Ore Peninsula Dock Redevelopment

30% Design Presentation

Presentation to Ports and Harbors | July 6th, 2022

Ed DeBroeck , KPFF

Cody Jennings, MOS Port Director

Agenda

- Ore Peninsula Redevelopment Process Overview
- Overview of the Alternatives Analysis Selections
- Overview of 30% Design
- Operational layouts
- Project Schedule
- Cost Estimate
- Next Steps

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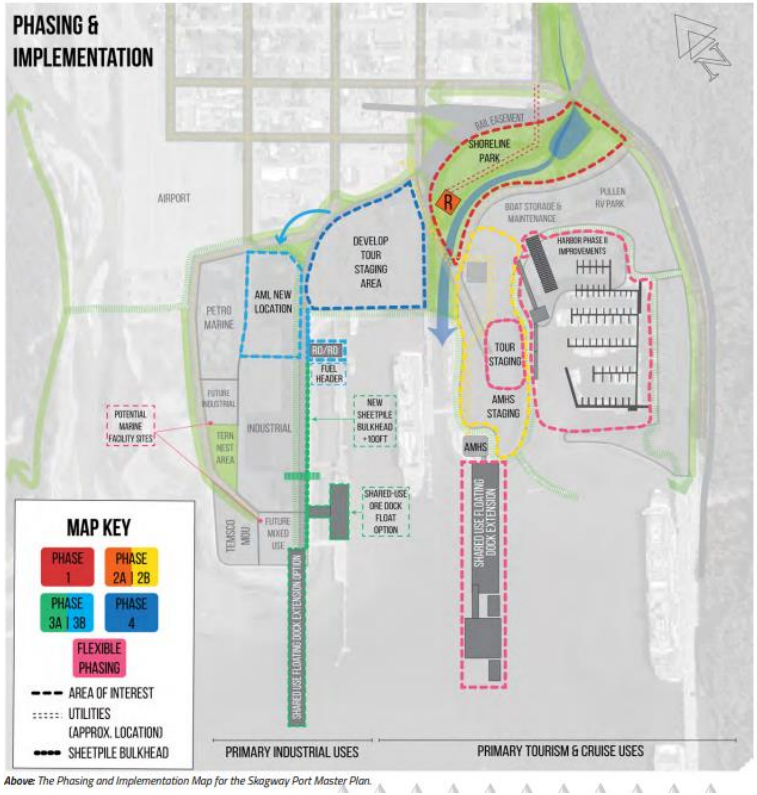
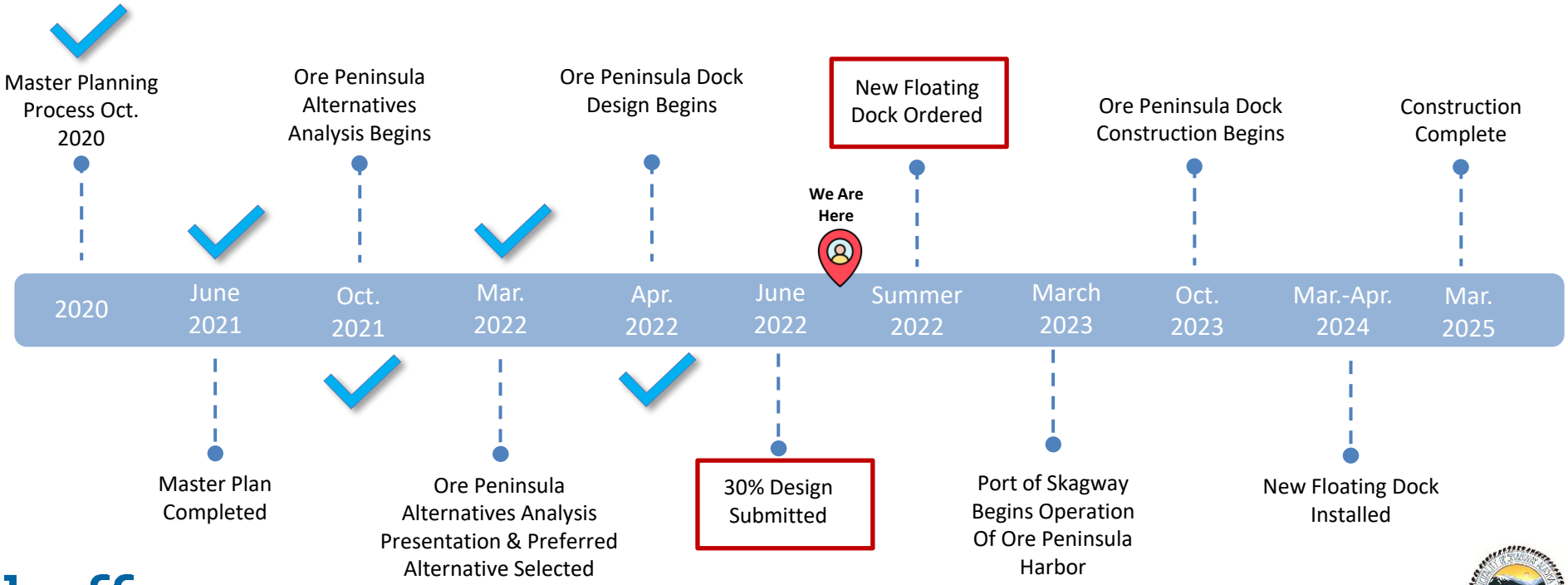
Port Development Process

- 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



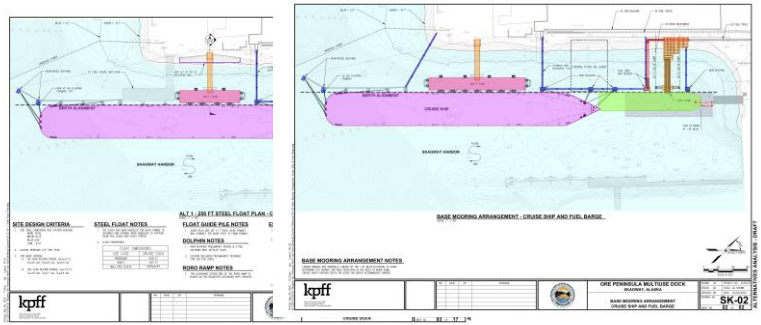
Above: The Phasing and Implementation Map for the Skagway Port Master Plan.

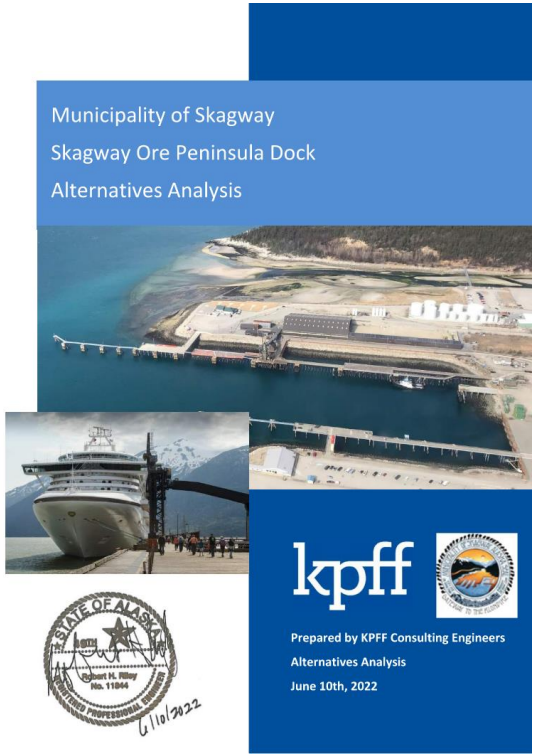
Port Development Process Timeline



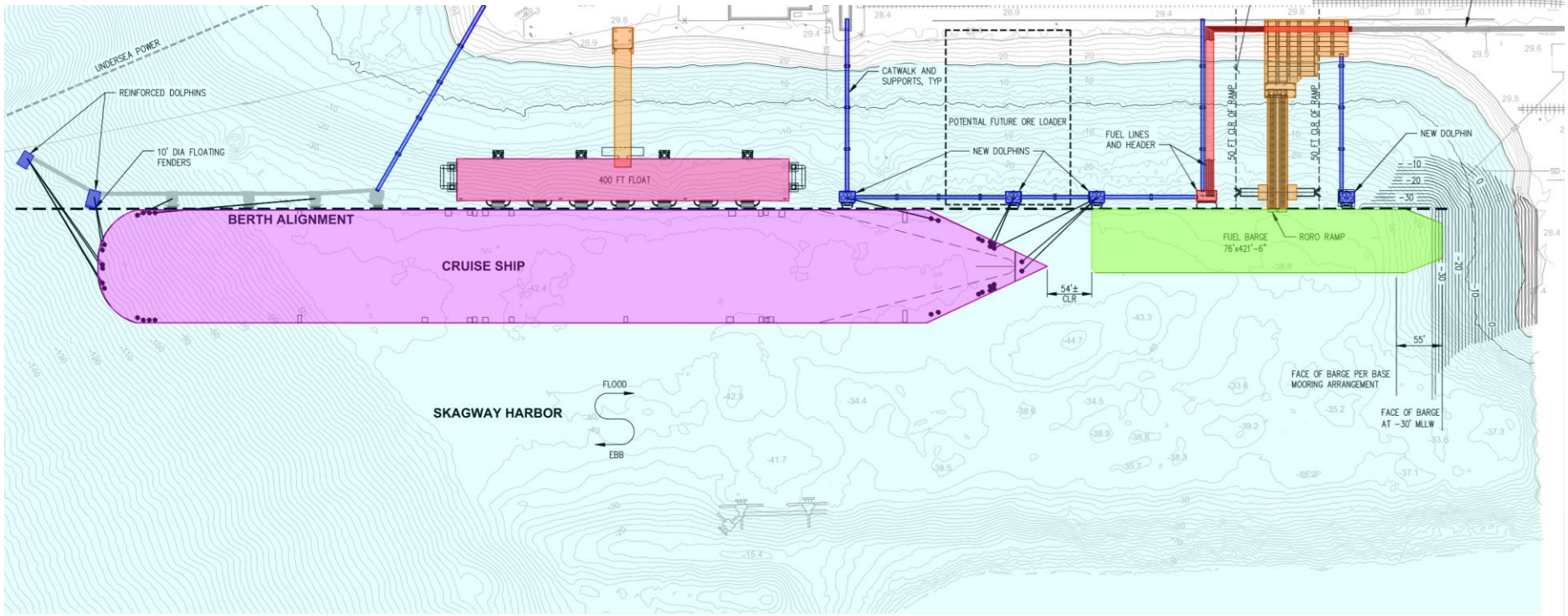
Overview of the Alternatives Analysis Selections

