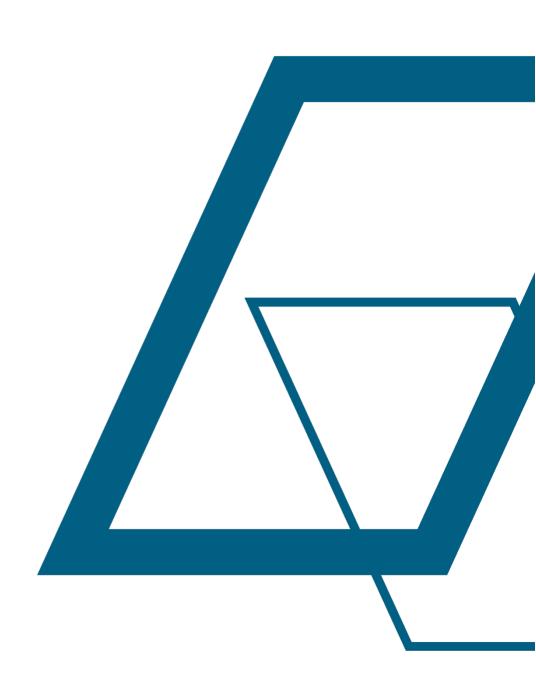


Consulting Services for Alder Bay Replacement Dock Design Summary Report



Appendices

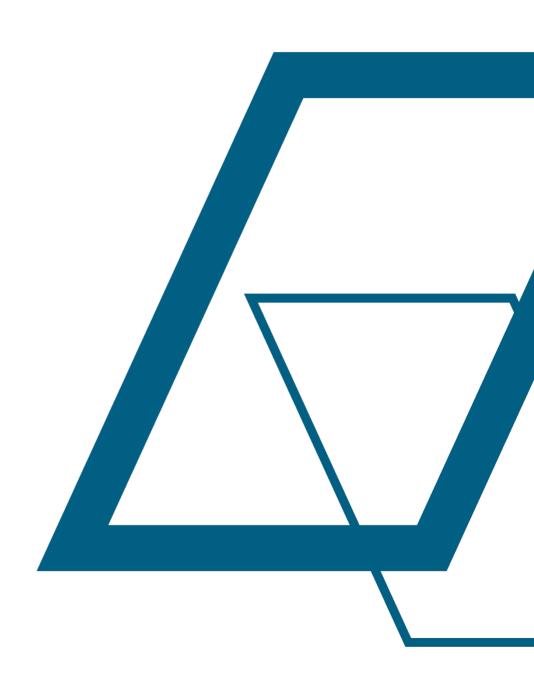




Consulting Services for Alder Bay Replacement Dock Design Summary Report



Appendix 2 Inspection Photographs





Consulting Services for Alder Bay Replacement Dock Design Summary Report



Appendix 2 Inspection Photographs

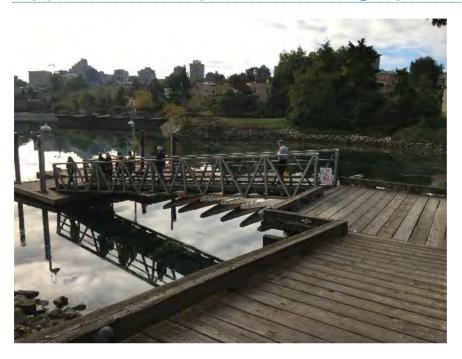


Photo 1 General arrangement of Alder Bay Dock.



Photo 2 Minor deterioration to the fixed platform deck planks due to weathering and abrasion.



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Photo 3 Weathering and splitting of west guardrail on fixed platform.



Photo 4 Minor weathering deterioration to timber pile caps and piles.



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Photo 5 Aluminum gangway in a serviceable condition.



Photo 6 Moderate weathering deterioration to deck planks on float.



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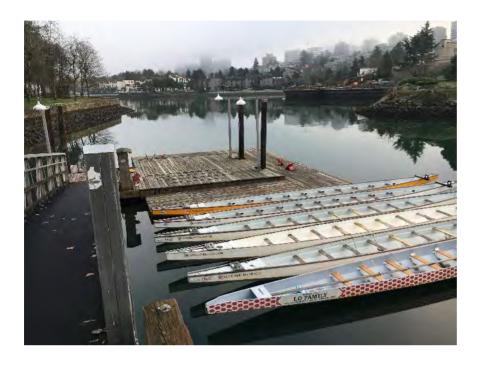


Photo 7 Dragon boats moored at west end of floats.



Photo 8 Exposed structural timber at northeast end of timber float.



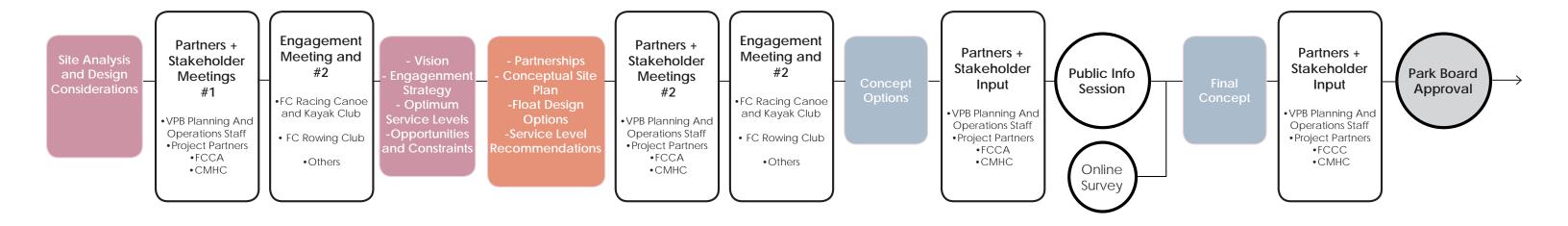
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Appendix 4 Engagement Strategy Timeline



December, 2017 2018 April - May, 2018 June, 2018 July, 2018



Opportunities and Constraints

Design Framework and Concept Design

Concept Development

Approvals

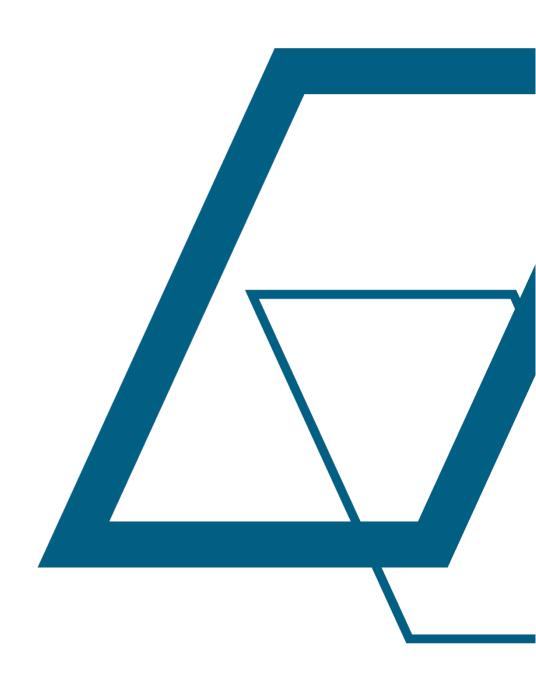




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Appendix 5 Mapping Exercise Summary





Advisian Suite 500, 4321 Still Creek Drive Burnaby, BC V5C 6S7 CANADA Phone: +1 604 298 1616 Facsimile: +1 604 298 1625 A business of WorleyParsons Canada Services Ltd. www.advisian.com

26 February 2018

Proj. No.: 307071-01243

Vancouver Board of Parks and Recreation 2099 Beach Avenue Vancouver, BC V6G 1Z4 Canada

Debra Barnes

Dear Ms. Barnes:

Re: Stakeholder Workshop No. 1 and Mapping Exercise Summary

Please find attached Stakeholder Workshop No. 1 Summary and Mapping Exercise Summary for distribution to stakeholders.

