

Ore Peninsula Dock Redevelopment 60% Design Presentation

Presentation | February 7th, 2023

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Cody Jennings, Director – Port of Skagway

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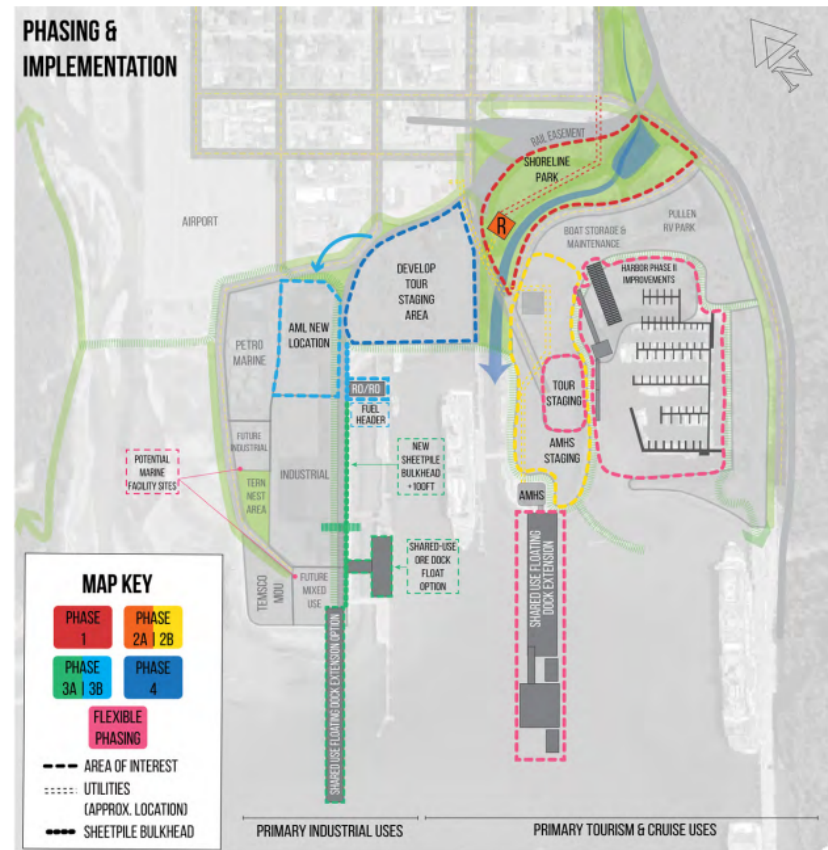
Agenda

- Ore Peninsula Redevelopment Process Overview
- Overview of 60% Design & Updates
- Operational layouts
- Upland Development - Concept Design
- Project Schedule Update
- Cost Estimate
- Next Steps



Port Development Process

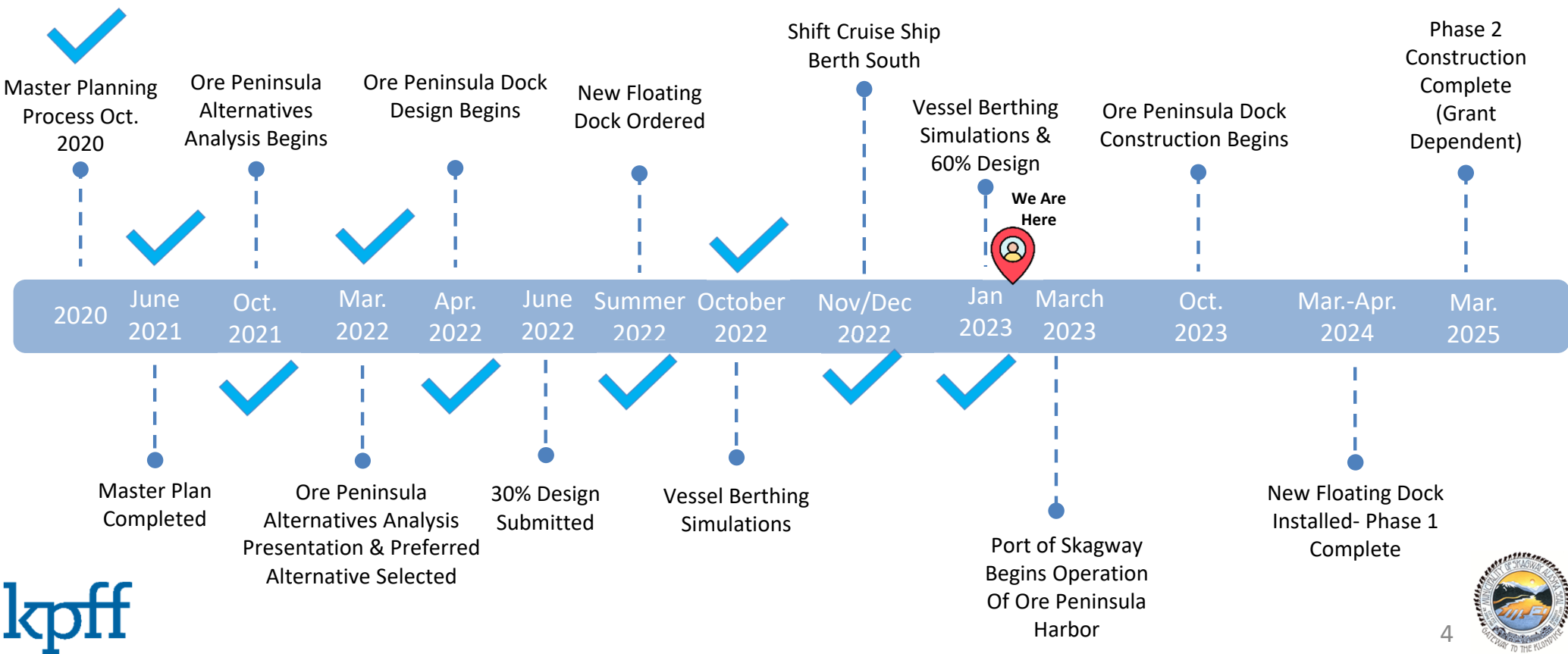
- Started 18 months ago with PDC Engineers designing the Port Master Plan
- Through the master plan process a phasing and implementation timeline was identified
- Phase 1 Early 2021 Shoreline Park
- Phase 2A Fall 2021 Shoreline Park Restroom Construction
- Phase 2B extension of sewer lines to the end of the AMHS Ferry Peninsula
- Options for 3A and 3B Ore Peninsula Dock and Ro-Ro Ramp



Above: The Phasing and Implementation Map for the Skagway Port Master Plan.

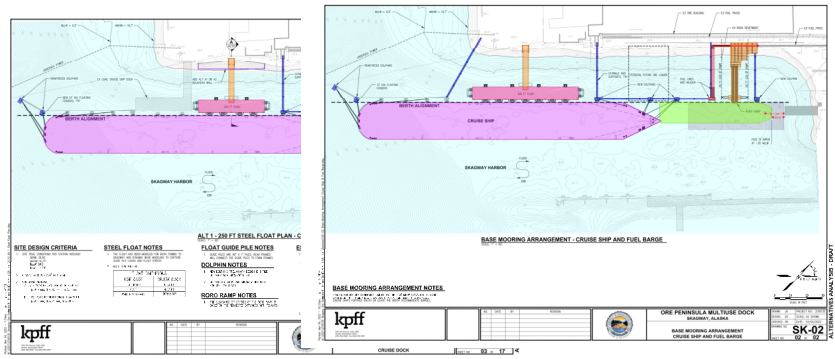


Port Development Process Timeline



Overview of the Alternatives Analysis Selections

- 6 main Alternatives Explored with 5 sub options
- **Alternative 3 – 400' Cruise Dock**
 - Approved to upgrade to 500' Cruise Dock
 - New RORO Industrial Ramp
 - New Fuel Header
 - Demolished Existing Timber Docks & Ore Loader
- **Alternate B2 – North Berth Extension**
 - Gain 80' +/- of Berth length



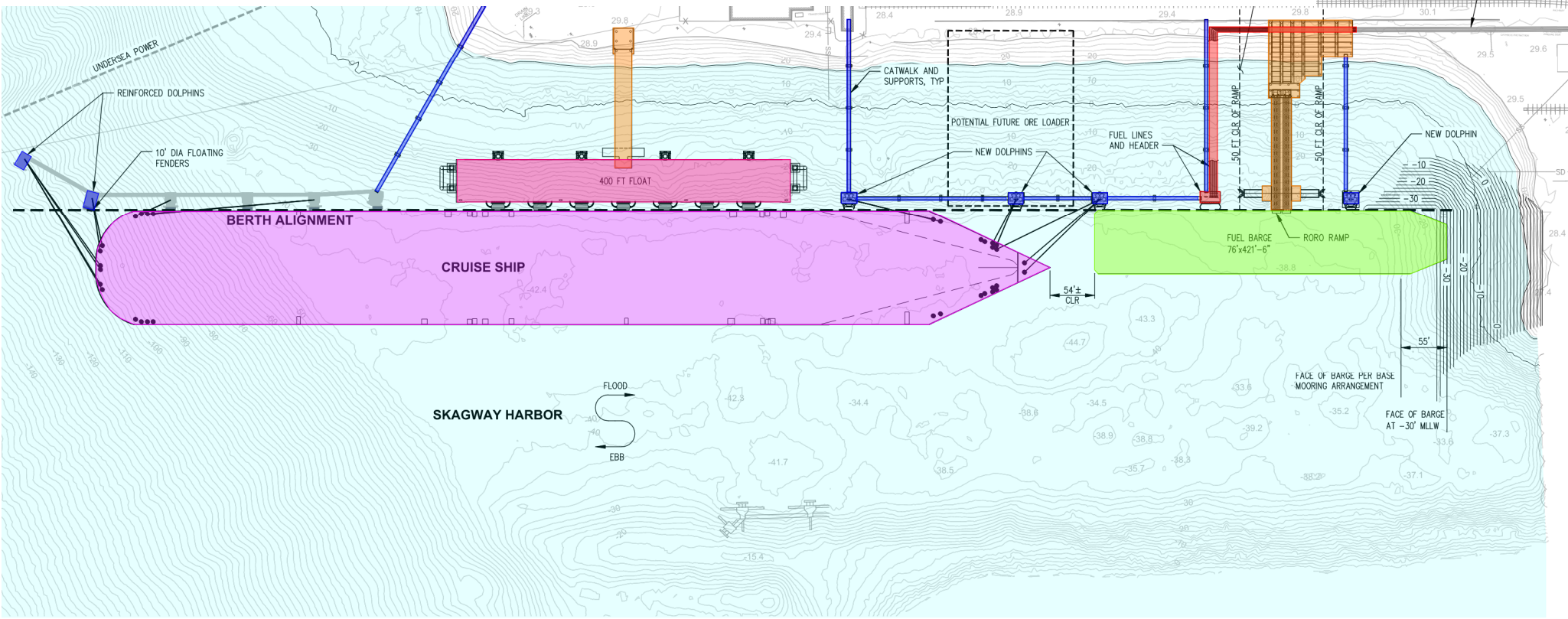
Municipality of Skagway
 Skagway Ore Peninsula Dock
 Alternatives Analysis

kpff

Prepared by KPFF Consulting Engineers
 Alternatives Analysis
 June 10th, 2022



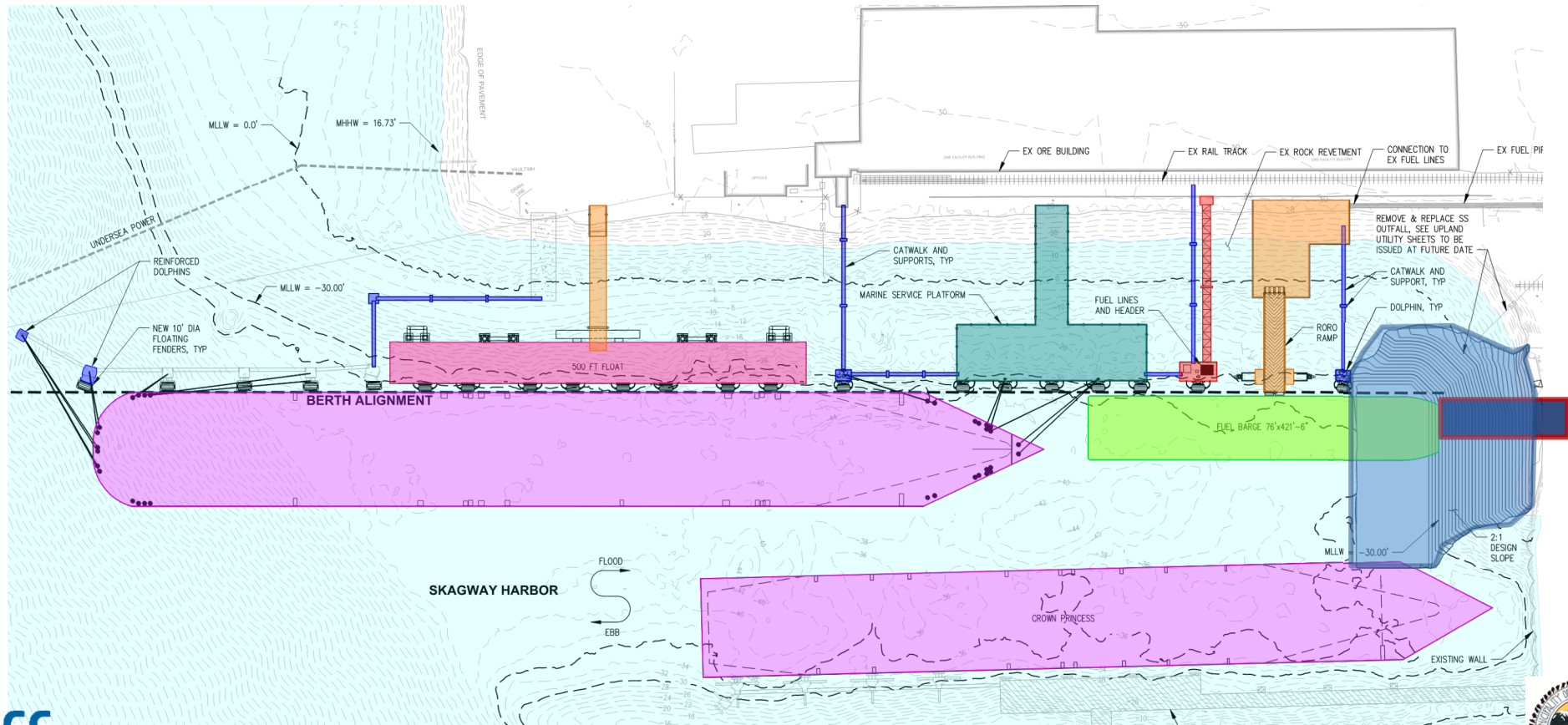
Alternatives Analysis – Final Selection



BASE MOORING ARRANGEMENT - CRUISE SHIP AND FUEL BARGE

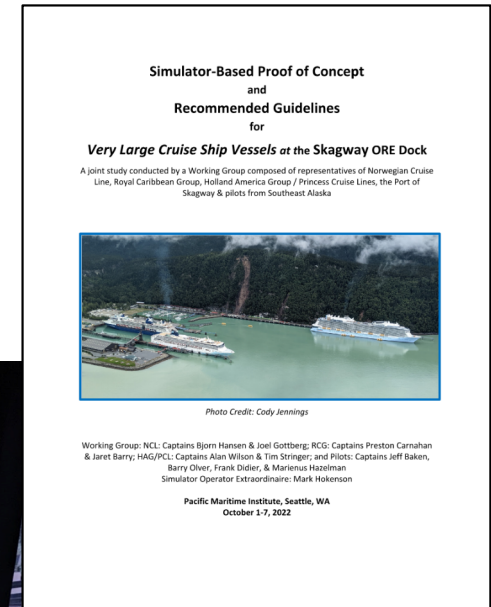
SCALE: 1" = 60'