- **6 main Alternatives Explored with 5 sub options**
- **Alterative 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





Alternatives Analysis – Final Selection



BASE MOORING ARRANGEMENT - CRUISE SHIP AND FUEL BARGE
SCALE: 1" = 60'

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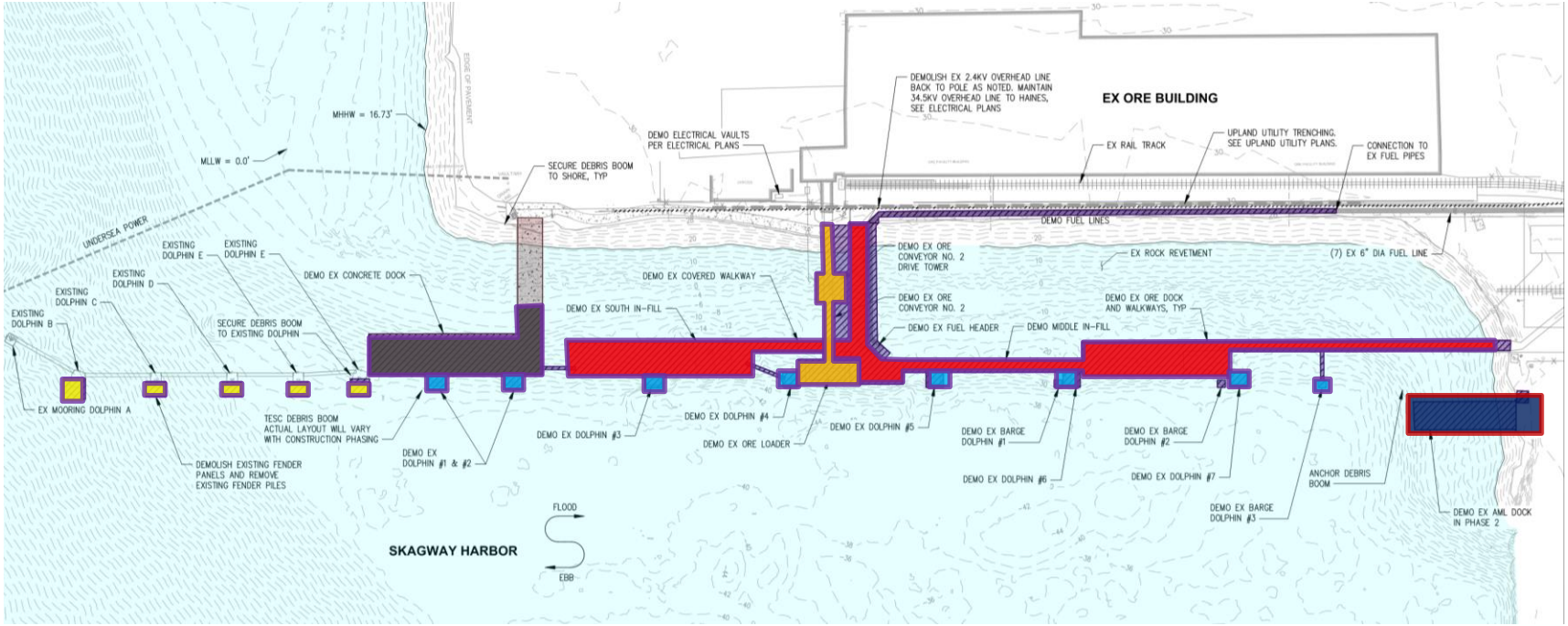
Overview of 30% Design – Site Demolition



Overview of 30% Design

- Changes since Alternatives Analysis
  - Added Marine Services Platform for Ore Loading
    - Sponsored by Yukon Government
  - Lengthened float from 400’ to 500’
  - Keeping a portion of the Existing Concrete Dock
  - Refurbish Fendering on Existing Dolphins to remain
  - Updated Basis of Design

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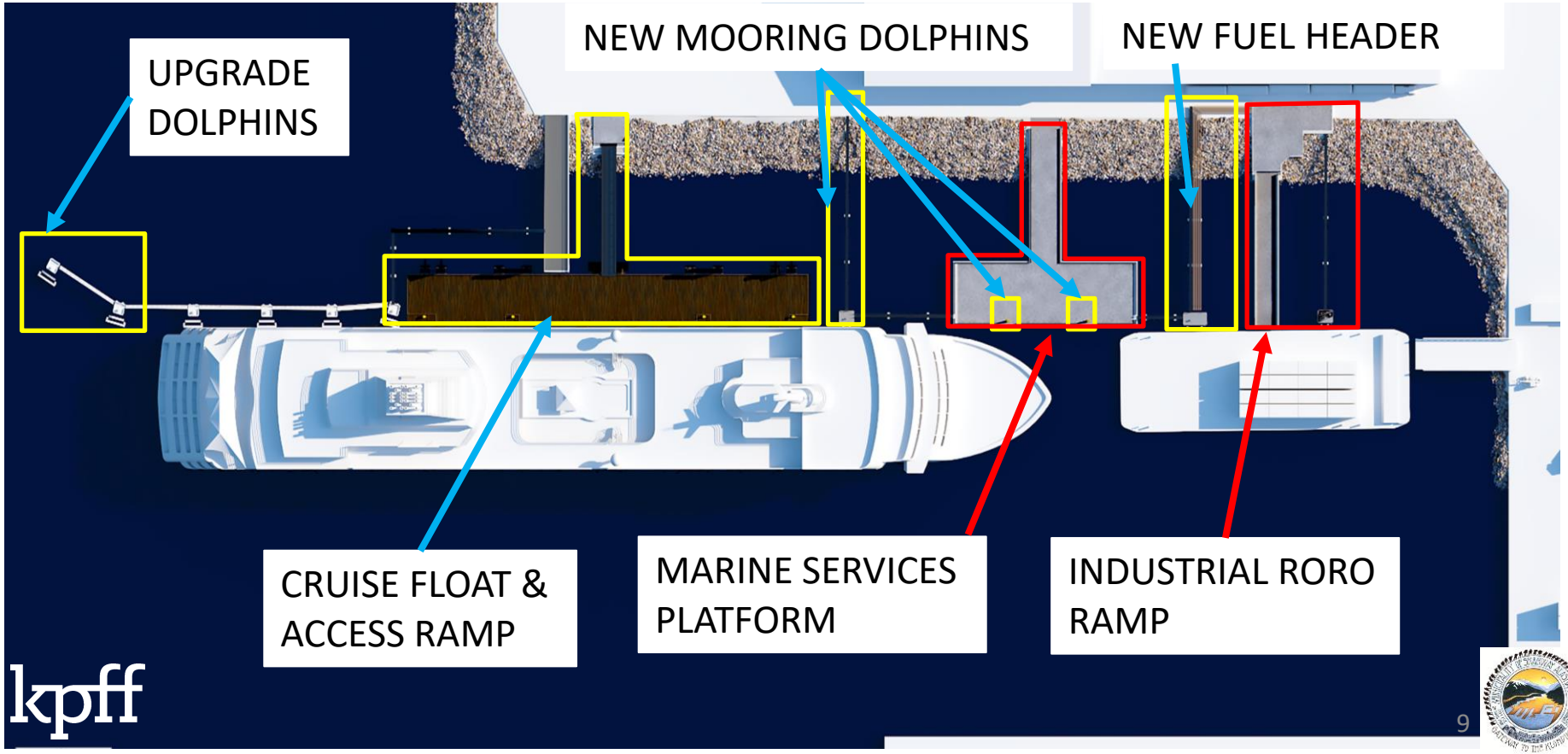
Overview of 30% Design – Phase 1 (Alt 3)