If you require additional information or clarification, please do not hesitate to contact the undersigned. Sincerely,

Vignesh Ramadhas, P.Eng.

Project Manager

Advisian, Americas

VR/tmw enc.

cc: Katya Yushmanova, PWL Partnership Landscape Architects Inc. Grant Brumpton, PWL Partnership Landscape Architects Inc. Jodi Waring, Advisian



Attachment 1 Stakeholder Workshop No. 1 Summary and Mapping Exercise Summary







December 18, 2017

Alder Bay Dock Replacement Stakeholder Workshop No.1

DRAFT Summary Report:

Participants:

Andrea Dillon, FCRC
Brenda Mitchell, Off Balance Dragon Boat Team
Diane Tam, FCRC
Jackie Webber, FCRC
Paul Porter, FCCA
Paul Wilson, FCCA
Rose Gardner, Ecomarine
Simon Litherland, FCRC

City Staff:

Debra Barnes, Park Board Justin Dykstra, Park Board Silvia Laforges, Park Board Erin Embley, Park Board On-Water Strategy

Consultants:

Vignesh Ramadhas, Advisian Brian Johnston, PERC Grant Brumpton, PWL Partnership Katya Yushmanova, PWL Partnership

Key opportunities and constraints:

The participants identified a number of constraints and opportunities through mapping exercise, priority setting, and round table discussion.

Constraints summary:

- The configuration, width, and steepness of the gangway is challenging for carrying boats.
- The steepness of the gangway makes it inaccessible to wheelchairs and scooters at lower tides.
- Height of railings on the gangway (too high) requires lifting boats very high while transporting to and from dock.
- The transition plates and hinges to and from gangway pose a tripping hazard.
- The dock and gangway get overcrowded at busy times.
- The layout of the dock is not efficient not enough sides, not long enough for longer boats.

PWL Partnership Landscape Architects Inc.
5th Floor, East Asiatic House
1201 West Pender Street
Vancouver BC Canada V6E 2V2
www.pwlpartnership.com





- The stepping of the dock creates a barrier for users with mobility issues and is a tripping hazard.
- The apron on the dock (east end) is located right in front of the gangway and creates a pinch point for vessels entering and leaving the gangway.
- There is no secure or sufficient storage on the dock for personal items and shoes for educational programs.
- The dock lacks a designated area for wheelchair and scooter parking that would be out of the way for other
 users.
- Holes around the pilings are hazardous.
- The dock's position makes two of the sides too shallow to use at low tides.
- The freeboard is too low for users with mobility issues and higher than optimum for some craft.
- Hard to launch safety boats and no place to moor them.
- Lighting is insufficient.

Opportunities summary:

- Create straight access from land to dock to eliminate the need to turn boats.
- Redesign the ramp to be less steep and wheelchair accessible at all tide levels.
- Consider adding a second access point or otherwise increase ramp capacity for access and egress at the same time.
- Reconfigure dock to have more sides, add "fingers" (see mapping exercise summary for sketches)
- Provide surfacing on dock and ramp that is safe for users and can be used to rest boats on.
- Incorporate surfacing that is comfortable to sit on.
- Create smooth transitions from ramp to other surfaces.
- Provide different freeboard height to accommodate different users.
- Consider a staging area for waiting and washing boats.
- Provide a hose.
- Add storage for shoes and small personal items.
- Provide a wheelchair parking area.
- Provide folding tie-up cleats.
- Add a soft bullnose edge around the dock to protect boats.
- Add a safety ladder to access dock from water.
- Consider boat sizes when designing the new dock (dragon boat is 55' long).
- Add apron or ramp for adaptive SUP users.
- Incorporate a safety boat launch.
- Avoid stepping the dock, use ramping instead.
- Incorporate a lift sling for disabled users.
- Position the dock to maximize the use on all sides even at low tides.
- Provide safety lighting on the dock surface, not overhead.
- Place pilings to minimize conflict with oars.
- Design for expansion.

Based on the opportunities and constraints summary the following DRAFT Design Principles are proposed:

- 1. The design of the new dock and ramp(s) to be safe and accessible for all users at all times and conditions.
- 2. The new design of ramp(s) and dock to simplify the access and increase capacity for use.
- 3. The design to incorporate safe and comfortable access to and from water for all users and boat types, including safety boats and adaptive SUPs.





- 4. The design to accommodate activities such as cleaning of boats and storage of small personal items and wheelchairs.
- 5. The design to incorporate details that will minimize damage to boats during moorage, cleaning, and transport.
- 6. The surface of the new dock and ramp should be safe for walking, wheelchair accessible, comfortable to sit on and be safe for placing boats.
- 7. The design should include other features that increase safety and comfort of use (ladder, folding cleats, lighting, etc.).
- 8. The design should be suitable for future expansion.

Vision

The participants were asked to envision the ideal future for the Alder Bay dock and tell the team why it is unique.

Visioning summary:

The dock provides easy access to the safe (clean and calm) and protected waters of the False Creek and also the open ocean.

The dock serves users of varied abilities, skills, and ages.

It is public.

The programs are run by FCCA.

Wide range of programs.

It is a window to Canada's most accessible waterway.

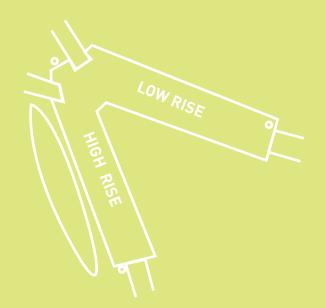
It is inclusive.

It is a legacy.

The dock is located at Canada's second top tourist destination – Granville Island.

Based on the summary the following DRAFT vision is proposed:

"Alder Bay dock is a public gateway to Canada's most accessible waterway, False Creek, and is inclusive of users of all abilities, ages, and skills."



DOCK

DOCK

DOCK

DOCK

DOCK

Can't turn boats "Log jam" Not necessary Trip hazards

Create straight access, not zig-zag

Too narrow and steep for coach boats
Too steep for wheelchairs at low tide
Hard to use in a wheelchair
Transitions to/from are a challenge
Railings too high - have to lift boats
Have to queue to use at busy times

Too shallow to use at low tide



Need a lift for disabled users Need a safety ladder Varied freeboard for different users Bullnose to protect boats from damage Folding cleats

Too shallow to use at low tide

MAPPING EXERCISE SUMMARY

Add second access/exit point

Dock shape: T-shape or two/ three fingers
More perimeter length for docking
Lighting for safety and security
Add exit ramp
Need more sides
Eliminate holes at piles
Need storage for personal items, shoes
Scooter and wheelchair storage area
Staging area for washing, waiting
Soft surface to rest boats
Need a water hose
Remove stepping on the dock, use ramps instead
Pilings get in the way of the Oars
Apron / ramp for adaptive SUP
Dock surface is slippery and unsafe