Overview of 30% Design



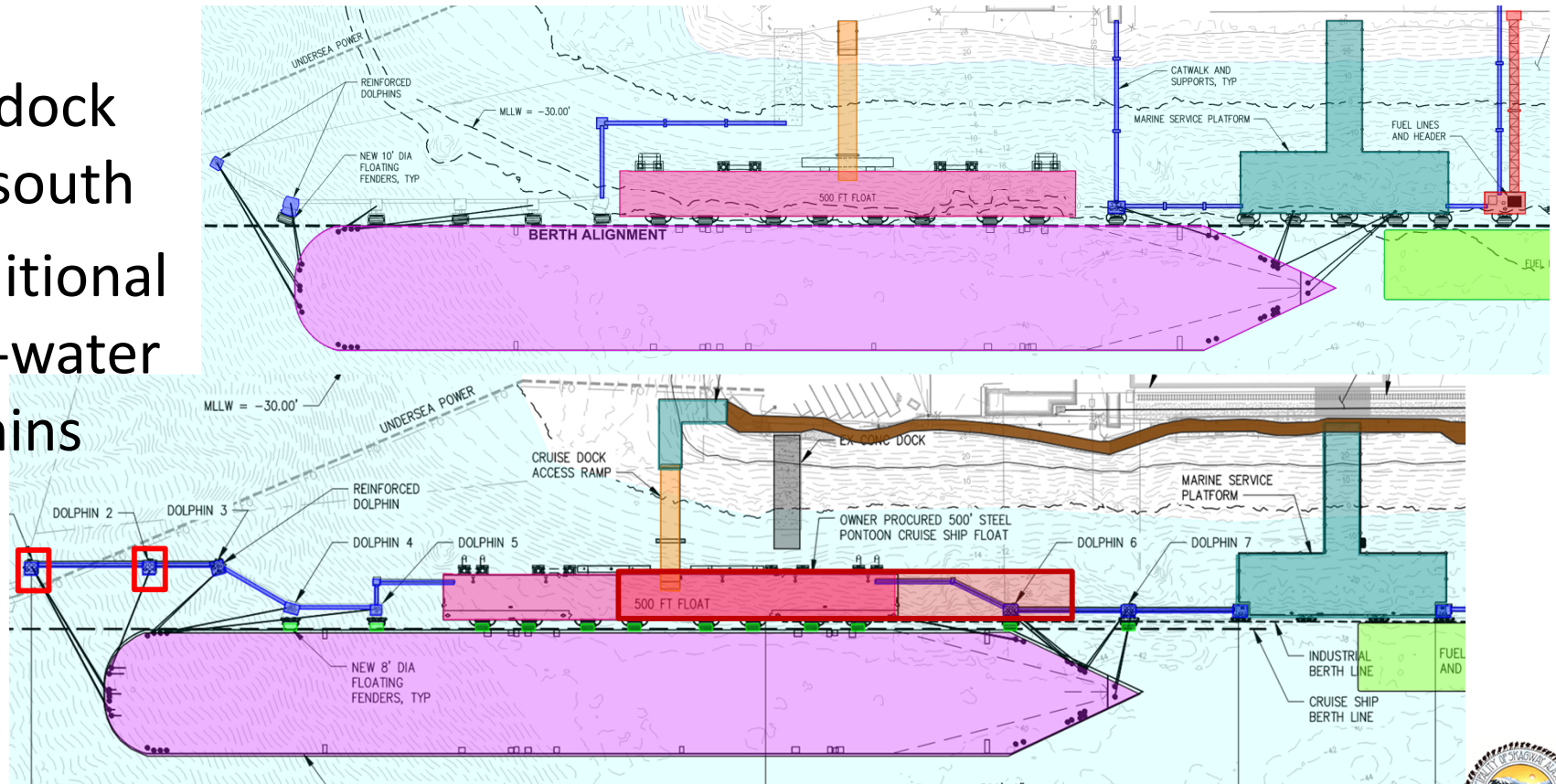
Overview of 30% Design - Simulator

- Simulator for new layout with Pilots and Captains
- Cruise lines requested new berth shift south to avoid overlap with Broadway Dock



Updates after Simulations

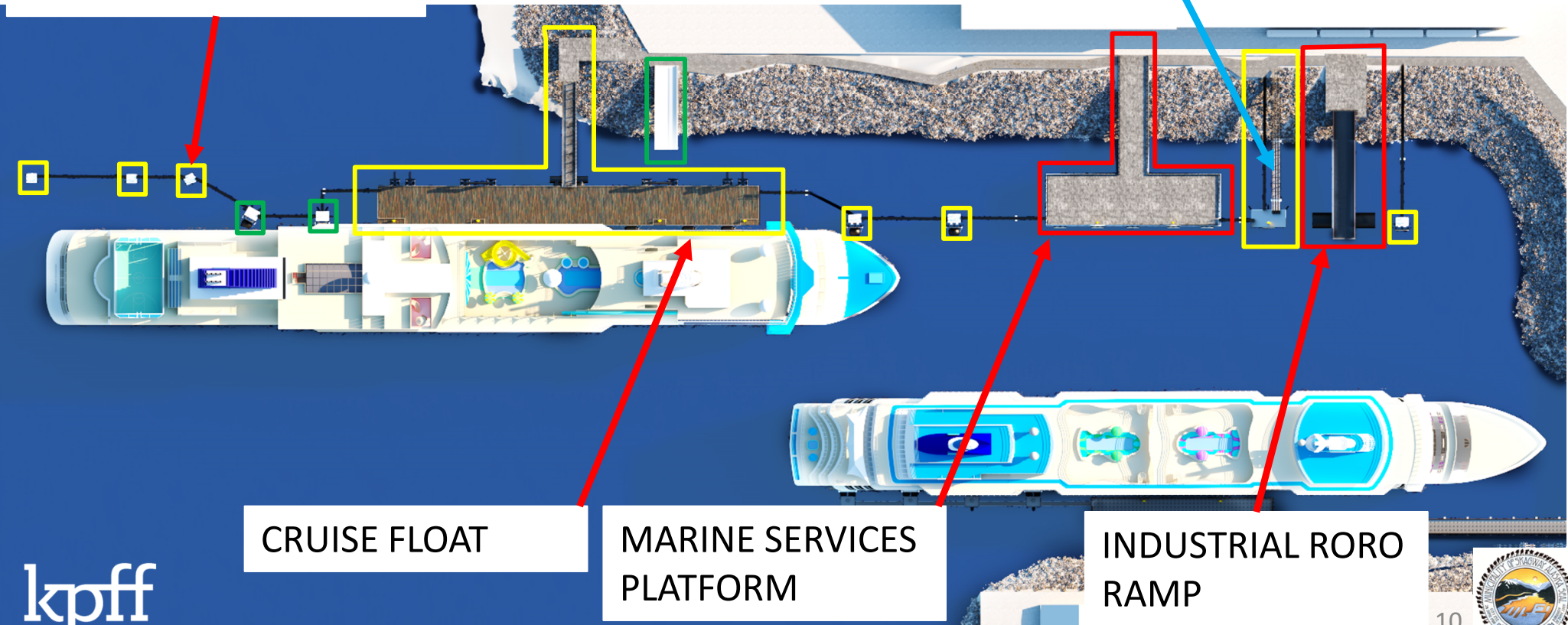
- Shift dock 200' south
- 2 additional deep-water dolphins



Overview of 60% Design

NEW AND UPGRADED
DOLPHINS

NEW FUEL HEADER



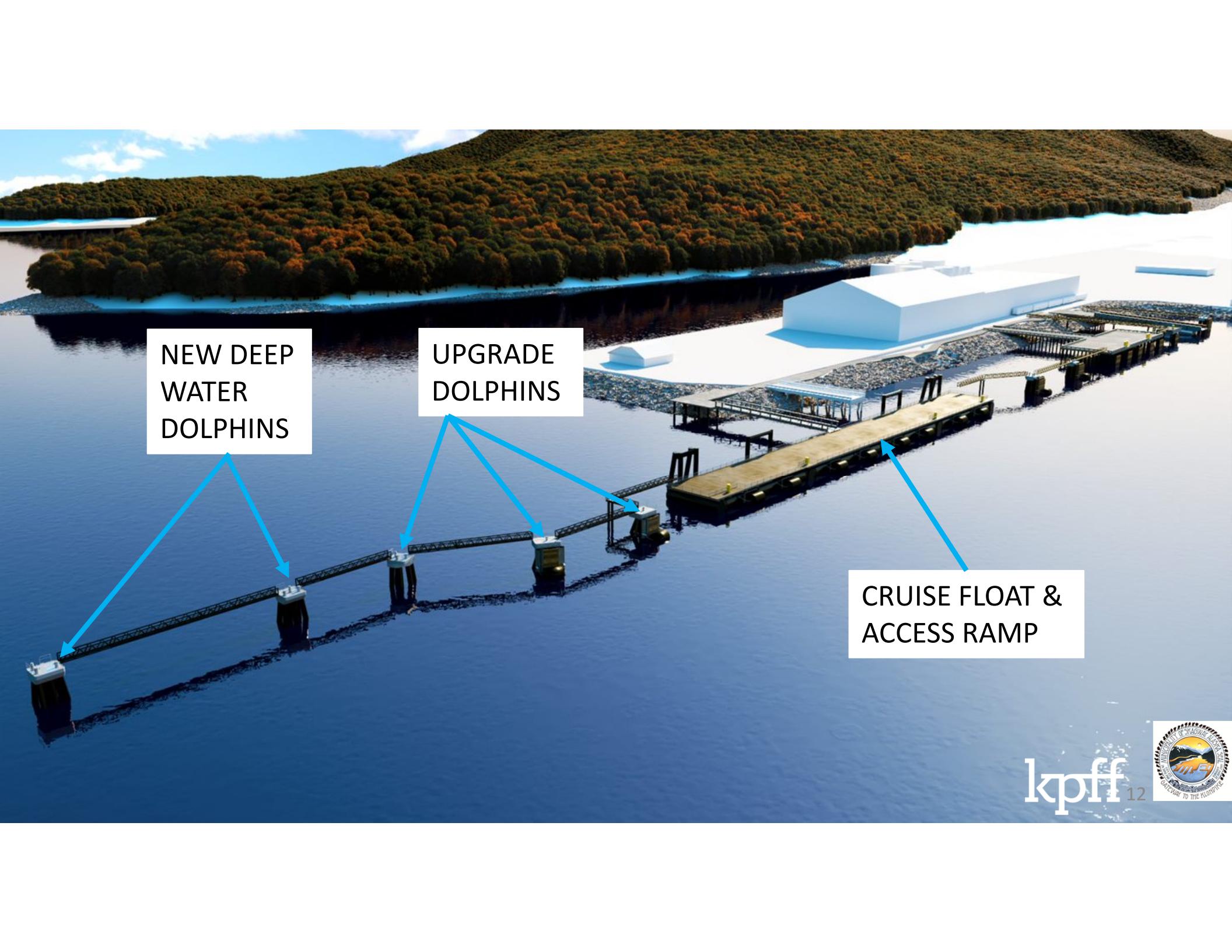
Overview of 60% Design

- 242 page Drawing set
- Updated Site layouts & Operations
- Added Upland and Utility Improvements



80% DESIGN - NOT FOR CONSTRUCTION

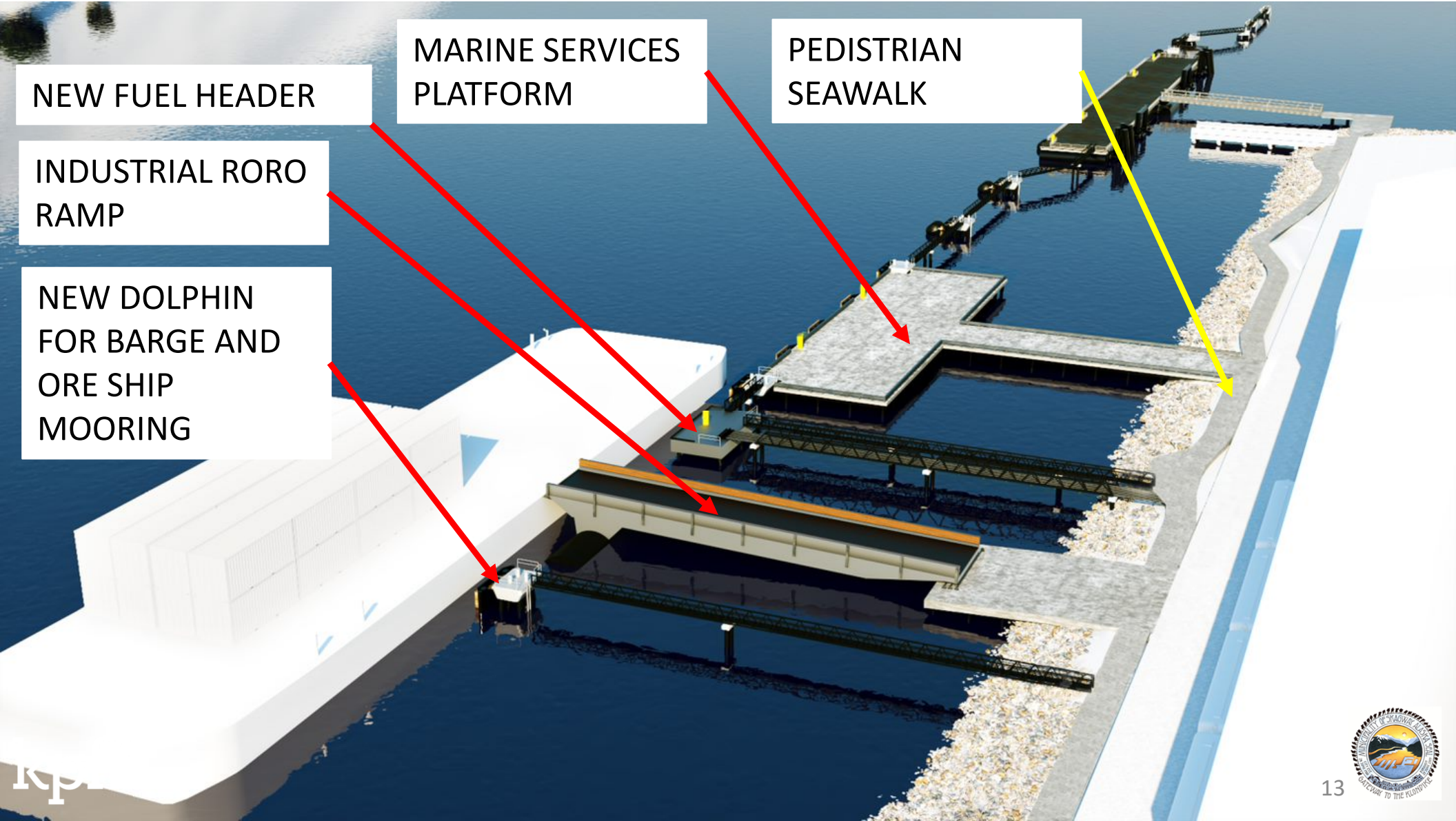




NEW DEEP
WATER
DOLPHINS

UPGRADE
DOLPHINS

CRUISE FLOAT &
ACCESS RAMP



NEW FUEL HEADER

MARINE SERVICES PLATFORM

PEDISTRIAN SEAWALK

INDUSTRIAL RORO RAMP

NEW DOLPHIN FOR BARGE AND ORE SHIP MOORING



Overview of 60% Design – Cruise Float

- 500' long x 50' wide
- Steel Pontoon Style
- Shallow Draft
- Timber decking
 - Forklifts and Pickup Truck

