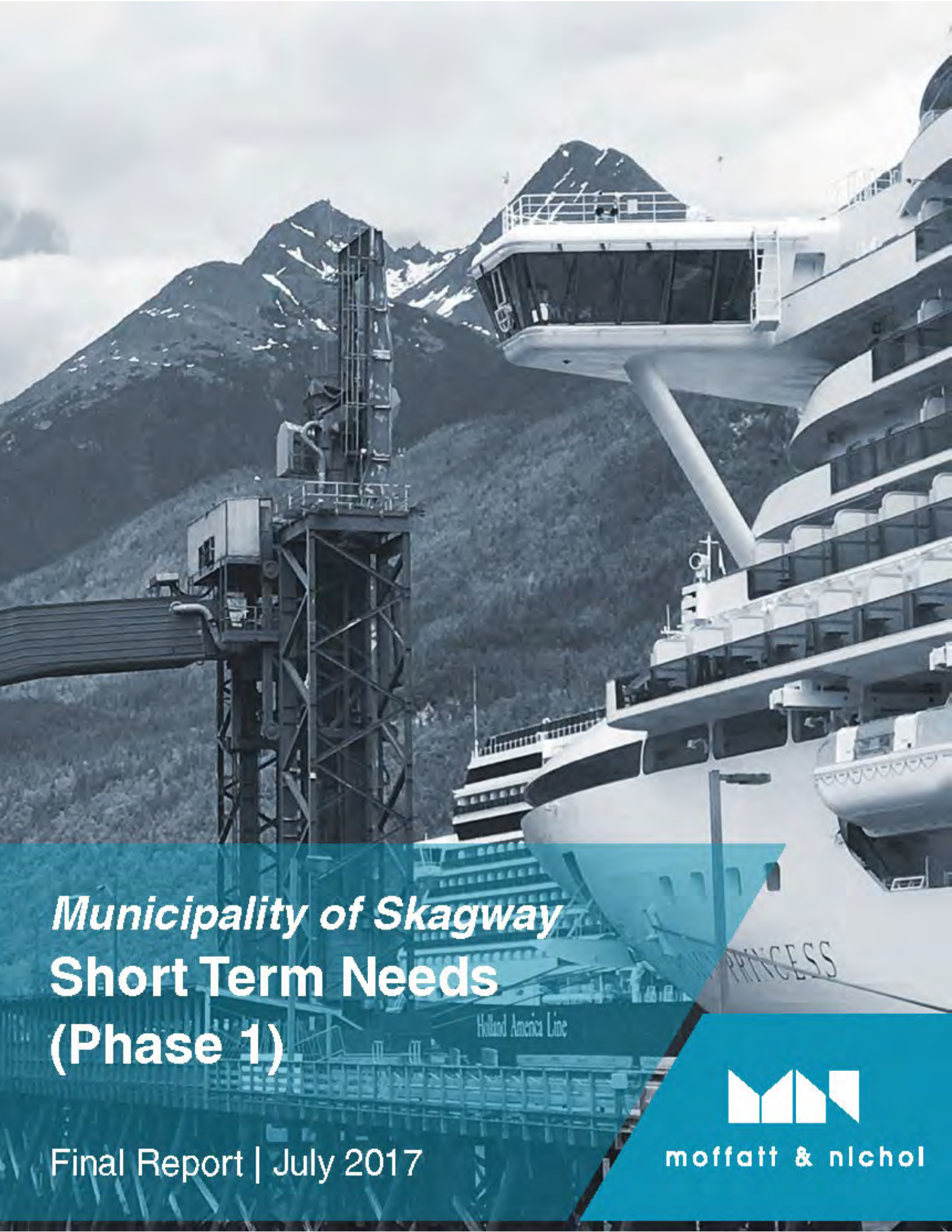

Municipality of Skagway

Short Term Needs (Phase 1)

Final Report | July 2017

moffatt & nichol

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1. PROJECT OVERVIEW

1.1. CONTEXT

Skagway's waterfront is the community's economic engine, logistical lifeline, welcoming gateway and outdoor living room. The waterfront also plays an outsize role in the heritage, self-image and civic spirit of community residents. Recognizing the importance of this asset and the need for its continued economic and social vitality, the Municipality of Skagway (MOS) engaged Moffatt & Nichol (M&N) to prepare short- and long-term plans for the waterfront, inclusive of planning for in-water and upland facilities. This report presents the results of the short-term planning effort.

The Skagway Waterfront Short Term Needs Plan has as its primary goal the identification of one or several projects that can be pursued by the MOS over the next two to three years using current grant funding. The MOS has $6.5 million in State of Alaska Legislative Grant funding scheduled to expire if not obligated on June 30, 2018. Skagway also has two additional Legislative Grants that can also be activated totaling an additional $3.3 million; $1.5 million for remediation dredging expiring June 30, 2018, and $1.8 million for a floating dock expiring June 30, 2019. The MOS also has bonding capacity of $5 million.

This planning effort also comes at a time when the roles and responsibilities for future stewardship of the waterfront are uncertain. In October 2015, Skagway residents turned down a proposed renewal of the tidelands lease between the MOS and the current longstanding leaseholder, White Pass & Yukon Route (WP&YR) railway. Without renewal, the present WP&YR tidelands lease ends in 2023.

Legacy contamination of the Ore Basin adds a further cloud over the waterfront. Extensive study, permitting and design work as part of the Gateway Project—and effort intended to plot the best course for clean-up of the basin—is complete. The means and timeline for basin restoration, however, has yet to be finalized, with additional study underway by WP&YR and its respective consultants.

Market opportunities, especially those associated with the cruise industry, continue to place pressure on Skagway's waterfront facilities to expand and adapt. Larger cruise vessels are increasingly present in the Alaskan cruise region. Destinations such as Juneau and Ketchikan are already in the planning and implementation phases of facility expansion to welcome ships of up to 1,100 ft. and greater.

With the above as a backdrop, this planning effort has several important secondary objectives, namely:

- Restart dialogue and engage the Skagway community, making sure their needs and desires are understood and translated in a meaningful way into short- and long-term waterfront project efforts.
- Formulate a framework that will help guide short- and long-range waterfront planning initiatives. The framework should consider future growth, sustainability and the ultimate prosperity of the MOS.
- Rebuild trust with the community through planning efforts, allowing project work to make strong inroads in dealing with long standing waterfront challenges and opportunities.

The Skagway Waterfront Short Term Needs Plan is the first in a series of project work that will feed into an update of the long-range vision and master plan for the waterfront (see Figure 1-1). Efforts are already underway to prepare a sequence of planning modules and best practices in the areas of port governance, market positioning, and environmental and regulatory compliance (see Figure 1-1, Item 2). Each of these stand-alone models provides a kit-of-parts for the MOS to utilize in its ongoing work as well as provides foundational research and analysis needed for the preparation of the long-range plan (see Figure 1-1, Item 3). Preparation of the long-range vision and master plan is anticipated to commence the later part of 2017.

The Skagway Waterfront Short Term Needs Plan is organized into the following sections:

- A community baseline and snapshot of the near-term market opportunities and challenges that inform planning concepts for the waterfront (Section 2);
- The planning framework developed in collaboration with the community that guides the preparation of short- and long-range waterfront planning initiatives (Section 3);
- Presentation of short term plan concepts that form the basis of the overall plan (Section 4); and,
- Plan recommendations and next steps (Section 5).

Within the appendix, copies of all community presentations and other supporting materials are provided.

FIGURE 1-1: THE SHORT- AND LONG-TERM PLANNING PROCESS

1.2. COMMUNITY AND STAKEHOLDER INTERACTION

As presented, meaningful community engagement is an important objective of waterfront planning efforts. In the formulation of the Skagway Waterfront Short Term Needs Plan, public engagement occurred at three key points:

- Community Work Session #1, January 23, 2017. This first public meeting was conducted as an open house designed to bring the community up to speed on the planning effort and illicit feedback on current waterfront issues and opportunities.
- Community Work Session #2, February 28 and March 1, 2017. Two public sessions were held to create a collective understanding on issues and opportunities facing the waterfront as well as kick start the process of formulating a planning framework and early project concepts.
- Community Work Session #3, April 26, 2017. For Work Session #3, two public sessions were conducted to review and advance the project planning framework and concepts. An open house with an accompanying survey for optional completion by attendees was also made available at the Skagway Artic Brotherhood Hall on April 25-27.

Beyond the above listed meetings, M&N meet regularly with the Skagway Port Planning Steering Committee as well as held meetings with several stakeholders. The stakeholders included:

- White Pass & Yukon Route (WP&YR) Railway
- Alaska Industrial Development & Export Authority (AIDEA)
- Alaska Department of Environmental Conservation (ADEC)
- Harbor Enterprises / Petro Marine
- Cruise Line Agencies of Alaska (CLAA)
- Cruise Lines (Multiple)
- TEMSCO
- Alaska Marine Highway System (AMHS)
- Alaska Power & Telephone (APT)
- National Oceanic and Atmospheric Administration (NOAA)
- Yukon Government Department of Economic Development
- Canadian Border Services Agency (CSBA)
- Lynden / Alaska Marine Lines (AML)
- Constantine Metal Resources Ltd.
- Western Copper and Gold
- Capstone Mining Corporation
- Victoria Gold Corporation
- Selwyn Chihong Mining Ltd.
- Alexco Resource Corporation

1.3. THE PLANNING AREA

The designated planning area for this effort is presented in Figures 1-2 and 1-3. The area includes depicted tidelands and uplands, inclusive of the Ore Dock, AML Barge Dock, Broadway Dock, AMHS facilities, the Small Boat Harbor, and the Rail Docks.

Within this zone, the Municipality's Port Area includes:

- A 70-acre lease, which includes both uplands and tidelands, WP&YR Railway. The lease began in 1968 and terminates in March 2023.
- A 16-acre Small Boat Harbor and adjacent 3-acre RV Park.
- A small upland and tideland portion of the peninsula where the AMHS Ferry Terminal is located. A portion of this peninsula is also owned by the Alaska Department of Transportation and Public Facilities (ADOT&PF) and there is a joint agreement in place to allow the Municipality to use a portion of ADOT&PF land.

The plan considers as an area of influence adjacent parcels and other infrastructure outside the depicted zone that may be impacted by waterfront investment and operational activities. By example, pedestrian connections linking the Town to its waterfront are considered with the plan's area of influence.