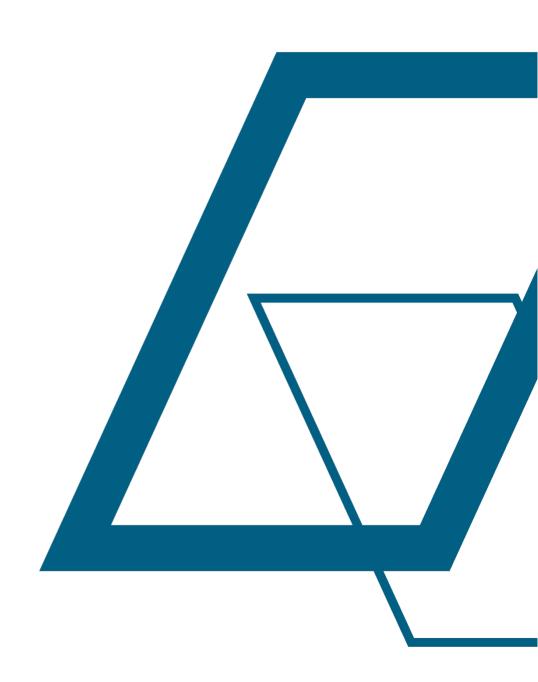




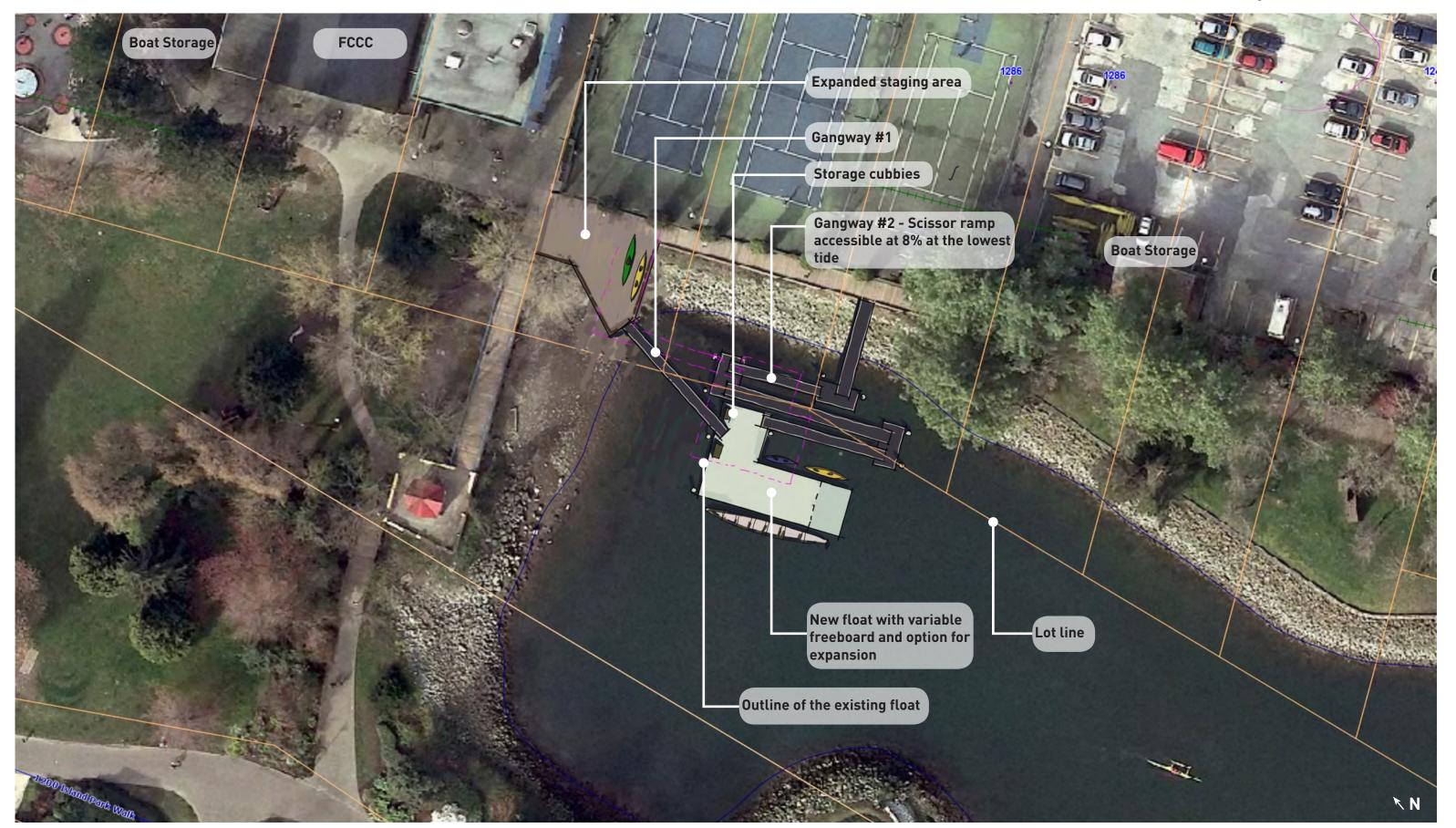
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Appendix 6 Preliminary Options