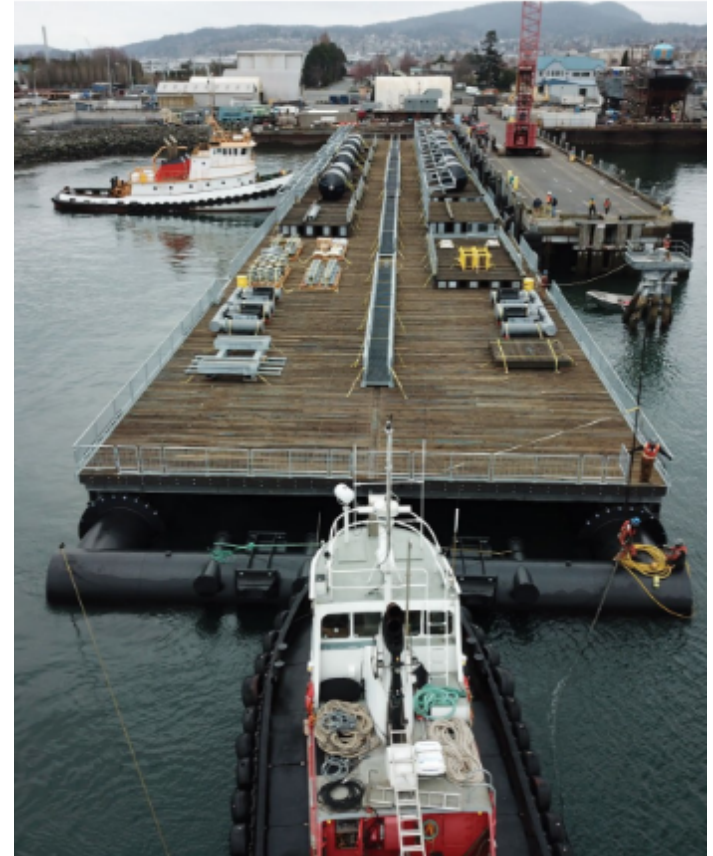
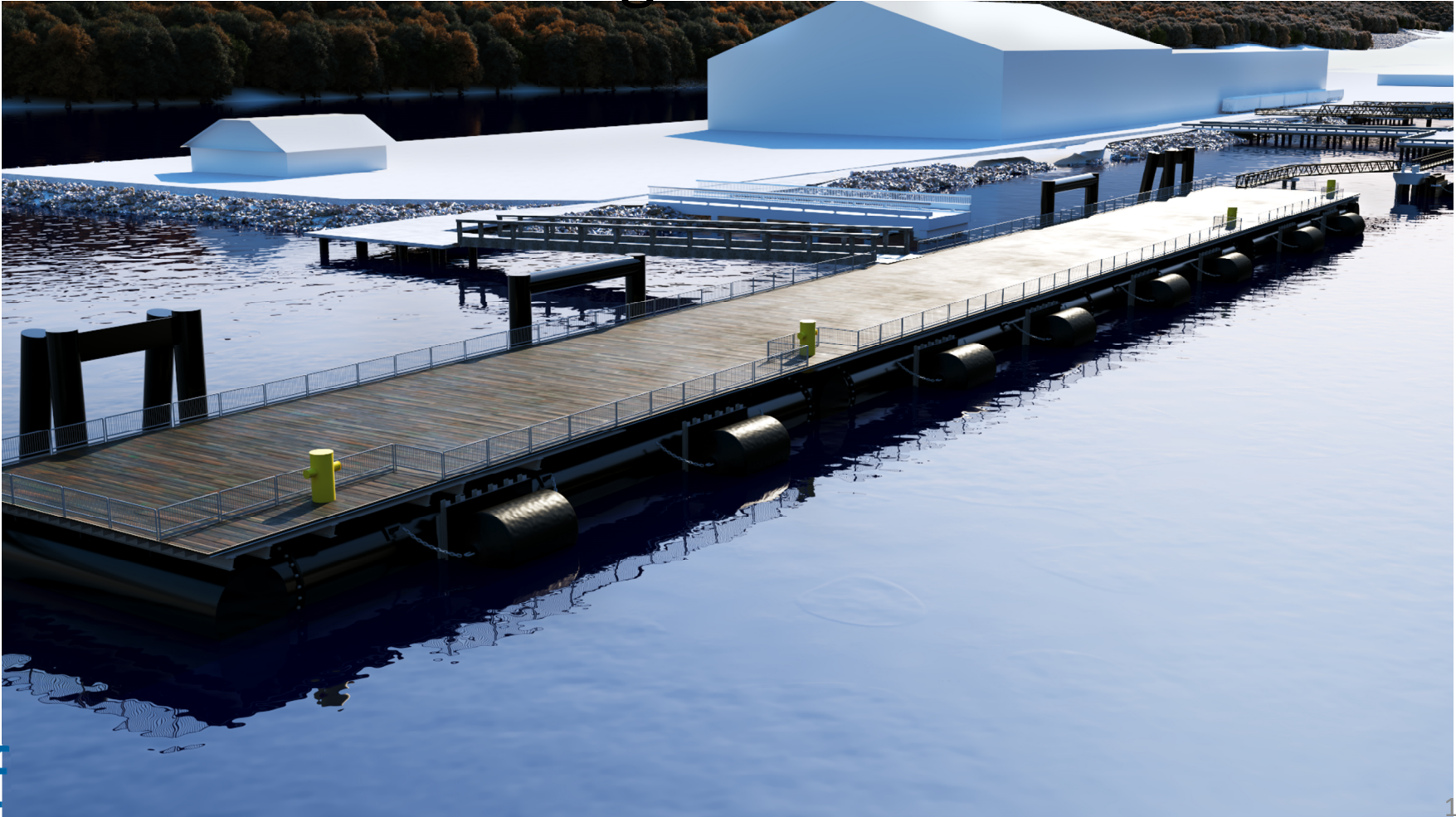


Photo: Transpac Marinas

Overview of 60% Design – Cruise Float



Overview of 60% Design – Cruise Float

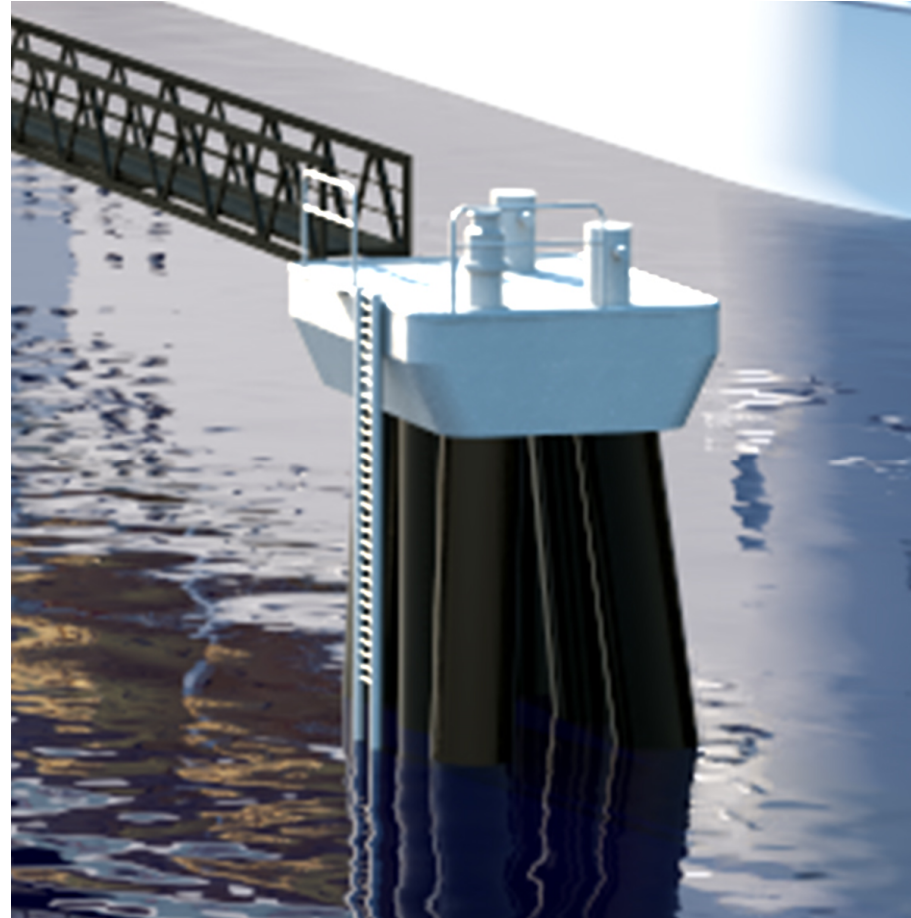


Overview of 60% Design – Cruise Float



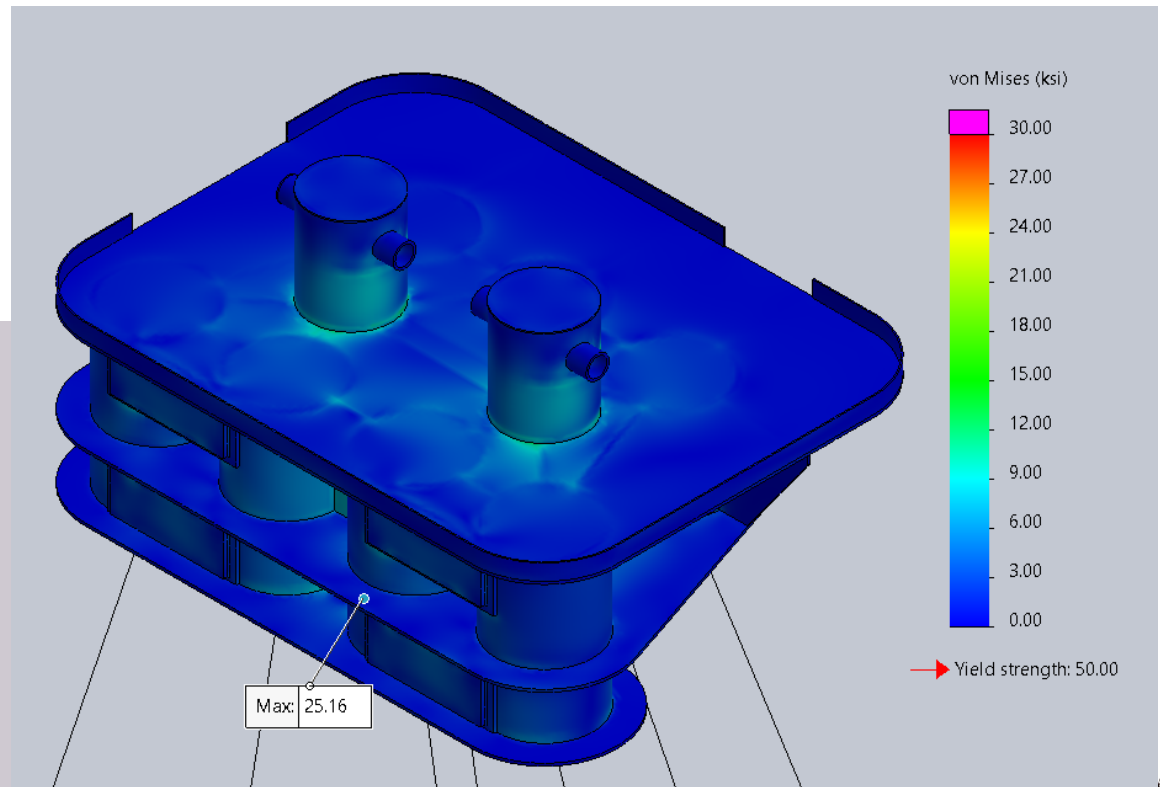
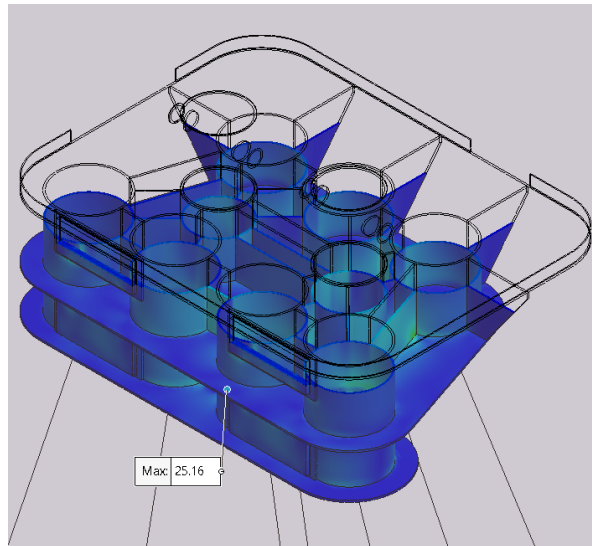
Overview of 60% Design – Dolphins

- Mooring for larger vessels in deeper water
- 5 new dolphins
- Rehabilitate 3 existing dolphins
- New Catwalks
- Lighting & Capstan Winches

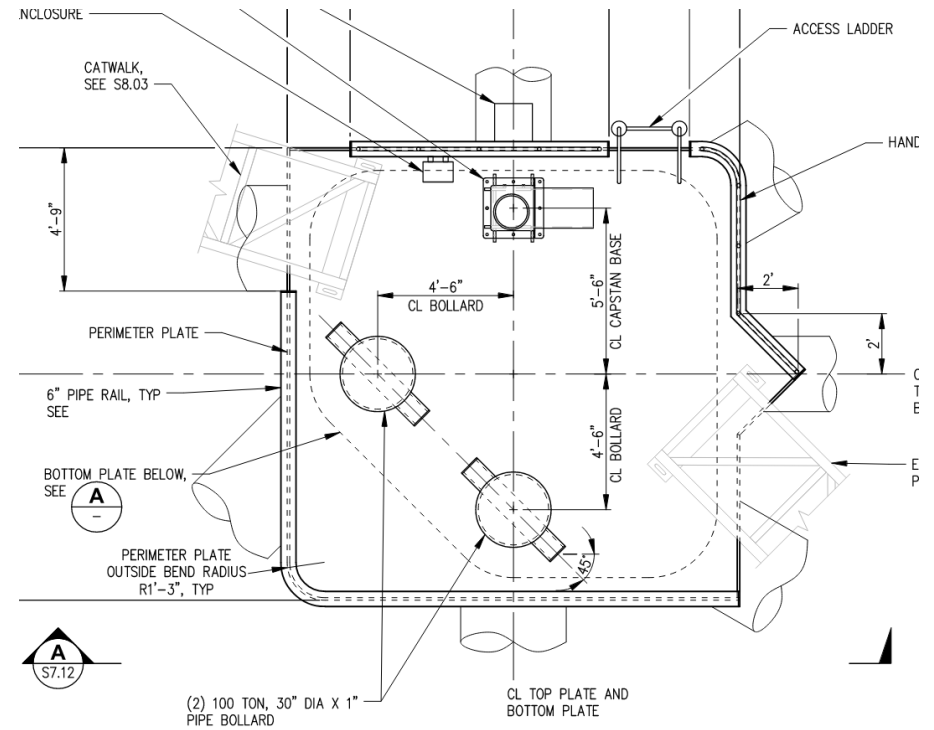
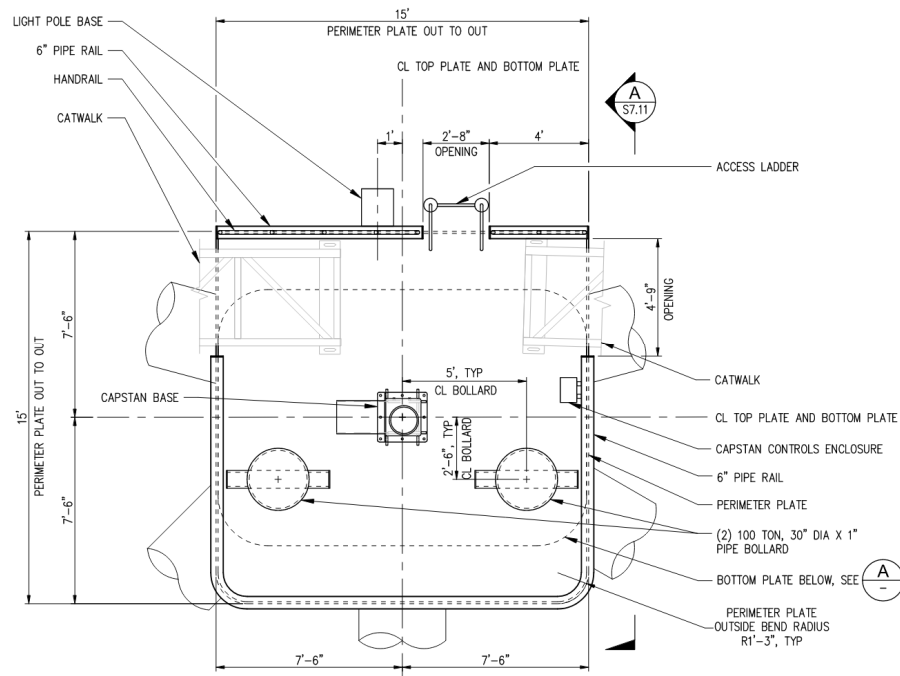