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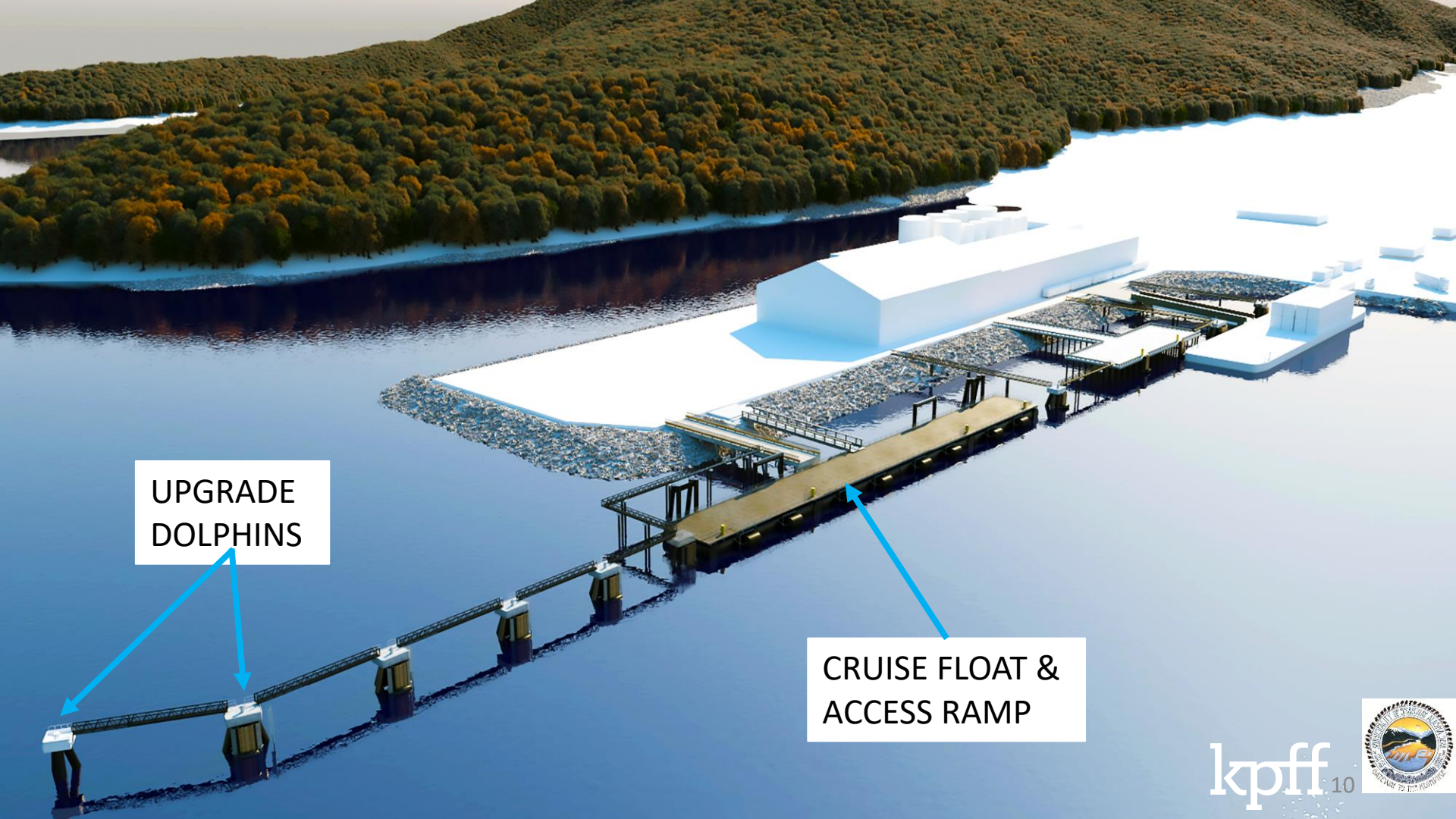
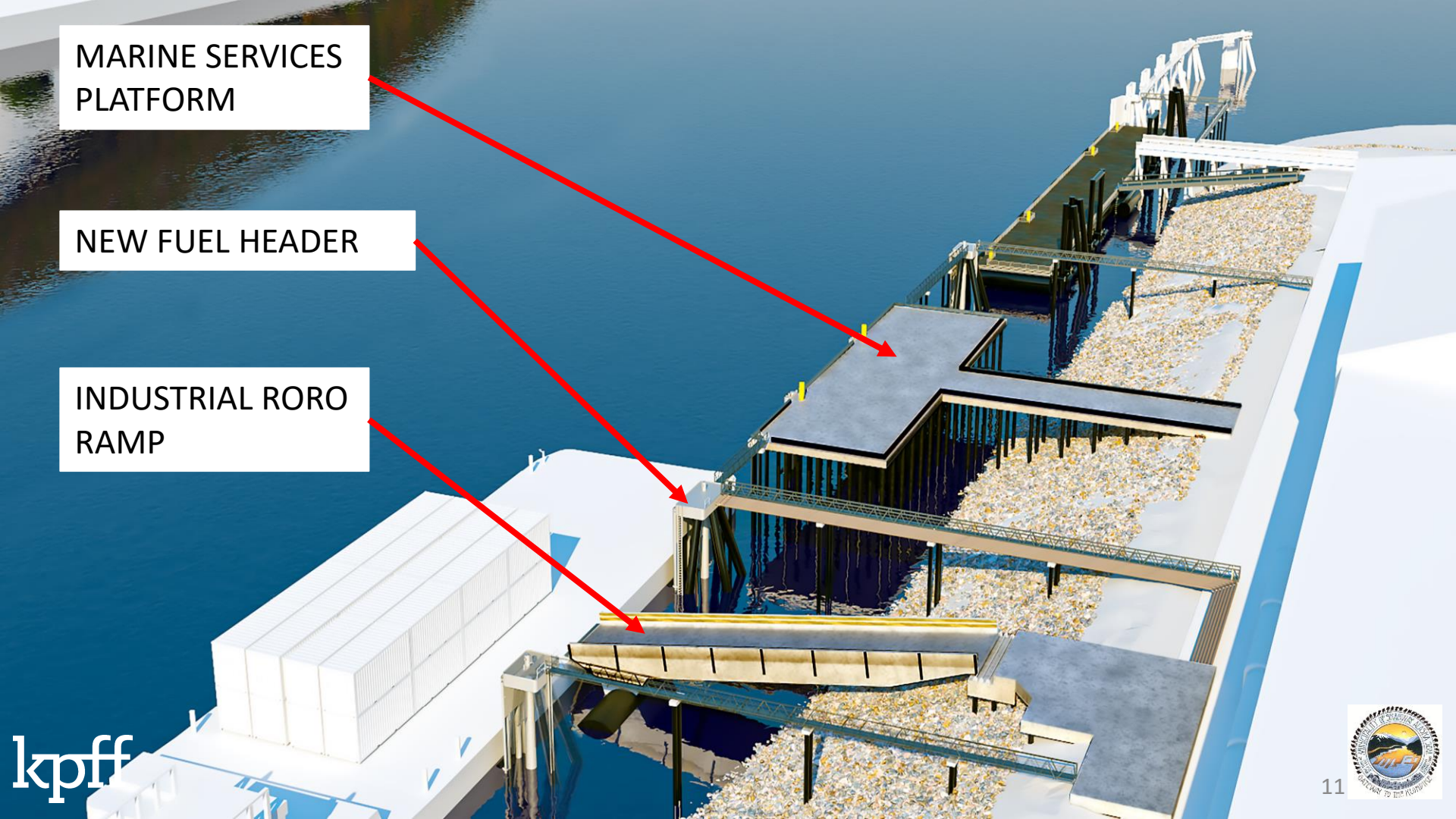

UPGRADE
DOLPHINS
CRUISE FLOAT &
ACCESS RAMP


MARINE SERVICES PLATFORM
NEW FUEL HEADER
INDUSTRIAL RORO RAMP

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Overview of 30% Design – Cruise Float

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

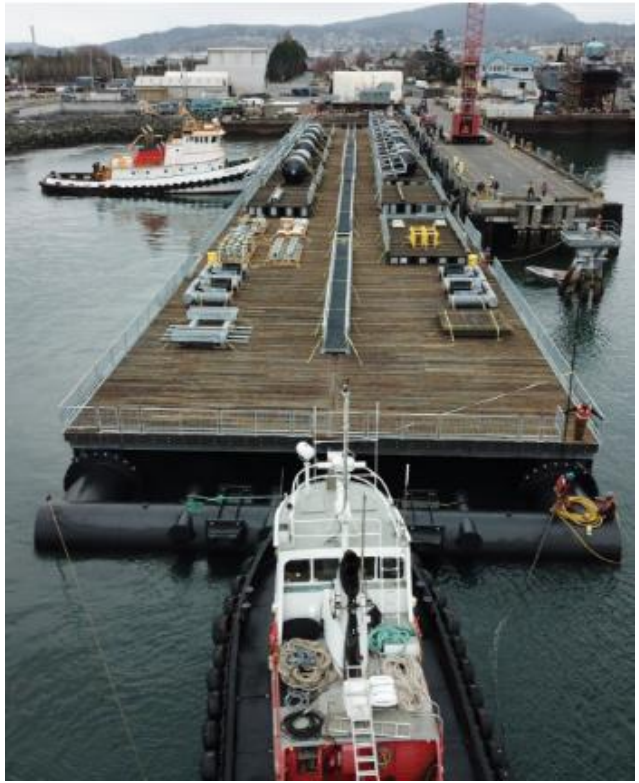


Photo: Transpac Marinas

Overview of 30% Design – Cruise Float

- Pre-Procured
  - Bids Closed June 28th
- Others installed
  - Ketchikan
  - Hoonah
  - Sika