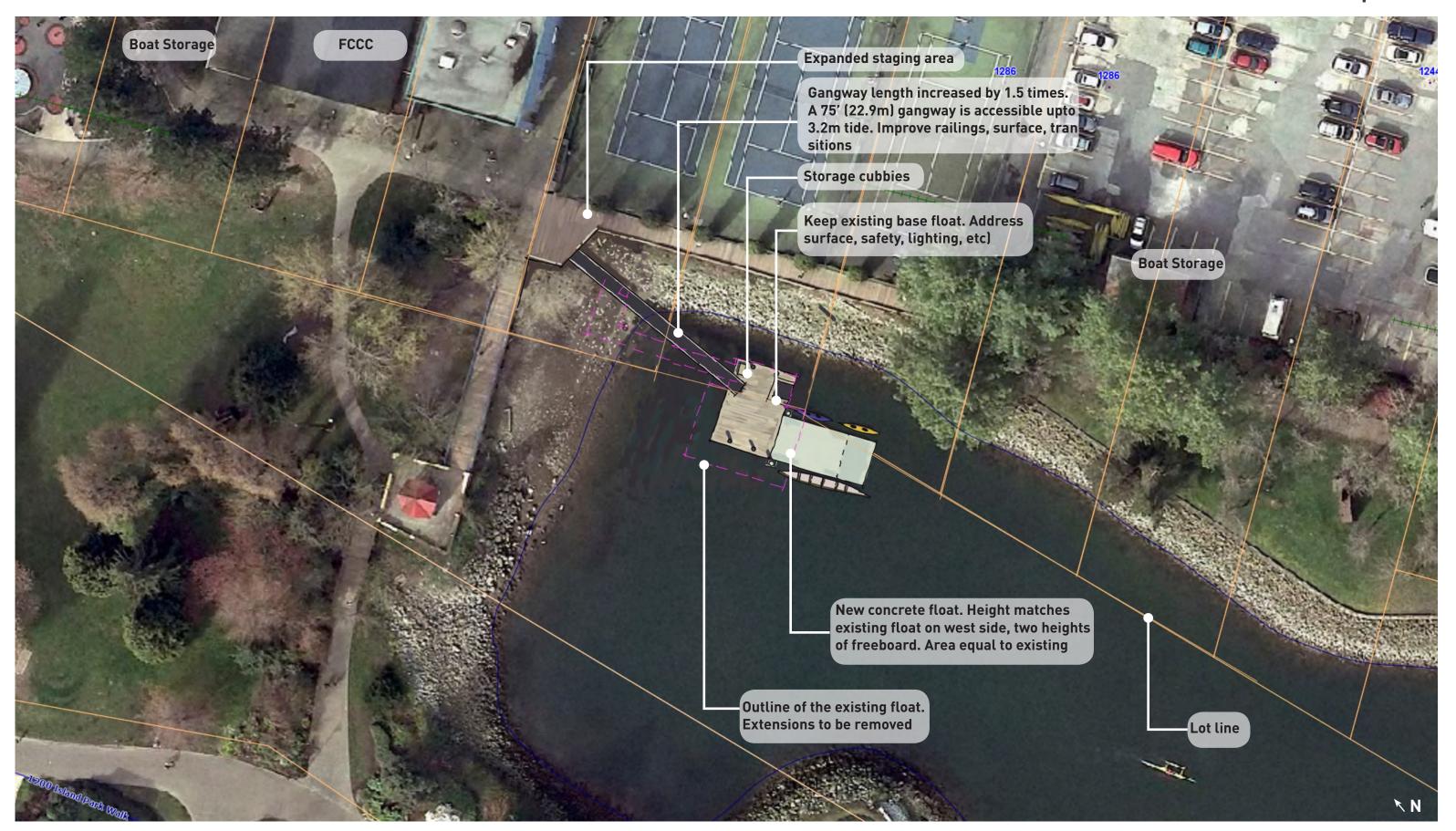


OPTION 1 - \$1.5-2 million



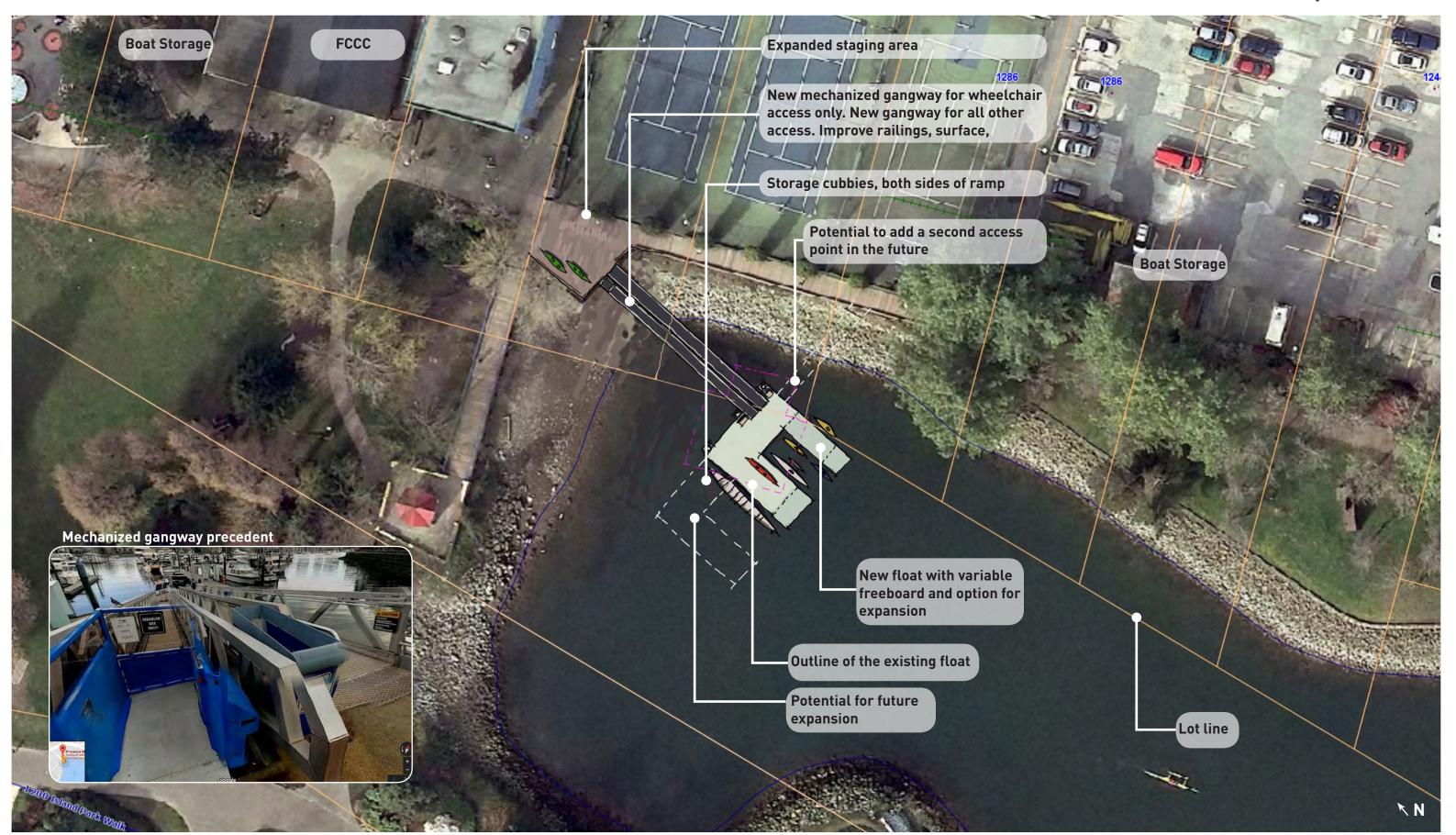


OPTION 2 - \$650k





OPTION 3 - \$1 million



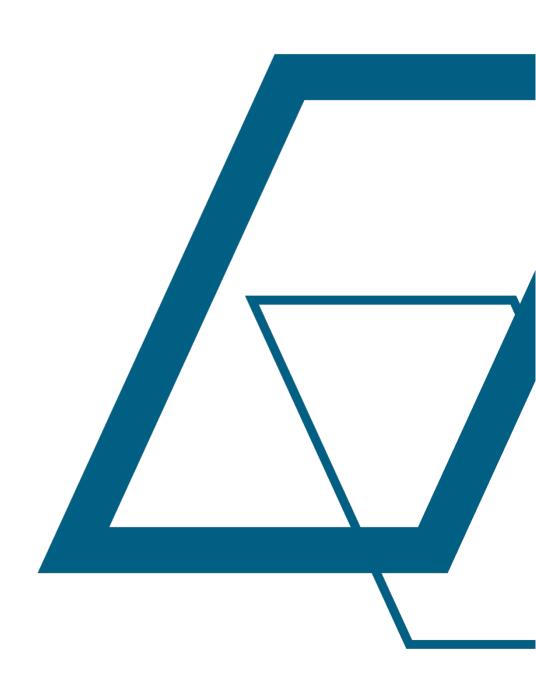




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Appendix 7 Preliminary Options Evaluation Matrix



ALDER BAY DOCK - OPTIONS EVALUATION MATRIX April 19, 2018

	CHALLENGES LISTED BY STAKEHOLDERS	Option 1	Option 2	Option 3	
	UPPER PLATFORM				
1	Not enough room to turn boats				
2	Creates a "log jam"				
3	Trip hazards at transitions				
4	Create straight access, not zig-zag				
	GANGWAY				
5	Too steep for wheelchairs to use at low tides. Hard to use in wheelchair at all times.				
6	Too narrow and steep for coach boats	Improved - less steep			
7	Railings too high - have to lift boats				
	FLOAT				
8	Dock shape: T-shape or two/three fingers. Need more sides.				
9	More perimeter length for docking				
10	Add exit ramp or second access point to eliminate queueing at busy times			Can be added in the future	
11	Need storage for personal items, shoes				
12	Need wheelchair / scooter storage area	More space on dock		More space on dock	
13	Staging area for washing, waiting				
14	Remove stepping on dock, use ramps instead				
15	Pilings get in the way of oars		Improved		
16	Need apron / ramp for adaptive SUP				
17	Need a lift for disabled users	By user groups	By user groups	By user groups	
18	Varied freeboard for different users				
19	North and West sides are too shallow to use at low tide				
20	Design for future expansion				
	MINOR CHALLENGES LISTED BY STAKEHOLDERS				
21	Eliminate tripping hazards at transitions to and from the gangway				
22	Provide lighting for safety and security				
23	Eliminate holes at piles				
24	Create soft surface to rest boats				
25	Add a water hose				
26	Improve dock surface (slippery and unsafe now)				
27	Provide a safety ladder				
28	Add bullnose to protect boats from damage				
29	Add folding cleats				

