opportunities were voiced by participants. These comments will be addressed in the detailed design stage.

10% of the respondents self-identified as a person with disabilities, 23% of whom were current or former DSA clients (about 2% of the overall respondents). About half of the respondents reside in the northwest (32%) and in downtown and the west end (21%). 53% of the respondents were between the age of 20 to 55, while the remaining 47% were 55 or over. A more detailed breakdown of the survey results is presented in [Appendix C](#).

Stakeholder Engagement

In addition to the DSA and JSC, local stakeholders including the Jericho Stewardship Group, Nature Vancouver, the North West Point Grey Residents Association, the Jericho Air Force Veterans, the Rabbit Advocacy Group, and the Vancouver Power and Sail Squadron were included in the engagement process through early access to the design material, direct invitation to the open house, and presentations to their members when requested. Staff will continue to work with interested groups to integrate their comments into the final design and construction processes.

First Nations Engagement

Jericho Beach Park and the surrounding areas are particularly sensitive areas for local First Nation communities. Consequently, staff began engaging with the Musqueam, Squamish and Tsleil-Waututh Nations at the beginning of the project. Concept plans were provided to the Nations for their review and comments. Based on their feedback, the design was modified to reduce the footprint of the upland development and a more naturalized landscape design vocabulary was adopted. In addition to the engagement work to date, an Archaeological Overview Assessment (AOA) was also completed for the project area. The AOA indicates that the entire project area has high archaeological potential and recommends that an Archaeological Impact Assessment (AIA) is carried out before construction. Staff will continue to work with the Nations to ensure that the final design adequately addresses their needs and concerns.

Climate Change and Environmental Protection

Impact of climate change, in particular sea level rise and increase in high intensity storm events, were considered throughout the design process. The final elevation of the reconstructed pier has been raised by 2.5 meters (from 1.9m GD to 4.6m GD) to reflect City's current Flood Construction Level (FCL). The design also includes elements that increase the resilience of the structure and surrounding area to higher frequency storm events. It is understood that impact from sea level rise will be incremental. Therefore, possibility for incremental or modular construction of the pier that will change and adapt over its service life will be explored during detailed design.

An Environmental Impact Assessment was conducted for the project. It indicated that the project is not likely to result in significant environmental effects to species or habitats in the

intertidal or subtidal areas at the pier. During the detailed design phase, opportunities to enhance marine habitat as well as using alternative energy sources for lighting will be explored. In addition, once detailed design is complete, the project will be submitted for environmental review to appropriate regulatory agencies.

VanSplash

A vision for the future of aquatics in Vancouver is being developed through the Park Board's VanSplash Strategy. Early outcomes of the engagement process highlight interest in diverse swimming experiences at local beaches, including the addition of harbour decks which emphasize public gathering and socializing at the waterfront, as well as possibilities for swimming and water play. There may be opportunities in this project to include a harbour deck structure with the pier in order to provide unique swimming experiences, as well as the addition of universal beach access on the west side of the dock. These ideas will be explored further in the detailed design phase, should the strategy be adopted by the Board.

Strategic Analysis

This project aligns well with the Park Board's strategic goals of providing Parks and Recreation for All (by increasing accessibility and inclusivity in the new facility), of Engaging People (by providing facilities that bring people together for a variety of activities), and Excellence in Resource Management (in proving new well managed infrastructure with partner funding). This endeavour is an example of how staff seek, build, and maintain relationships to benefit Vancouver, by being an open and accountable partner with the DSA. It is an opportunity to share the costs of development and demonstrates mindfulness of our long-term fiscal health. Moreover, in this effort to rebuild an aged facility, we will strive to plan, provide, and maintain an exceptional recreational, social, and cultural amenity that contributes to the liveability of Vancouver, and meets the current and future needs of our diverse city in a sustainable manner.

Next Steps and Cost Estimates

If the concept design is approved by the Park Board, staff will move forward with detailed design of the pier and associated upland enhancements with the intention of developing a set of drawings and specifications that will be tendered when funding is available. The aspirational goal is to begin construction by 2020, starting with demolition of the existing pier and completing the work by 2022.

DSA and staff have started developing a fundraising plan for the project. The preliminary cost for construction is \$16M of which the Park Board has requested \$2M in the current Capital Plan (2015-2018) as an emerging priority budget. The Park Board will seek additional funds from the City through the next capital plan (2019-2022). The remaining funds will need to be raised through fundraising efforts, led by the DSA and the Park Board, through partnerships with the provincial and federal governments, as well as contributions from the private sector including donations from individuals, corporations, and foundations. Donations are currently being accepted through the DSA and the Park Board website, and subsequently will be a focus of effort for the Park Board foundation once it is launched.