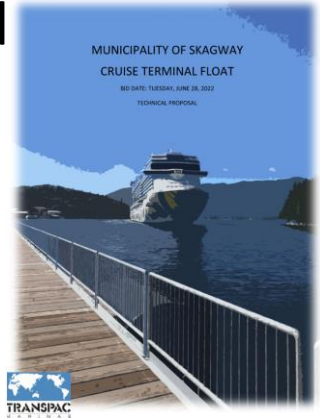
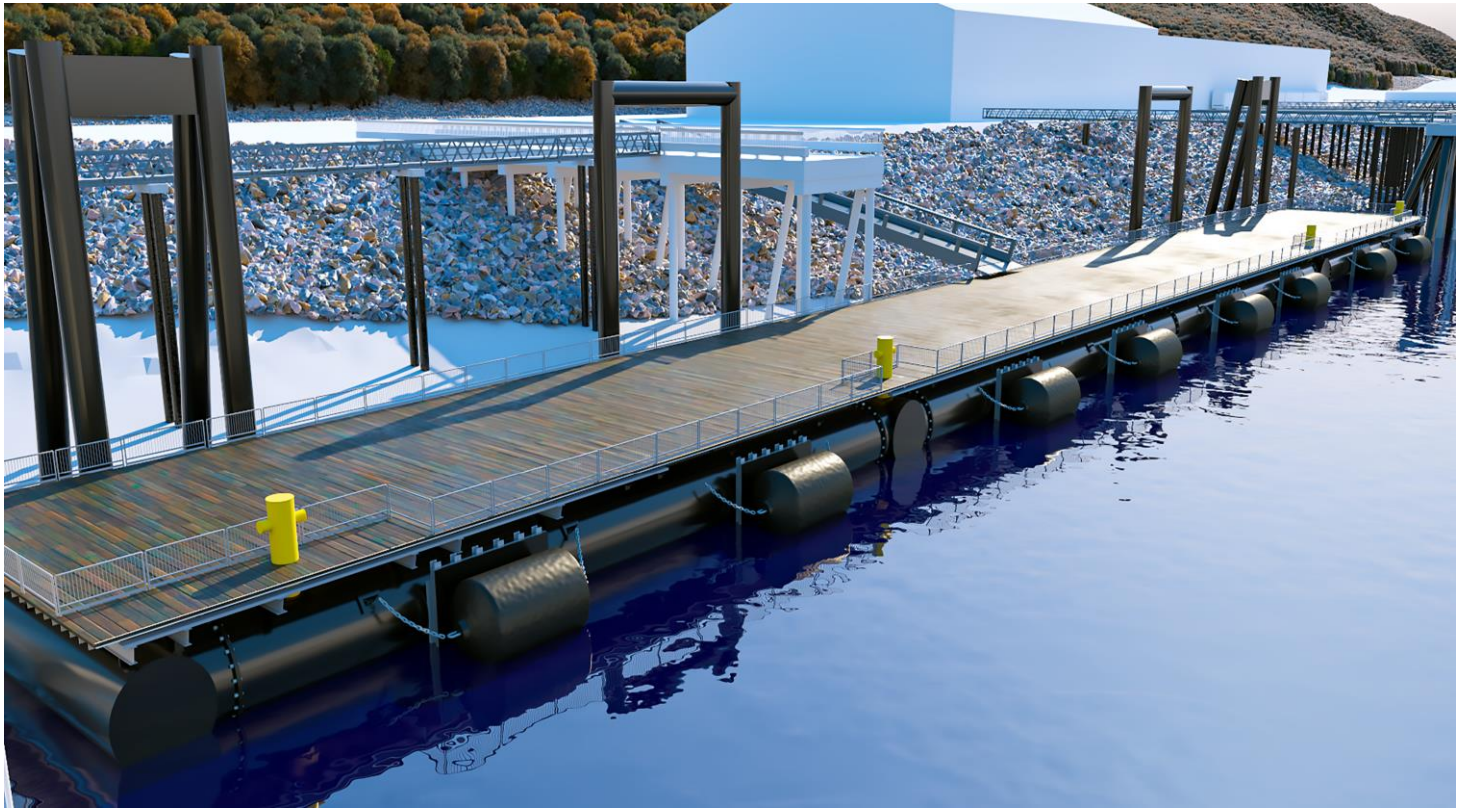


Photo: Transpac Marinas

Overview of 30% Design – Cruise Float

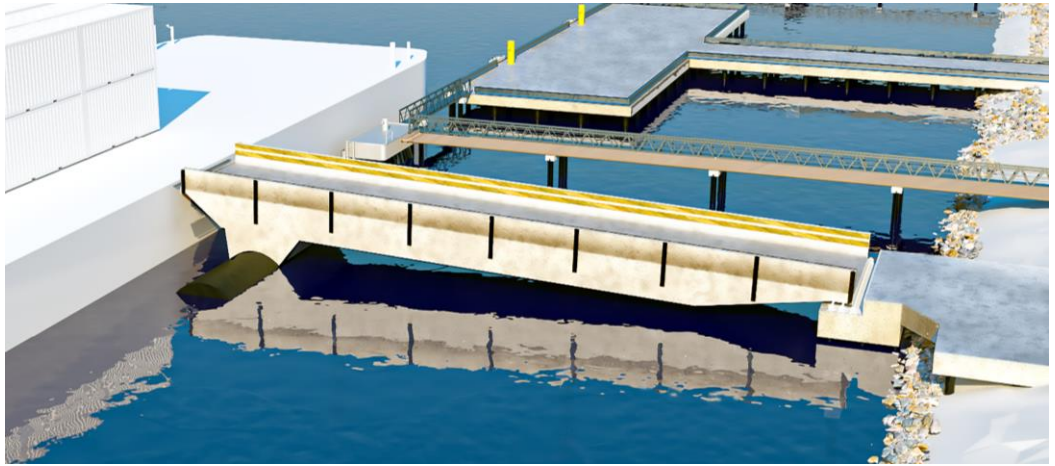


Overview of 30% Design – Marine Services Platform

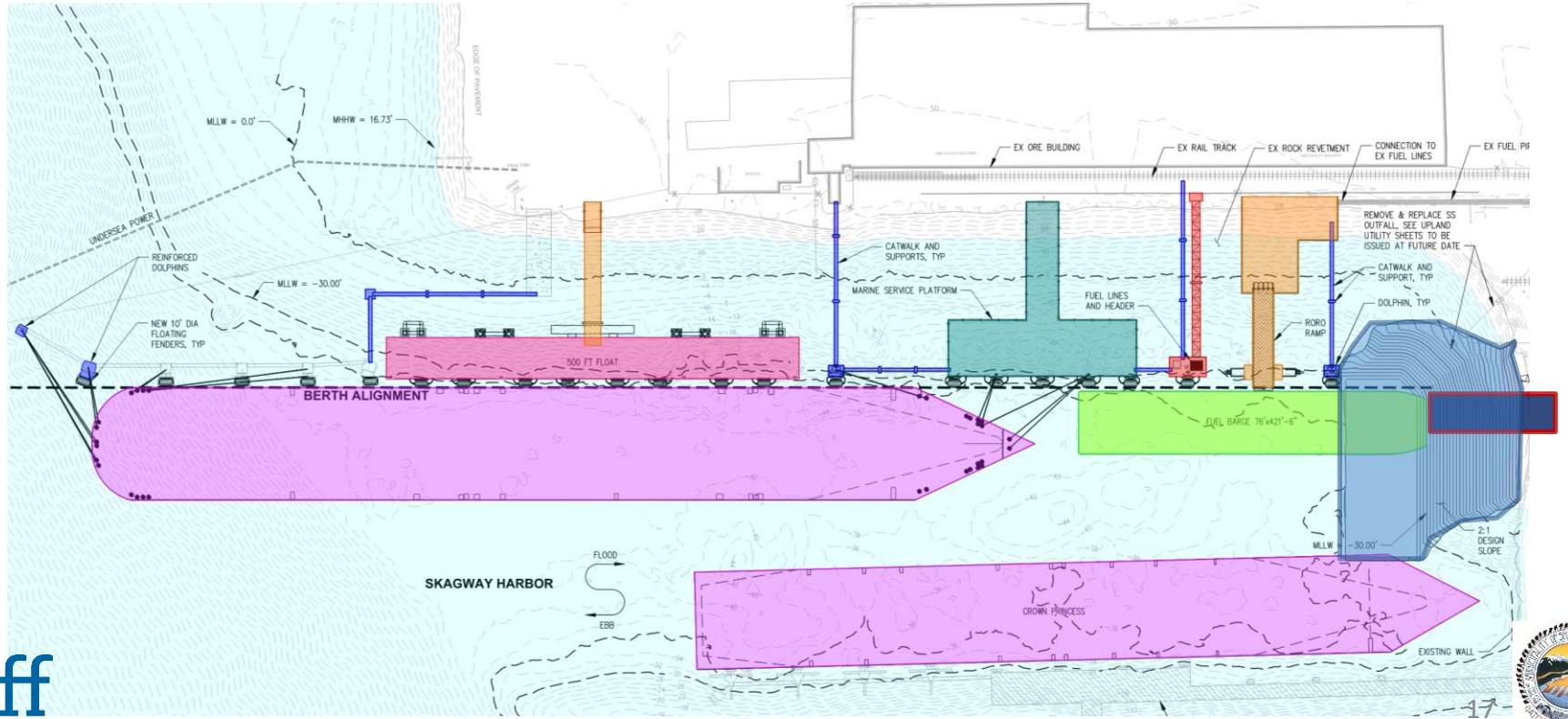
- Concrete Dock for industrial use
- Designed with specifications from Yukon Government for Ore Export
- Can service barges

Overview of 30% Design – RORO Ramp

- Designed for Rolling Cargo
  - Large forklifts
  - Cranes
  - Heavy Machinery
- Push Button Controls
- MOS is Pursuing a PIDP Grant



Overview of 30% Design – Ph 2 North Extension – (Alt B2)