Overview of 60% Design – Dolphins

- 200 Ton capacity
- Pre fabricated steel

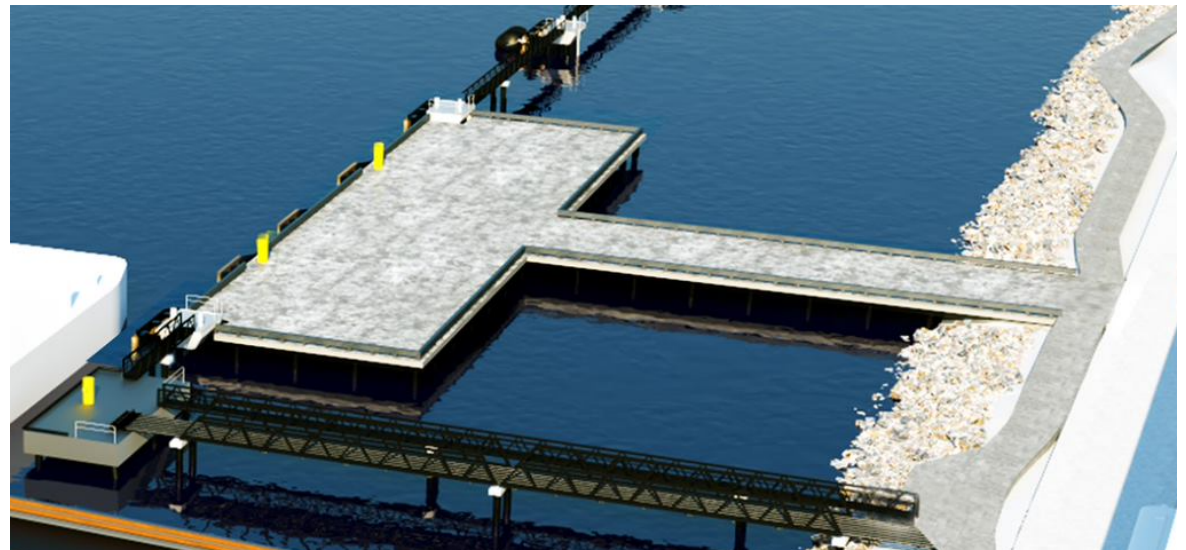


Overview of 60% Design – Dolphins

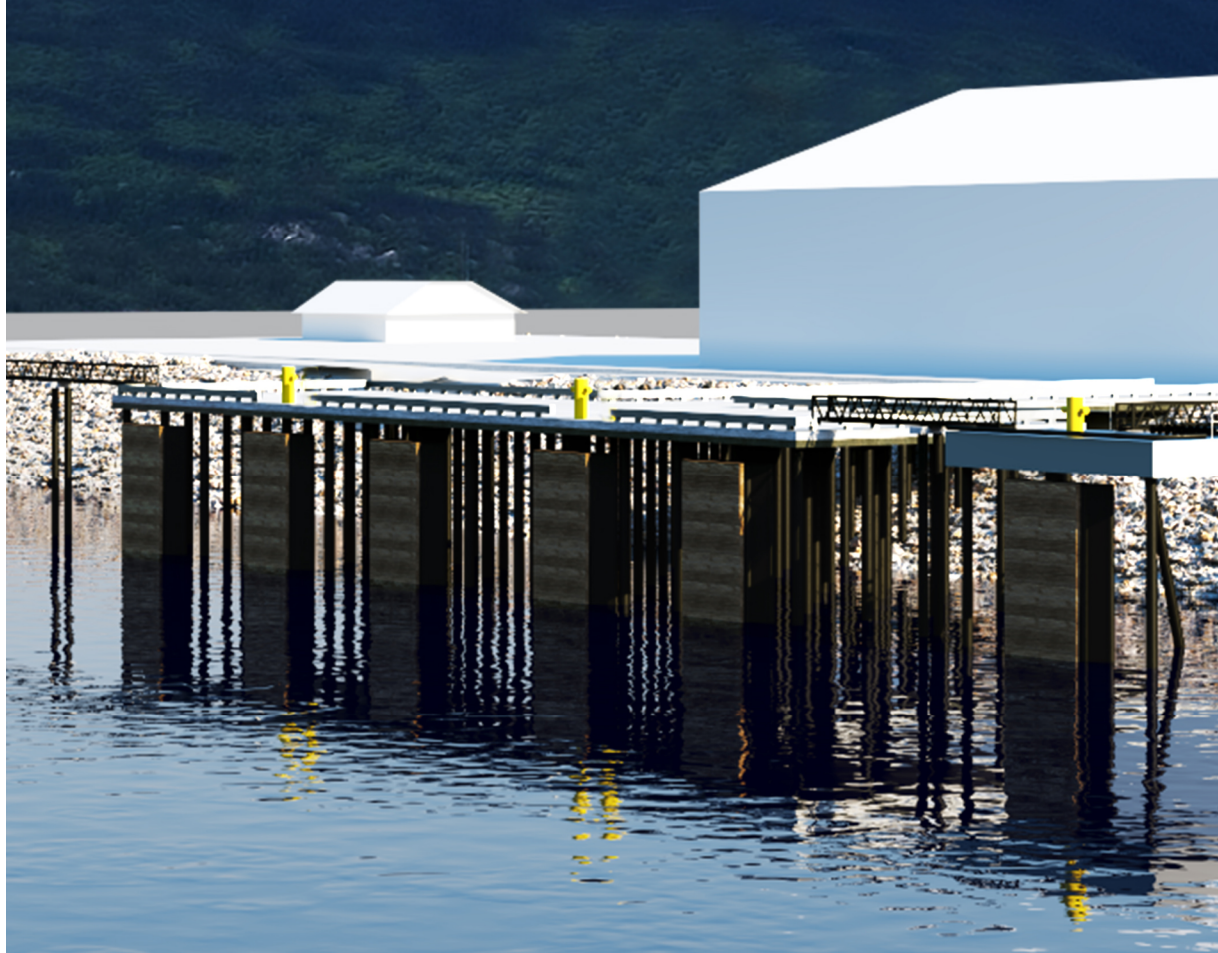


Overview of 60% Design – Marine Services Platform

- Concrete Dock for industrial use
- Designed with specifications from Yukon Government for Ore Export
- Can service barges

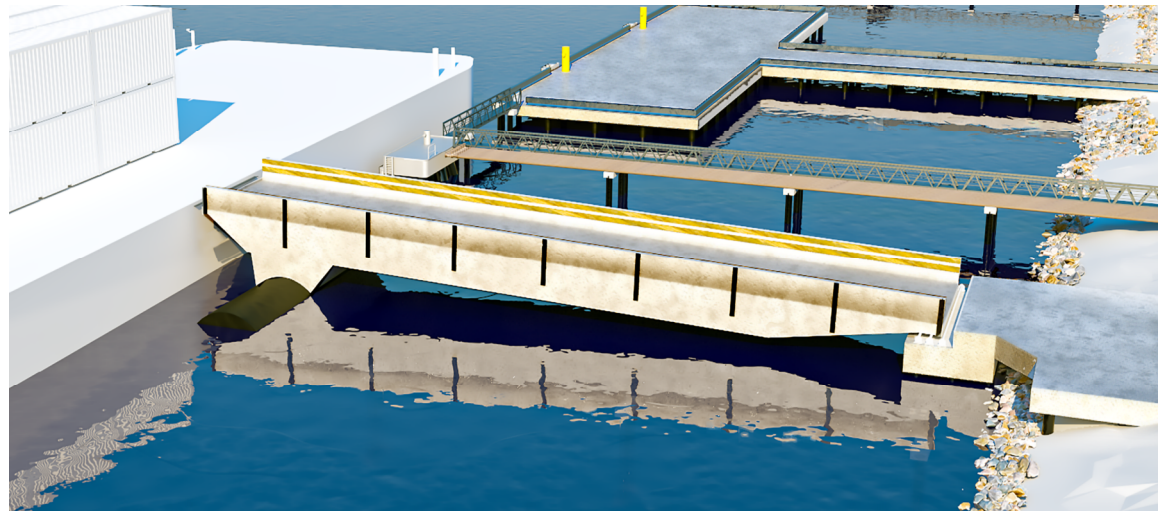


Overview of 60% Design – Marine Services



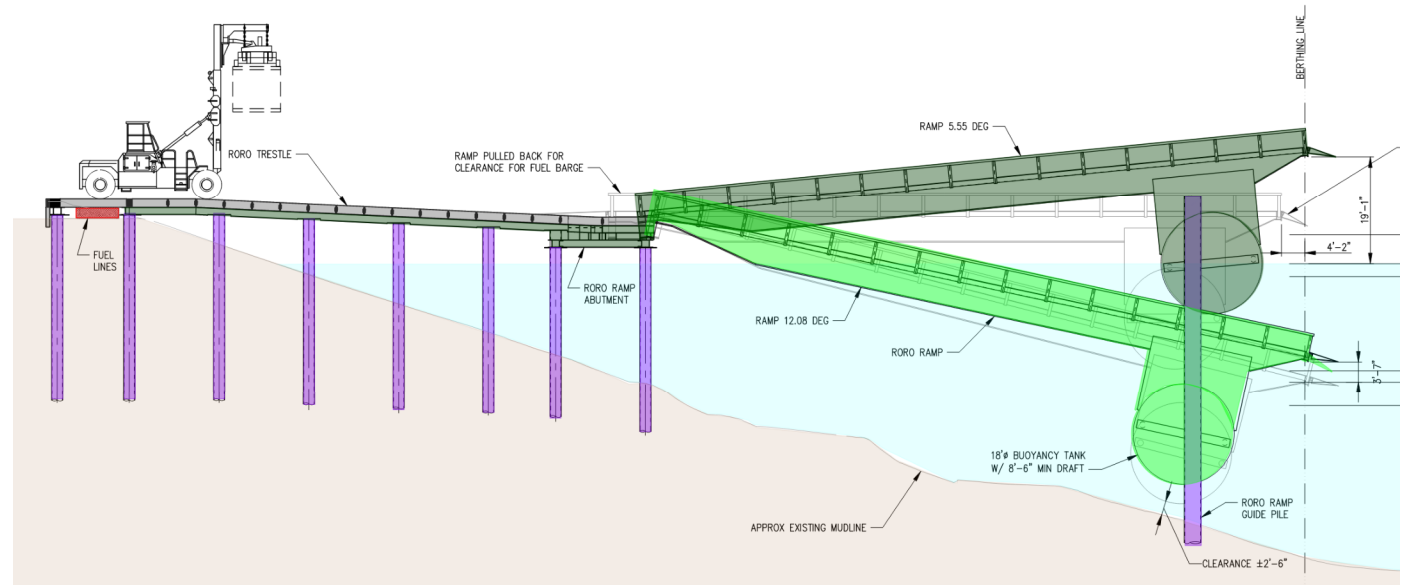
Overview of 60% Design – RORO Ramp

- Designed for Rolling Cargo
 - Large forklifts
 - Cranes
 - Heavy Machinery
- Push Button Controls
- MOS is Pursuing a PIDP Grant
- To be built in phase 2

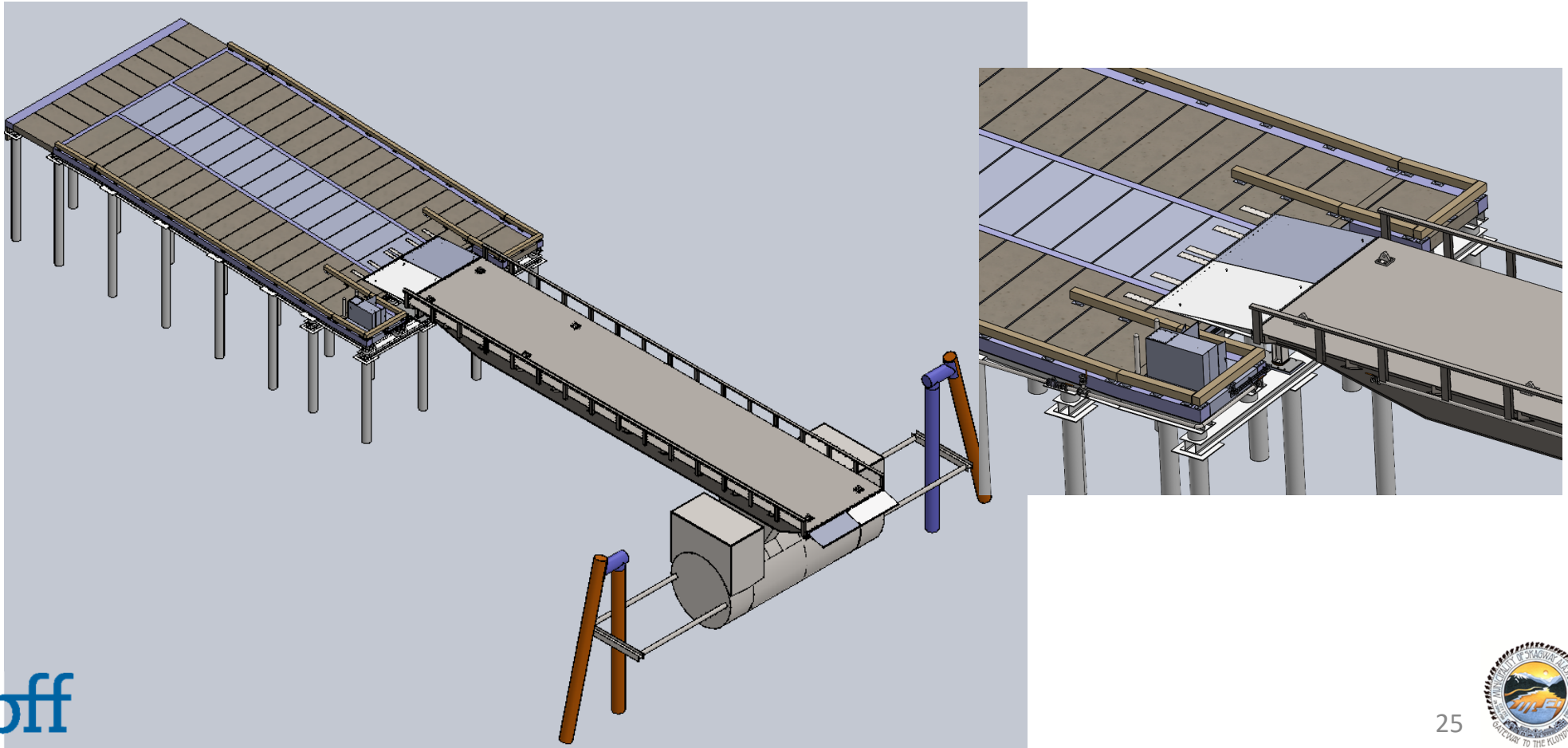


Overview of 60% Design – RORO Ramp

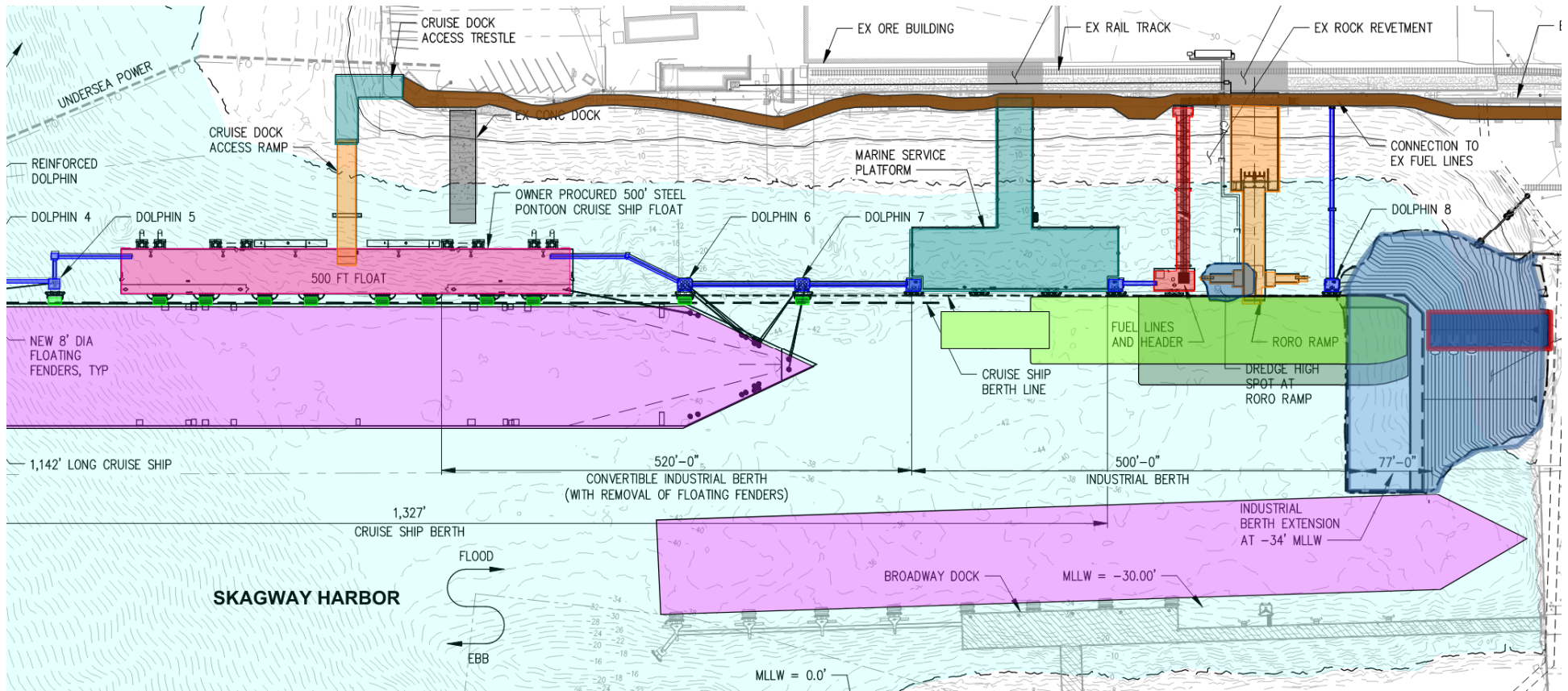
- Small high spot to be dredged
- 90' clearance for wide cargo