SUMMARY

There is a significant amount of community support for the proposed Jericho Pier and Accessible floating dock project. Staff will have ongoing collaborations and engagement with the Disabled Sailing Association, the Musqueam, Squamish and Tsleil-Waututh Nations, local

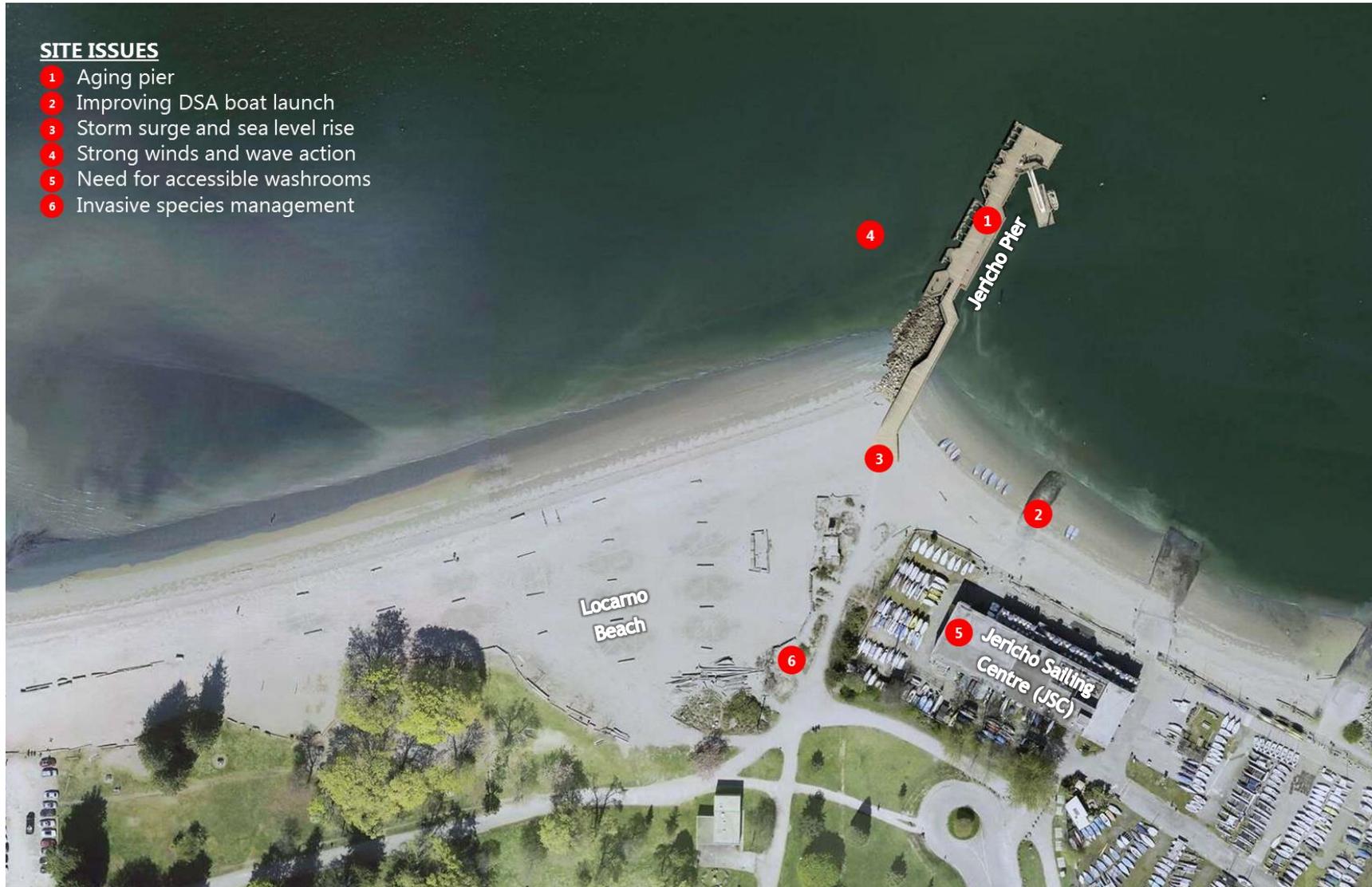
stakeholders, and multi-levels of government to further this endeavor and to incorporate Park Board strategic goals and emerging VanSplash concepts.

General Manager's Office
Vancouver Board of Parks and Recreation
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AN/tm/jk/clc

EXISTING SITE PLAN



SITE ISSUES AND CONSIDERATIONS



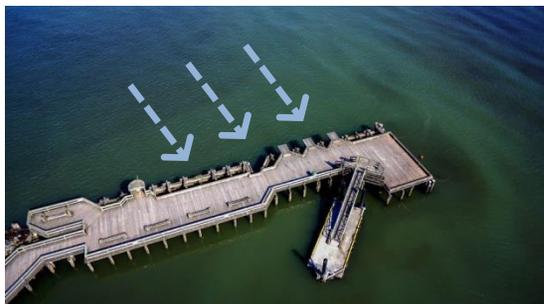
1 Aging pier
Built in 1977, the existing pier has been exposed to destructive marine conditions and requires costly ongoing maintenance and repairs.



2 Improving DSA boat launch
Boats are currently launched with winches from Jericho Sailing Centre. An accessible dock could reduce launch times and eliminate time lost due to low tides.



3 Storm surge and sea level rise
King tides and storm surges flood the existing pier and cause damage. These conditions are expected to become more acute with climate change.



4 Strong wind and wave action
The pier is subject to intense storm and wave action. The boats launched at the Jericho Sailing Centre require protection from the wave action.