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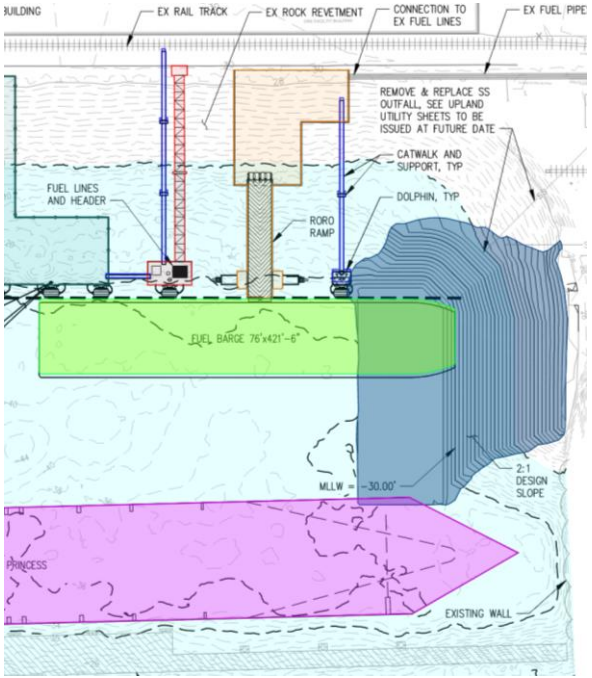
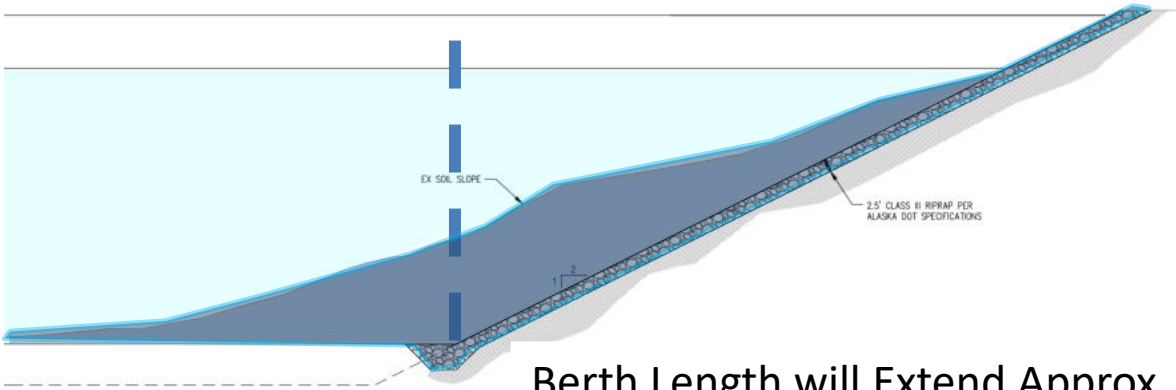
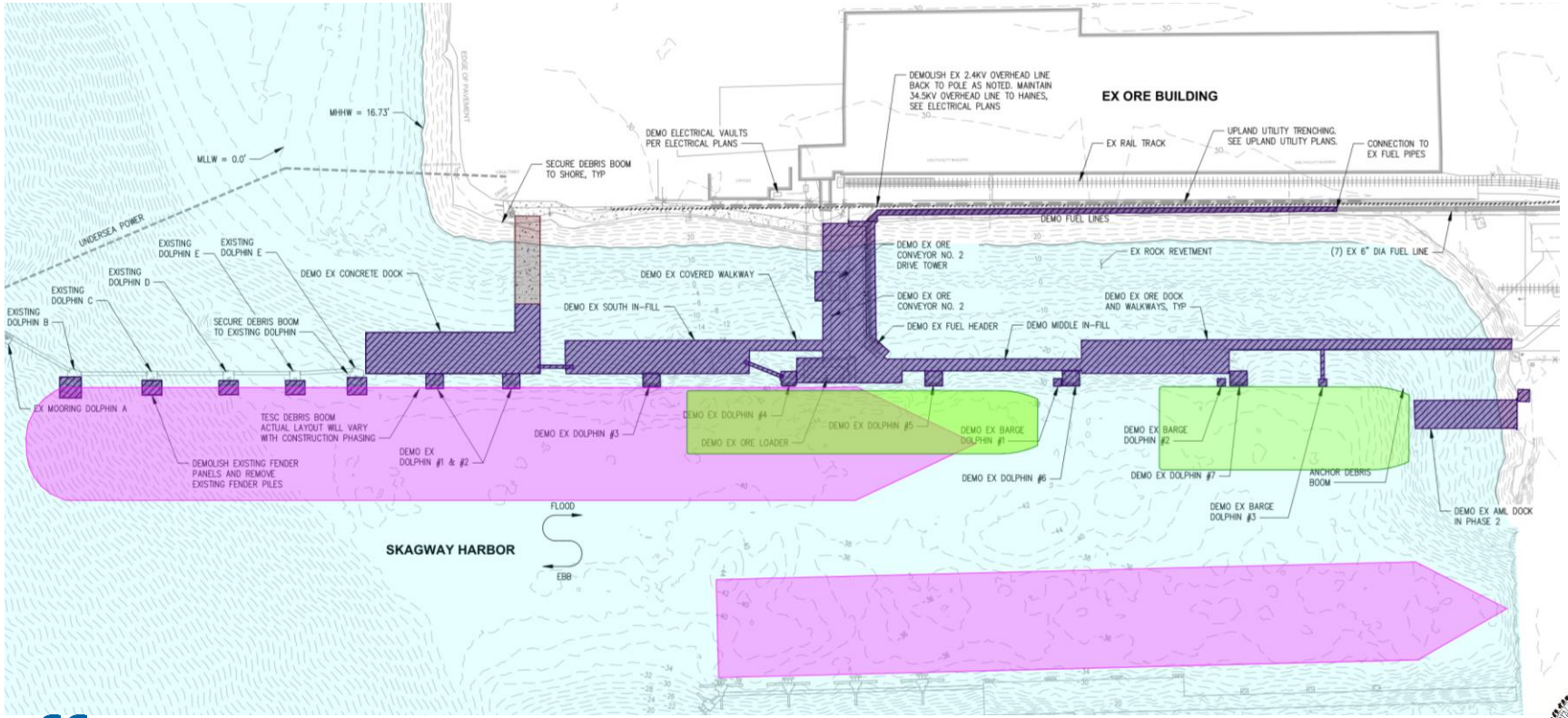
Overview of 30% Design – Ph 2 North Extension



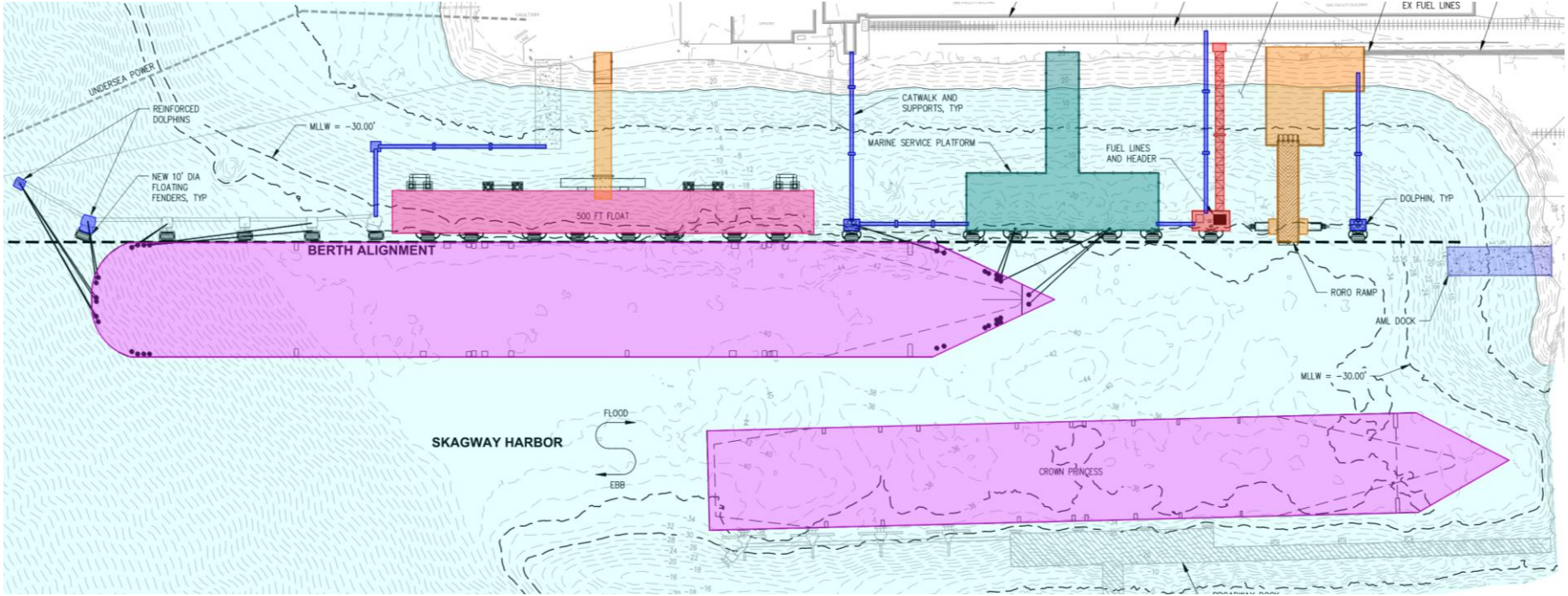


Berth Length will Extend Approx.
80’ @ -37’ MLLW
55’ @ -30’ MLLW

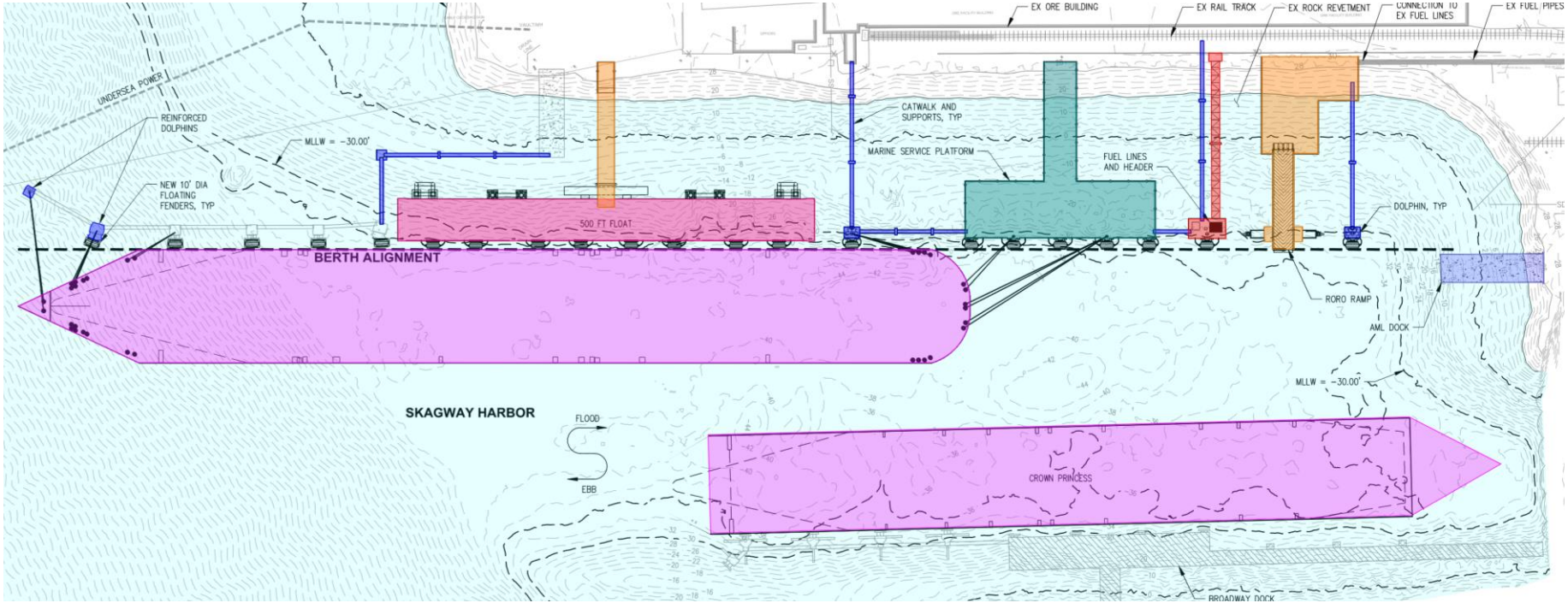
Operational Layouts - Current Operations