FIGURE 1-2: SKAGWAY WATERFRONT PLANNING AREA

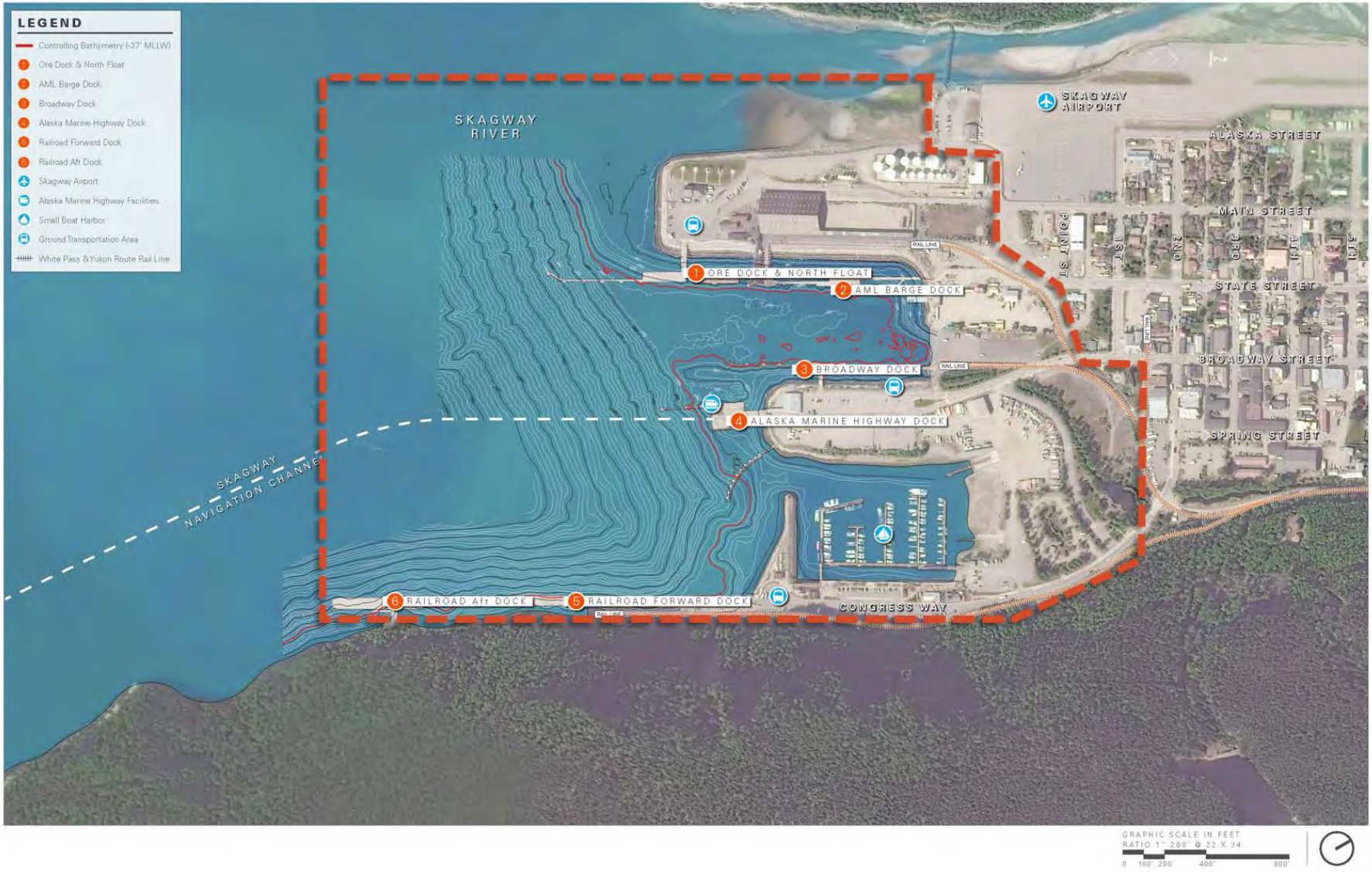


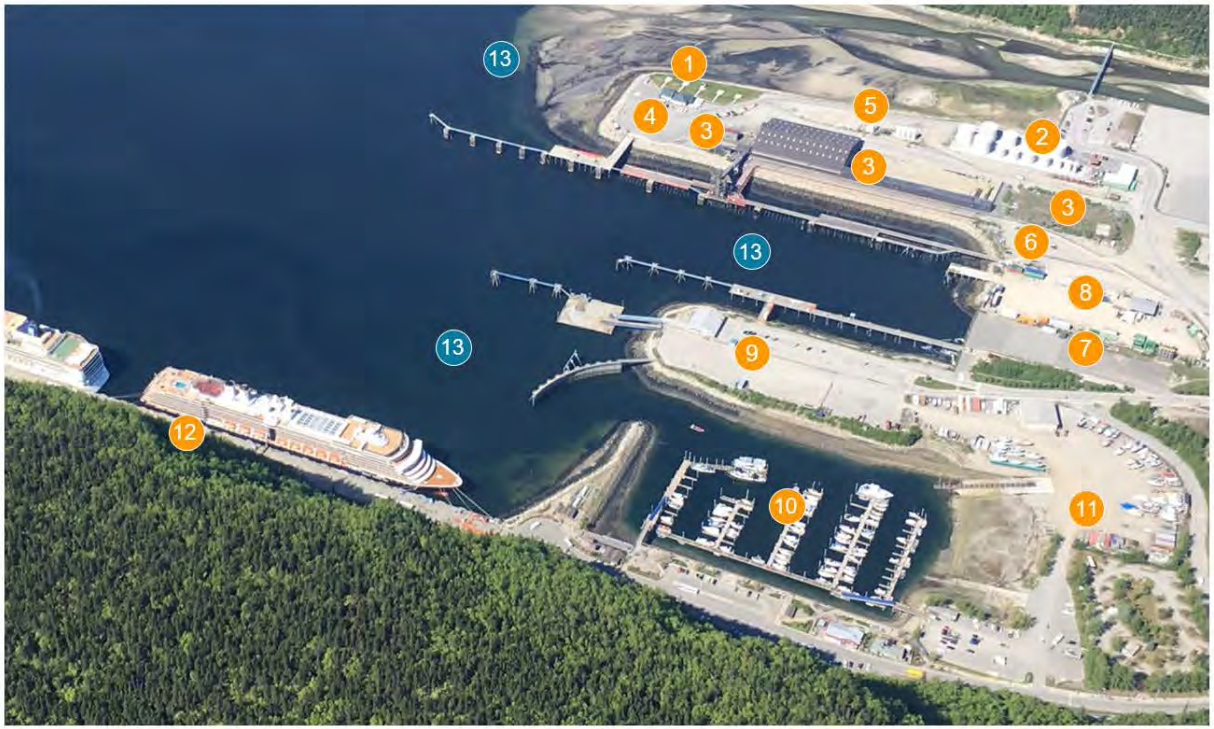
FIGURE 1-3: SKAGWAY WATERFRONT PLANNING AREA

Uplands

1. TEMSCO Helicopters
2. Petro Marine Fuel Tank Farm
3. AIDEA Ore Terminal Facility
4. Ore Cruise Ship Dock Staging Area and Walkway
5. Parcel W.of AIDEA & S. of Petro Marine
6. CLAA Parcel
7. Broadway Dock Uplands
8. AML Barge Line Parcel
9. AMHS Facilities
10. Small Boat Harbor
11. Upland Parcels
12. Rail Dock

Submerged Lands

13. Tide and Submerged Lands



2. COMMUNITY BASELINE ANALYSIS

2.1. EXISTING WATERFRONT AND OTHER TRANSPORTATION FACILITIES

Contained within the following section is an overview of existing marine and other transportation facilities found at Skagway. Work presented herein is intended to highlight the attributes of these facilities and not serve as a definitive assessment of the characteristics and condition of these infrastructure works.

2.1.1. THE ORE DOCK, PETRO MARINE AND AML FACILITIES

The Ore Dock, as its name implies, was first built as an ore dock in 1969 suitable for only the bulk loading of ore.[1] Over the years, the dock was modified to handle cruise ship berthing. During 2000, a construction project added a 235-foot by 50-foot HS20-44 concrete dock at the extreme south end of the dock to better serve cruise ships. The 2000 construction added additional breasting dolphins and a new end dolphin to the Ore Dock. The overall usable face length of the Ore Dock is about 1,600 feet. The older wood pile passenger platforms on the Ore Dock, dating from 1969, cannot be used for any cargo transfer due to light duty construction.

In July 1990, AIDEA purchased the Skagway Ore Terminal (SOT) to bring stability to Skagway's then major year-round industry; fund essential environmentally efficient renovations to the terminal; and open the door to additional economic growth by marketing the terminal to other potential users. The terminal was purchased from White Pass Railway, with a sublease of City property approved by the City of Skagway. The current user is Minto Explorations Ltd., a subsidiary of Capstone Mining Corp. (previously Sherwood Copper Corp.). The user contracted with Mineral Services Inc. (MSI) to operate and maintain the terminal in April 2008.[2]

The Skagway Ore Terminal consists of a 6.7 acre industrial waterfront lot whose primary features include: a 98,000 square foot 16-inch thick concrete floor, a 42,000 square foot concentrate storage building (the original concentrate storage building was demolished in 2003) surrounded by concrete containment walls, office, shop, laboratory, electrical and wash buildings; enclosed materials handling loadout conveyors and shiploader; and a .37 acre adjacent lot which contains a fueling facility (two 10,000 gallon day tanks) and tank farm (four 30,000 gallon storage tanks). Capstone will continue operating the Minto mine through November 2017. AIDEA continues to seek interested companies for shipping bulk ore concentrates through the ore terminal within the time of the remaining lease (March 2023).[3]

Petro Marine (formerly Harbor Enterprises) operates the marine fuel depot located near the mid-point of the Ore Dock. Petro Marine services Skagway and more importantly the Yukon, moving approximately 30 million gallons of fuel annually. All fuel arrives in Skagway on barges. The old ore concentrate ship loading tower, located near the mid-point of the dock, is an obstruction to cruise ships. Cruise ships are prevented from being able to use the full-face length of the dock because of cruise ship overhang, including some lifeboats, fouling the clearance of the old ore loading tower. The Ore Dock draft is a minimum of 42 feet and gets progressively deeper toward the open inlet end.

AML is a tug and barge company providing weekly service to Skagway. The predominant method of freight transportation to Skagway is by barge. The company constructed the container barge facility at the head of the Ore Dock in 2001. Barges come in about once a week and occasionally carry heavy construction type equipment into the port. AML not only serves Skagway but also the Yukon.

[1] Descriptions of the Ore Dock, Barge Dock, Broadway Dock, and Railroad Dock, we informed by site visitation as well as review of existing reports and documentation, inclusive of *Final Report – Skagway Port Development Plan,* September 2008 prepared for the MOS by KPMG, CH2M Hill, and Sandwell.
[2] AIDEA project fact sheet.
[3] *Ibid.*

FIGURE 2-1. SKAGWAY ORE DOCK AND SHIPLOADER

2.1.2. BROADWAY DOCK

The Broadway Dock, located on the south side of the Ore Basin, is used for cruise ship berthing. With modifications implemented in 2006, the dock can accommodate a 970-foot long cruise vessel.

FIGURE 2-2. BROADWAY DOCK

2.1.3. ALASKA MARINE HIGHWAY FERRY FACILITIES

AMHS provides an important link for communities such as Skagway. Smaller communities with limited healthcare resources rely on AMHS for access to health care in larger population centers such as Juneau and Anchorage. This is particularly critical for Skagway, where flights are often cancelled due to inclement weather. AMHS also allows students in Alaska's coastal communities to visit other schools for a variety of purposes such as sports, leadership development, drama/debate, and arts related events.[4]

The Skagway AMHS facility includes a parking lot, waiting-room and office-building, and a single floating dock which is owned jointly with the City.

As of 2017, there are four AMHS ferry vessels serving the Municipality: M.V. Columbia, M.V. Fairweather, M.V. LeConte, and M.V. Matanuska. Except for the fast-ferry Fairweather, all AMHS ferries serving Skagway are more than 40 years old. The ADOT&PF and Vigor Industrial have an agreement to construct two Day Boat Alaska Class Ferries in Ketchikan. These ferries will be 280 feet long, seat up to 300 passengers, and will carry 53 standard vehicles. Each ferry will feature bow and stern doors for quicker loading and unloading, will have fully enclosed car decks, and controllable pitch propellers to maximize maneuverability and efficiency. The first vessel construction is well underway and both vessels are scheduled for delivery in late 2018.[5]

The MOS is currently in discussions with the State for upgrade of the AMHS facility to ensure its continued viability over the long term, inclusive of its ability to accommodate Alaska Class Ferries. The MOS is seeking replacement (versus refurbishment) of the floating dock and other facility improvements to meet these objectives. At present, the State appears to support only renovation and refurbishment of the floating dock and facility.[6]

2.1.4. RAILROAD DOCK

WP&YR owns the dock and leases the underlying tidelands under the Railroad Dock. The Railroad Dock is 1,825 feet long with additional breasting dolphins that provide for berthing of two cruise ships currently serving the Alaska market. The Railroad Dock is made up of two distinct docks (North Dock and South Dock), joined by a short steel plate.

North Rail Dock (AKA Forward Dock)

The north 800 feet of the Railroad Dock is a heavy-duty freight dock (800 feet long by 100 feet wide) designed to sustain a HS20-44 truck loading (Alaska bridge loading) or the punching load of a 60-ton axle forklift load. A single railroad track with a third rail for standard gauge operations, is located on the back side of the dock constructed to the railroad bridge rating of Cooper E-80 (heavy railroad loads). The north portion of the Railroad Dock is well suited to the heavy freight transfer operations for ship to rail or truck. The minimum draft alongside the Railroad Dock is 36-feet at the head of the dock and becomes progressively deeper towards the open inlet end.

South Rail Dock (AKA AFT Dock)

The South Dock is 784 feet long and is built to a lighter standard. It is still capable of HS20-44 loading, but not heavy forklift loading. There is no railroad track on this dock. The South Dock is only 50 feet wide, and is therefore constrained in its use by its width. WP&YR also owns the Broadway and the Ore Dock—the only two docks on the Skagway waterfront capable of docking either cruise or cargo ships. WP&YR owns the dock structures and the underlying tidelands are leased from the Municipality of Skagway until 2023.

[4] *Economic Impacts of Alaska Marine Highway System* prepared by the McDowell Group, January 2016.
[5] *State of Alaska Marine Highway System – Alaska Class Ferry Project - http://www.dot.state.ak.us/amhs/alaska_class/index.shtml*
[6] Advancement of either option is not expected to impact the recommended Option 3B [presented in Section 4.0 either during construction or post-buildout. The public supported the notion of relocating the AMHS facility (Early Option 8); this option is recommended for further study as part of a longer term waterfront planning effort.

2.1.5. OTHER NOTABLE TRANSPORTATION FACILITIES

Skagway Airport has one runway designated 2/20 with an asphalt surface measuring 3,550 by 75 feet (1,082 x 23 m). The airport does not have a tower, but does have a small passenger building at the south end. Skagway Airport is a state-owned public-use airport. This airport is included in the National Plan of Integrated Airport Systems for 2015-2019, which categorized it as a *nonprimary commercial* service airport. Federal Aviation Administration records show the airport had 3,800 air taxi operations and 500 local general aviation operations in calendar year 2015.[7] Skagway is known as a very windy place. In summer, the wind generally blows from the south and can be quite strong and gusty. In the winter, the wind turns around and blows from the north. The airport is situated in a north-south direction and against the west side of the valley next to the Skagway River.[8]

The Alaska Department of Commerce Community and Economic Development also shows a Skagway Seaplane Base of approximately 2,000 by 2,000-feet. The seaplane base conditions are listed as poor and appear to no longer be active per the National Flight Data Center.[9]

TEMSCO Helicopters Inc. established in 1958, offers three tours in Skagway; 1) Glacier Discovery, 2) Dog Sled Tour, and 3) Glacier Hiking Quest (Heli-Hiking).[10]

2.2. MOVEMENT OF COMMODITIES AND PASSENGERS

2.2.1. COMMODITIES

Commodity movements occur through the Ore Dock, Petro Marine and AML facilities. The top inbound items in 2016 to Skagway were cement, iron, and modular building units. All inbound building materials equated to approximately 9,381 metric tons in 2016. Outbound freight was sparse when compared to inbound freight. Outbound project cargo reported less than one metric ton of cement in 2016, being the only represented product in a category that is almost non-existent. Figure 2-3 depicts a summary of the commodities throughout the Port.

2.2.2. AMHS FERRY ACTIVITIES

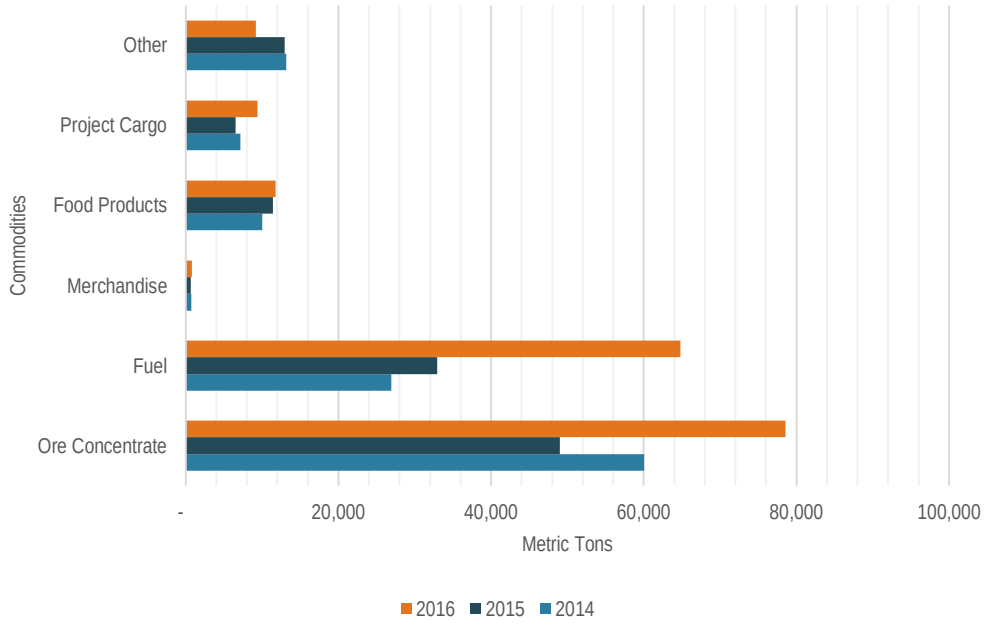
Passengers

Annual passenger traffic on the AMHS averaged about 22,120 embarking and 22,754 disembarking from 2006 to 2015. There were notable dips in passenger traffic in years 2011, 2014, and 2015, as shown in Figure 2-4.[11]

According to the Economic Impacts of the AMHS report of January 2016, 68% of passengers are Alaska residents while 32% are non-residents.[12] For purposes of the Skagway model, we are assuming that the non-residents are independent travelers to Skagway, who are there to enjoy the tourist offerings. This means that about 7,500 passengers on the AMHS are independent travelers to Skagway.