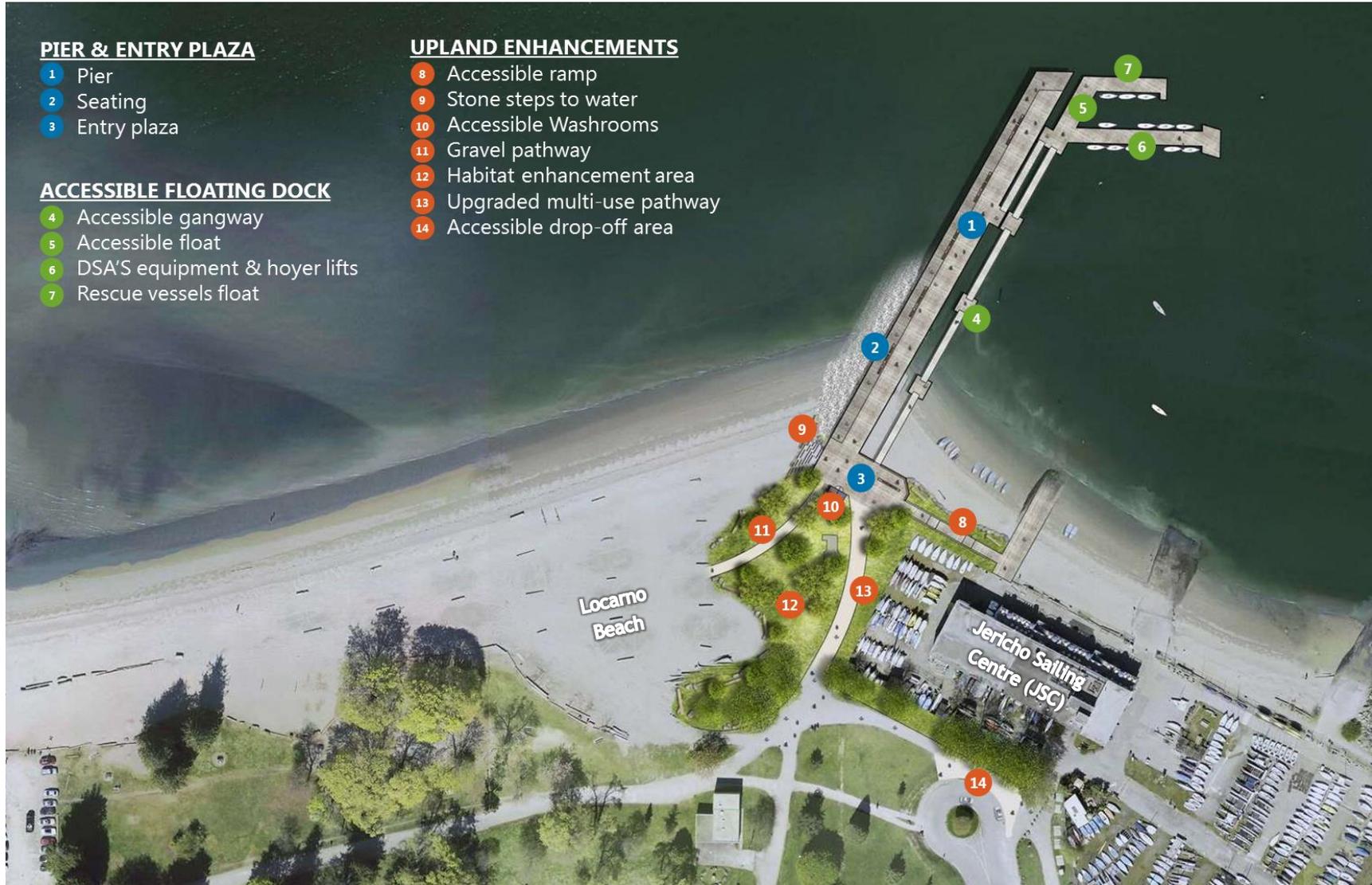


5 Need for accessible washrooms
Accessible public washrooms are needed at the beach for sailors and beach users. Nearest washrooms are on the upper floor of the Sailing Centre.