Operational Layouts - Cruise Operations



Operational Layouts - Cruise Operations



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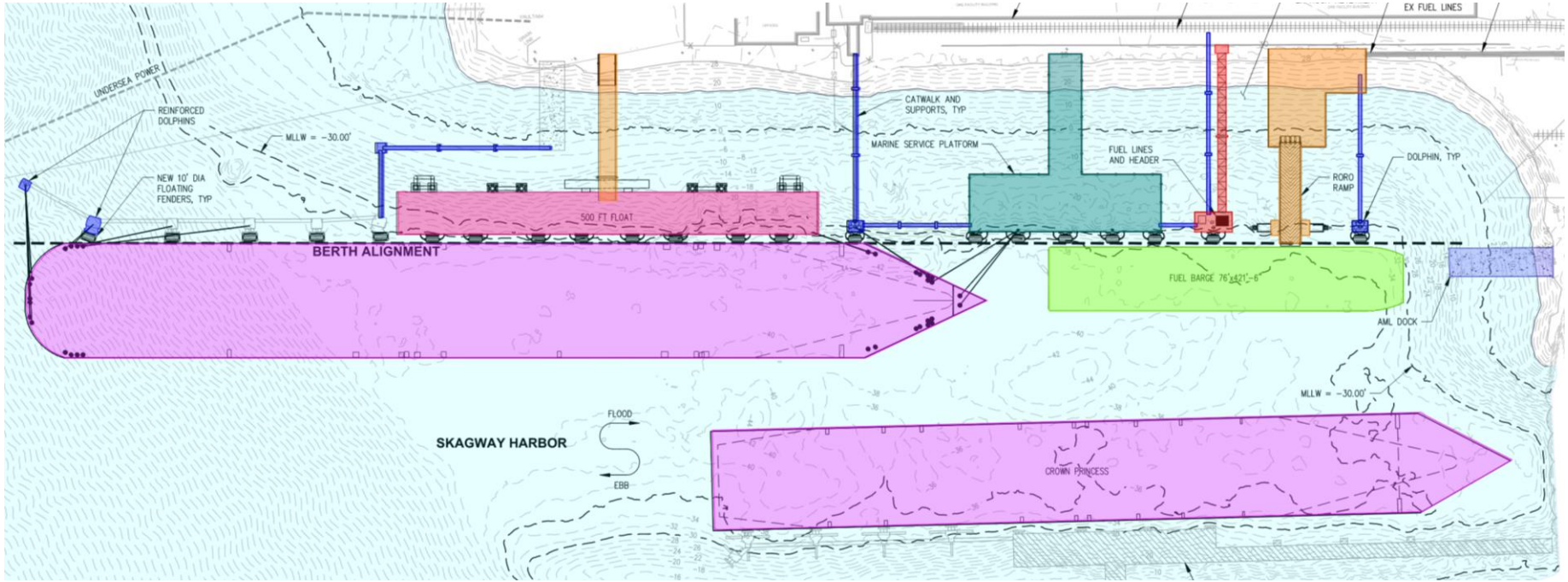
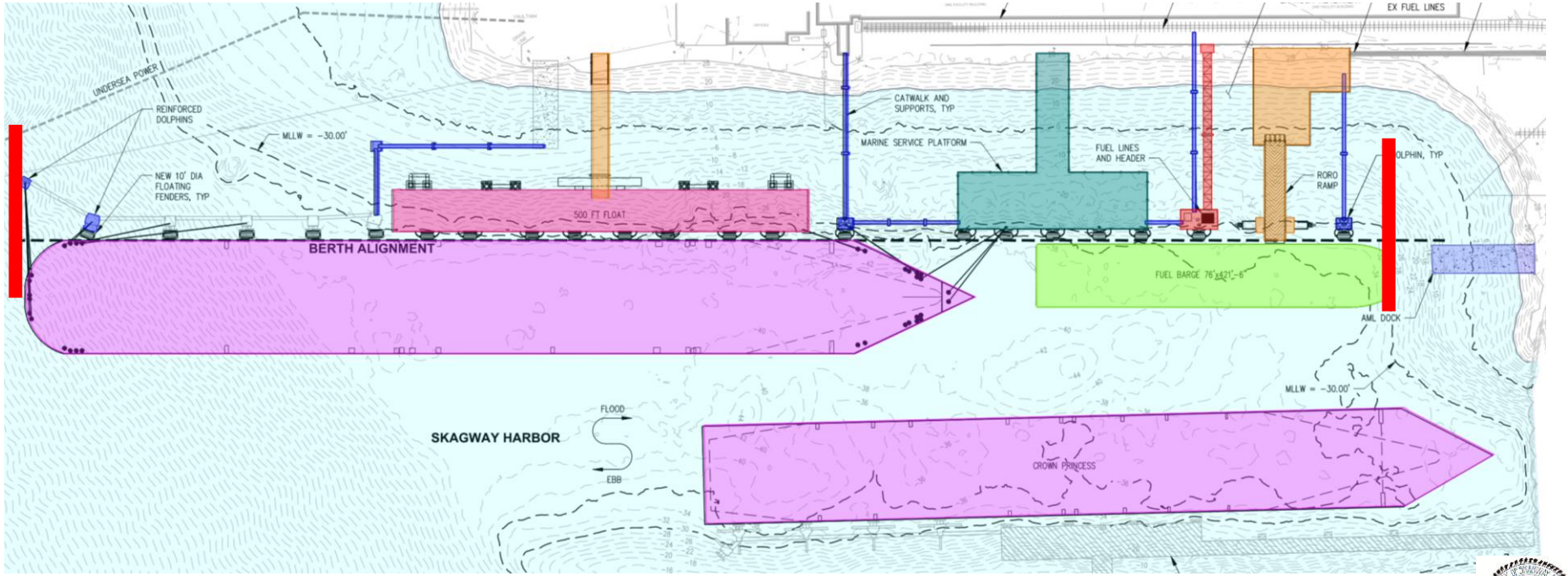
Operational Layouts - Cruise & Fueling Operations