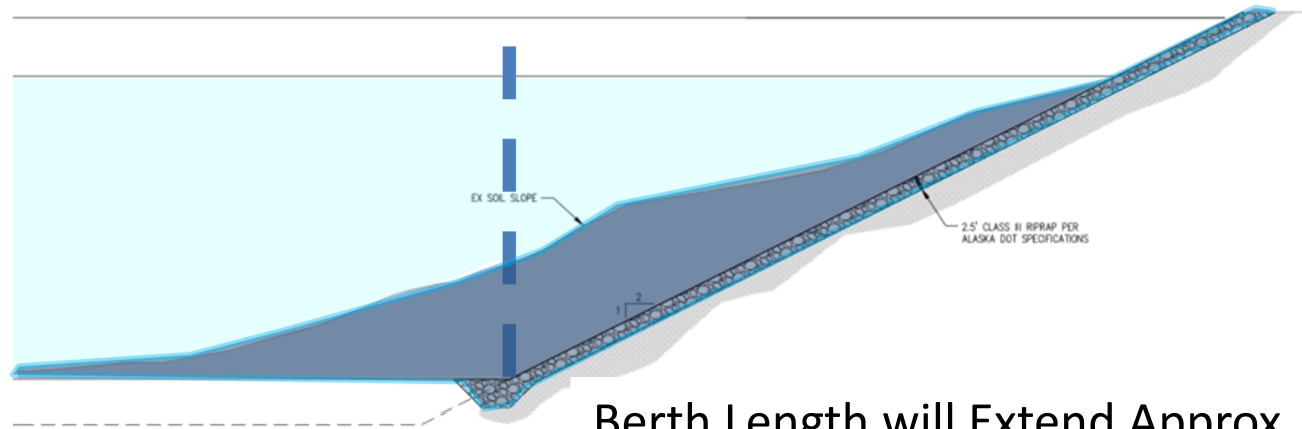
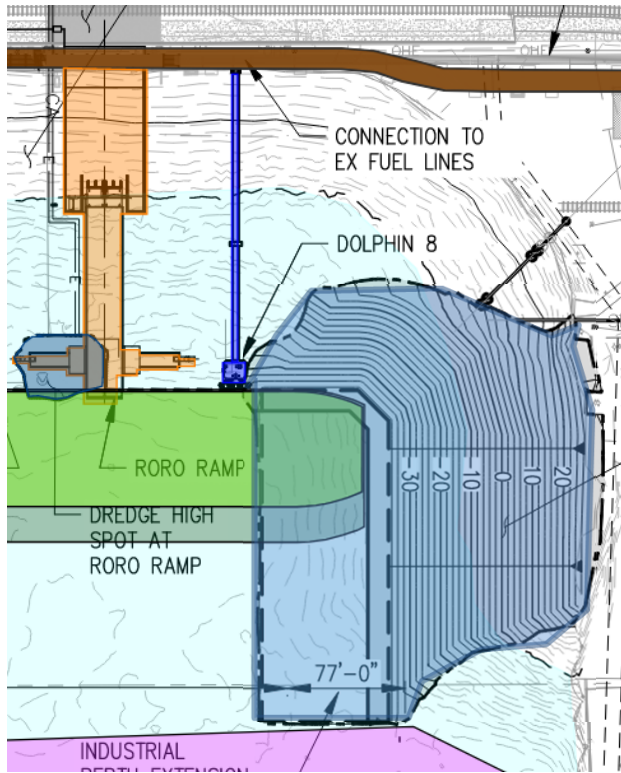
Overview of 60% Design – RORO Ramp



Overview of 60% Design – Ph 2 North Extension



Overview of 60% Design – Ph 2 North Extension



Berth Length will Extend Approx.
55' @ -37' MLLW
77' @ -34' MLLW

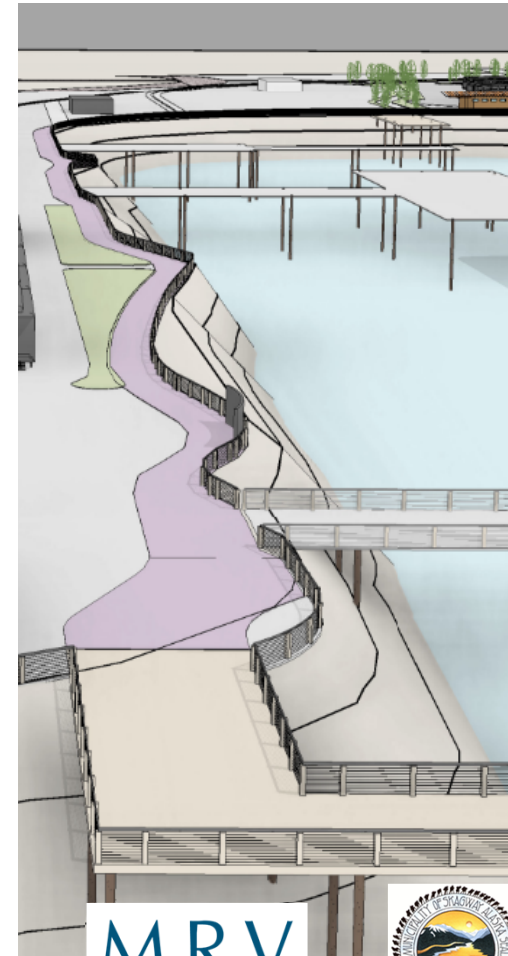
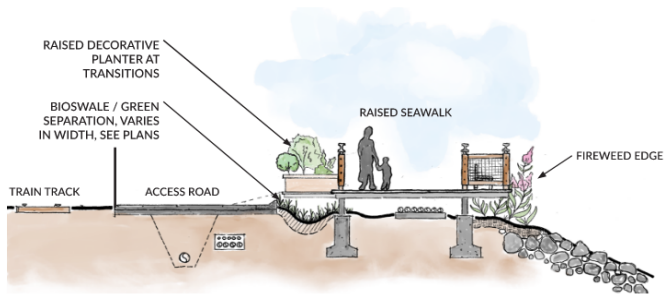
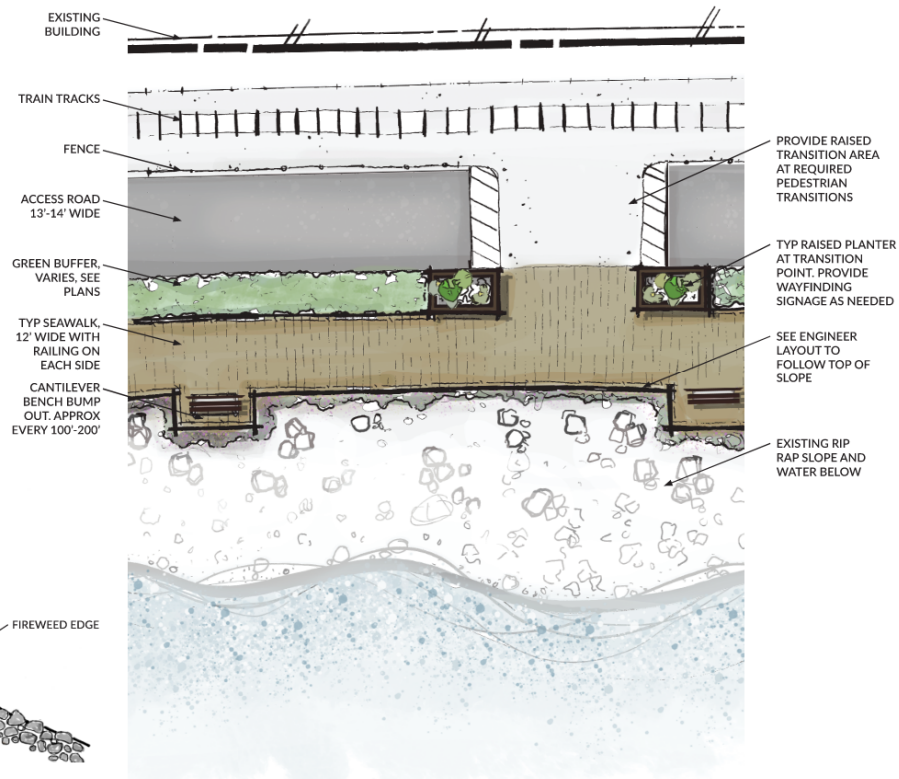
Overview of 60% Design - Seawalk

SEAWALK DESCRIPTION

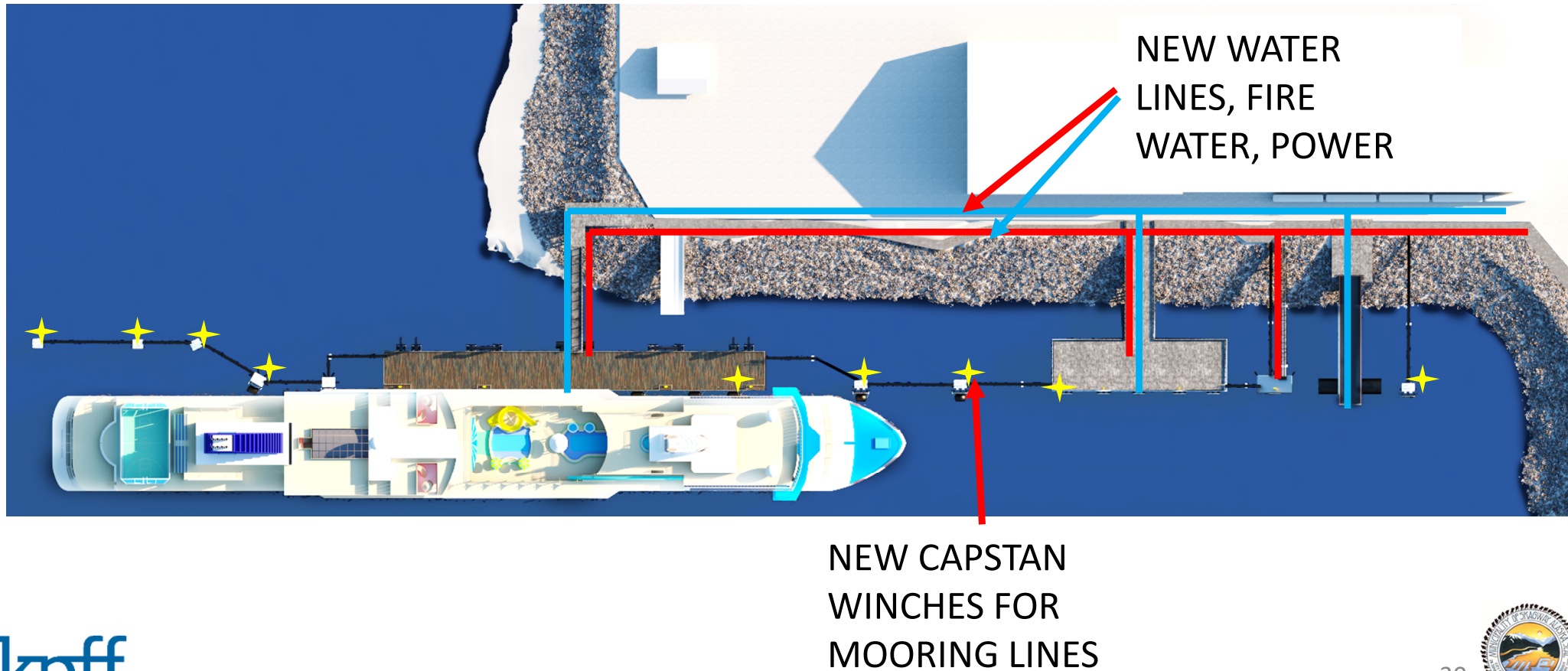
The Seawalk between the Skagway Cruise Terminal Dock and Broadway Dock has many logistic challenges for pedestrians to navigate. Quardrails should be located on both sides except for important transition nodes. At these transition nodes, creating raised planters and signage locations is critical for pedestrian navigation. Similarly, access road and pedestrian crossing should be raised and treated as speed reduction areas for vehicles, and clear pedestrians.

Although there is little space for separating the Seawalk from industry, creating small planting strips offers a much less "industrial" feel to the Seawalk. Use of low maintenance indigenous planting like Fireweed is iconic of the region. Raised planters should contain ornamental plantings and easy to find signage.

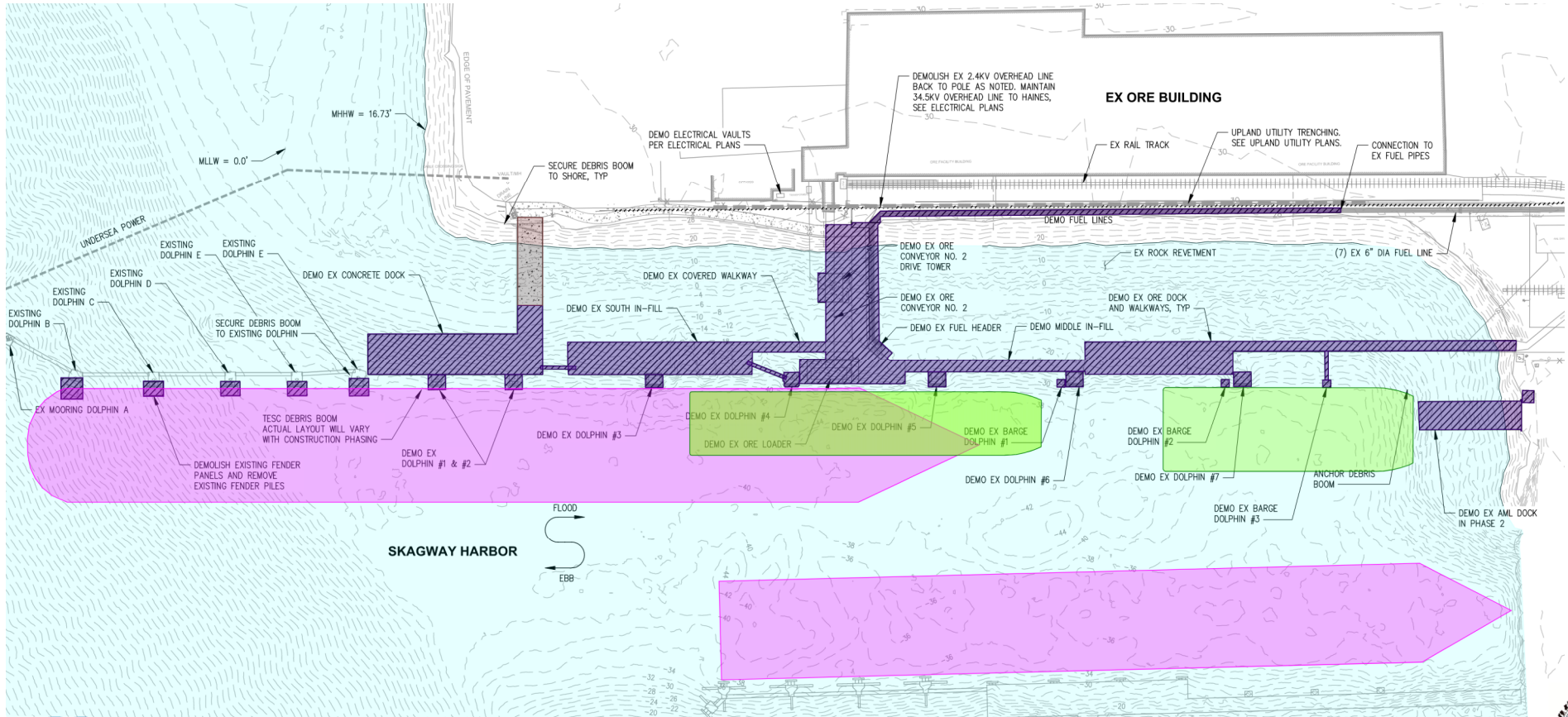
The distance of the Seawalk is quite long for many cruise passengers. Creating rest nodes is very important for visitor experience. Where possible, providing small coverings is an appreciated amenity.