6 Invasive species management
There are opportunities for habitat enhancement and for management of invasive species.

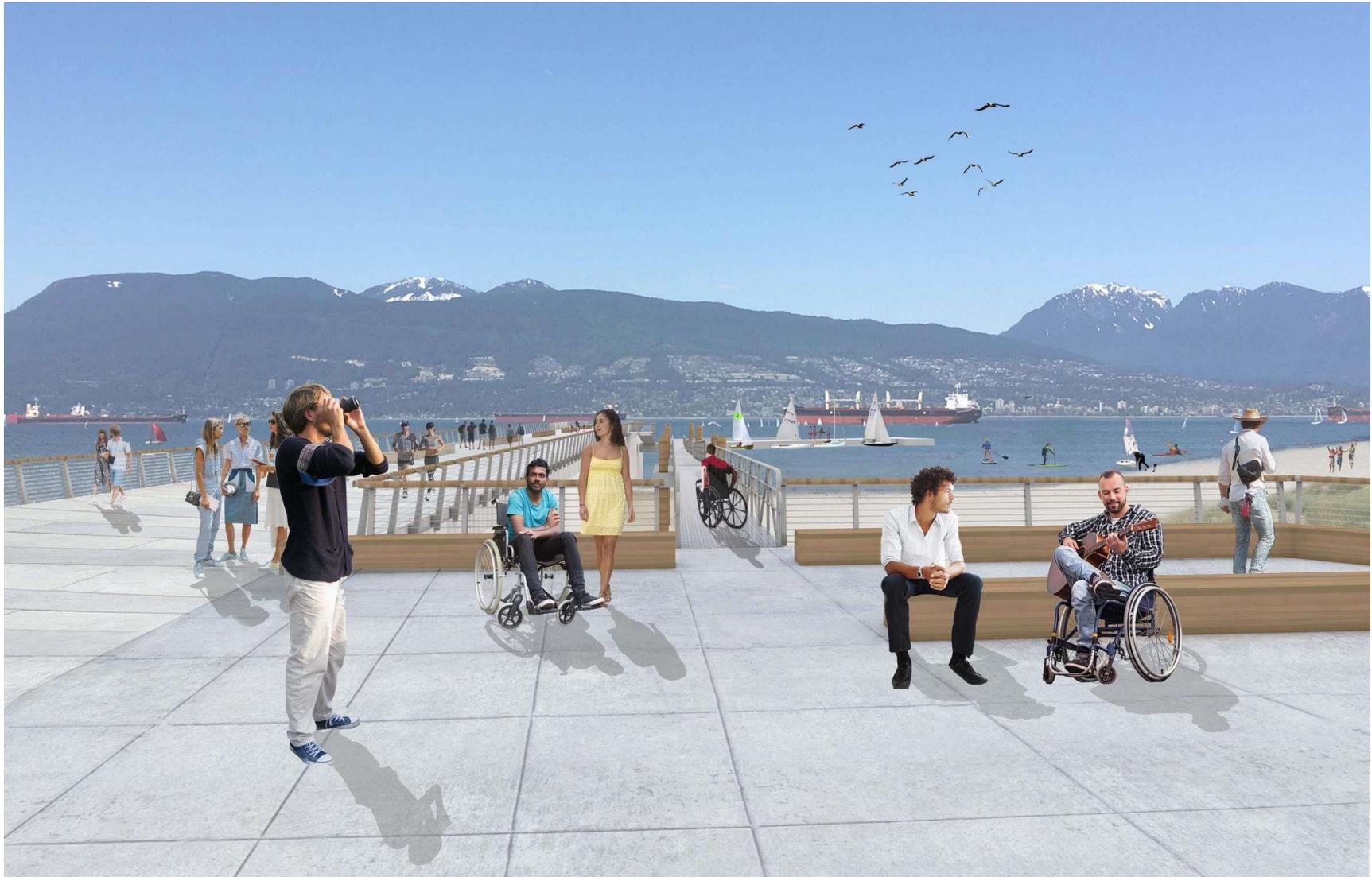
CONCEPT PLAN



ACCESSIBLE FLOATING DOCK



PIER AND PLAZA



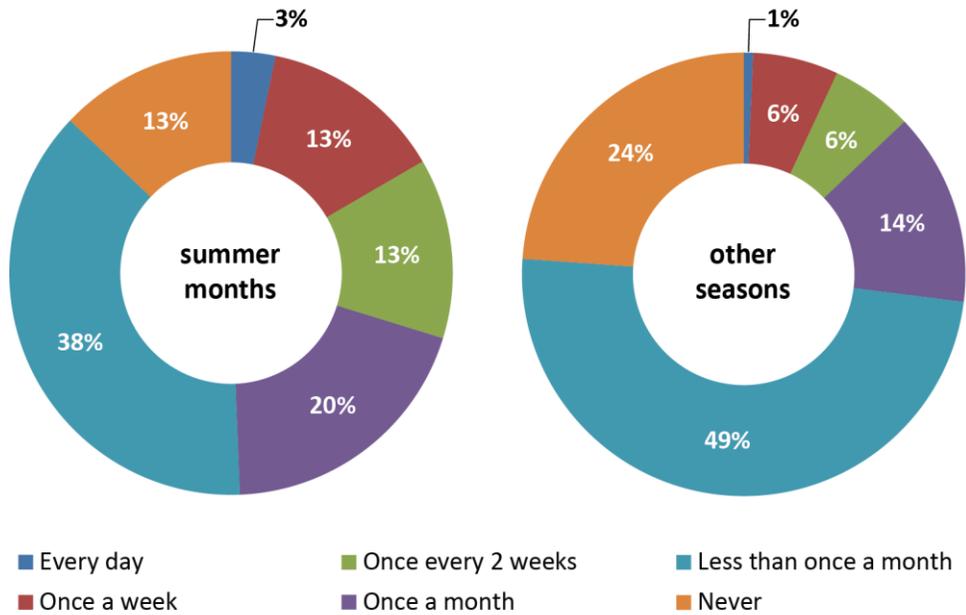
UPLAND ENHANCEMENTS



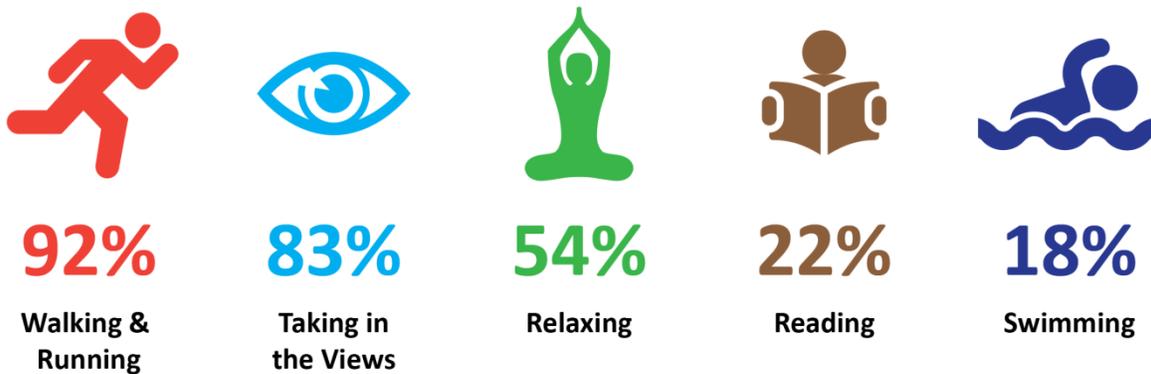
I) CURRENT USAGE AND ACTIVITIES AT THE PIER

Jericho Pier (Overall)

How often do you visit Jericho Pier?