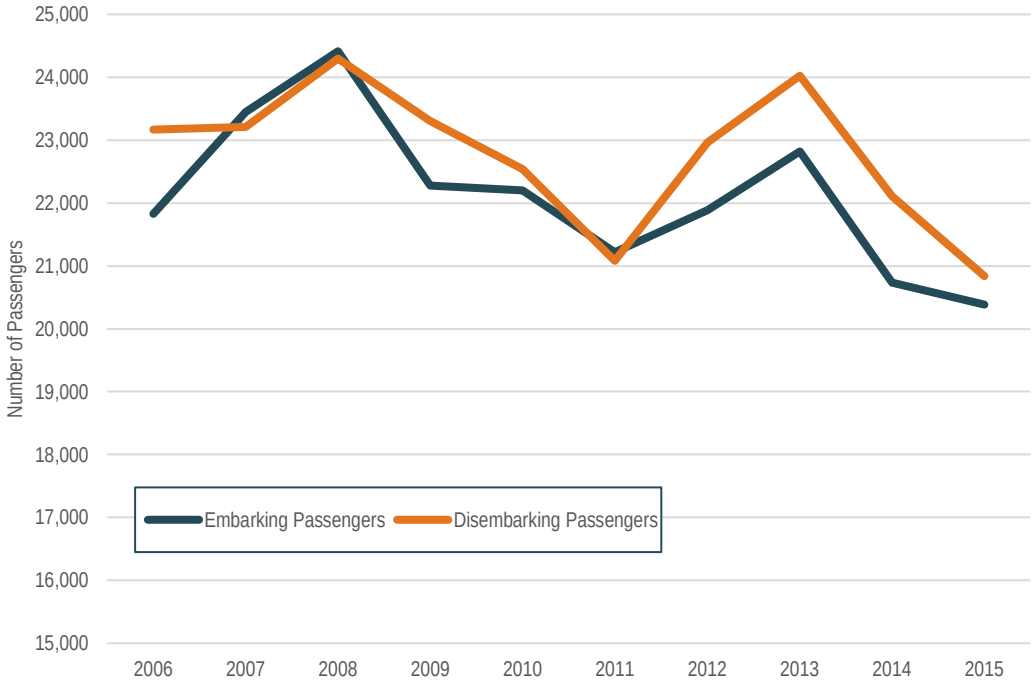
[7] Airport IQ5010 – Airport Master Records and Reports
[8] Wikipedia – Skagway Airport
[9] Federal Aviation Administration – National Flight Data Center
https://nfdc.faa.gov/nfdcApps/services/airportLookup/airportDisplay.jsp?airportId=7K2
[10] TEMSCO Helicopters Inc. website: http://www.temscoair.com/skagway.php
[11] Alaska Department of Transportation and Public Facilities – Alaska Marine Highway System – 2015 Annual Traffic Volume Report.
[12] The Economic Impacts of the Alaska Marine Highway System prepared by the McDowell Group for the Alaska Marine Highway System, January 2016.

FIGURE 2-3. COMMODITIES THROUGH SKAGWAY FACILITIES, 2014 - 2016



Sources: Alaska Marine Lines (AML), Petro Marine Services, Mineral Services Inc.

FIGURE 2-4. AMHS PASSENGER TRAFFIC IN SKAGWAY, 2006 - 2015



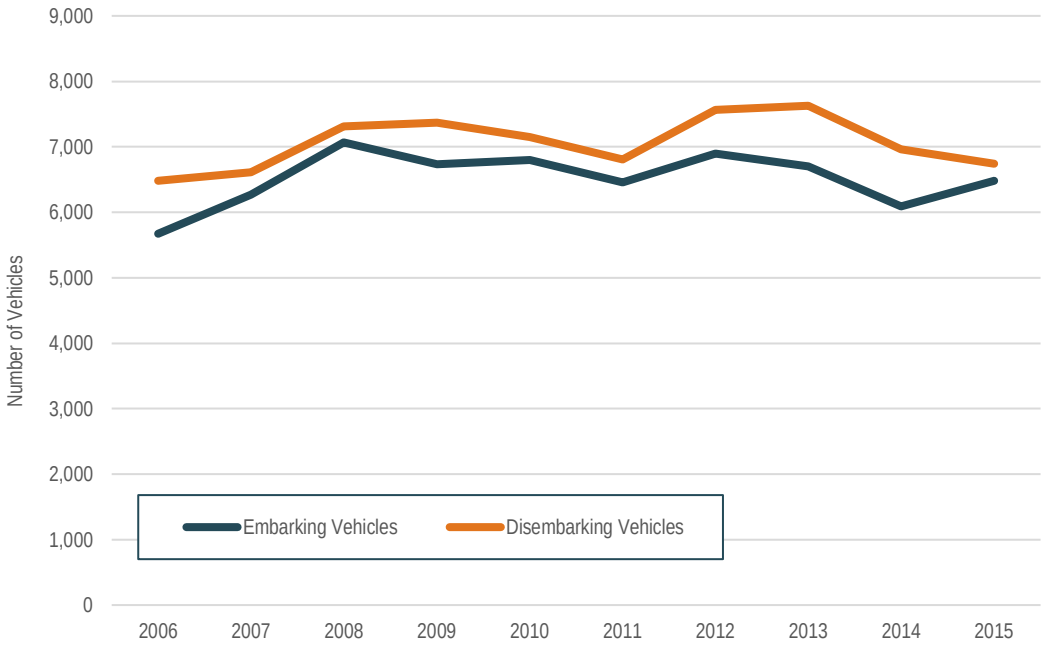
Sources: Alaska Department of Transportation and Public Facilities – Alaska Marine Highway System – 2015 Annual Traffic Volume Report

Vehicles

Annual vehicle traffic at Skagway has averaged 6,517 embarking vehicles and 7,062 disembarking from 2006 through 2015. Similarly to passenger traffic, there were dips in the number of vehicles in 2011 and 2014 as shown in Figure 2-5.[13]

The Economic Impacts report shows that 75% of the vehicle traffic to Skagway is Alaska residents and 25% is non-resident traffic.[14] For purposes of the Skagway Waterfront model, we are assuming that the non-resident traffic on the AMHS is independent travelers enjoying the tourist offerings. This means that about 1,800 additional tourists are arriving in Skagway annually by vehicle on the AMHS.

FIGURE 2-5. AMHS VEHICLE TRAFFIC IN SKAGWAY, 2006 - 2015



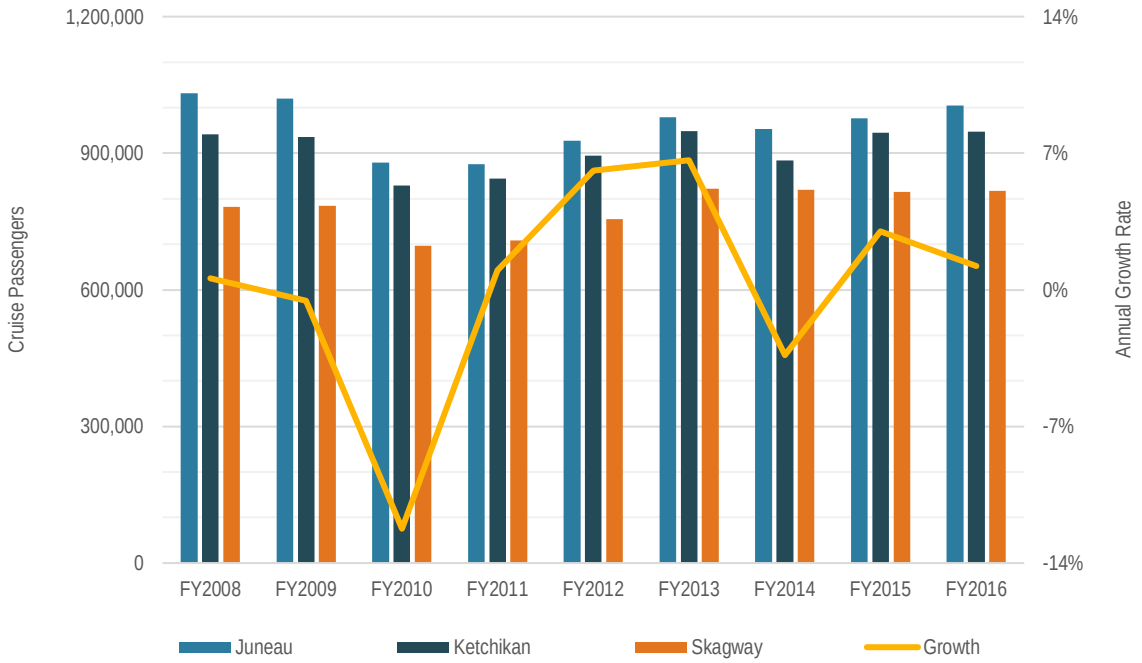
2.2.3. CRUISE VISITORS

The number of cruise visitors to Skagway, Alaska remained relatively unchanged between 2007 and 2016. Using data available from the Alaska Department of Commerce, Community, and Economic Development (ADCCED), yearly cruise passenger estimates were obtained for the FY2007-FY2016 time period and are shown in Figure 2-6. The average annual growth rate of cruise passengers to Skagway over this period was approximately -0.05%, with 820,829 visitors in FY2007 and 817,308 in FY2016. In comparison, Ketchikan and Juneau had average annual growth rates between FY2007 and FY2016 of 0.56% and -0.14%, respectively, both of which handled larger numbers of cruise passengers than Skagway. Ketchikan saw 947,972 cruise passengers in FY2016 while Juneau saw 1,004,774 passengers. For a majority of the Alaskan ports listed in the report provided by the ADCCED, there was essentially no growth over the 2007-2016 period which can be roughly defined as a period of decline in cruise passengers followed by a steady increase back to pre-existing levels.

[13] Alaska Department of Transportation and Public Facilities – Alaska Marine Highway System – 2015 Annual Traffic Volume Report.
[14] The Economic Impacts of the Alaska Marine Highway System prepared by the McDowell Group for the Alaska Marine Highway System, January 2016.

The number of crew members followed a similar trend as it was assumed that the ratio of passengers per crew member stays relatively constant over time. Looking at historic data from the Skagway Convention & Visitors Bureau, a ratio of 2.4 passengers per crew member was assumed for crew estimates (i.e. for every crew member there are 2.4 passengers). The ratio resulted in an estimate of approximately 340,545 crew members in FY2016, a slight decline from the 342,012 that visited Skagway in FY2007. Crew members are included in our evaluation given their ability to contribute to spending within the town and account for a portion of the sales tax revenue collected by the Municipality.

FIGURE 2-6. CRUISE PASSENGERS AND COMBINED ANNUAL GROWTH, FY2008 - FY2016



Sources: Alaska Department of Commerce, Community, and Economic Development (ADCCED)

2.3. THE SKAGWAY COMMUNITY

Skagway is located 90 miles northeast of Juneau at the northernmost end of Lynn Canal, at the head of Taiya Inlet. It is 108 road miles south of Whitehorse and just west of the Canadian border with British Columbia. The community has 452 square miles of land and almost 12 square miles of water.

2.3.1. POPULATION

The Municipality of Skagway's population has increased from 862 people from the 2000 U.S. Census to 1,065 for the Alaska Department of Labor and Workforce Development estimate for 2016.[15] This is a growth rate of 1.3 percent since the 2000 Census. The 2010 U.S. Census reveals that 52 percent of the population is male and 48 percent are female. The median age for males is 42.5 while the median age for females is 40.1 years. This compares to the State of Alaska overall with a median age of 33.6 for males and 34.1 years for females.

2.3.2. EMPLOYMENT AND INCOME

Easily the biggest employer in Skagway is the WP&YR railway, which provided 144 jobs in the summer of 2007.[16] Mostly due to the railroad, transportation makes up 25 percent of Skagway's total job count compared to just 6 percent for the whole state. Transportation jobs in Southeast Alaska often make up a larger percentage of employment but even then, Skagway is at 35 percent while the rest of the region is at 19 percent.

WP&YR railway plays a significant role in the economic health of the MOS. According to WP&YR records, average employment from 2012 through 2016 was 151 workers.[17] Average wages for this period was $6.45 million. Real property and sales taxes averaged $2.3 million, and capital projects represent another $6.3 million in spending. Skagway's government jobs are slightly higher than the statewide average, 27.5 percent compared to 24.2 percent for the state in 2015.

Skagway employment numbers were at a low average in 2003 with 402 workers and reached a high in 2015 with 483 workers. These employment numbers represent those workers covered by Unemployment Insurance and as reported to the Alaska Department of Labor. Employed workers were more than double this average for June/July/August.

Self-employed individuals numbered an average of 51 workers or 14 percent of the Skagway labor force for the years 2011 through 2015.[18] Unemployment in 2016 reached a high of 25.6 percent in February and a low of 3 percent in August.[19] Small coastal communities often have a number of self-employed fishermen. Skagway, however, has only five permit holders with as little as two of these permit holders participating in the fisheries from 2011 to 2015.[20] Due to low participation rates, catch and value for the fisheries is considered confidential.

Total wages for Skagway workers for 2015 was $16.7 million. (Note that this is for workers covered by Unemployment Insurance.) When adjusted by the Anchorage Consumer Price Index for constant 2016 dollars, this represents an increase of more than 21 percent for total wages since 2001.