Operational Layouts - Cruise & Fueling Operations



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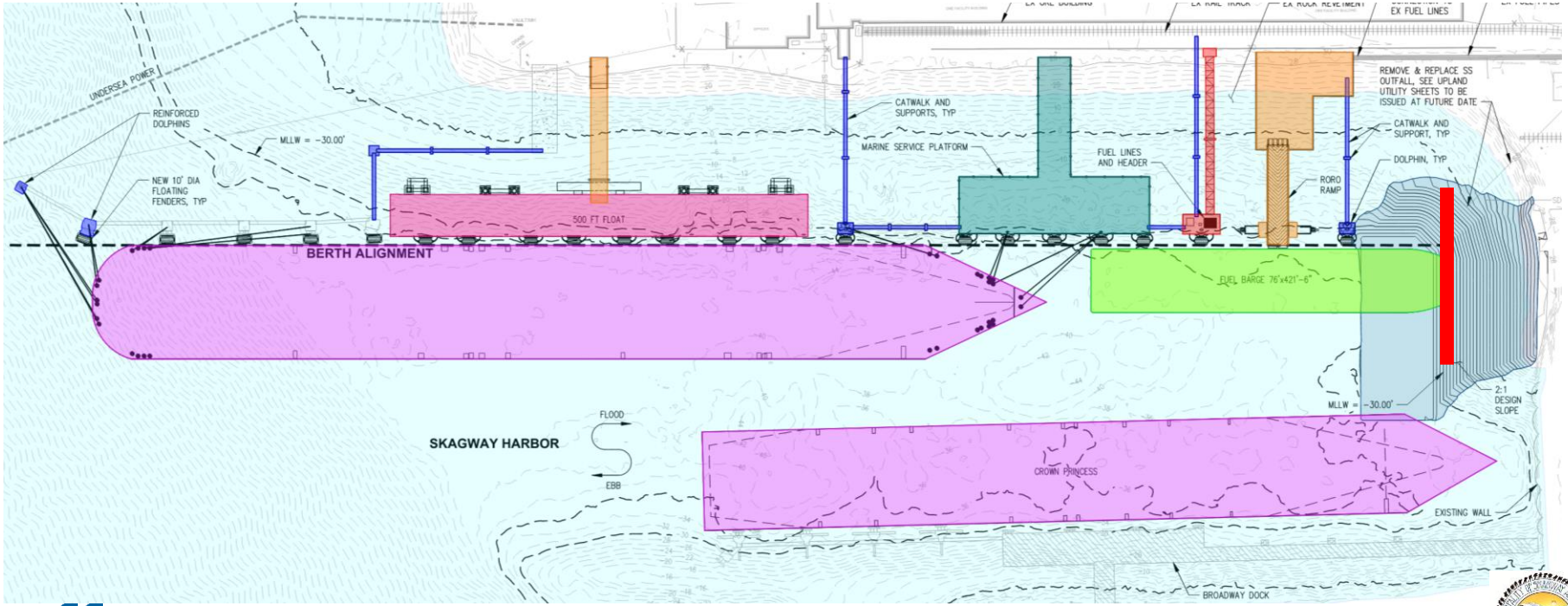
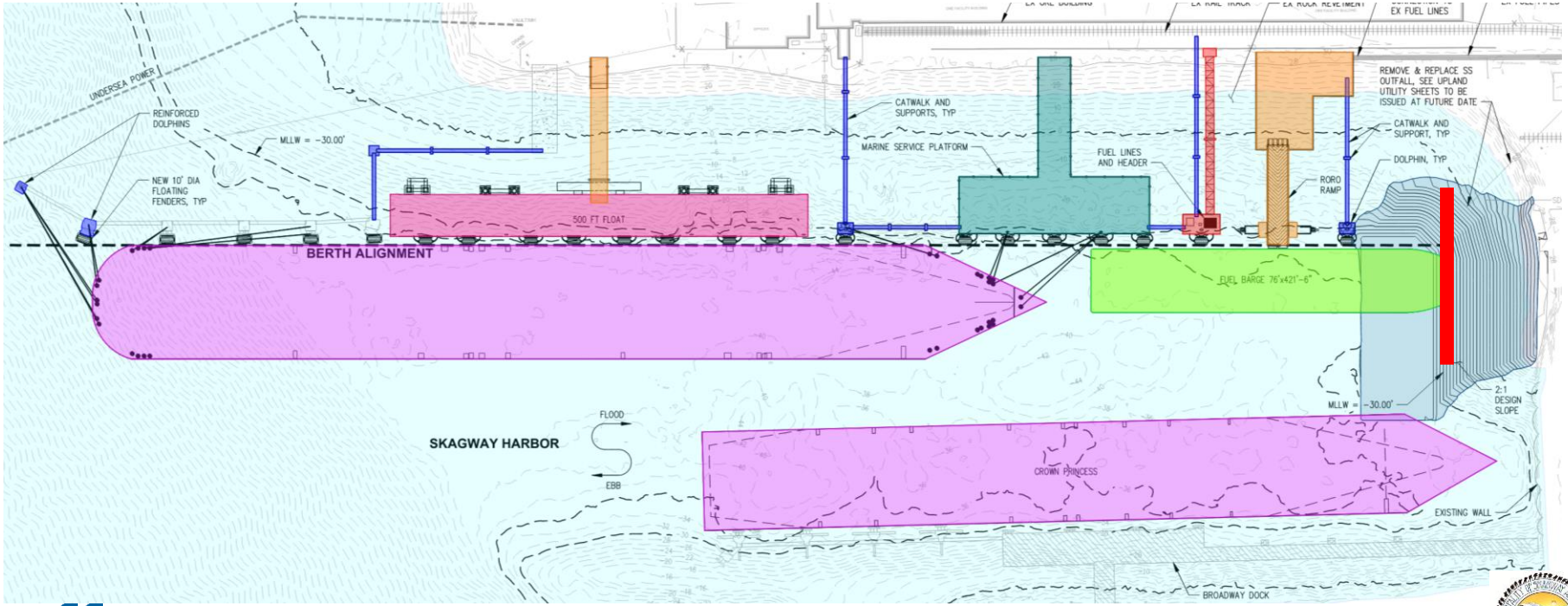
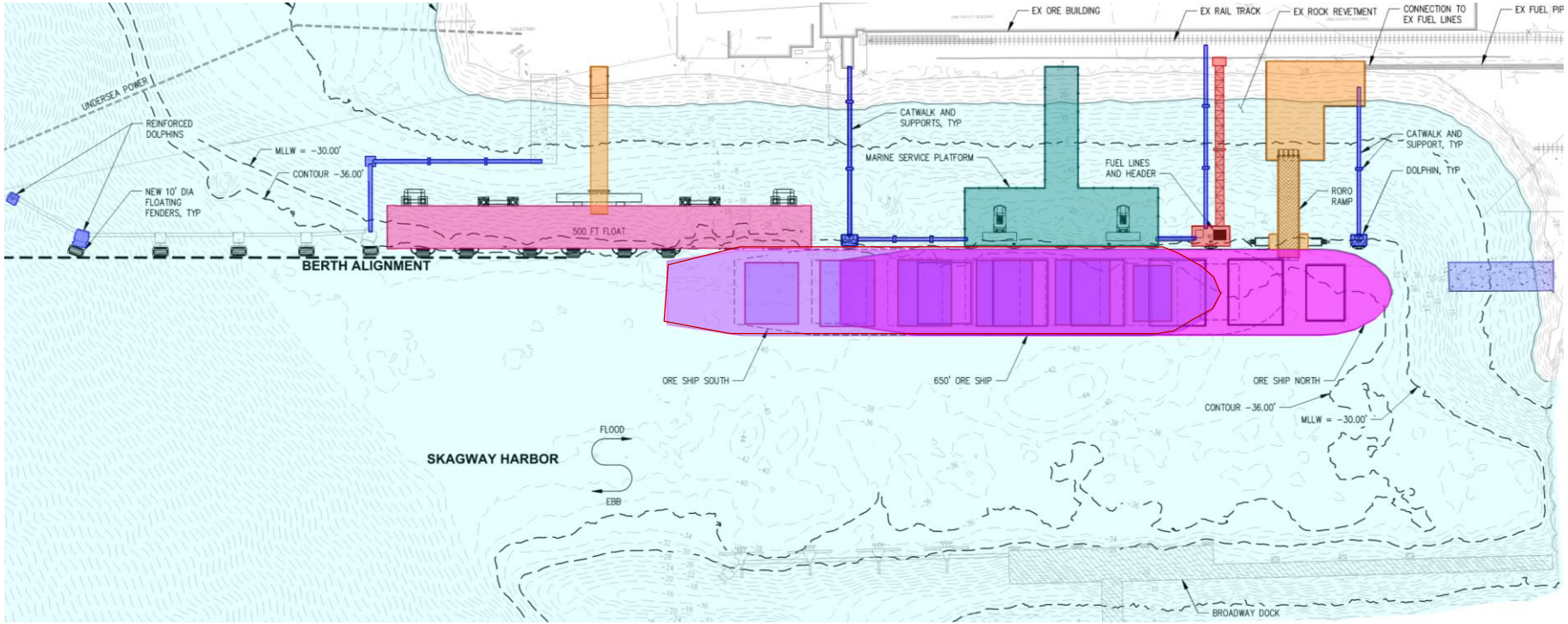
Operational Layouts - Cruise & Fueling Operations - Phase 2



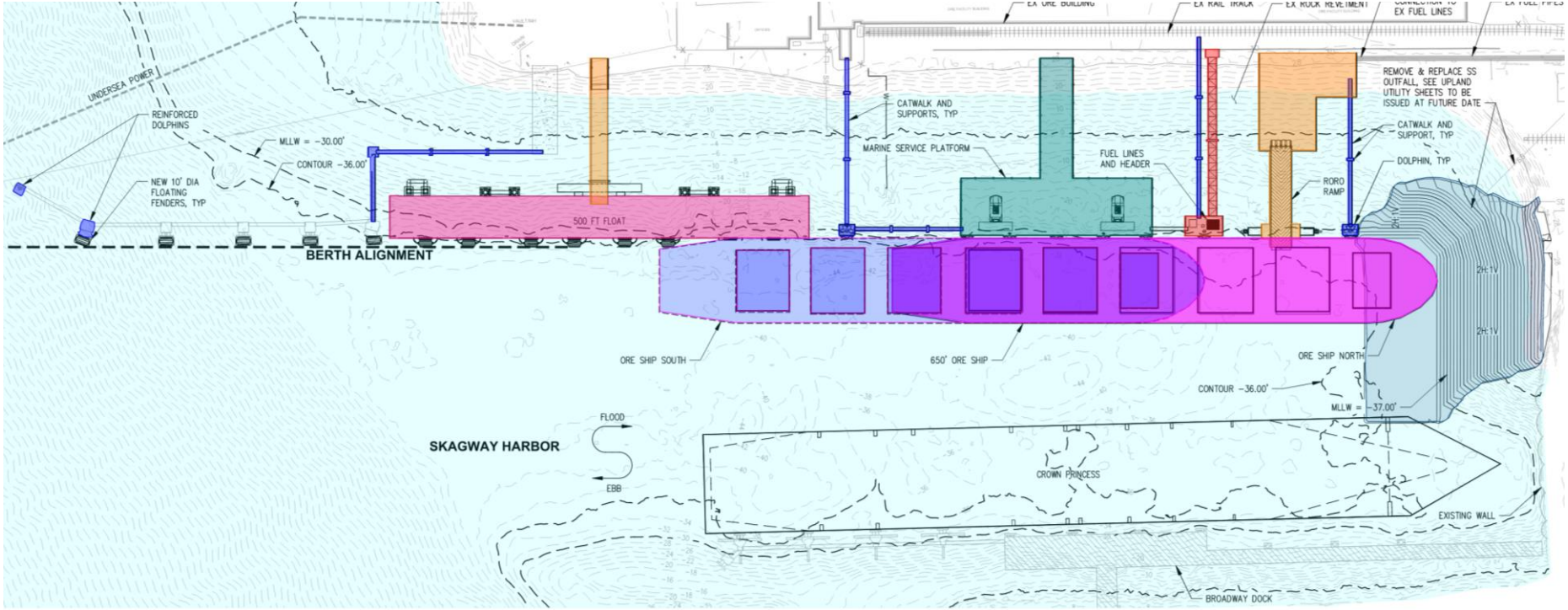
Operational Layouts - Cruise & Fueling Operations - Phase 2