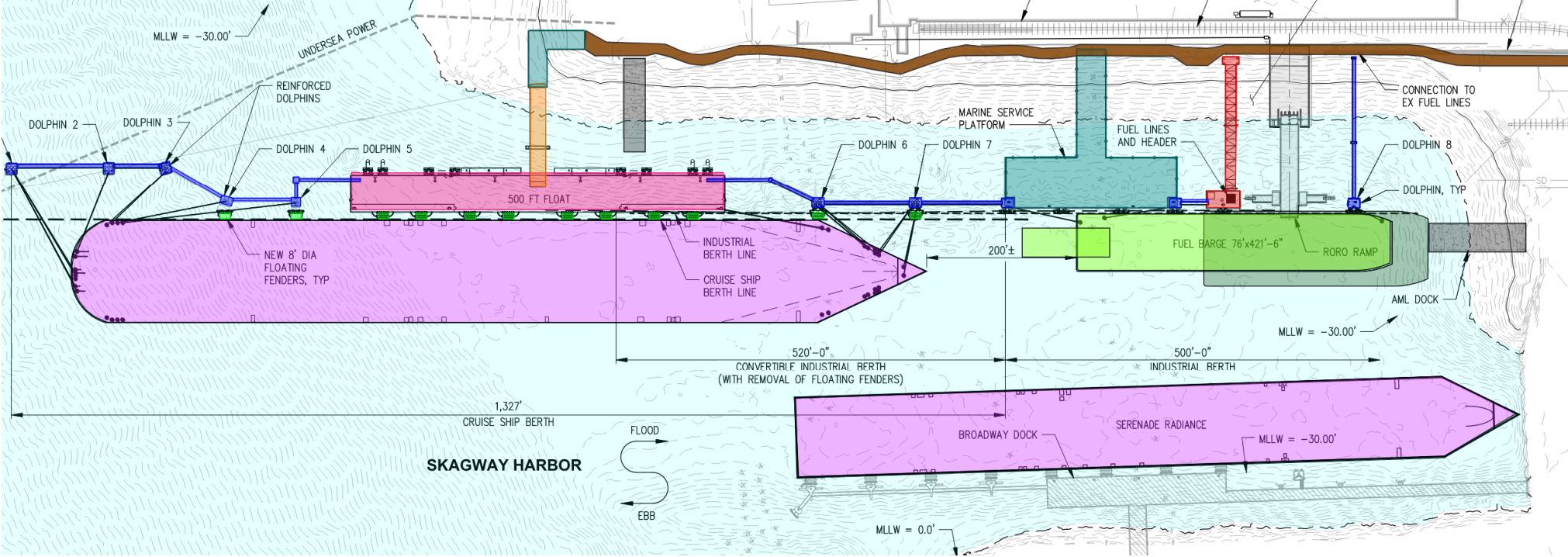
Overview of 60% Design – Utilities and Upland



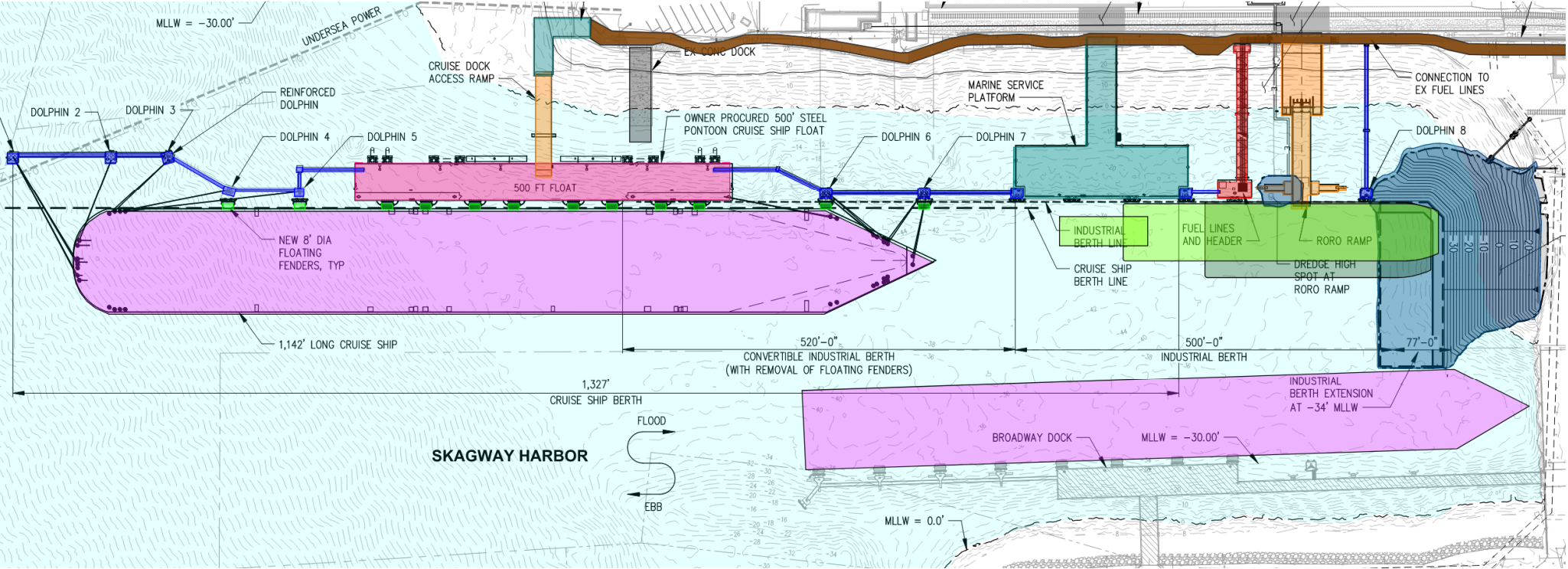
Operational Layouts - Current Operations



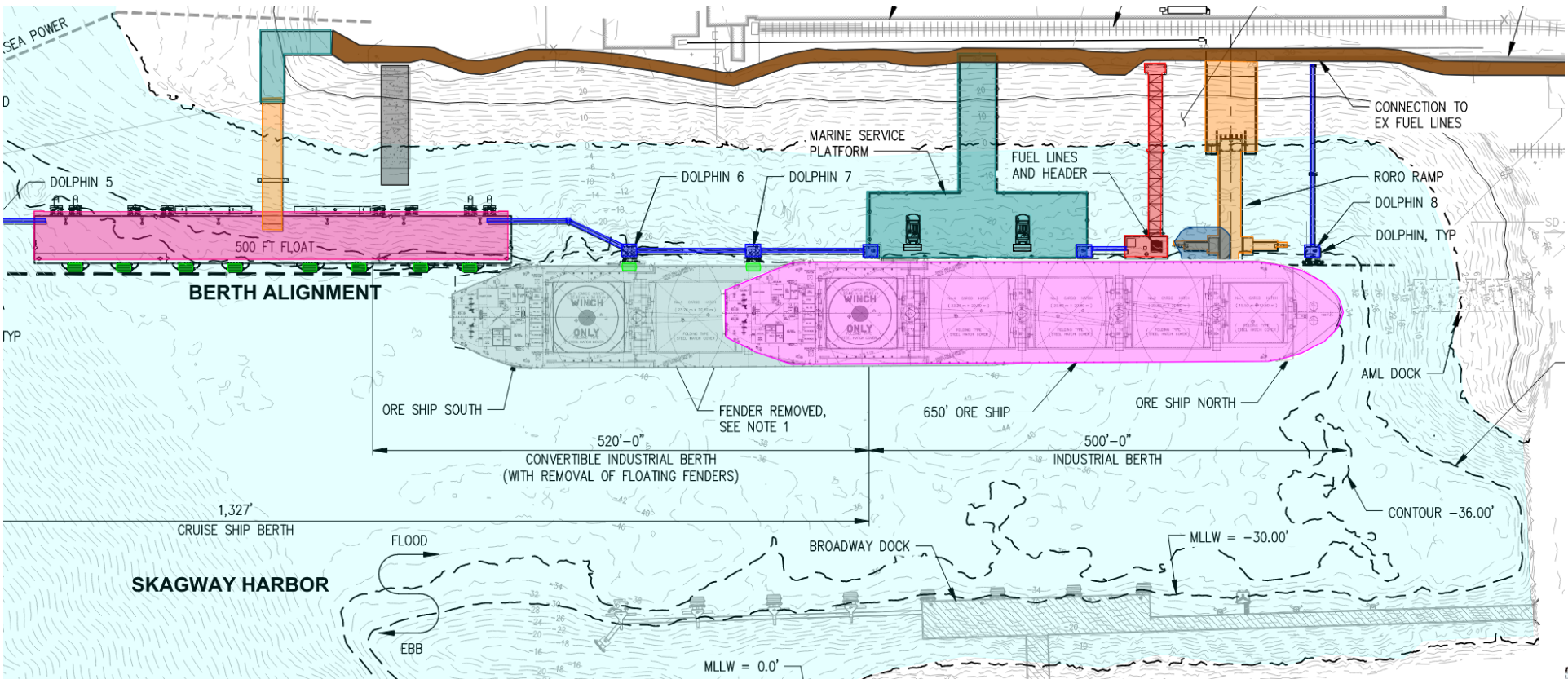
Operational Layouts - Cruise & Industrial Phase 1



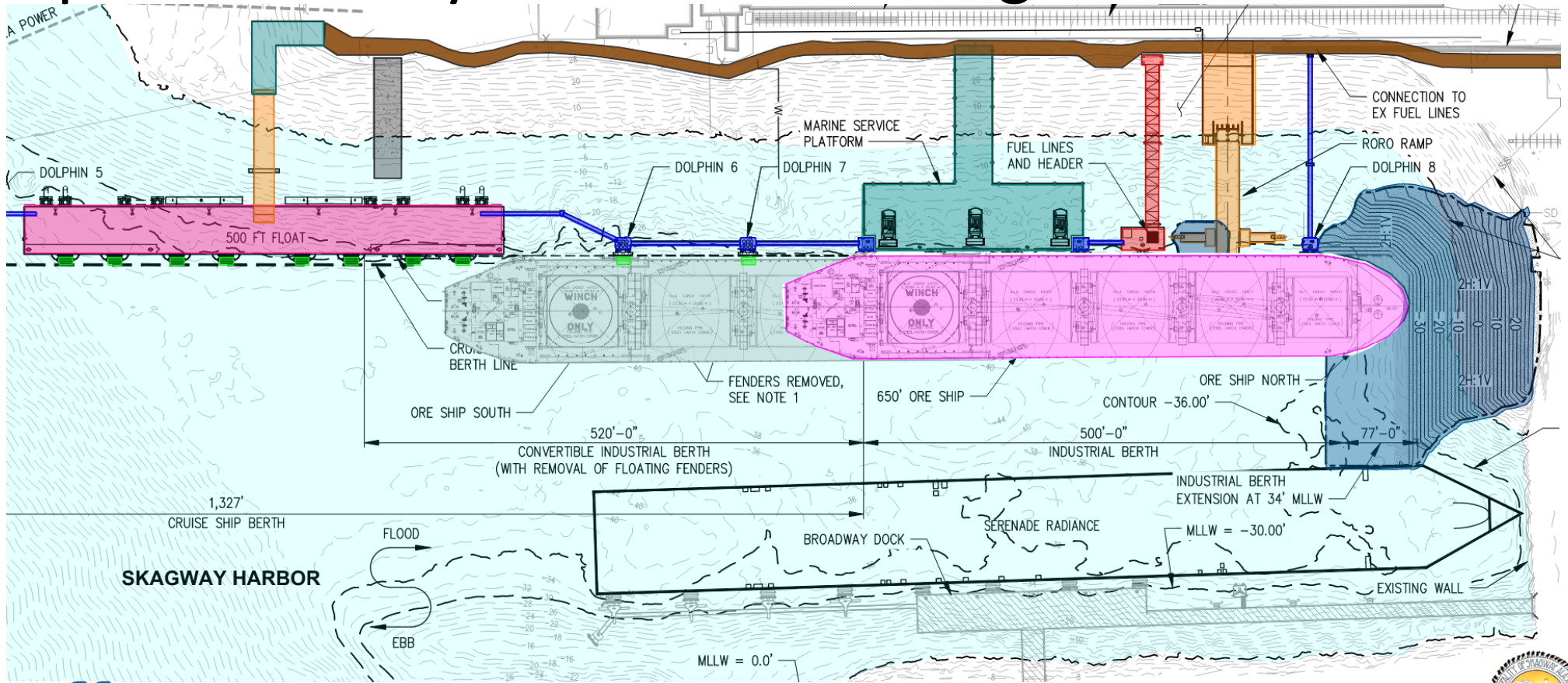
Operational Layouts - Cruise & Industrial Phase 2



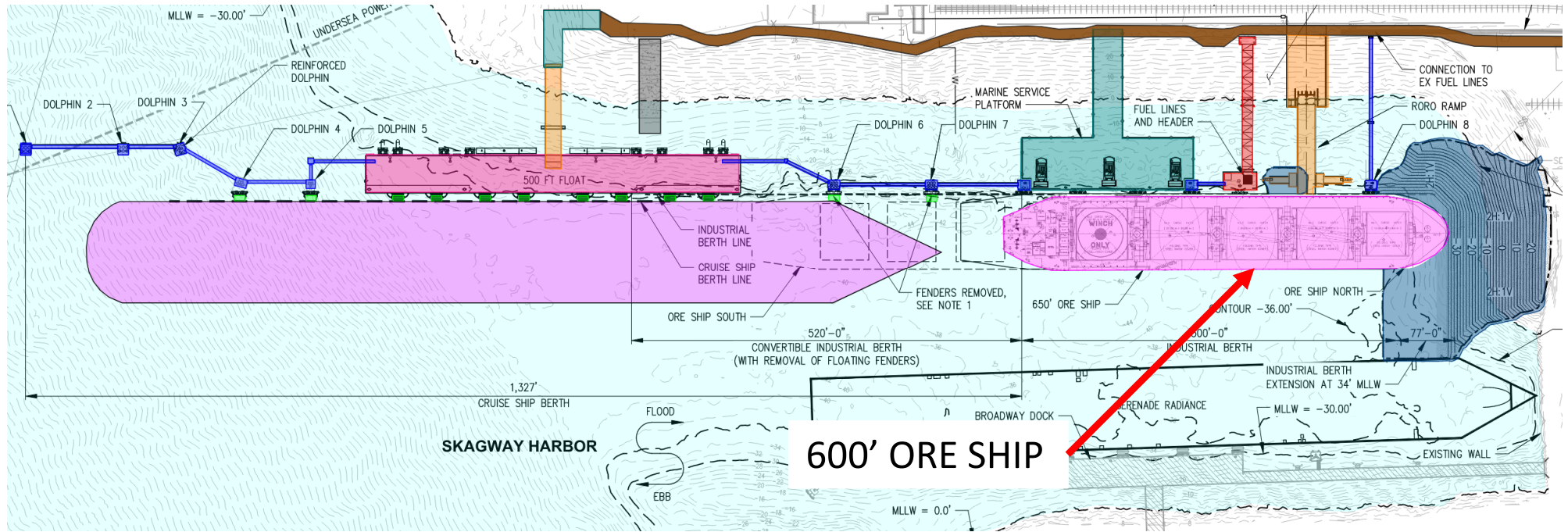
Operational Layouts - Ore Loading at Phase 1