Legend

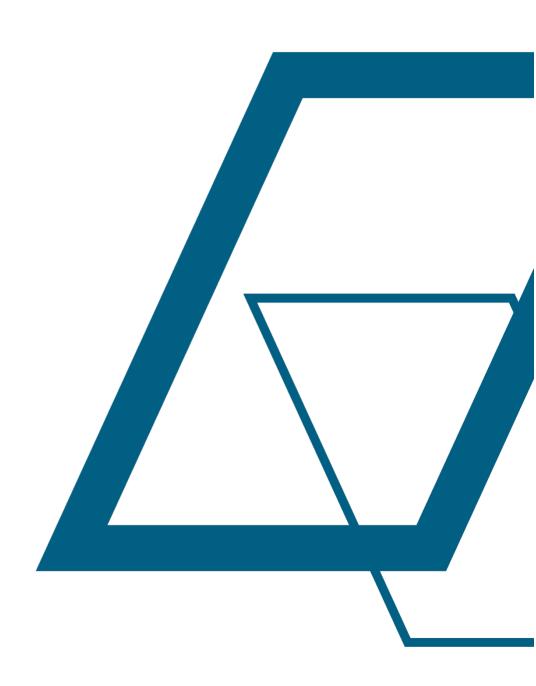
	Addressed		
	Partially/Improved		
	Not Addressed		



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Appendix 9 Revised Design Options





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24 May 2018

Proj. No.: 307071-01243

Vancouver Board of Parks and Recreation 2099 Beach Avenue Vancouver, BC V6G 1Z4 Canada

Debra Barnes

Dear Ms. Barnes:

Re: Concept Options for CMHC Review

Please find attached the updated concept options for the replacement of the Alder Bay Dock for submission to CHMC for their review.

If you require additional information or clarification, please do not hesitate to contact the undersigned. Sincerely,

Vignesh Ramadhas Vignesh Ramadhas, P.Eng.

Project Manager

Advisian, Americas

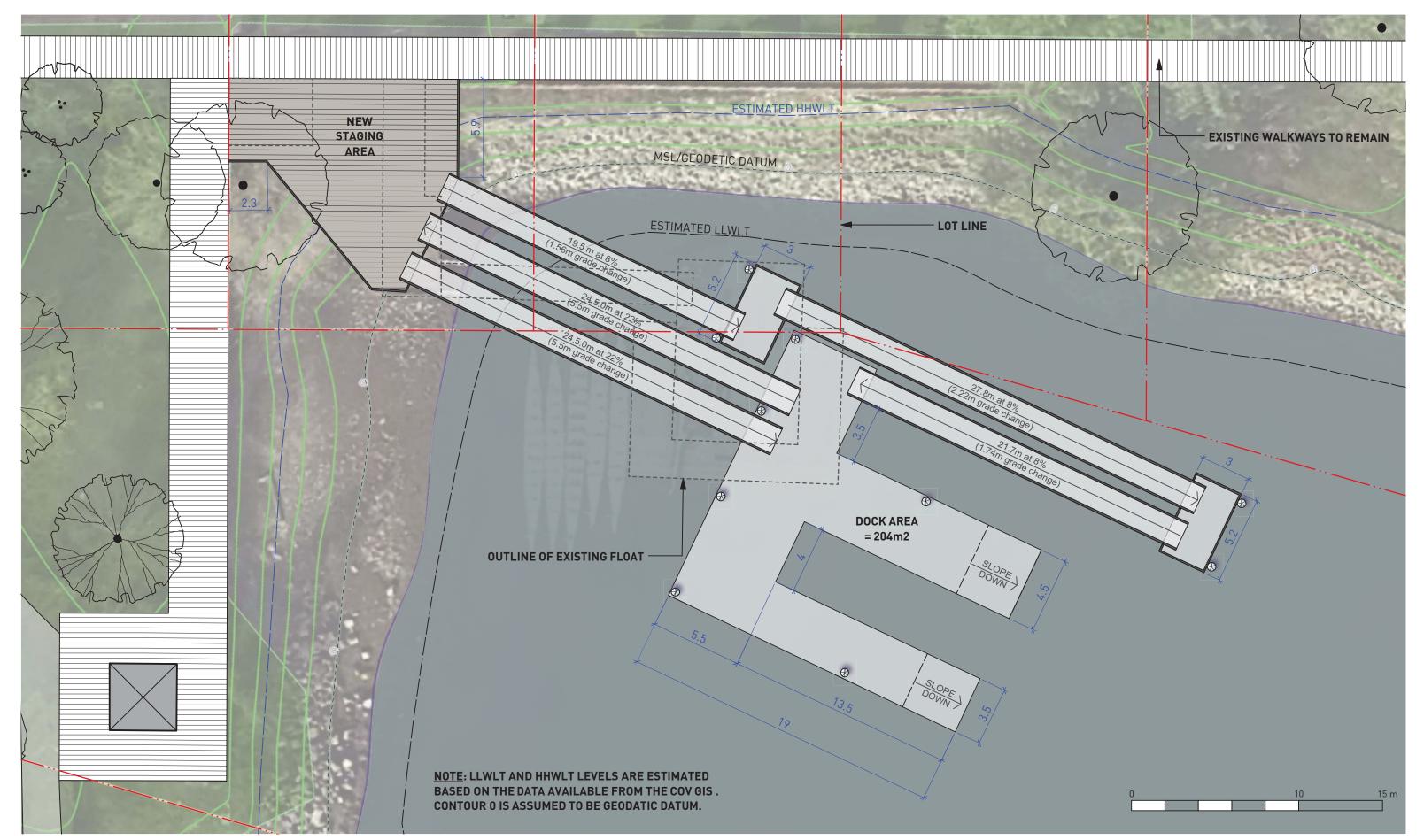
VR/tmw enc.

cc: Justin Dykstra, Vancouver Board of Parks and Recreation
Katya Yushmanova, PWL Partnership Landscape Architects Inc.
Grant Brumpton, PWL Partnership Landscape Architects Inc.
Brian Johnston, Professional Environmental Recreation Consultants Ltd.