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[15] Alaska Department of Labor and Workforce Development – Research and Analysis Section. Population estimates for centennial years are a result of the U.S. Census. Intervening years are population estimates provided by the ADOL&WD.
[16] Alaska Economic Trends – *Skagway* – by Dan Robinson and Alyssa Shanks, June 2008.
[17] Personal communication from Tyler Rose, White Pass and Yukon Railroad Executive Director, Human Resources and Strategic Planning, February 16, 2017.
[18] Alaska Department of Labor and Workforce Development, Research and Analysis Section, American Community Survey. http://live.laborstats.alaska.gov/cen/acsdetails.cfm#E05
[19] Alaska Department of Labor and Workforce Development, Research and Analysis Section.
[20] State of Alaska Department of Fish and Game, Commercial Fisheries Entry Commission. https://www.cfec.state.ak.us/index.htm

The American Community Survey for Skagway shows a median household income of $69,318 for 2015.[21] Median household income for householders in the 45 to 64 age range was $74,896 while median household income for householders in the under 25 age group was $46,250. Per capita income for Skagway residents is $38,696 annually.

2.3.3. EDUCATION

The Alaska Department of Education and Early Development counts student enrolment as of October 1 each year. The Skagway school district had a high of 132 students enrolled in the 2000-2001 school year and then saw declines in enrolment until the 2011-2012 school year when enrolment started to climb. Total enrolment for the 2016-2017 school year was 118 students.[22]

[21] Alaska Department of Labor and Workforce Development, Research and Analysis Section, American Community Survey.
[22] State of Alaska Department of Education and Early Development. https://education.alaska.gov/stats/

2.4. TRENDS AND CONSIDERATIONS FOR SKAGWAY

2.4.1. THE CRUISE INDUSTRY IS POSITIONED FOR CONTINUED GROWTH

Over the last half century, the conventional cruise industry has emerged as one of the fastest growing travel and leisure sectors. In 1970, 500,000 North Americans embarked on a conventional cruise; by 2016, this level had increased to 24.0 million and to include consumers from around the world.

Several factors have contributed to the industry's success. These include:

- Cruise lines are successful in introducing new vessel inventory and developing on-board and landside products that generated sustained interest in cruising;
- Lines create products that work to convert land-based resort guests into cruise passengers;
- Cruise industry products consistently deliver a high level of passenger satisfaction;
- The cruise model is adaptable to changing market conditions. Lines can adjust deployment location, cruise length and other factors as well as adjust pricing to incentivize ticket sales while maintaining other revenue streams (on-board sales, shore excursions, etc.);
- Lines have been successful in developing and marketing cruises to worldwide audience; and,
- Cruise operators have effectively controlled competition, operational costs, and generated revenue streams from several sources beyond net ticket sales.

Each of these remain in effect, continuing to propel future growth of the industry.

The cruise ship order book has long been a barometer for industry health and future growth. The cruise industry is supply lead, with increases in capacity (e.g., ships and lower berths) normally leading to expansion of global passenger levels. As of February 2017, a record number of ships with a total capacity of nearly 250,000 lower berths are scheduled for delivery between the end of this year and 2026 (see Figure 2-7). This represents significant expansion of total industry supply and will propel the near-term total inventory of ships (inclusive of known withdrawals) from 300 in 2015 to 363 by 2020.

Where will all these vessels be deployed? The long-term deployment patterns for these vessels is unknown as cruise lines generally only make deployment plans public two to three years ahead of time. What is clear, however, is existing vessels and the 83 on order will need regions to sail and consumer markets to tap into. Supply expansion will place demands on existing and emerging cruise regions to provide new facilities and destination offerings. Lines will focus operations around ports and destinations that can accommodate large vessels and meet other key deployment characteristics. Alaska is expected to be a recipient of some number of ships on order on a season basis as well as vessels sourced from existing cruise line fleets.

FIGURE 2-7. CRUISE SHIP ORDER BOOK AS OF EARLY FEBRUARY 2017 (SUMMARY)

	SHIPS	LOWER BERTHS	VALUE ($US)
2017	10	28,034	$7.0 Billion
2018	15	34,236	$8.6 Billion
2019	19	41,788	$9.6 Billion
2020	11	38,426	$8.7 Billion
2021	10	35,800	$7.6 Billion
2022+	18	71,000	$13.0 Billion

TOTAL 2017 - 2026

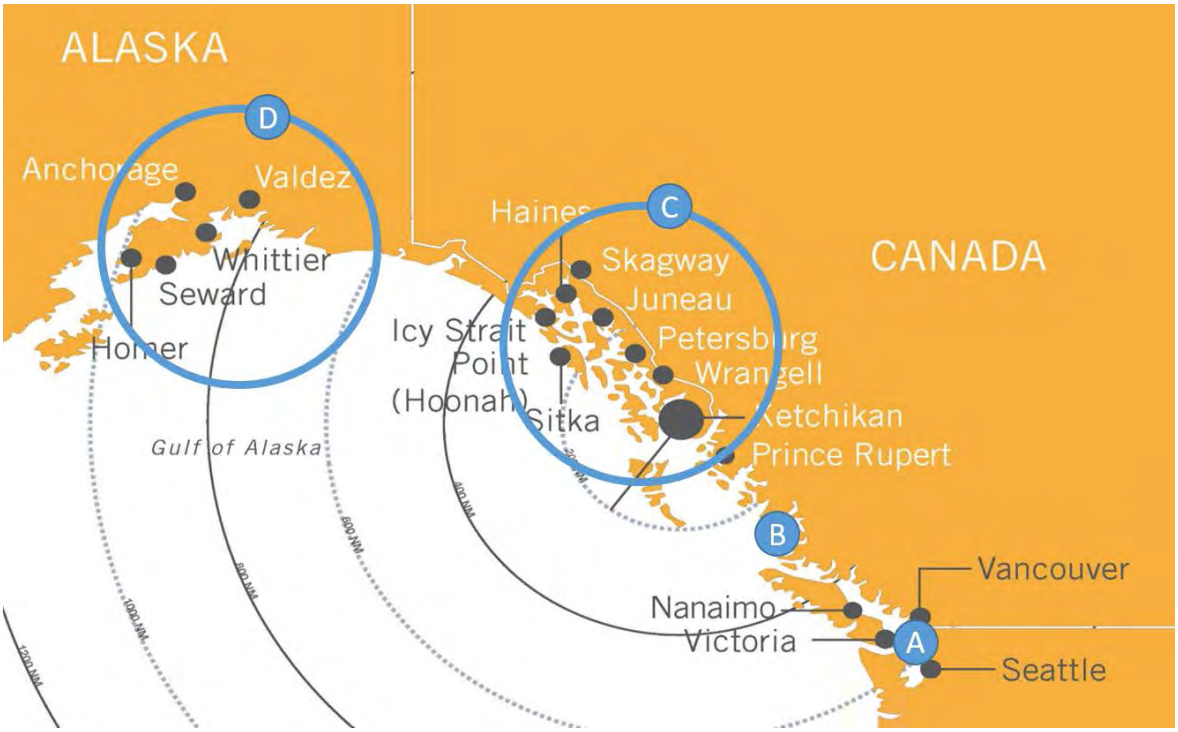
SHIPS	LOWER BERTHS	VALUE ($US)
83	249,284	$54.5 Billion

Sources: Cruise Industry News and Moffatt & Nichol, 2017

2.4.2. FEWER CONSTRAINTS TO DEPLOYMENT OF LARGER VESSELS IN ALASKA

The primary Alaskan cruise region is generally defined by deployment primarily originating from the homeports of Seattle and Vancouver and extending up through Canada's Inside Passage into Southeast Alaska and beyond into further north ports of Seward, Whittier and others (see Figure 2-8).

FIGURE 2-8. THE ALASKA CRUISE REGION



Source: Cruise Industry Sources and Moffatt & Nichol, 2016

A. Homeports. Core homeports of Seattle and Vancouver provide primary base of operations for the region. A combined six berths with respective terminal facilities are available.
B. Canada's Inside Passage. A growing collection of ports-of-call that add to overall number of destinations and venues in the region. The ports Prince Rupert, Nanaimo (new in 2016), Victoria and Vancouver help meet far foreign port requirements for cruises embarking from the U.S. ports of Seattle, Seward and others.
C. Core Southeast Alaska Region. Mainstay ports-of-call (Skagway, Juneau, Ketchikan) and other supporting destinations (Sitka, Hoonah, Tracy Arm, Hubbard Glacier) comprise the primary offer for +/-7-day cruises from Seattle and Vancouver. Mainstay ports welcome over 75% of all capacity in the region. New cruise facilities at Hoonah and expanded facilities in Juneau provides key infrastructure expansion highlights of for 2015-16.
D. Northern Alaska. Destinations visited as part of longer, 14-day itineraries and/or open-jaw deployments from the region. Ports include Seward, Whittier, Homer, Anchorage and Kodiak. Anchorage and Seward also support land sightseeing options via rail by Princess Cruises and others. By example, Princess Cruises offers Princess Rail and coach service linking wilderness lodges in Denali, Talkeetna, Copper River and the Kenai Peninsula.

Cruises within the region are generally offered on deep-water cruise vessels, with some smaller niche expedition and soft adventure operations also present in the region. The former generally drive berth and facilities demand in Skagway and other Alaskan ports-of-call.

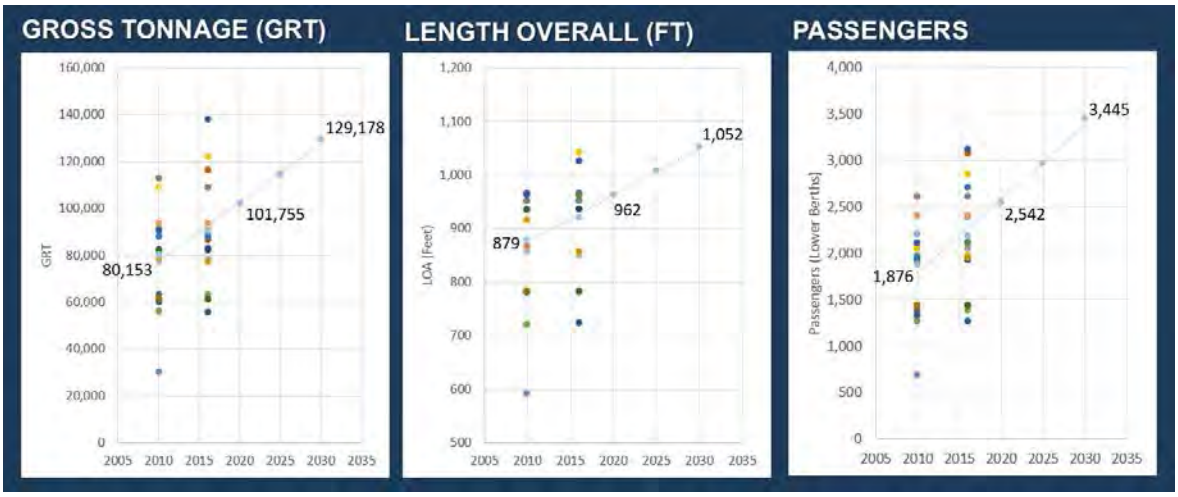
Deployment within the Alaskan region has regained its positive footing since 2010, with capacity (as measured by vessel lower berths) expanding by 13.9% from 818,428 to over 932,324 in 2016.[23] This equates to over one million cruise passengers in Alaska in 2016 as cruise ships tend to operate at between 105% and 115% of lower berth capacity. For 2015, 56% of Alaska's 1.78 million visitors were cruise ship passengers.

Princess Cruises, followed by Holland America, were the regional deployment leaders in 2016, contributing 29.1% and 23.1% of total cruise capacity, respectively. The combined offering of RCCL and Celebrity contributed an estimated combined total of 21.9% of capacity for the same year.

All other major conglomerates are represented in the market place except MSC. With the expectation that this brand will emerge as the third largest cruise line over the next decade, their entry into the Alaska market seems an inevitability.

The size of vessels in the region increased between 2010 and 2016. Comparison of vessels in the region over this period shows growth of gross register tonnage (GRT) (12.6%), length overall (LOA) (4.6%) and passenger capacity (16.4%). Extrapolating these trends outward to 2030 suggests the *average* vessel in the region could be 129,000 GRT, 1,050 LOA and carry 3,500 passengers provided these vessels can be accommodated at the regional homeports of Seattle and Vancouver as well as upstream ports-of-call.

FIGURE 2-9. GROWTH OF VESSELS IN THE ALASKAN REGION



Source: CIN, CLIA, CLAA, Cruise Lines Meetings and M&N, 2017

Similar to other destinations, the region is seeing capacity levels increase while the overall number of vessels in the region remains the same. This results from a limited number of homeports and ports-of-call in the region coupled with a growing number of larger cruise vessels operating in Alaskan waters. By example, cruise ship capacity in 2003 was recorded at 797,516 on 40 ships; by 2016, it's estimated that capacity will be 16% greater in the region while actual vessels operating will decline to 38. Conversations with cruise lines and Cruise Lines Agencies of Alaska (CLAA) suggest that growth over the next decade will occur primarily as a result of homeports and primary regional ports-of-call being modified to welcome larger vessels, without significantly expanding the number of vessels operating within Alaska.

In many ways, the Alaskan cruise region can be described as a balanced system; its growth is not reliant on any single element, but rather, a combination of factors that overall and together allow this submarket to flex to welcome increasing

[23] In 2010, cruise companies cut capacity by about 14% in reaction to institution of $50-per-passenger head tax by the State of Alaska. A lawsuit filed by the cruise industry association in Alaska resulted in a reduction of the tax in 2011, and since that time, capacity and passenger levels in the region have climbed back to regional highs experienced in 2007-09.

passenger and vessel throughput. This somewhat unique feature of the Alaskan cruise region was confirmed though a series of discussions with cruise lines, CLAA and officials at the primary regional homeports of Seattle and Vancouver.

In looking ahead at possible growth of the region, the cruise line stakeholders listed above were questioned as to what pieces of this balanced system would need to adjust, and which could be practically adjusted.

One fundamental aspect of the market was addressed quickly by industry stakeholders, namely: Is there passenger appetite for more cruises to Alaska? All stakeholders felt that consumer interest in the region was reaching all-time highs. Alaska remains a highly aspirational destination for North American and international visitors, and cruising remains one of the primary ways these visitors can access the region. Cruise line revenues associated with Alaskan deployments were also cited as strengthening, especially with deployment challenged in competing seasonal markets of the Mediterranean and Northern Europe due to heightened security concerns in 2016.