Operational Layouts - Ore Loading at Phase 2

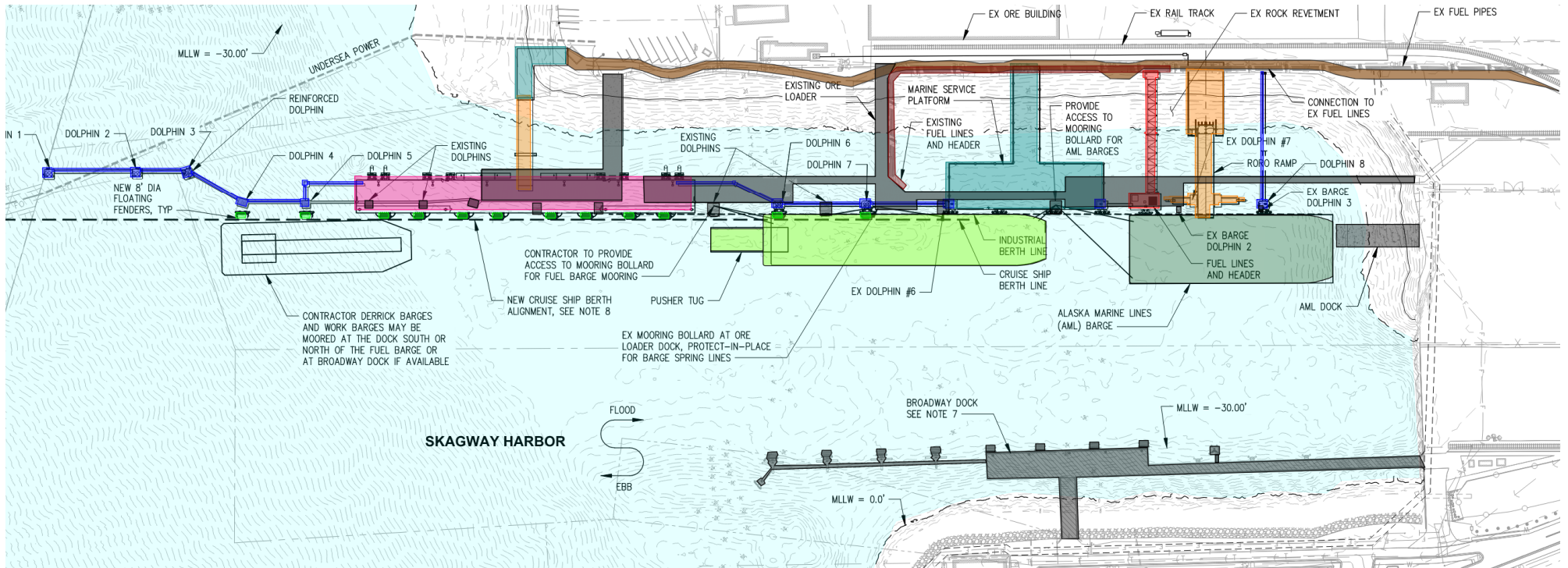


Operat'l Layouts - Ore Loading at & Cruise Phase 2



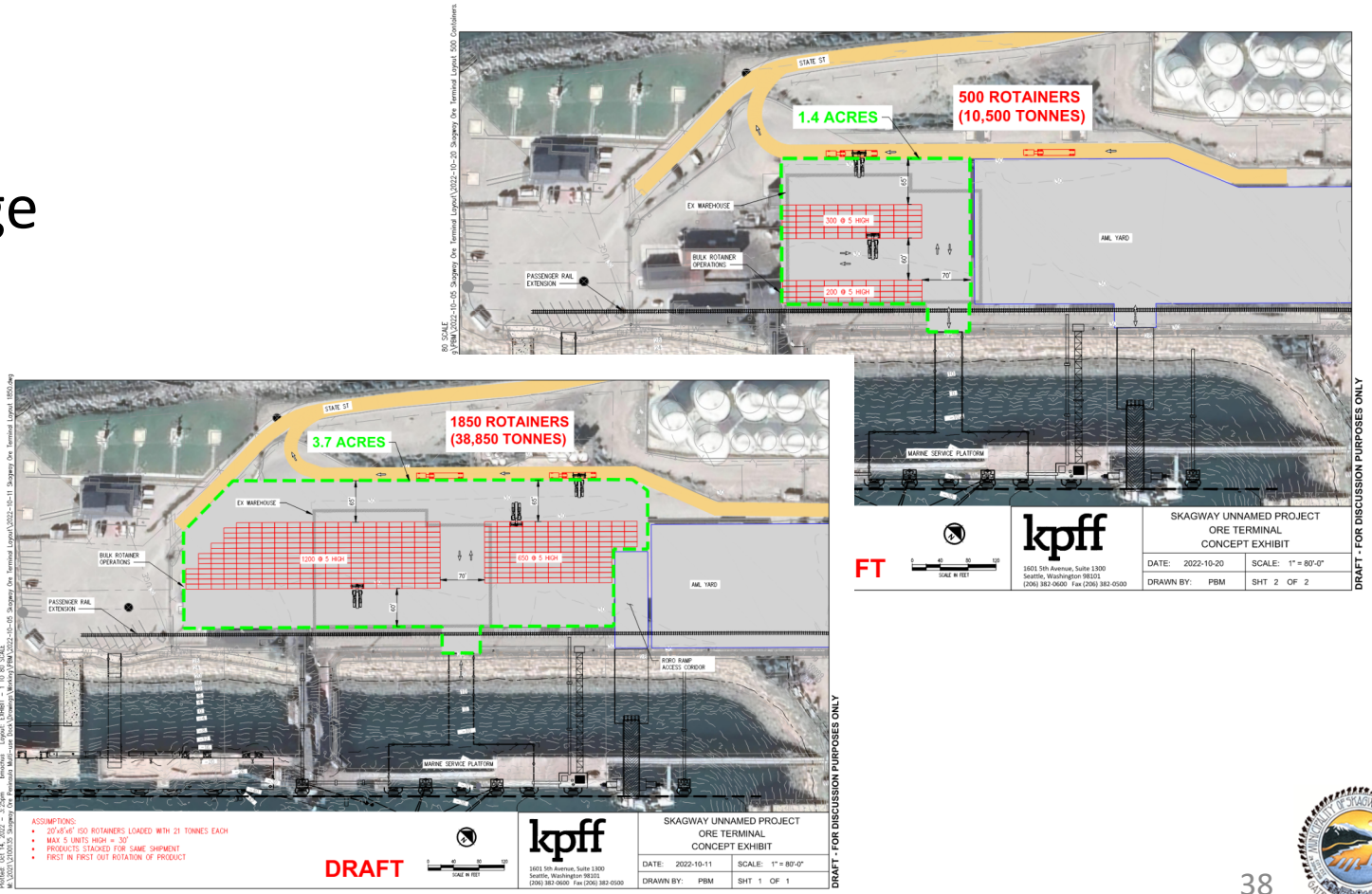
600' ORE SHIP

Operational Layouts - During Construction



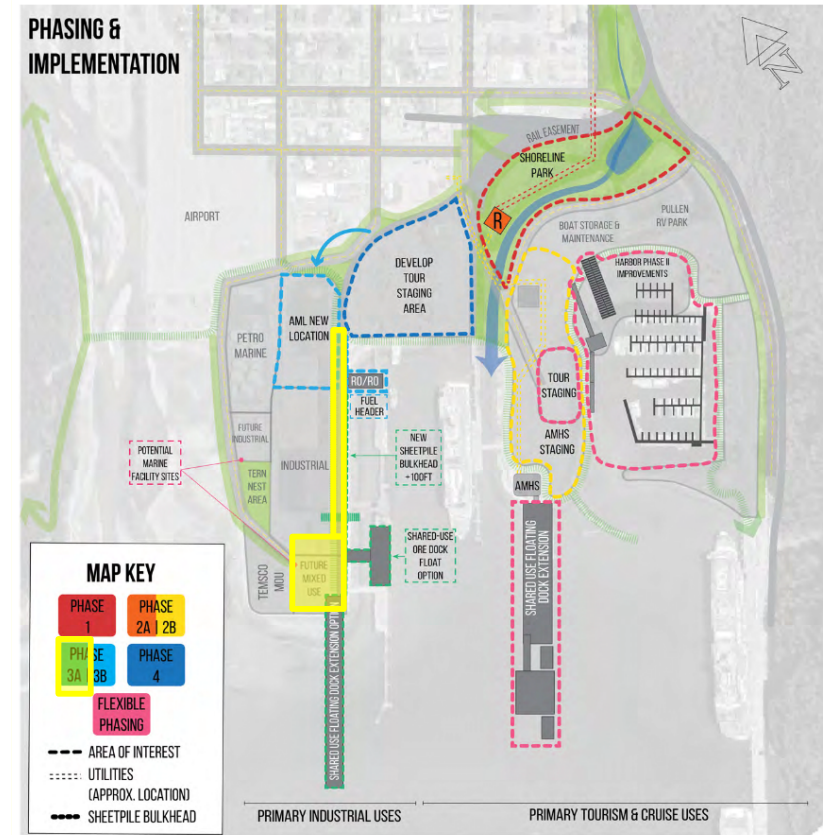
Operational Layouts - Ore Loading

- Conceptual upland storage of Rotainers



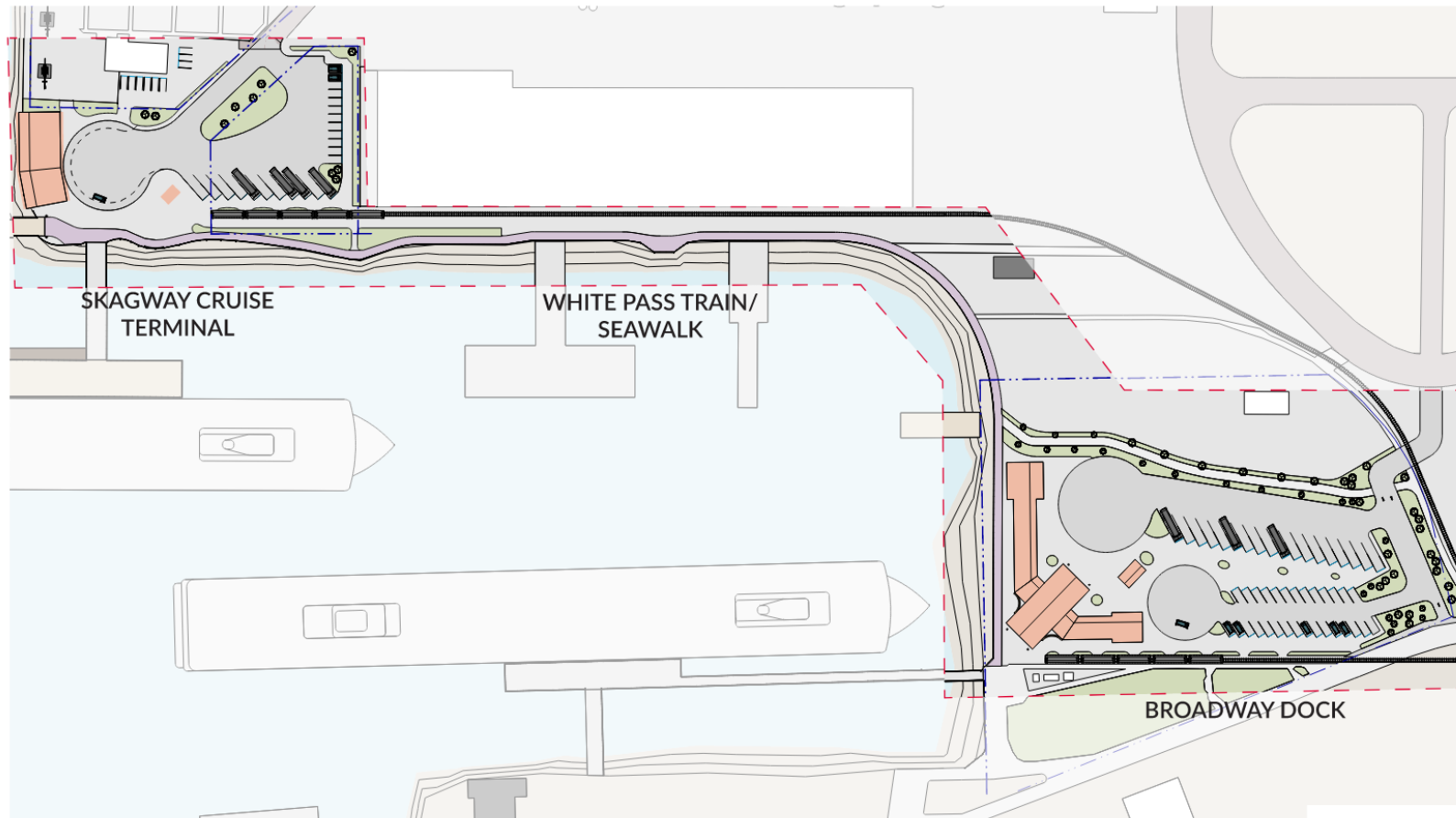
Upland – Advancement of Master Plan Phase 3A

- Concept Design of Ore Dock uplands
 - Design and build for the future
 - Understand where to route utilities for future buildout
 - Reduce future costs

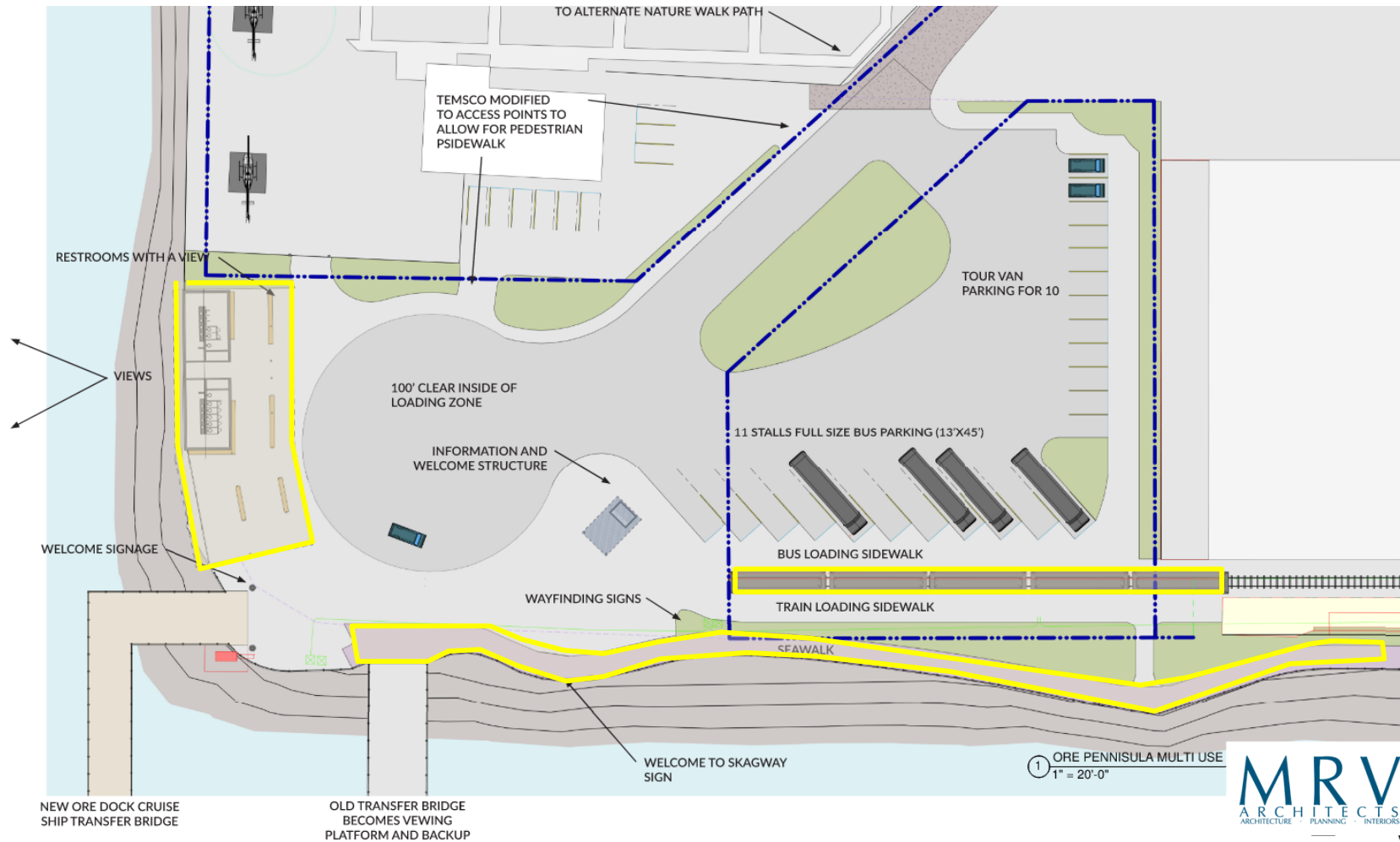


Above: The Phasing and Implementation Map for the Skagway Port Master Plan.