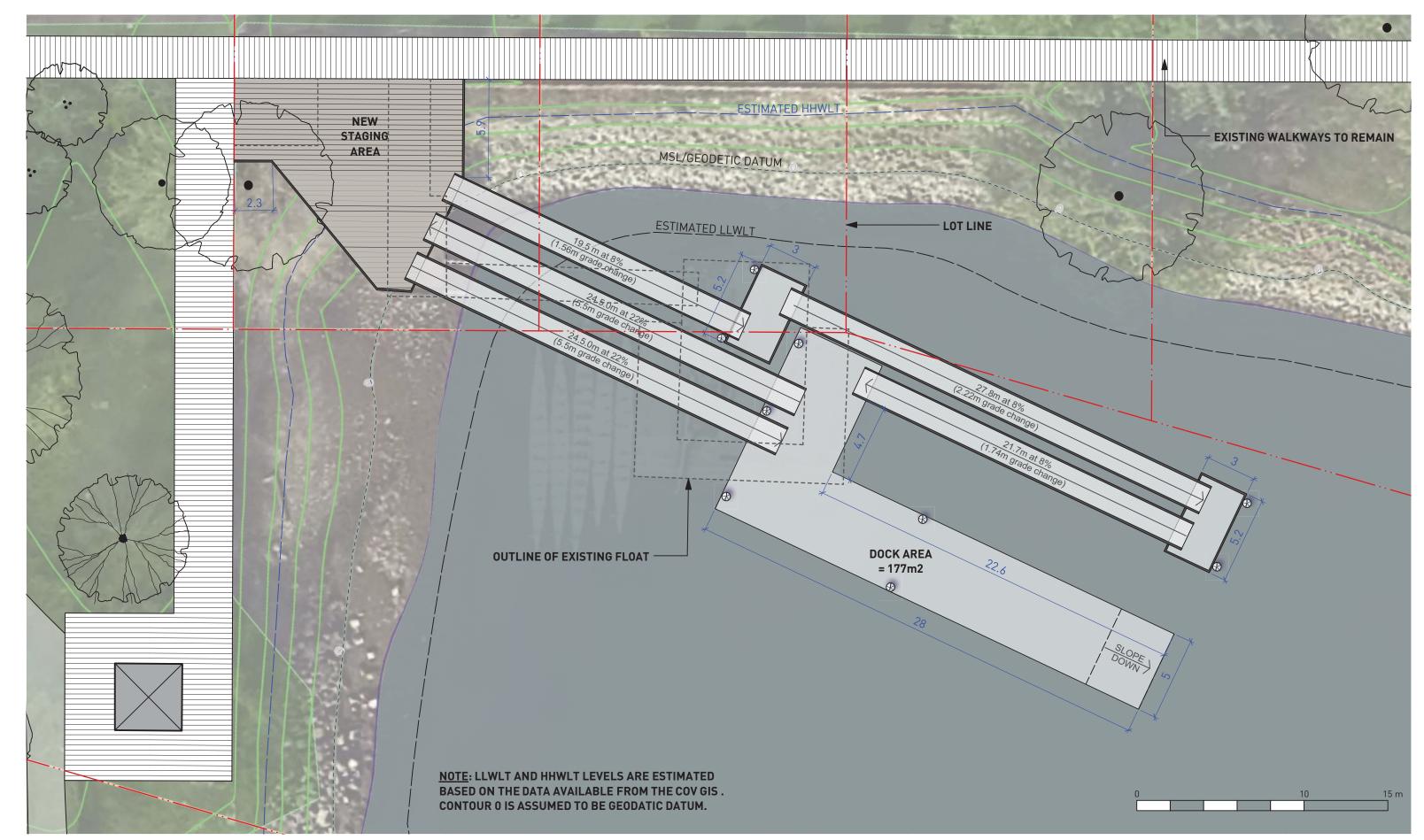


Attachment 1 Concept Options for Dock Replacement

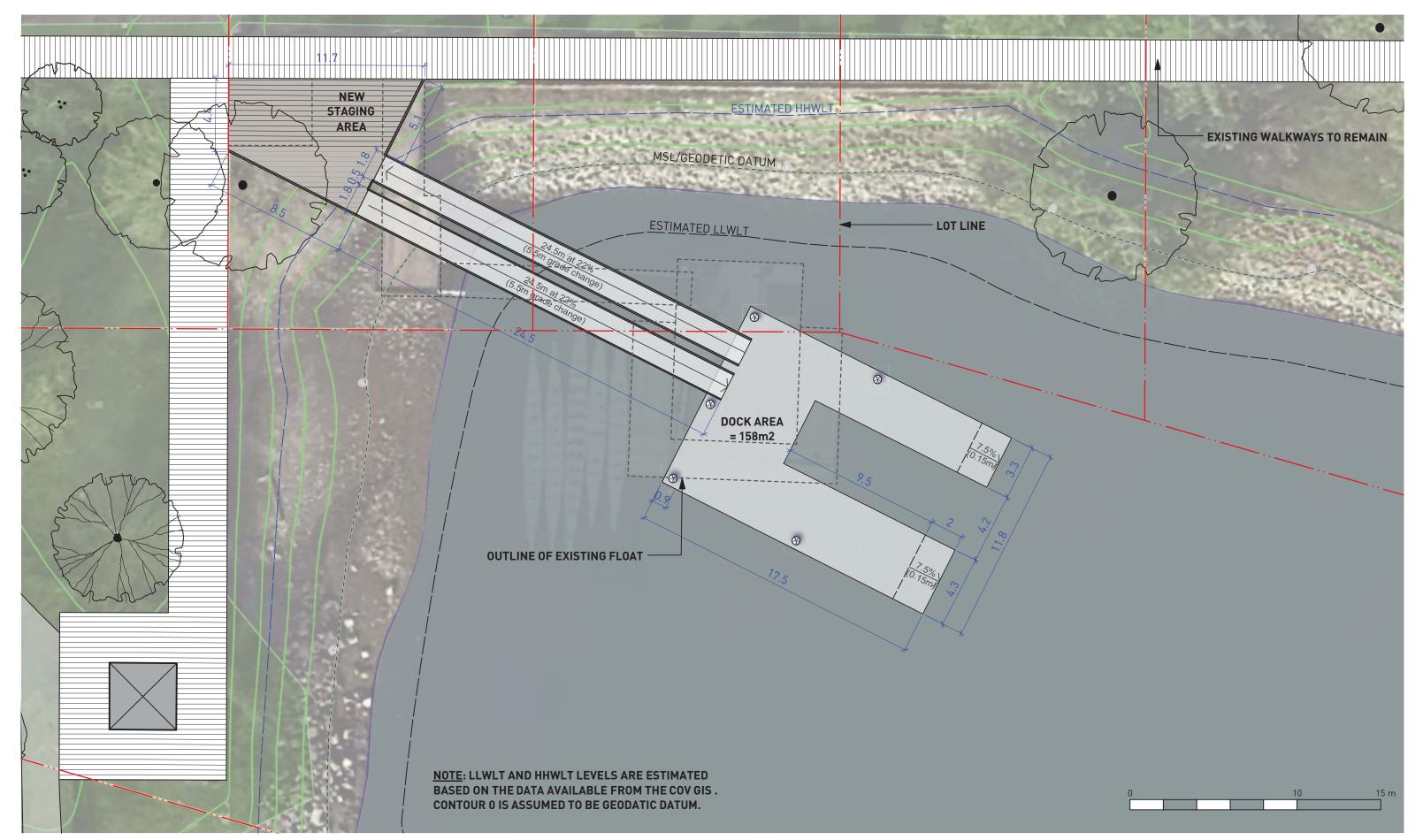




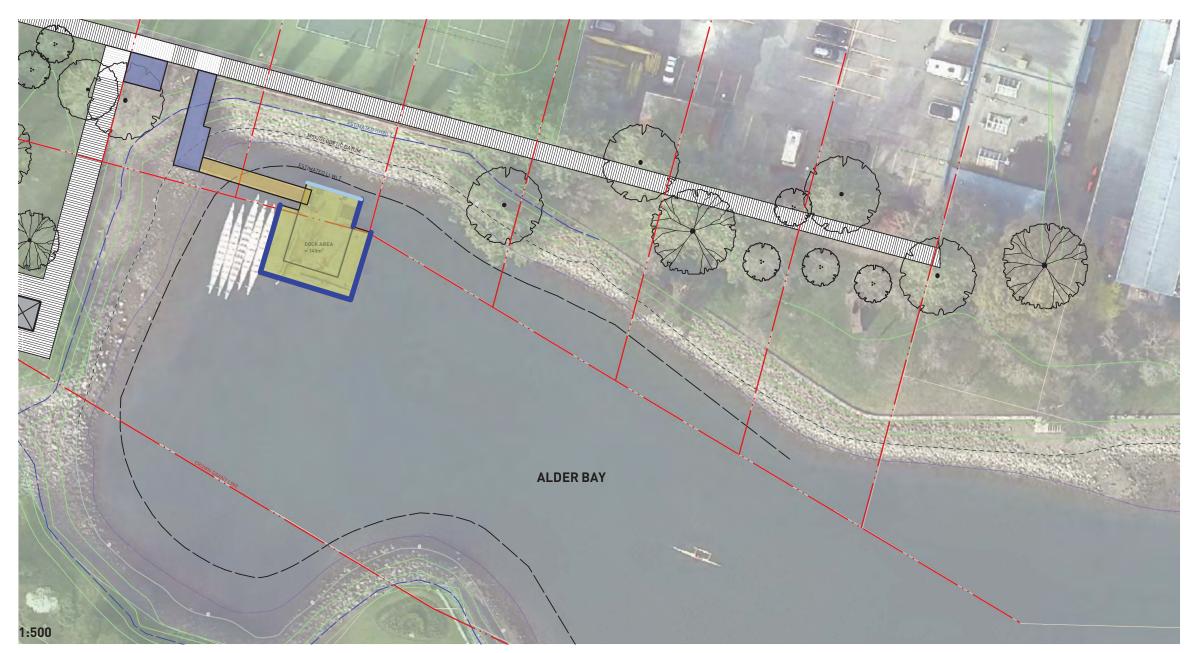








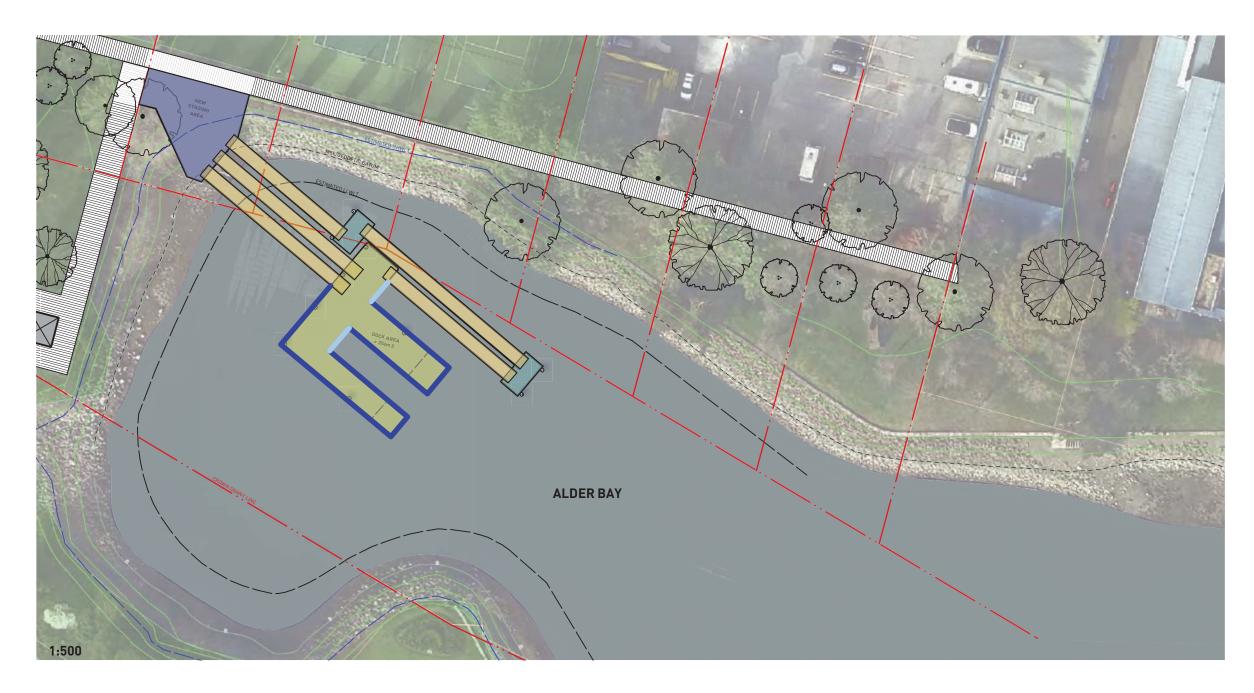


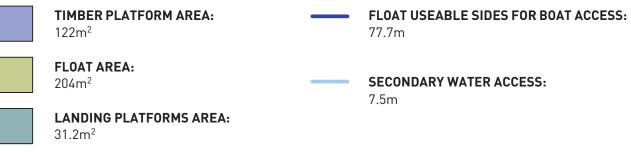