Discussions with cruise line stakeholders also led to another near-unanimous conclusion: that Alaska would and could only grow through increasing the size of vessels deployed in the region and not through a wholesale expansion of the number of homeports and ports-of-call throughout the Inside Passage. As noted previously, most cruise lines have grown their fleets by adding more and larger cruise vessels. In the past five years, the newest and most popular generation of ships range in length from 1,083 to 1,132 feet and have passenger complements of between 2,500 and 4,100. Smaller cruise vessels are increasingly being deployed for niche operations on more far-flung global deployments. Widening of the Panama Canal, once a major limiting factor in the seasonal movement of vessels to/from the Caribbean to Alaska, was completed in 2016. This widening allows near free movement of almost all of the industry's largest vessels to/from the Atlantic to the Pacific.[24]

Alaska and its homeports and ports-of-call, however, are not as flexible. As reported by cruise stakeholders and observed by the M&N, there are limited opportunities for wholesale increases in infrastructure throughout the region. Seattle and Vancouver will remain the primary homeports supporting the region, with Saturday and Sunday slots remaining fully in-demand throughout the entirety of the Alaska cruising season. Any growth in the region will rely on: (a) an expanded number of large (+/- 1,100') cruise berths and related terminals able to support deployment; and (b) increased utilization of Seattle and Vancouver homeport berths on non-weekend days. Of these, the latter is more practicable given airlift and hotel room availability as well as consumer preference to vacation and travel weekend-to-weekend.

For homeports, current and anticipated future expansion is expected to support larger cruise vessels, and as such, help facilitate growth of the Alaskan region. Seattle currently offers facilities capable of welcoming very large vessels and is in the planning stages to potentially add an additional berth and possible terminal. Bell Street at Pier 66's berth is 1,600', with terminal modification/expansion underway. NCL has signed a long-term agreement to operate from Bell Street and modifications will allow homeport for *Breakaway*-, and likely, *Breakaway-plus*-class vessels. Smith Cove at Pier 91 has two berths, both 1,200' long with upland facilities to support large vessels. These facilities can welcome larger RCCL vessels, including the *Quantum*-class. The Port of Seattle has indicated they plan to study the development of a fourth cruise berth in 2017.[25] Recent discussions between the M&N Team and Port of Seattle cruise facility representatives indicated the Port's desire to increase the utilization of existing cruise facilities on non-weekend days prior to any serious consideration of a fourth cruise berth; perhaps by increasing Seattle's attraction as a regional port-of-call.

Vancouver also has larger vessel capabilities but has air draft limitations at the Lion's Gate Bridge and at Seymour Narrows for very large cruise vessels. Canada Place offers a 1,663' (East) and 1,060' (West) berth for larger vessels.

[24]The air draft under Panama's Bridge of the Americas (201') limits RCCL's *Oasis*-class and a handful of other very large cruise ships from transiting the canal. Specific lifeboat configurations on some ships also present challenges. The traditional terminology of "Panamax" and "Post-Panamax" for cruise vessels has effectively disappeared. Panamax vessels have been and remain the primary vessels operating in Alaskan waters.

[25] Vessels deploying from Seattle are reliant on touching a far foreign-port.

The Vancouver Port Authority commissioned in June 2017, a study to look at the development of new cruise facilities outside of the air draft restriction of the Lion's Gate Bridge.

The geography of Alaska's coastline and the limited waterfront area in the three key ports-of-call (Ketchikan, Juneau and Skagway) presents a greater challenger to long range growth. In discussions with cruise stakeholders, there are few opportunities to develop additional new ports in the region. The additional of a fifth and possibly sixth large berth at key ports is not indicated, given the required waterfront area and development cost, and an appreciation that a single port adding an additional berth offers limited appeal if other key ports do not follow suit. Cruise lines and CLAA feel more confident that if key Southeast Alaska ports-of-call can focus on retrofitting current docks and wharves to accommodate vessels of over 1,100', that over time this will provide the most sustainable approach to growing the Alaskan market. Juneau recently completed construction of its second of two adjacent 1,000' and 1,100' berths through an infrastructure upgrade program, and potential exists for one or two existing facilities to move to 1,150'. Ketchikan approach its long-range plan for expansion of marine facilities to welcome larger cruise vessels.

With these factors in mind, and barring any significant changes in Alaska's cruise passenger head tax policy, we anticipate the region will have very positive prospects for cruise capacity and passenger growth over the next 15 years. Larger cruise vessels can be more easily be deployed to the region via the expanded Panama Canal. The homeports of Seattle and Vancouver are able to support larger vessels in their current configurations, with studies and plans ongoing to provide additional port capacity in the future. Ports-of-call in Alaska are starting to advance key improvements to welcome larger vessels. While this will take time, a willingness by cruise lines and host communities like Juneau and Ketchikan seems to be increasingly aligned toward the strong economic prospects associated with growth.

CLAA has already put Skagway on notice that larger cruise ships are planned for deployment to the City in 2019 and 2020, and that without expansion of existing facilities to accommodate these vessels, there is risk that these calls could be deployed elsewhere in the region. For Skagway, long-term forecast of vessel activities suggests that the City should be able to welcome up to 3 vessels of greater than 1,100 feet (defined as Type D vessels, described in Section 4.0).

2.4.3. REDUCED COMMODITY MOVEMENT THROUGH SKAGWAY

As presented previously, commodities move through facilities at the Ore Dock, Petro Marine and AML Facilities. Some limited movement of goods also occurs via AMHS activities. For Petro Marine, AML and AMHS, each of these facilities are important lifelines to Skagway and other nearby communities in the Yukon, and as such, need to remain facets of Skagway's waterfront. Continued commodity activities through the Ore Dock are a function of short- and long-term supply and demand (both mineral concentrate and equipment).

As part of M&N's overall port planning work, an assessment was prepared of future community movements across the waterfront (see *Port of Skagway Economic Analysis*, dated July 13, 2017). A summary of this work is presented herein.

Projections of future commodity activities were based on results from user interviews, review of regional research, economic indicator research and other methods. The economic indicators used for this analysis were Yukon GDP growth and US GDP growth.[26] The movement in these indicators were applied to different cargo flow projections depending on the potential influences that these indicators have on changes in volume handled.

[26] Yukon Economic Outlook, 2017 published by the Yukon Department of Finance; Future projections available from the International Monetary Fund (IMF); and, M&N estimates.

TABLE 2-1: CARGO AND COMMODITY ASSUMPTIONS

Data	Projected Growth	Source
Inbound Building Material, AML	Yukon GDP Growth	Yukon Economic Outlook, 2017
Inbound Consumer Goods, AML	Cruise Passenger Growth	Internal (M&N)
Inbound Other, AML	US GDP Growth	IMF
Outbound Building Material, AML	Yukon GDP Growth	Yukon Economic Outlook, 2017
Outbound Consumer Goods, AML	US GDP Growth	IMF
Outbound Ore Concentrate, AML	Yukon GDP Growth	Yukon Economic Outlook, 207
Outbound Other, AML	US GDP Growth	IMF
Petro Fuel Services	Yukon GDP Growth	Yukon Economic Outlook, 2017, with exception of 2017 which is estimated on data from Jan-May
Ore Dock Volume	Minto Mine is expected to grow with Yukon GDP until shut down following 2020	Yukon Economic Outlook, 2017, Capstone Mining Corp

Source: M&N

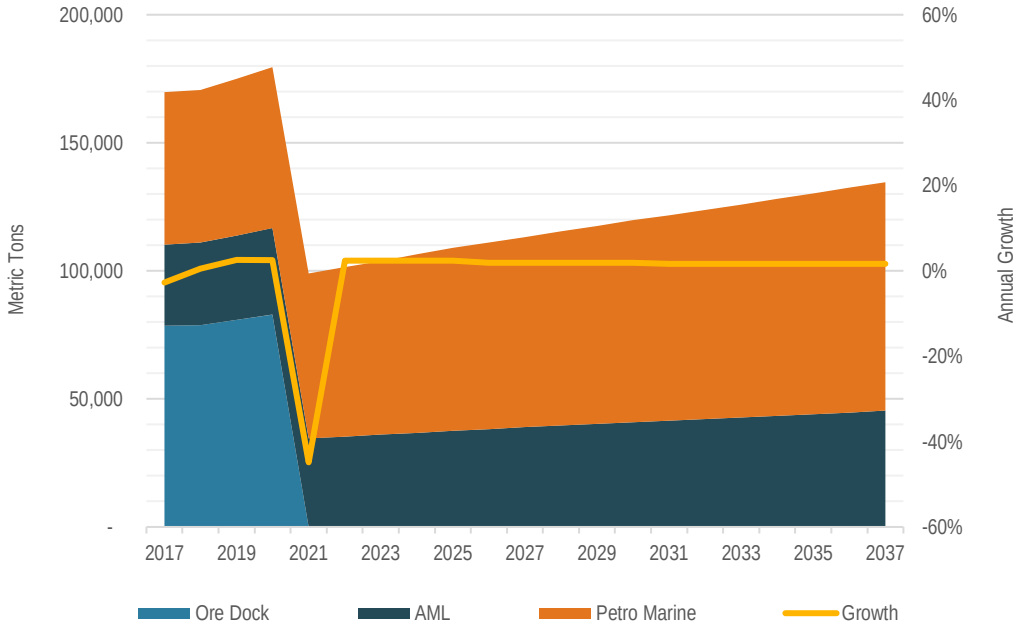
Inbound and outbound volumes handled by AML are expected to expand accordingly as it relates to the type of commodity being handled. Inbound building material, outbound building material, and outbound ore concentrate are expected to grow with the forecasted GDP growth in the Yukon Territory of Canada. These materials are related to industrial activity within the territory and would be used as support to any projects within the Yukon. Ore concentrate would be pegged to the relative success or failure of the overall mining sector in the Yukon, an economic activity that heavily influences the movement of GDP. Products transported for Petro Marine are also anticipated to move with GDP growth in the Yukon as the majority of their volume is sent north through the Yukon to various industrial activities.

On the other hand, M&N anticipates that other commodity groups, including outbound consumer goods, would depend on the overall economic health of the United States and surrounding area which serve as the primary economic partner for the Municipality. Inbound consumer goods, however, are expected to primarily trend with growth in the cruise industry. More than 90% of consumer spending within Skagway is accounted for by cruise visitors to the Municipality. The influence of cruise passengers determine the level of consumer goods that are sent to Skagway via AML during any given year.

Ore products through the Ore Dock are typically tied to a single mining activity, in the most recent case Minto Mine, and as a result fluctuates with the opening and closing of existing mines. The Minto Mine is anticipated to shut down in mid-2020 and is reflected in the model as shipping current volumes through the entire year of 2020. The constrained and unconstrained cases assumes that this volume stops coming through the Ore Dock and is not replaced with any other volume through the 20-year horizon (see Figure 2-10). There is a third scenario in this analysis called the Project Case which examines the potential for another Yukon mine to begin shipments during the 20-year period of analysis (see Figure 2-11_.

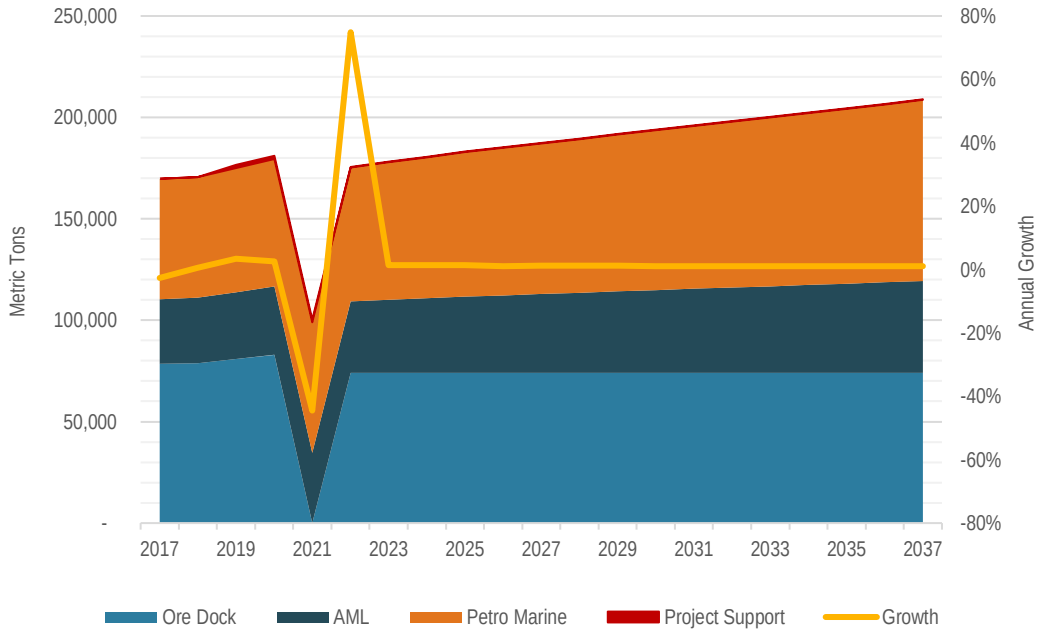
From our analysis, investment in modified and/or expand facilities in support of Petro Marine and AML Facilities may yield improvements to the overall workability of these sites for their respective users, especially given existing constraints presented to berthing and vessel movement during the cruise season. Market activities for mineral export, however, are not favorable over the short term, thereby not necessitating investment in Ore Dock (or similar) facilities to support these enterprises. Over the long term, market conditions may change that require a unique user(s) to directly invest or partner with Skagway to upgrade the Ore Dock, loader and other facilities needed to support increased mineral extract export. Retaining flexibility to allow this market opportunity to evolve remains a priority of the community (see Section 4).

FIGURE 2-10: VOLUME PROJECTIONS, 2017 – 2037 (NO ORE CONCENTRATE POST 2020)



Source: M&N, 2017

FIGURE 2-11: VOLUME PROJECTIONS, 2017 – 2037 (PROJECT CASE)



Source: M&N, 2017

3. COMMUNITY PLANNING FRAMEWORK

3.1. PLANNING FRAMEWORK DEFINED

A framework is defined as a basic conceptional structure. In the planning context, a framework provides a means to organize ideas, community values, and spatial features such that they inform all follow-on design effort and policy formulation. A well-conceived framework serves as the foundation of short- and long-range planning efforts and becomes the defensibly "whys" underpinning the work.