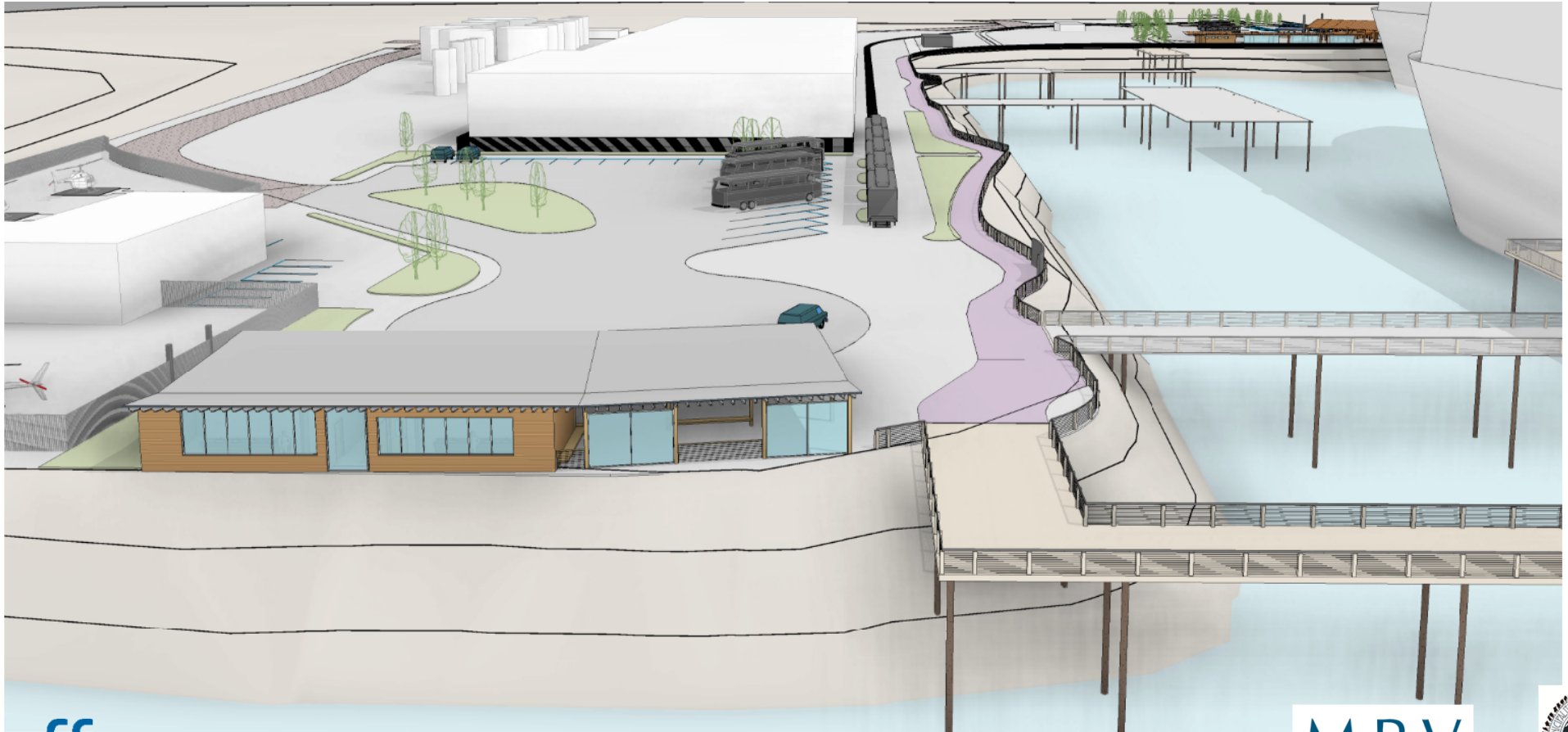
Upland – Advancement of Master Plan Phase 3A



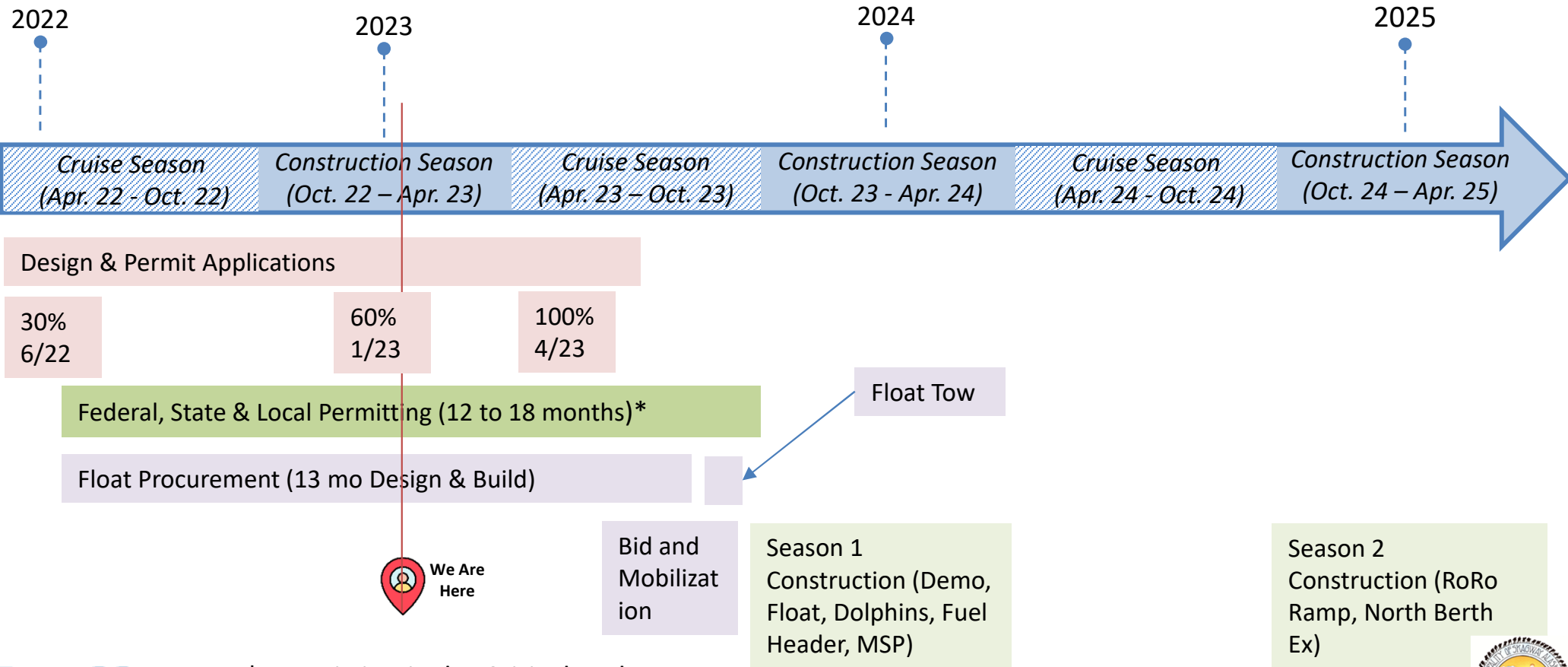
Upland – Advancement of Master Plan Phase 3A



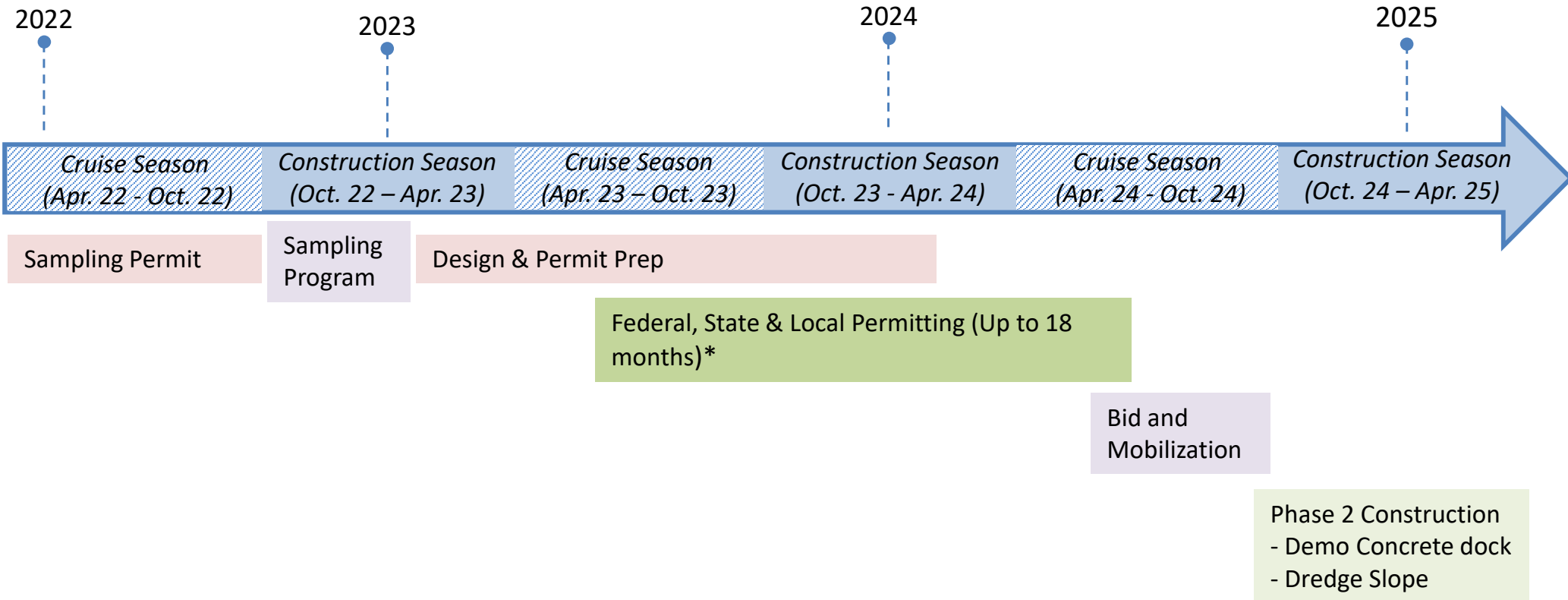
Upland – Advancement of Master Plan Phase 3A



Project Schedule – Phase 1



Project Schedule – Phase 2 North Berth Ext. & RORO



*If Permitting Extends Construction Occurs in 25/26

Permitting – 12 to 18 Months

Permitting Summary and Timing		
Agency	Permit or Approval	Approximate Timeline for Permit Issuance
USACE	Section 10 Permit	12-18 months after USACE determines application is complete
	Section 404 Permit	Concurrent with USACE Section 10 permit review
	NEPA Review	Concurrent with USACE permit review
	Section 408 Review	Concurrent with USACE permit review
NMFS and USFWS	ESA/EFH Consultation	Concurrent with USACE permit review
NMFS	MMPA Incidental Take Letter of Authorization	Concurrent with USACE permit review
USFWS	Bald and Golden Eagle Protection Act Compliance	Concurrent with USACE permit review
USCG	PATON Permit	3 months following issuance of USACE permit
ADEC	Section 401 WQC	Concurrent with USACE Section 404 permit review; length of review depends on whether ADEC requires sediment sampling for proposed dredging and disposal actions
MOS	Building Permit	90 days following determination of complete application
	Skagway Coastal Management Program Review	Concurrent with building permit review
AK Office of History & Archaeology	NHPA Review	Concurrent with USACE permit review

60% Cost Estimate – Project Updates

- Shifted Float 200' south
 - Added 2 deep water dolphins
 - Added to the size of the Float Access Trestle
 - Increased Mobilization cost to 10%
- Added upland Design
 - Seawalk added
- Reduced Fuel line costs
- Added Dolphins at the MSP
- Reduced Contingency from 30% to 20%

60% Cost Estimate

60% Design ROM Estimate of Construction Costs			
	Phase 1 & Roro	Phase 1	MSP Project
# Item	Phase 1 & RORO	Phase 1	Cost (2023\$)
Construction Subtotal	\$ 54,550,000	\$ 45,280,000	\$ 13,400,000
2.5% Soft Costs -Const. Support & MMM	\$ 1,360,000	\$ 1,130,000	\$ 335,000
3% Per year Escalation to Construction Mid-Point	\$ 2,730,000	\$ 2,260,000	\$ 670,000
20% Design Contingency	\$ 10,910,000	\$ 9,060,000	\$ 2,680,000
Total ROM Construction Cost Estimate	\$ 69,600,000	\$ 57,700,000	\$ 17,100,000
Design Costs			
Project Engineering Design	\$ 3,500,000	\$ 3,500,000	\$ 400,000
Dredge Sampling Budget			
Total ROM Construction & Design	\$ 73,100,000	\$ 61,200,000	\$ 17,500,000

Next Steps

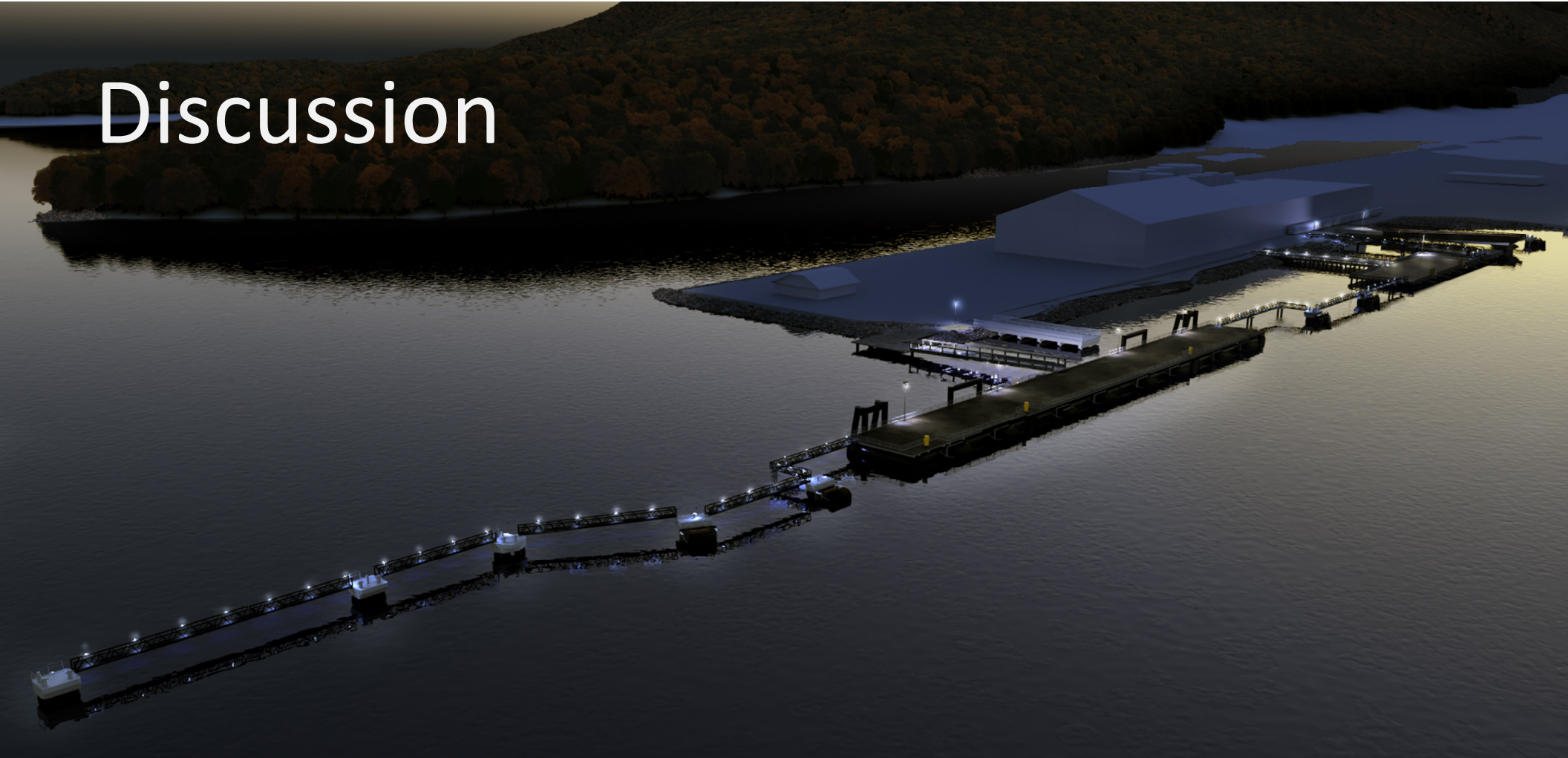
- Continue through 90% & 100% Design
- Advance Upland Design
- Continue meeting with Permitting Agencies



Acknowledgements

- Brad Ryan, Cody Jennings, Emily Deach
- MRV Architects
- RESPEC Civil & Electric
- Tetra Tech - Controls
- Haley & Aldrich
- Glostén Associates
- Blue Coast
- Norton Corrosion
- KPFF Team

Discussion



Discussion