EXISTING DOCK CONFIGURATION









RAMP AREA:

88.3m²

124.4m²

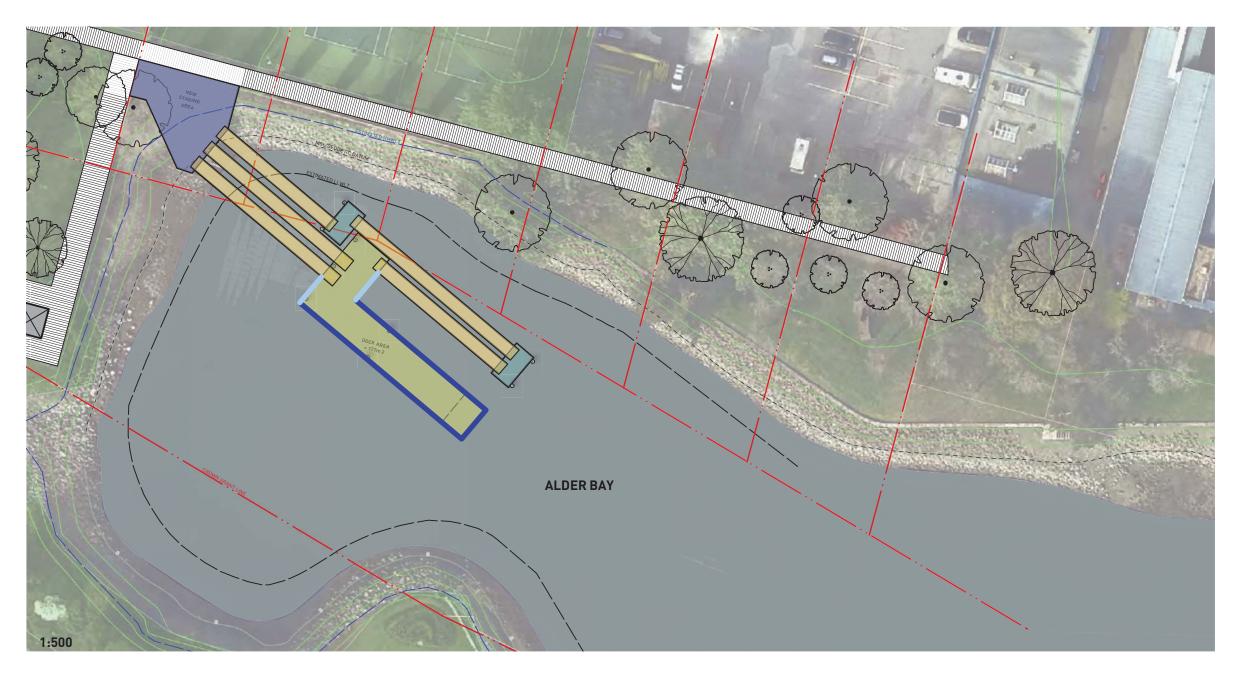


ALDER BAY DOCK | DOCK SIZE COMPARISONS - OPTION 1

WEST ACCESS: 2x23m (1.8m WIDTH)

EAST ACCESS: 69m (1.8m WIDTH)

RAMP LENGTH:



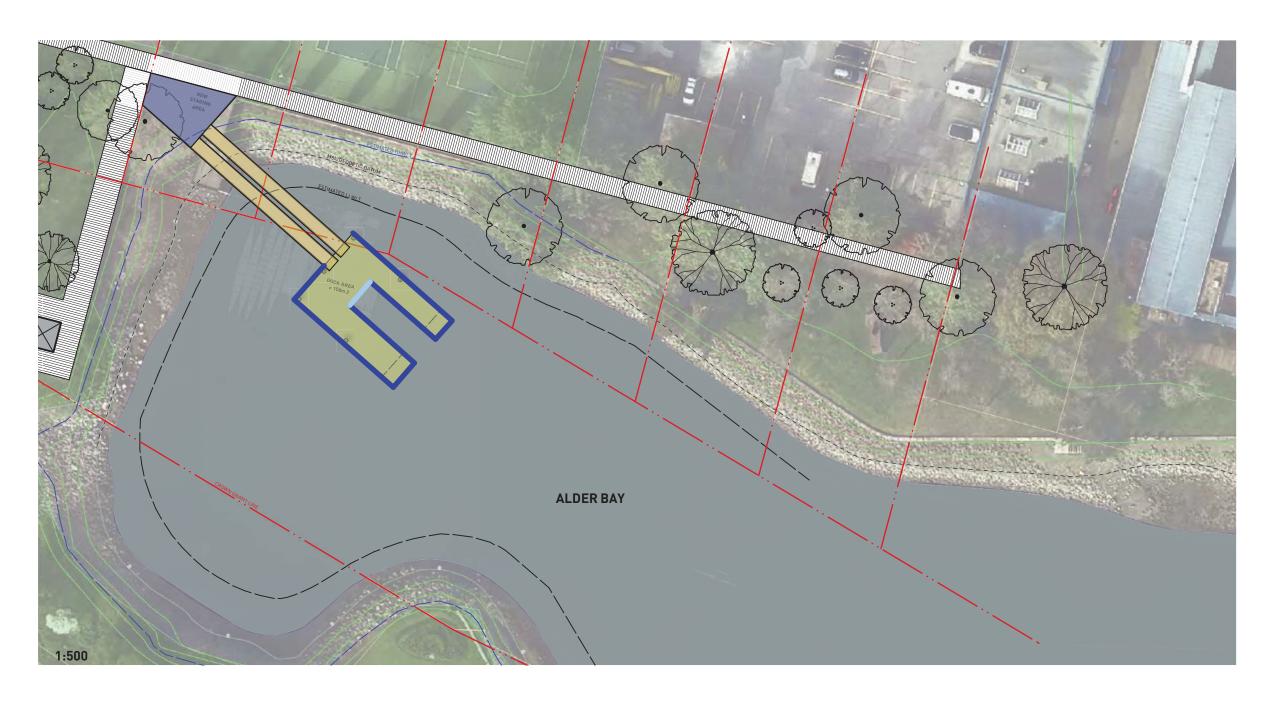


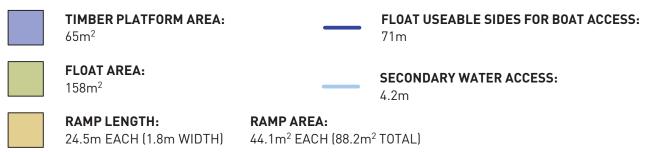
124.4m²



ALDER BAY DOCK | DOCK SIZE COMPARISONS - OPTION 2

EAST ACCESS: 69m (1.8m WIDTH)





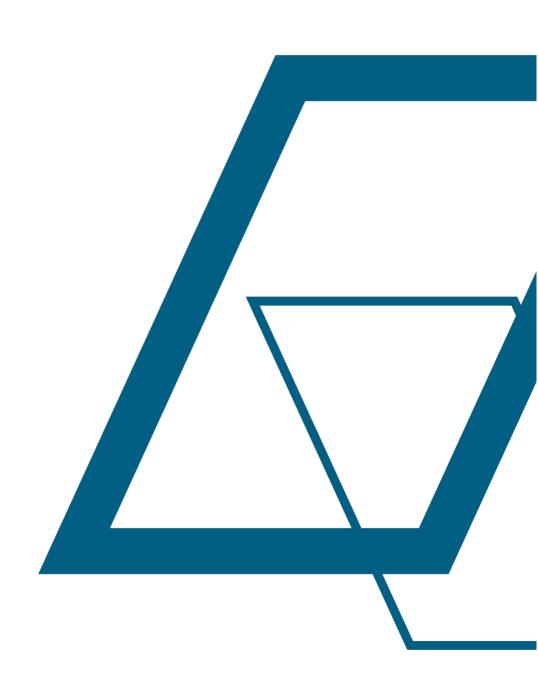


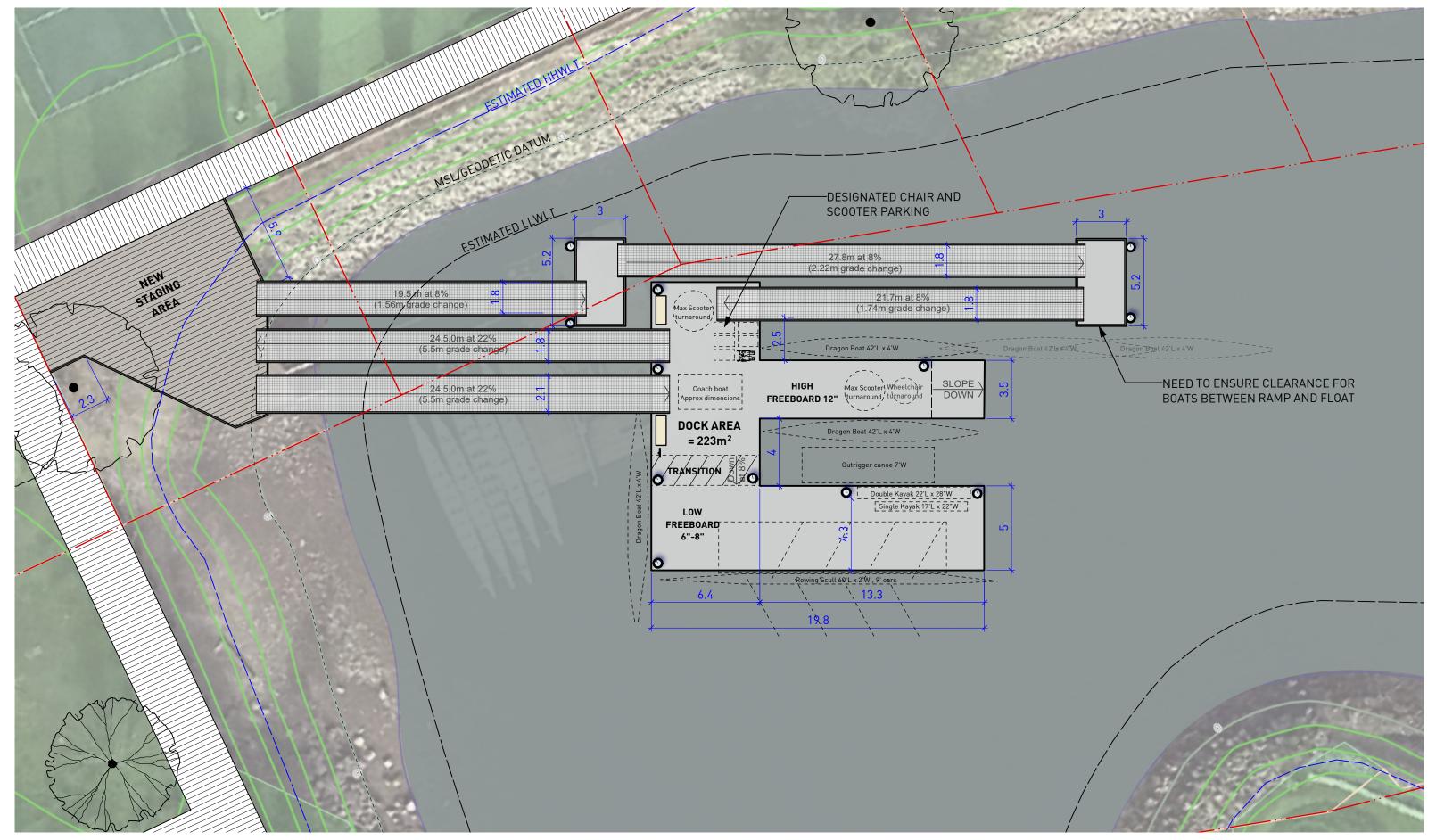


Consulting Services for Alder Bay Replacement Dock Design Summary Report



Appendix 12 Recommended Conceptual Design







ALDER BAY DOCK | RECOMMENDED DOCK LAYOUT