Given its importance to guide this short-term planning effort as well as all follow-on design endeavors, considerable time was invested to develop and refine a planning framework for Skagway's waterfront. Through feedback received from Community Work Session #1 and interaction with other project stakeholders, an initial planning framework for the project was assembled. This initial framework—presented at Community Work Session #2—was organized into three primary groupings.[27] These included (in order of importance):

- Community Desire. Those foundational ideas and values of critical importance to Skagway's residents, inclusive of observed needs as well as community image and portrayal.
- Economic Opportunity. Potential markets and economic inputs, and critically, how these should be balanced and prioritized with community desires and values. Economic opportunities often financially leverage community desired endeavors.
- Best Practices. Success leaves clues. Revitalized waterfronts have left in their wakes many experiences and best practices that provide economic and social benefit and add to community quality of life. Interconnectivity between waterfront elements, public access, diversity of use, and community portrayal of its heritage and future vision are all fundamental best practices in waterfront renewal efforts.

From feedback received in Community Work Session #2, the planning framework was refined as part of Community Work Session #3. Existing ideas and values become more nuanced and new elements were added to the lists prepared under the community desire, economic opportunity and best practices categories.[28]

3.2. FINAL PLANNING FRAMEWORK

The final planning framework for Skagway's waterfront is presented in Figure 3-1. The final framework was collaboratively developed and validated by the community and serves as a guide for preparation and evaluation of planning alternatives under short- and long-range planning efforts.

The fifteen elements comprising the final framework include:

- Clean up the Ore Basin. This is considered a community imperative that must happen over the near term. Ore Basin restoration is considered by the public as the responsibility of the current waterfront leaseholder, WP&YR Railway.
- Offer a Great Guest Experience. Skagway residents are proud of their tradition of being a welcoming community for guests. They also recognize the economic importance of offering a great visitor experience. Planning options should explore ways the guest experience can be improved for all visitor groups, including cruise passengers, AMHS ferry passengers, boaters, and others.

[27] Refer to Appendix A-2, *Community Work Session #2: Skagway's Waterfront, Past and Present* for more detail.
[28] Refer to Appendix A-3, *Community Work Session #3: Skagway's Short-Term Waterfront Needs* for more detail.

FIGURE 3-1. FINAL PLANNING FRAMEWORK FOR SKAGWAY'S WATERFRONT

- Create Separation between Tourism and Industrial Waterfront Areas and Activities. The diversity of activities along Skagway's waterfront at times creates conflicts and can work against the aspiration of delivering an ever-greater guest experience. It can also limit the important work on the waterfront, such as offloading of containers at the AML Barge Dock. Where possible and practicable, the community desires to create separation (or buffers) between tourism and industrial waterfront and landside activities.
- Balance Our Heritage and Future Economic Opportunities. Finding balance amongst values, uses, and activities is a theme that runs throughout several framework elements. In this case, the community expressed a willingness to explore new economic businesses and activities along the waterfront, but to also keep these in check against the fundamental attributes that make Skagway special and beloved by its residents and visitors.
- Promote Opportunities for Life Long Learning. The waterfront and its economic and social infrastructure should provide opportunities for education at multiple levels, from expression of the "work of the waterfront" to visitors to job training (and cross training) for area residents during all seasons.
- Expand Public Recreation and Natural Features Along the Water's Edge. Cognizant of the need for port security, residents expressed a strong desire to expand the means and modes of access to their waterfront where feasible. This community desire is considered congruent with elements found within each of the framework categories (e.g., provide a great guest experience, expand quality connections between the Town and waterfront).
- Capitalize on Skagway's Strategic Location and Economic Uniqueness. Skagway is within the core deployment region for cruise ships exploring southeast Alaska. It is also linked via road to the Yukon and broader hinterland. These core locational attributes are why cruise and resource related cargo activities are present today and will be for the foreseeable future. Residents felt this uniqueness should continue to guide the future evolution of the waterfront.
- Maintain the Economic Diversity of the Port. Maintaining and potentially broadening diversity of uses along the port's docks, wharfs and adjacent land areas is also a primary theme that runs through several framework ideas. Residents expressed a desire to maintain flexibility to adapt to new market opportunities and preserve the waterfront's ability to have multiple engines driving long term, year-round prosperity.
- Grow Cruise Operations, Including More Small Vessel Activities. From multiple interactions with the community, there was consensus that the presence of the cruise industry was positive for Skagway and that facilities and infrastructure should evolve to reasonably meet the needs of larger vessels. The public also expressed desire for the waterfront to welcome more niche and luxury cruise vessels and yachts. The "No

Change" waterfront option was felt not to be in the best interest of residents and could result in loss of market share, and thus, economic benefit.

- Foster Year-Round Economic Activity. Community members felt diversification of waterfront uses and activities should include ways in which new and/or expanded enterprises could be developed that allow for more employment through the winter and support year-round population and economic stability.
- Leverage the Brand and Economic Benefit of WP&YR Railroad. The railroad is inexorably tied to the history and future of the Skagway. It is a leading venue that attracts guests to the community and provides jobs for its residents. Work Session participants expressed a desire to have planning options that extend the long-term economic benefit associated with WP&YR.
- Expand Quality Connections between the Town and Waterfront. The first of four best practices retained by the community for inclusion in the planning framework. Growing the number of improved connections between the waterfront and the Town was considered an important short- and long-term endeavor. These connections includes walkways, streets, greenways, view corridors, gateway features and others.
- Promote Diversity of Uses along the Waterfront / Town Interface. This planning framework elements speaks to the best practice to find planning approaches that seek to provide a greater diversity of elements in the interface point between the waterfront and Town.
- Expand the Methods and Venues Communicating Skagway's History and Distinctive Stories. Skagway is a coastal town unique in Alaska. It has a varied history with numerous stories to tell. There currently several points where chapters in Skagway's storybook are communicated to guests. Community residents felt planning options should continue to expand the number of fixed and interactive elements communicating the history and future aspirations of Skagway.
- Explore Innovative Solutions to Long-Term Challenges. Perhaps the most esoteric of planning framework elements, this measure conveys the waterfront best practice of looking to solve problems or create new things in an innovative way. By example, sustainable design supports the principal of reuse of resources in construction projects.

Each of the above framework items informed the develop and evaluation of planning options explored and described in Section 4.0.

4. PREFERRED SHORT TERM PLAN OPPORTUNITIES

4.1. THE PROCESS

The process of identifying and vetting plan alternatives involved first looking broadly at waterfront investment opportunities, and then with the assistance of the community, identifying and refining those projects which (1.) fulfilled the aspirations identified in the planning framework, (2.) met the amounts and requirements of available grant funding, and (3.) could be implemented over the next two to three years. This iterative effort and resultant outcomes are summarized in the following section, with additional detail provided in Appendix A-2 and A-3.

4.1.1. EARLY CONCEPTS

As an initial exploration of plan opportunities, nine different concepts were prepared that contemplated larger scale planning initiatives over a 15+ year planning horizon. The intent was to challenge the community and stakeholders to think broadly about opportunities to transform the water's edge for economic and social benefit and then seek areas where "early wins" (e.g., an addition to a vessel float) could be achieved within timeframe defined by this short-term planning effort. Each of the nine options are presented in Appendix A-2, *Community Work Session #2: Skagway's Waterfront, Past and Present*.

The nine options depicted differing configurations of docks and in-water investments cohesively linked back to the blocks, streets, open spaces and other spatial features. Concepts broadly contemplated:

- Long term market trends indicate an opportunity to welcome larger cruise ships, and thus, point to a need for longer vessel wharfs and docks coupled with more robust upland tourism infrastructure.
- Market potential and community desire suggests a need to retain portions of the waterfront and its port facilities engaged in industrial activities. This includes AML and Petro Marine facilities, which are considered essential infrastructure for the community, providing cargo and fuel services, respectively.
- Where possible, tourism and leisure activities should be separated from industrial activities.
- AMHS facilities are an important economic and social lifeline, and as such, need to remain a fixture of Skagway's waterfront.
- The WP&YR Railroad is a unique feature of Skagway's waterfront and heritage. Rail facilities should be preserved and enhanced.
- Corridors linking the waterfront and Town need to be strengthened over time, achieving the duel intent of providing great capacity pedestrian and vehicular infrastructure and providing a safe, welcoming corridor for guests, residents and workers.
- Open spaces, parks and other greenways and blueways should be integrated over time to create a network of recreational and habitat corridors for the enjoyment of residents and guests.

Feedback from community work sessions held February 28 and March 1 coupled with Project Steering Community and other stakeholder input indicated preference for Option 2 (Rail Dock extension/modification), Option 3 (Ore Dock extension/modification) and Option 8 (AMHS site redevelopment). These options become the subject of a more refined review and exploration to identify project opportunities for implementation over the short-term.

After Community Work Session #2, it was relayed to M&N that the Municipality was in ongoing negotiations with the State of Alaska regarding upgrade to Skagway's AMHS dock and deployment of new Alaska-class ferries. Given the sensitivity of these negotiations, Option 8 was removed from continued evaluation under the short-term plan but may be revisited as part of long range vision and master plan preparation.

4.1.2. REFINED CONCEPTS

Concepts were advanced under Options 2 and 3, with two variants prepared and evaluated for each. These included:

- Option 2a. Rail Dock modification and extension south to allow for the simultaneous berthing of two larger, Type D cruise vessels (see Figure 4-1);
- Option 2b. Rail Dock modification with dredging next to the small boat harbor to allow for a similar vessel configuration as Option 2a (see Figure 4-2);
- Option 3a. Development of a new outer vessel float at the Ore Dock to accommodate a single Type D cruise vessel (see Figure 4-3); and,
- Option 3b. Creation of a new inner vessel float at the Ore Dock to accommodate a singly Type D cruise vessel (see Figure 4-4).

Additional details associated with each of the above options is presented in Appendix A-3, *Community Work Session #3: Skagway's Short Term Waterfront Needs.* Options were evaluated against twelve criteria organized in a matrix format. The public reviewed and provided comment on each option as part of Community Work Session #3 held on April 24, 2017. From these reviews, it was determined that Options 3a and 3b held the most promise for implementation over the short term. Several observed weaknesses of Options 3a and 3b were felt to be able to be mitigated through the course of concept refinement. A large majority of participants attending either of the two sessions held as part of Community Work Session #3 felt the strengths of Options 3a and 3b outweighed the weaknesses. Community participants were concerned that passenger and vehicle congestion currently experienced at the Rail Docks would be exacerbated by expansion to accommodate larger ships. Several residents also expressed concern with first responder access and the general safety of vessel float located on the southern end of Rail Dock. The public also felt investment on public funds to improve private dock facilities was not in the best interest of the community.