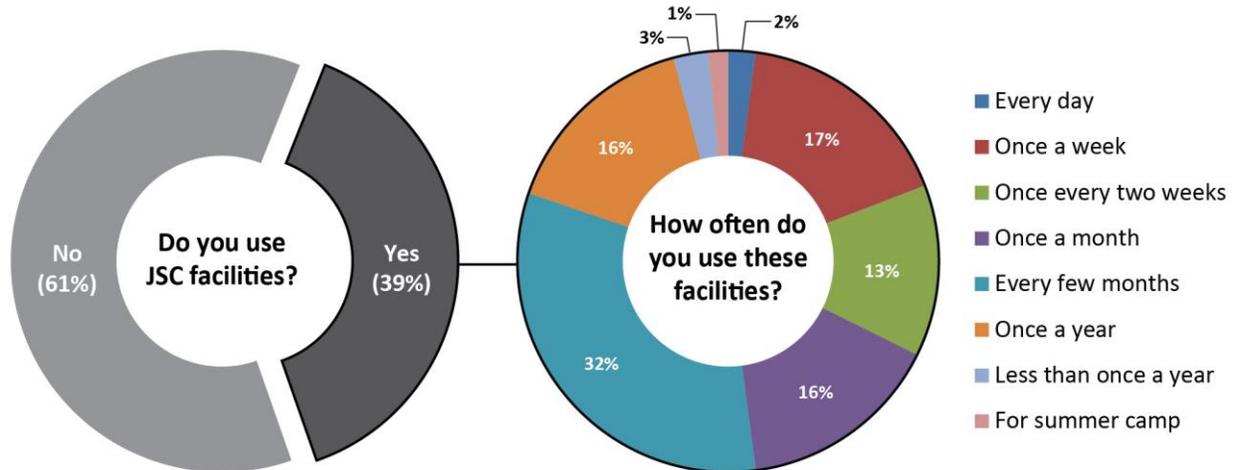


The top five activities respondents currently participate in are:

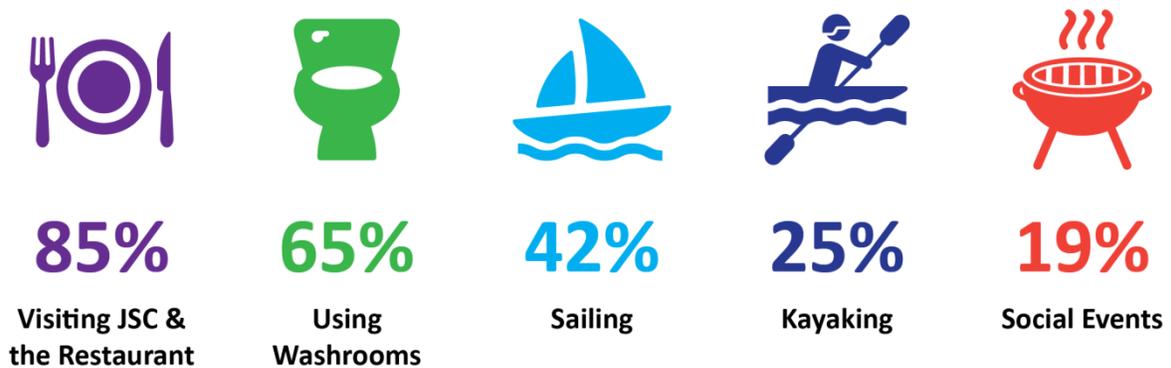


Jericho Sailing Centre (JSC) Facilities

Do you use the facilities at JSC? If yes, how often:



The top five activities respondents currently participate in at the JSC are:

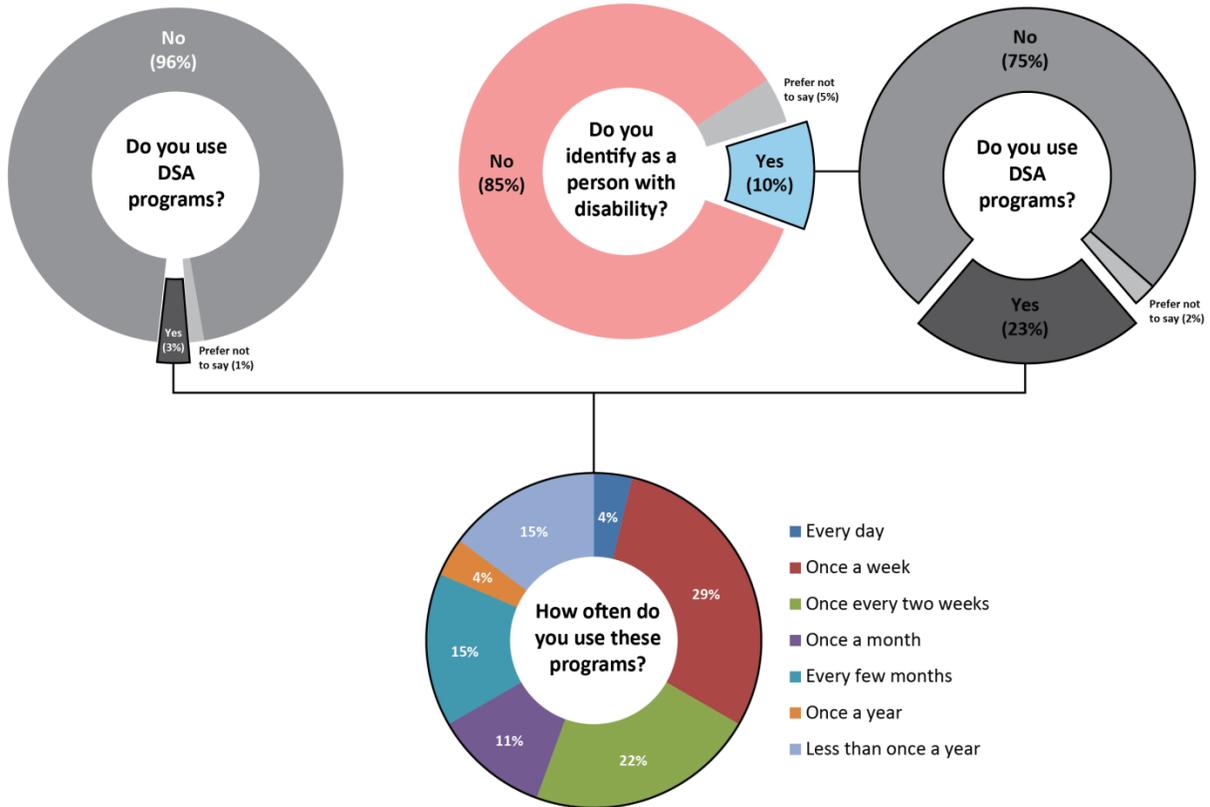


DSA Program Participation

Do you use DSA programs? If yes, how often?

i) Among all respondents

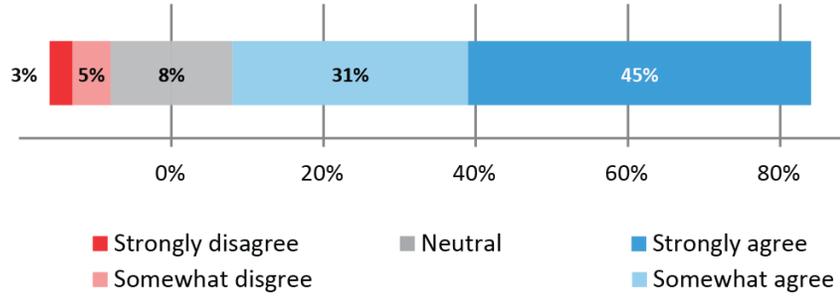
ii) Among respondents that identify as a person with disability



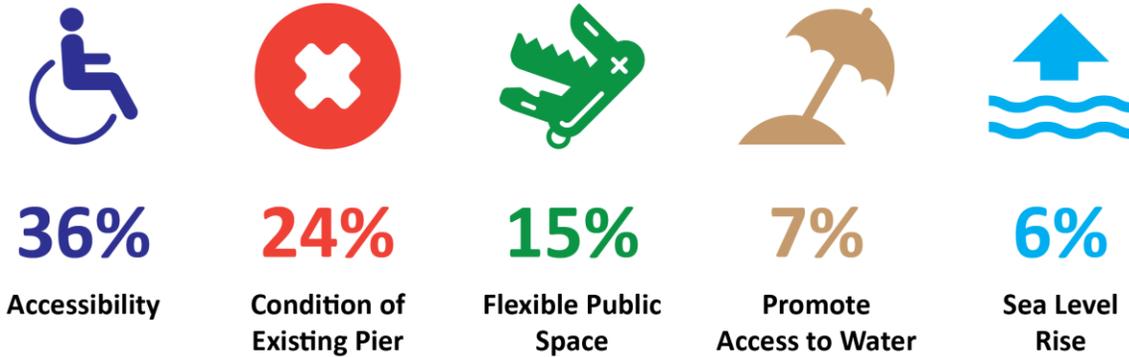
Note: 11% of DSA users indicate that they would like to participate more frequently but are unable due to waiting lists

II) OPINIONS ON THE PROJECT AND CONCEPT DESIGN

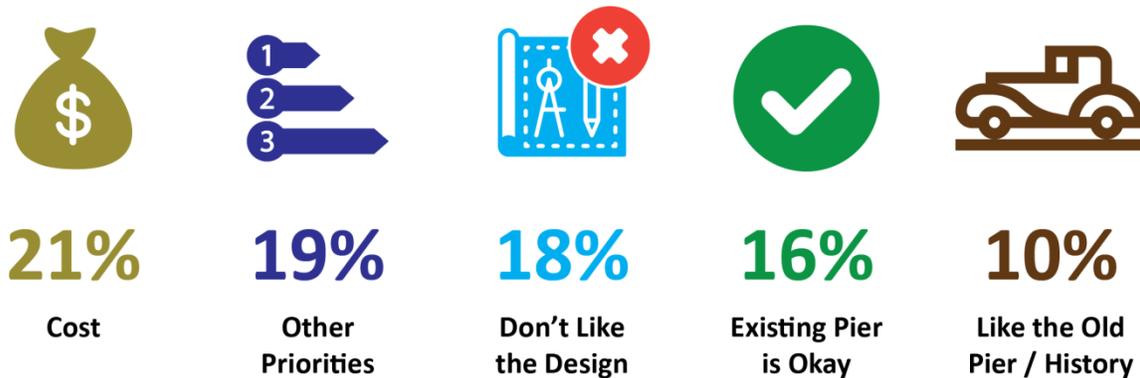
Do you agree with replacing the existing pier with a new pier?