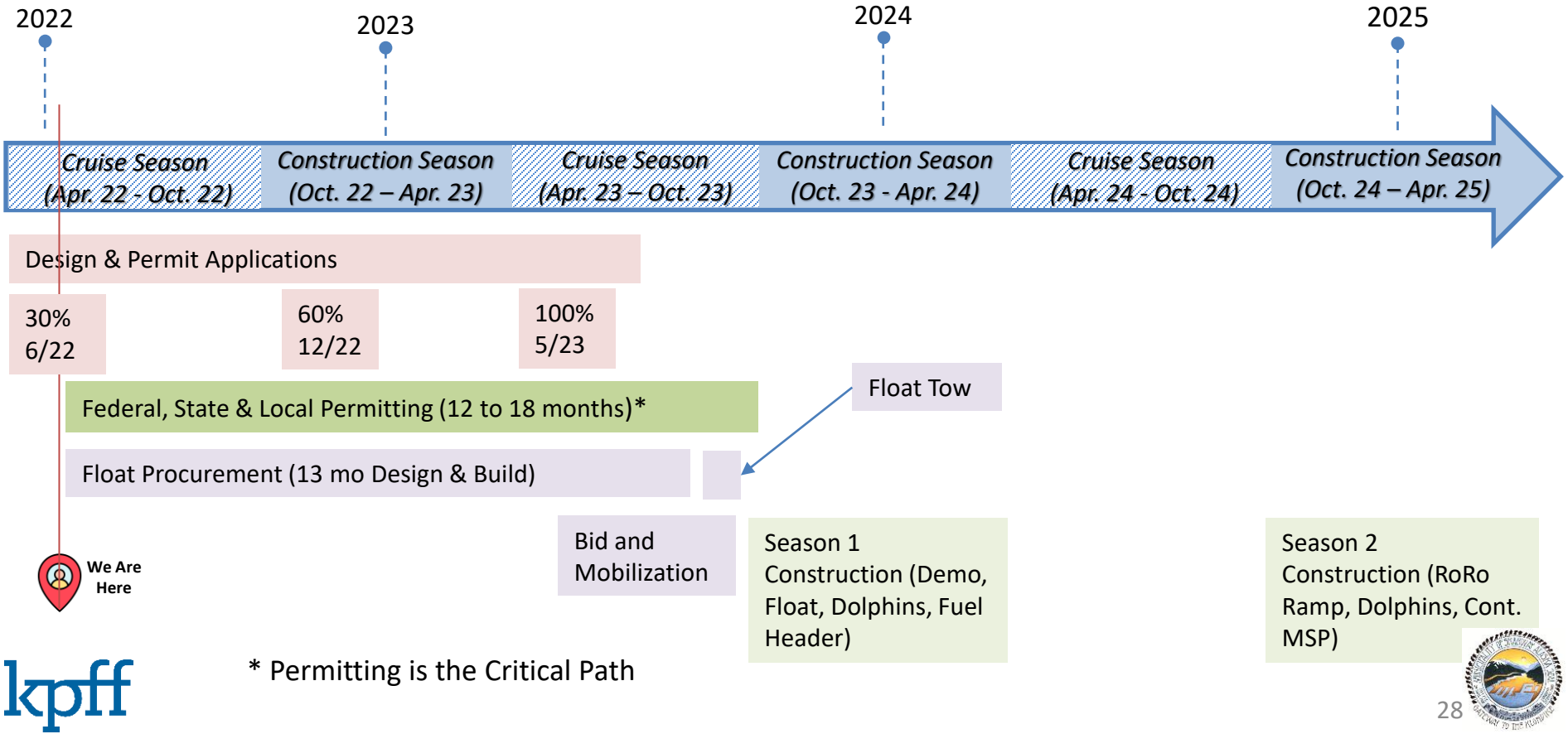
Operational Layouts - Ore Loading



Operational Layouts - Ore Loading at Phase 2



Project Schedule – Phase 1



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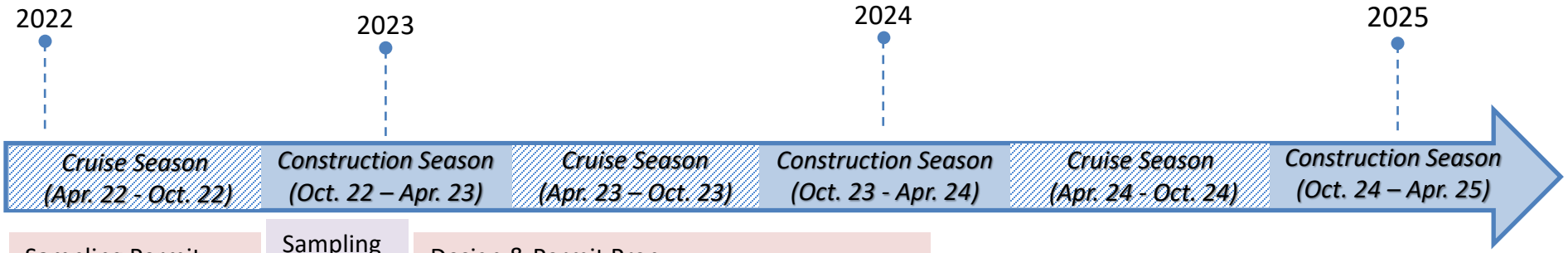
* Permitting is the Critical Path

Project Schedule – Phase 2 North Berth Extension



Sampling Permit

Sampling Program

Design & Permit Prep

Federal, State & Local Permitting (Up to 18 months)*

Bid and Mobilization

Phase 2 Construction
- Demo Concrete dock
- Dredge Slope

*If Permitting Extends Construction Occurs in 25/26

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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

30% Cost Estimate

30% Design ROM Estimate of Construction Costs - DRAFT						
		Base Project	Add. Alt. MSP	Add. Alt. North Berth Extension		Total All Projects
#	Item	Cost (2022$)	Cost (2022$)	Highest Expected Cost (2022$)	Highest Possible Cost (2022$)	Cost (2022$)
Construction Subtotal		**$ 44,430,000**	**$ 9,760,000**	**$ 5,590,000**	$ 9,080,000	**$ 59,770,000**
2.5% Soft Costs - Const. Admin. & Eng. Support & MMM		$ 1,110,000	$ 244,000	$ 140,000	$ 227,000	$ 1,490,000
3% Per year Escalation to Construction Mid-Point		$ 2,670,000	$ 586,000	$ 335,000	$ 545,000	$ 3,590,000
30% Design Contingency		$ 13,330,000	$ 2,930,000	$ 1,680,000	$ 2,720,000	$ 17,930,000
Total ROM Construction Cost Estimate		**$ 61,500,000**	**$ 13,500,000**	**$ 7,700,000**	$ 12,600,000	**$ 82,800,000**
Design Costs						
Project Engineering Design		$ 3,500,000	$ 400,000	$ 174,000	$ 174,000	$ 4,100,000
Dredge Sampling Budget				$ 1,000,000	$ 1,000,000	$ 1,000,000
Total ROM Construction & Design		**$ 65,000,000**	**$ 13,900,000**	**$ 8,874,000**	$ 13,774,000	**$ 87,800,000**

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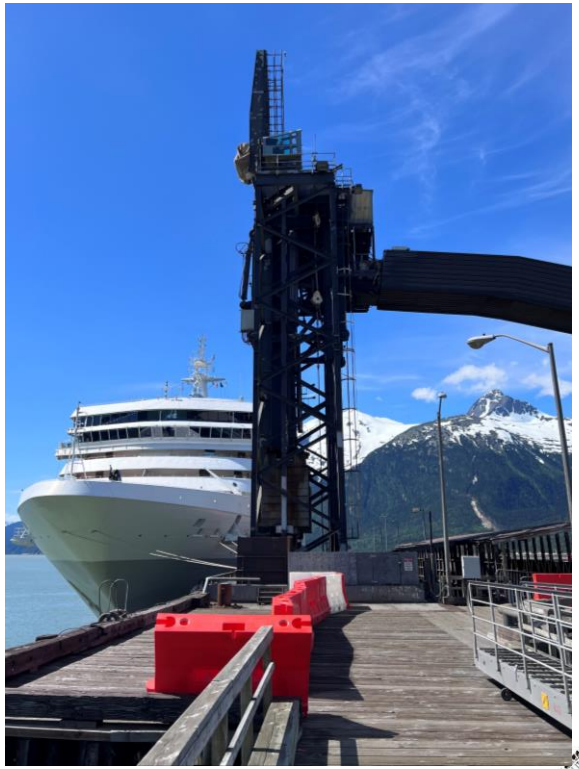
30% Cost Estimate - Comparison

30% Design ROM Estimate of Construction Costs - DRAFT								
		Base Project		Add. Alt. MSP	Add. Alt. North Berth Extension			Total
#	Item	Cost (2022$)	AA Phase Cost (2022$)	Cost (2022$)	Highest Expected Cost (2022$)	AA Phase Cost (2022$)	Highest Possible Cost (2022$)	Cost (2022$)
Construction Subtotal		**$ 44,430,000**	**$ 32,840,000**	**$ 9,760,000**	**$ 5,590,000**	**$ 6,530,000**	$ 9,080,000	**$ 59,770,000**
2.5% Soft Costs - Const. Admin. & Eng. Support & MMM		$ 1,110,000	$ 821,000	$ 244,000	$ 140,000	$ 163,000	$ 227,000	$ 1,490,000
3% Per year Escalation to Construction Mid-Point		$ 2,670,000	$ 1,970,000	$ 586,000	$ 335,000	$ 392,000	$ 545,000	$ 3,590,000
30% Design Contingency		$ 13,330,000	$ 11,030,000	$ 2,930,000	$ 1,680,000	$ 2,190,000	$ 2,720,000	$ 17,930,000
Total ROM Construction Cost Estimate		**$ 61,500,000**	**$ 46,700,000**	**$ 13,500,000**	**$ 7,700,000**	**$ 9,300,000**	$ 12,600,000	**$ 82,800,000**
Design Costs								
Project Engineering Design		$ 3,500,000	$ 3,119,000	$ 400,000	$ 174,000	$ 621,000	$ 174,000	$ 4,100,000
Dredge Sampling Budget					$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Total ROM Construction & Design		**$ 65,000,000**	**$ 49,819,000**	**$ 13,900,000**	**$ 8,874,000**	**$ 10,921,000**	$ 13,774,000	**$ 87,800,000**

30% Cost Estimate - Comparison

- Some Added Items
- Labor and Material Increases in 2022
- Conservative Assumptions in Early Design
  - Larger Mooring Dolphins
  - Corrosion Protection
  - Fuel Lines
  - Ore loader Demo is hazardous materials
- 60% Design will refine these assumptions



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Next Steps

- Continue to through 60% Desig
- Begin upland 30% Design
- Submit Permits
- Award Float Bid
- Continue meeting with Permitting Agencies

Discussion