FIGURE 4-1. OPTION 2A: RAIL DOCK MODIFICATION AND EXTENSION SOUTH

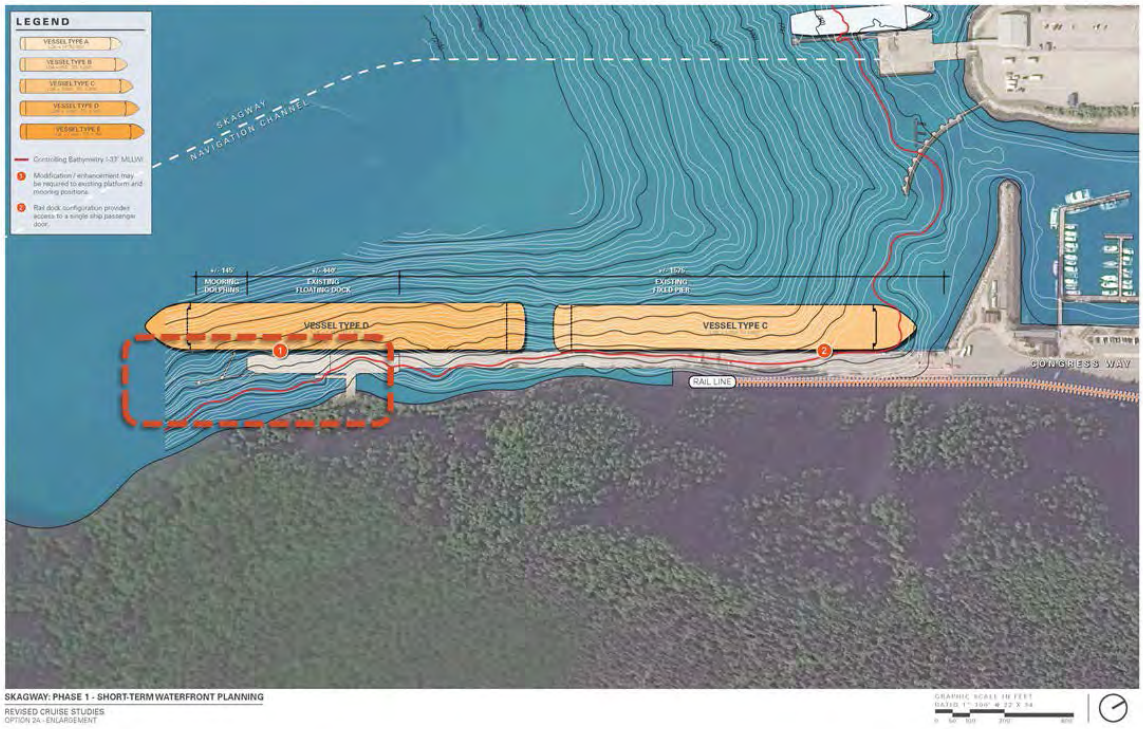


FIGURE 4-2. OPTION 2B: RAIL DOCK MODIFICATION WITH DREDGING

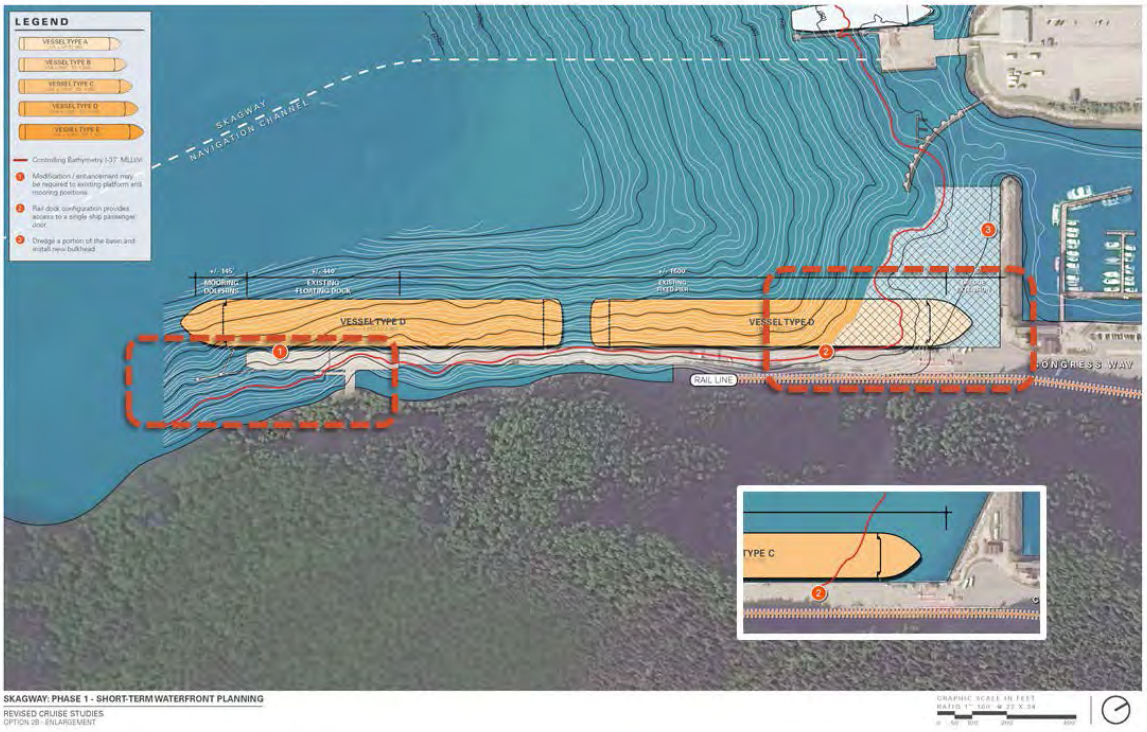


FIGURE 4-3: OPTION 3A: NEW OUTER VESSEL FLOAT AT THE ORE DOCK

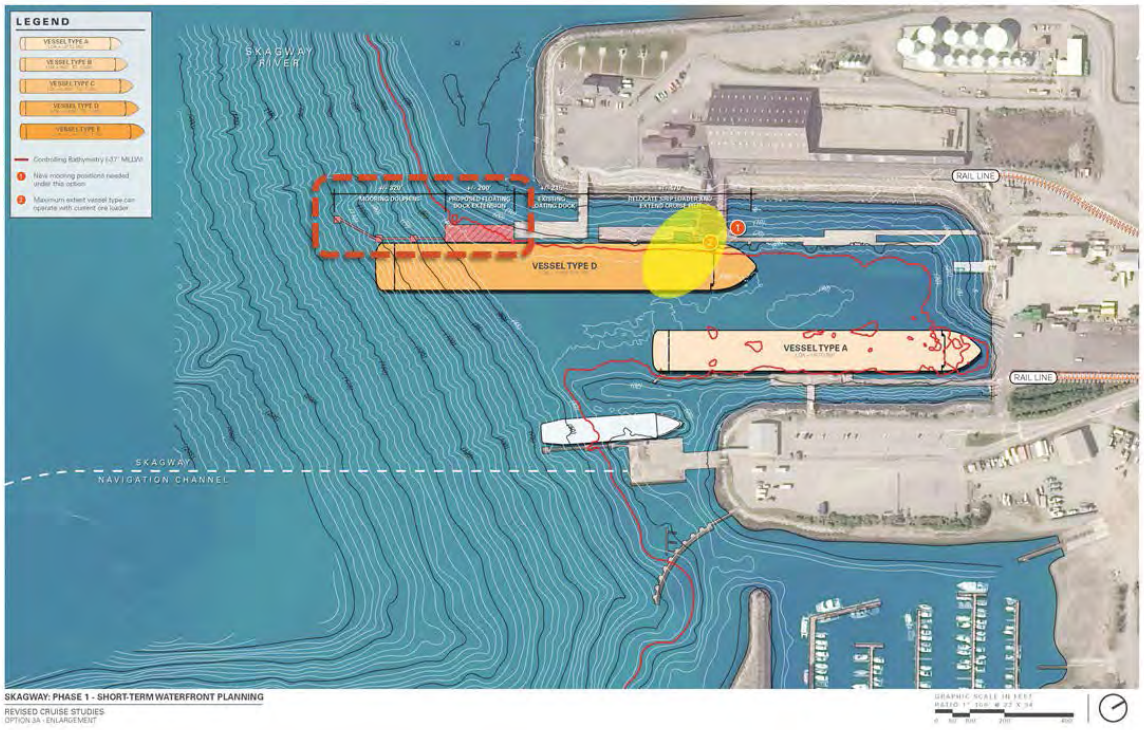


FIGURE 4-4: OPTION 3B: NEW INNER VESSEL FLOAT AT THE ORE DOCK

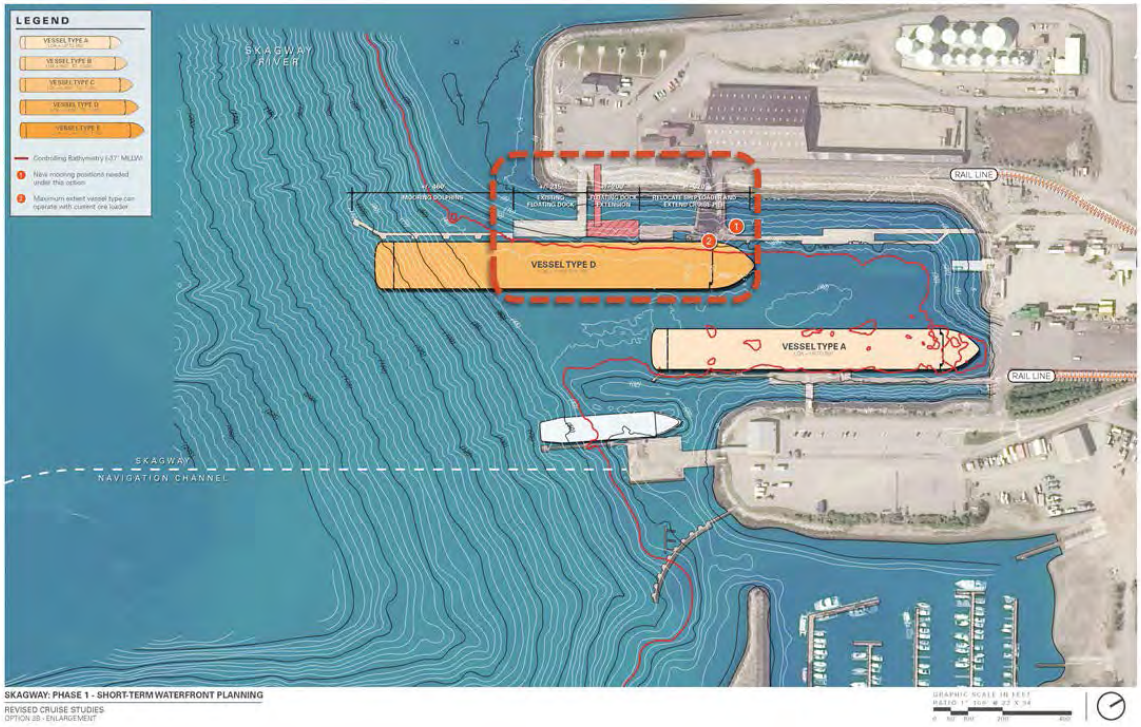


FIGURE 4-5: EXTENT OF CRUISE VESSEL PLACEMENT AT THE ORE DOCK

4.2. PREFERRED PLAN OPTIONS

4.2.1. OVERVIEW

From feedback received of refined plan options, Options 3a and 3b were evaluated in greater detail. Each is presented in Figures 4-6 and 4-7, respectively. As presented, both options consider modifying the existing Ore Dock to add a new floating dock with capability to access a fore and aft passenger door (one in the existing concrete dock expansion and one at the proposed floating dock).[29] Both options will provide adequate dock area for disembarking and embarking of passengers for Type D vessels.

Meetings with CLAA during final planning-level concept development explored passenger access ramp "bow" locations on several of the Type D vessels anticipated visiting Skagway in the near-term. These passenger door locations vary by individual vessel, both laterally along the ship and vertically in terms of ship's deck. This led to the reduction of the float from 200' to 175' in length, as 175' "captures" passenger access from all anticipated vessels. There will likely be one or more vessel where only one passenger ramp can land on the float: the goal being to provide at least one ramp on the float and one on the fixed dock to the south; with a desire for two (2) ramps on the float. Preliminary design will include a more in-depth geometric analysis including various vessels projected to be in the market; culminating in the required/desired length of the float and its appropriate location along the Ore Dock.

Concepts presented herein are expected to meet vehicle turning radiuses and requirements for EMS and Fire response. This will be confirmed during follow-on design effort as well assessment of the potential for incorporation of a potential RO-RO facility.

4.2.2. OPTION 3A

This option contemplates adding a new floating dock at the outer end of the existing Ore Dock. It requires demolition of three breasting dolphins and removal of three catwalks. New marine elements added under the scheme include:

- A single mooring dolphin at the outer end (southern end) of the Ore Dock;
- One catwalk;
- One floating dock (50 ft. wide x 175 ft. long) complete with pneumatic fenders and reaction dolphins;
- A steel gangway (20 ft. wide x 160 ft. long); and,
- A concrete platform to land the gangway on the landside.

Opinions of Probable Construction Cost (OPCC) were formulated for Options 3a and 3b. The goal is to provide figures which conform to a defined "feasibility" or "study" level of accuracy. According to AACE International (formerly the Association for the Advancement of Cost Engineering), reasonable low and high boundary limits of variability for this level of accuracy, referred to as a "Class 4" estimate, are from -30% to +50%. For Option 3a, the OPCC is estimated at $17.4 million (see Table 4-1).

[29] The existing concrete dock expansion is a fixed level dock. The proposed floating dock would have a freeboard at eight (8) feet to ten (10) feet above water level.

FIGURE 4-6: FINAL REVISED OPTION 3A: NEW OUTER VESSEL FLOAT AT THE ORE DOCK

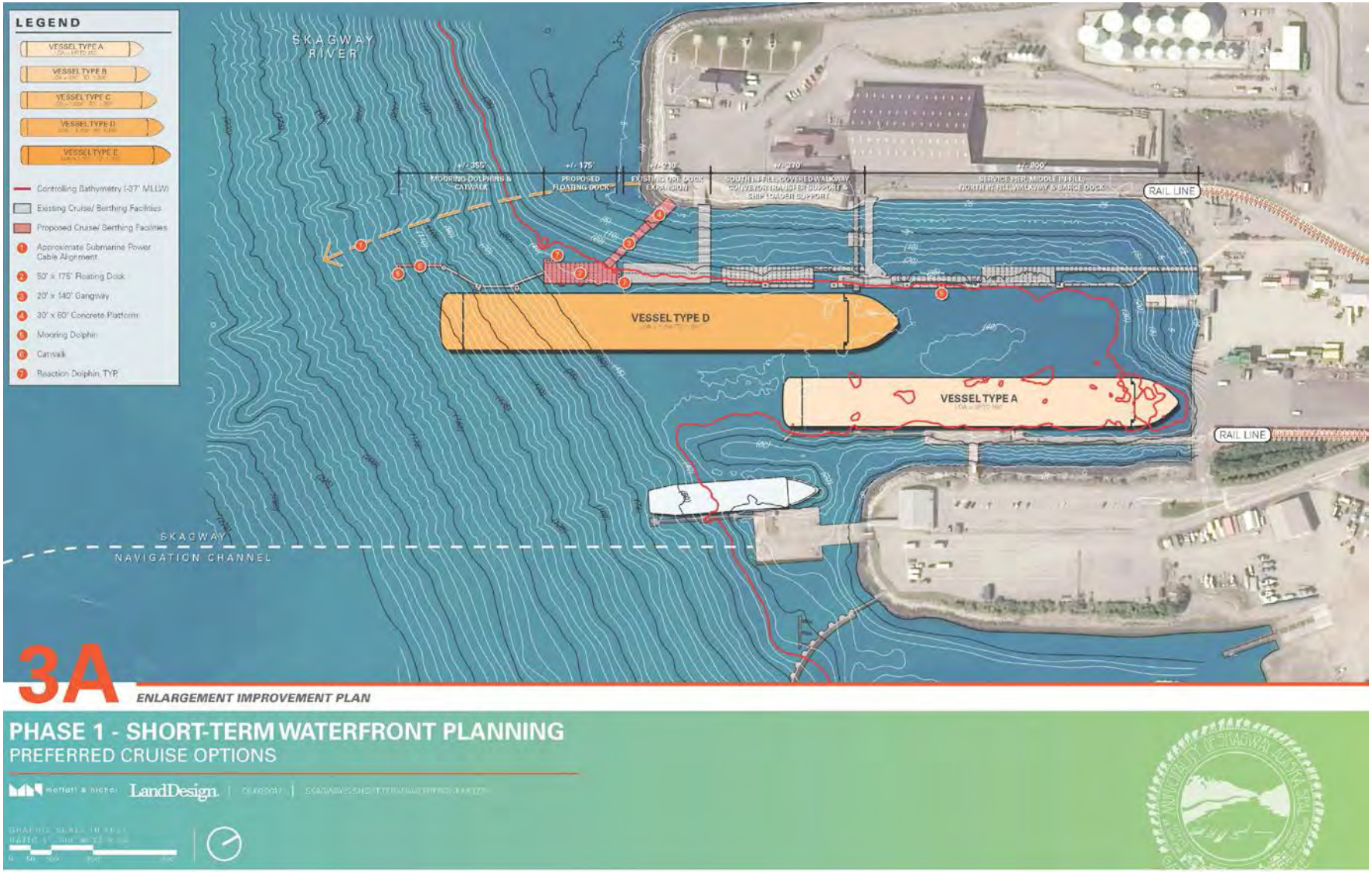


TABLE 4-1: PROBABLE CONSTRUCTION COST AND SOFT COSTS, OPTION 3A

Item	Description	Qty	UM	Unit Price	Sub Total	Total
1	Floating Dock System:	1	EA			$6,195,000
	50' x 175' Dock	8,750	SF	$350	$3,062,500	
	Pneumatic Fenders	3	EA	$40,000	$120,000	
	Piles:					
	Furnish	10	EA	$61,250	$612,500	
	Install	10	EA	$30,000	$300,000	
	Rock Socket	10	EA	$150,000	$1,500,000	
	Reaction Cap	2	EA	$300,000	$600,000	
2	30' x 80' Concrete Platform	2,400	SF	$400	$960,000	$960,000
3	Dock Lighting	1	LS	$150,000	$150,000	$150,000
4	Dock Water	1	LS	$100,000	$100,000	$100,000
5	Catwalks	2	EA	$75,000	$150,000	$150,000
6	Mooring Dolphin (in ~135 ft water):	1	EA			$1,970,000
	Piles:					
	Furnish	6	EA	$75,000	$450,000	
	Install	6	EA	$40,000	$240,000	
	Rock Socket	6	EA	$180,000	$1,080,000	
	Platform & Framing	1	EA	$200,000	$200,000	
7	20' x 160' Gangway	1	EA	$1,400,000	$1,400,000	$1,400,000
8	Demolition	1	LS	$200,000	$200,000	$200,000
9	Mobilization	1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total					$15,125,000
	Soft Costs:					
	Survey & Permit	4	%		$605,000	$605,000
	Design & Const. Docs.	6	%		$907,500	$907,500
	Contract Admin	5	%		$756,250	$756,250
	Total					$17,393,750