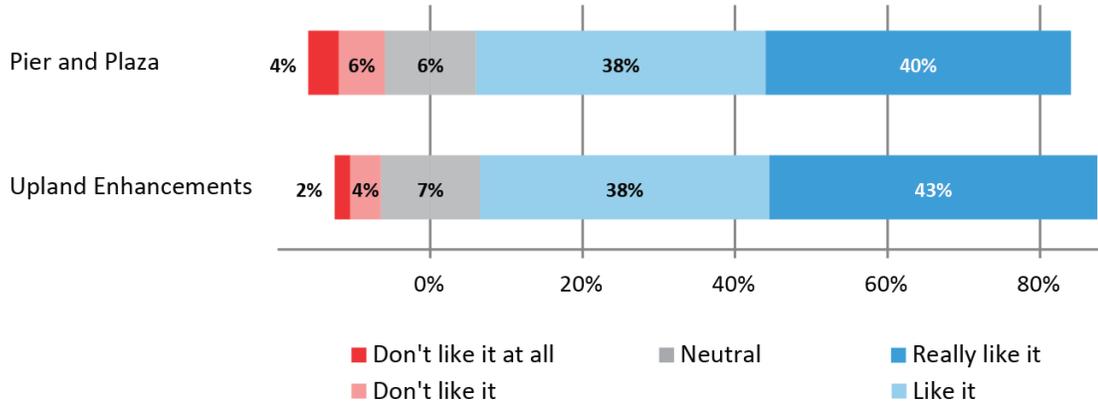
Why do you agree (top five reasons)?



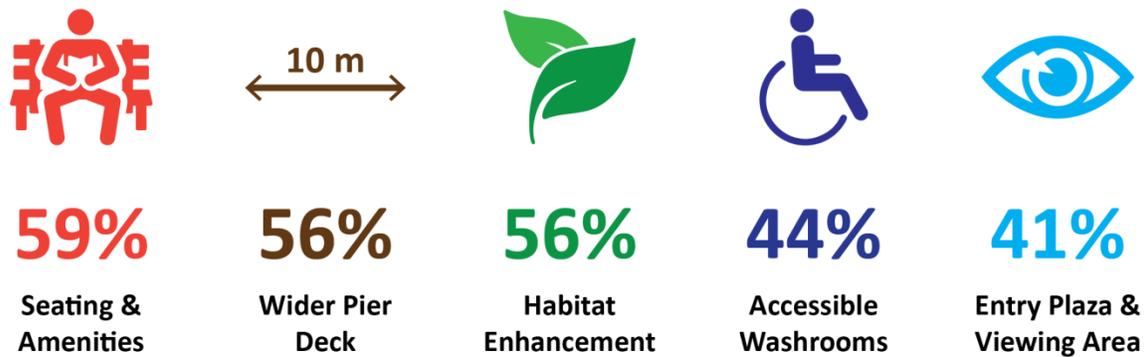
Why do you disagree (top five reasons)?



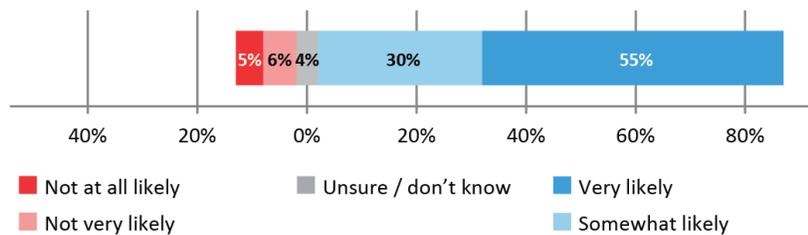
What do you think of the conceptual design for each of the following components?



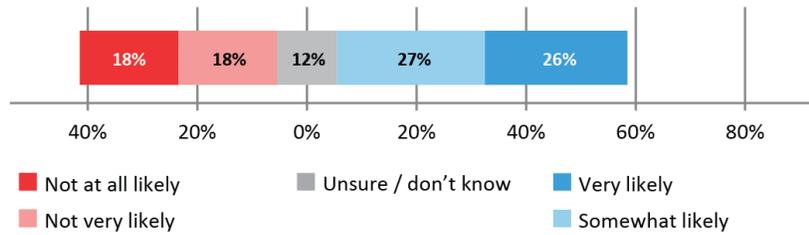
The top five favourite features of the overall concept design picked by the respondents are:



How likely are you to use the new pier and the entry plaza?

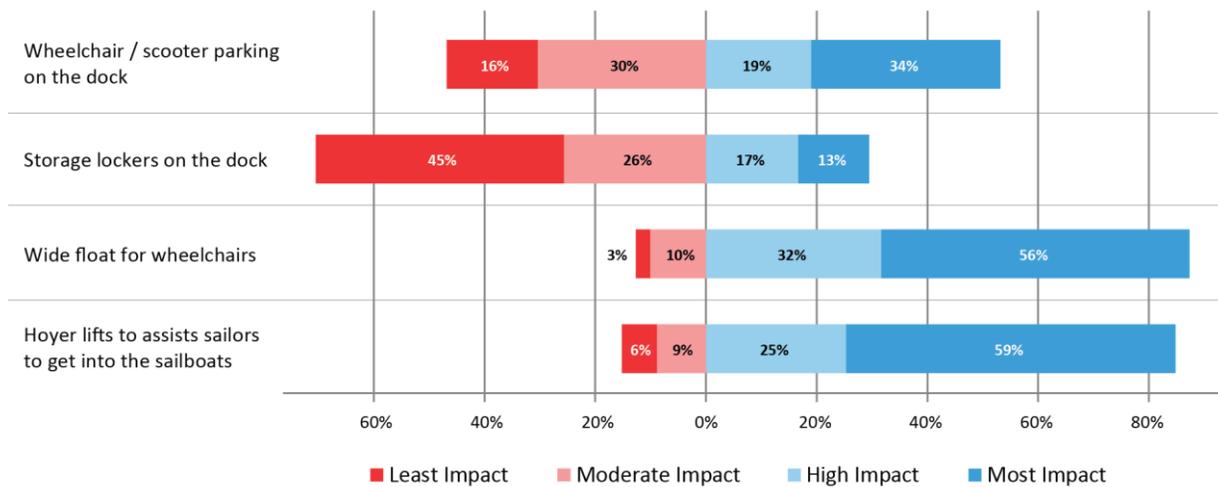


How likely are you to use accessible pathways and ramp?

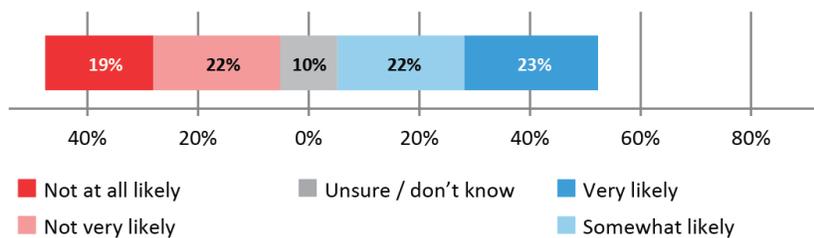


As someone who identifies as a person with disability:

a) Please rank the following accessible floating dock features by their impact on improving accessibility:

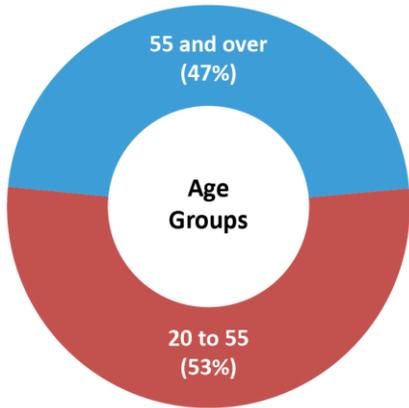


b) How likely are you to participate in DSA programs and use the accessible docks?

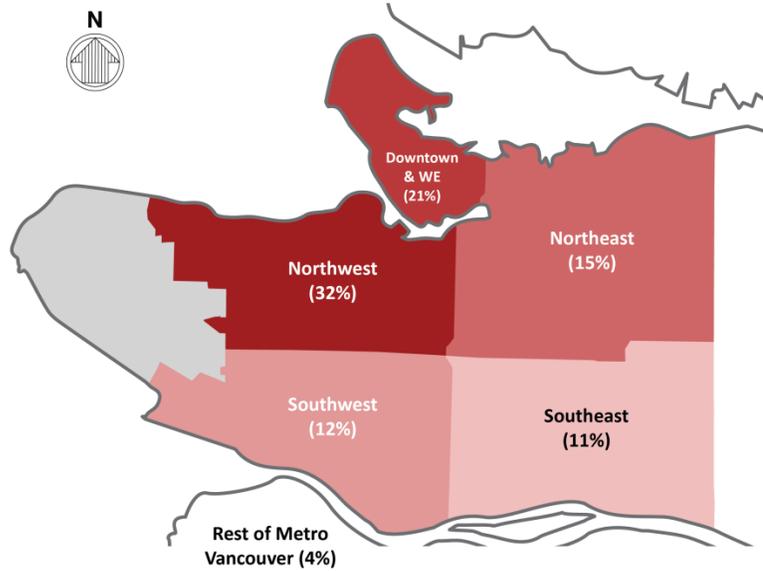


III) SURVEY & ENGAGEMENT METRICS

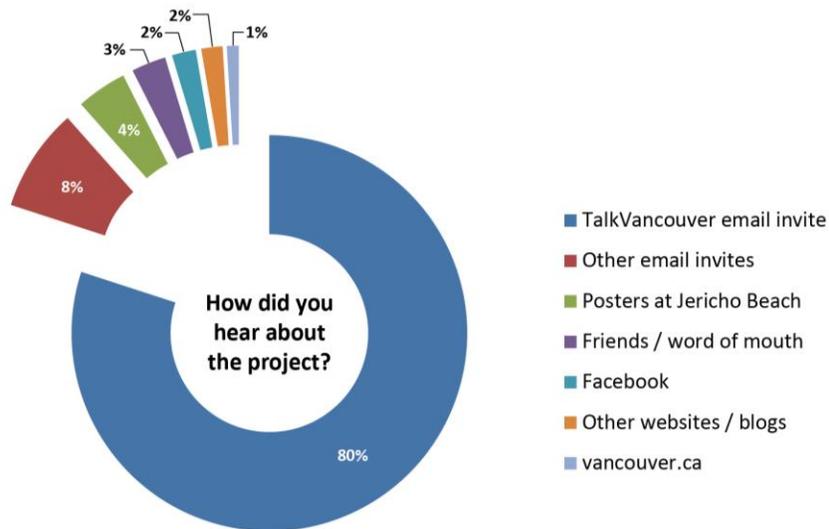
Respondent profile



Note: 19 and under (0%)



Gateways to the Project & Survey



Engagement Experience