Source: Moffatt & Nichol, 2017.
Note: Costs in $US from May 2017; Class 4 Estimate Accuracy defined by AACE

4.2.3. OPTION 3B

Option 3b also adds a new floating dock, with this alternative locating the facility to the inside of the existing dock extension. Implementation of Option 3b will require demolition of the middle portion of the Ore Dock, the covered walkway, and one breasting dolphin. New elements to be added under this option include:

- One floating dock (50 ft. wide x 175 ft. long) complete with pneumatic fenders and reaction dolphins
- One steel gangway (20 ft. wide x 160 ft. long)

The OPCC for Option 3b is $14.5 million (see Table 4-2).

FIGURE 4-7: FINAL REVISED OPTION 3B: NEW INNER VESSEL FLOAT AT THE ORE DOCK

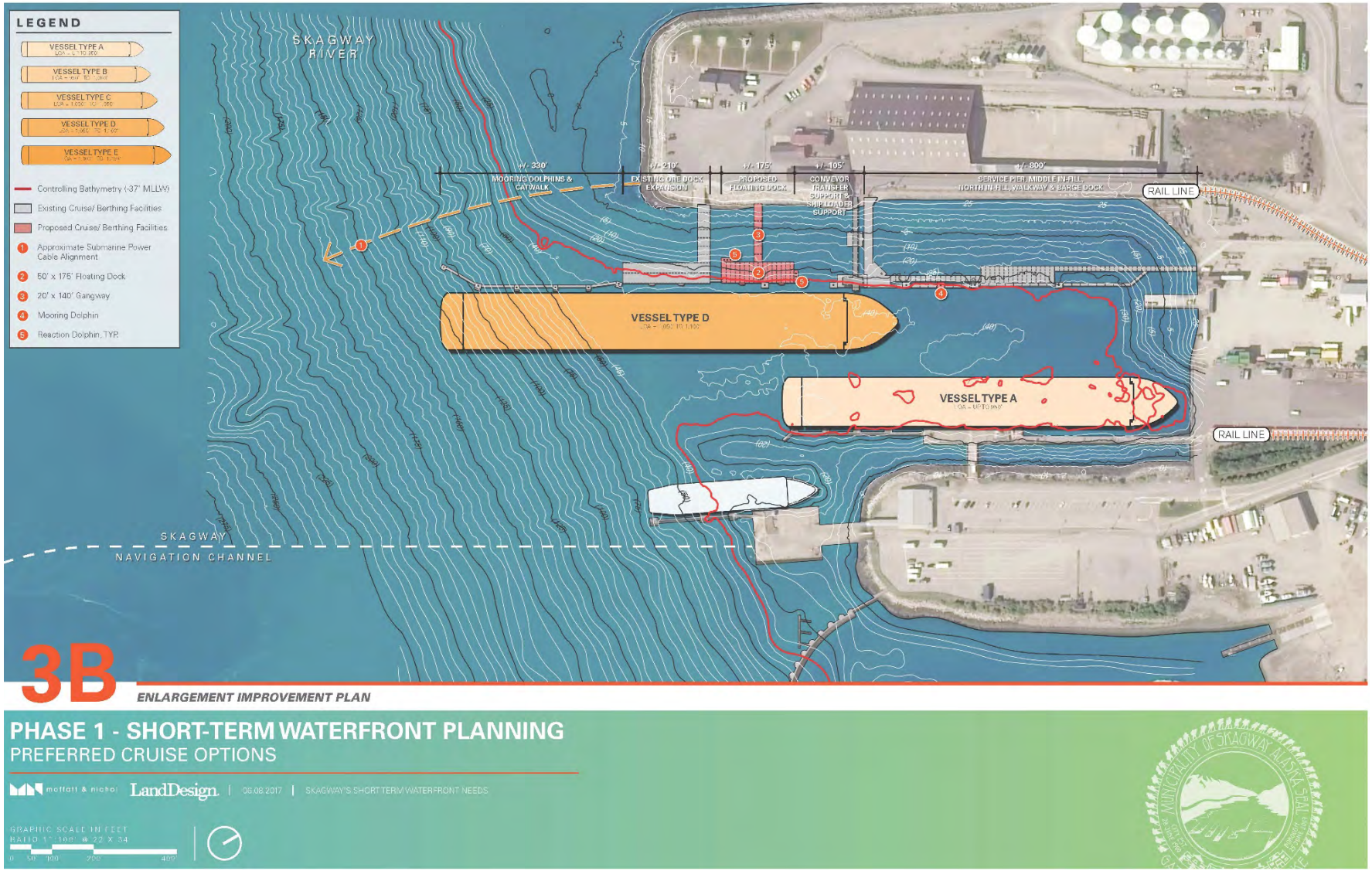


TABLE 4-2: PROBABLE CONSTRUCTION COST AND SOFT COSTS, OPTION 3B

Item	Description	Qty	UM	Unit Price	Sub Total	Total
1	Floating Dock System:	1	EA			$6,195,000
	50' x 175' Dock	8,750	SF	$350	$3,062,500	
	Pneumatic Fenders	3	EA	$40,000	$120,000	
	Piles:					
	Furnish	10	EA	$61,250	$612,500	
	Install	10	EA	$30,000	$300,000	
	Rock Socket	10	EA	$150,000	$1,500,000	
	Reaction Cap	2	EA	$300,000	$600,000	
2	Concrete Abutment for Gangway	1	LS	$100,000	$100,000	$100,000
3	Dock Lighting	1	LS	$150,000	$150,000	$150,000
4	Dock Water	1	LS	$100,000	$100,000	$100,000
5	20' x 160' Gangway	1	EA	$1,400,000	$1,400,000	$1,400,000
6	Demolition	1	LS	$650,000	$650,000	$650,000
7	Concrete Abutment for Gangway	1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total					$12,595,000
	Soft Costs:					
	Survey & Permit	4	%		$503,800	$503,800
	Design & Const. Docs.	6	%		$755,700	$755,700
	Contract Admin	5	%		$629,750	$629,750
	Total					$14,484,250

Source: Moffatt & Nichol, 2017.

Note: Costs in $US from May 2017; Class 4 Estimate Accuracy defined by AACE

4.2.4. EVALUATION OF OPTIONS

The matrix developed for refined option evaluation was updated to review and compare Options 3a and 3b. This matrix is shown in Table 4-3. As presented, both options were rated similarly in nearly all categories. Option 3b was felt to provide a safer position for the proposed second passenger gangway, and thus, was rated higher in the category of "guest safety." Option 3b is also estimated to offer a savings of nearly $3 million versus Option 3a.

Initially, Option 3a was considered to provide an easier path to permitting—especially given ongoing Ore Basin legacy contamination issues. However, review and detailed exploration of both options concluded that either option is expected to be able to occur irrespective of Ore Basin legacy contamination clean-up. Either project will need to demonstrate clear methods to avoid and minimize disturbance of contaminated sediments during pile removal, driving or other activity. Dredging is not proposed under either option.

TABLE 4-3. PREFERRED CONCEPTS EVALUATION MATRIX

	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	1A/1C/2D	1A/1C/2D
2. Guest Preference and Experience	●	●
3. Guest Safety	●	●
4. Cruise Line (User) Preference	●	●
5. Separates Tourism / Port Industries	●	●
6. Dependability	●	●
7. Impact to Navigation	●	●
8. Construction Costs	$17.4	$14.5
9. Construction Period/Downtime	●	●
10. Environmental Impact	●	●
11. Useful Life of Improvements	●	●
12. Impact to Upland Flows	●	●

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

In summary, both options provide a reliable approach to expanding the capability of Skagway to welcome a larger cruise vessel. On balance, Option 3b provides a more straightforward engineering solution to berth expansion and avoids demolition of more recent in-water infrastructure upgrades. Permitting of Option 3b is expected to be achievable within the short timeframe established for the project.[30] CLAA and other stakeholder reviewers also expressed preference for Option 3b, supporting this option due to its cost, lack of required dredging and overall ability to meet industry need.[31] CLAA feels there would be consensus for this option by the cruise line users.

[30] Incidental Harassment Authorization (IHA) may require up to 18 months to obtain given National Marine Fisheries Service (NMFS) review and public notice. The potential exists to significantly reduce approval times through modification of the existing IHA in place under the Gateway Project.

[31] A meeting was held with CLAA on April 21 to review and receive feedback on the four prepared options that comprised Community Work Session #3. Subsequent reviews have occurred as part of a scheduled conference call.

4.3. OTHER PROJECT INITIATIVES AND OPPORTUNITIES

Beyond Options 3a and 3b, the following additional initiatives and opportunities were identified for potentially more detailed planning, design and implementation as short term funding is available.

- Incorporation of a roll-on/roll-off (ro-ro) ramp and/or similar facility as part of Ore Dock modifications, thereby, broadening the spectrum of users and activities that can occur from this location on a year-round basis.
- Development of improved corridors and walkways linking the Town to the Ore, Broadway and Rail Docks.
- Development of a new, comprehensive signage and wayfinding program designed to better communicate pathways to/from the waterfront and improve the overall guest experience. A new signage and wayfinding program also holds promise to serve as a means to communicate Skagway's rich history and narratives. It could be incorporated with new gateway and other monumentation intended to increase the overall spirit of welcome for all arriving guests.
- Create improved buffers between tourism and industrial uses through use of landscape materials and other design approaches.

5. PLAN RECOMMENDATIONS AND NEXT STEPS

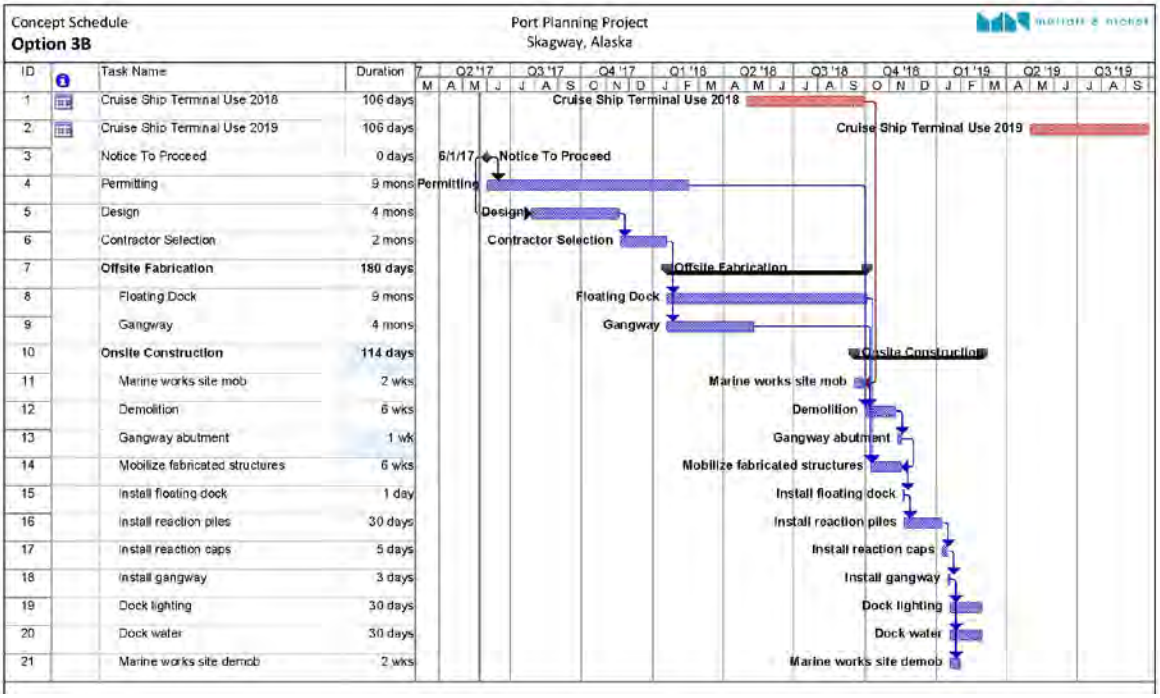
The following recommendations are based on the work and analysis compiled under this Phase 1 planning effort.

- Advance the design and permitting required for implementation of Option 3b, development of a new inner vessel float at the Ore Dock. Improvement of the Ore Dock under Option 3b emerged through planning assessment and community and stakeholder consultation as the preferred project for implementation with available grant monies. This project puts in place a community asset that will leverage increased economic impacts associated with the cruise industry, allowing Skagway to keep pace with its sister ports Ketchikan and Juneau in welcoming larger cruise vessels present in the marketplace. Option 3a squarely meets community planning framework elements listed in the Economic Opportunity category. It is also loosely linked to most elements in the Community Desire and Best Practices groupings given the project's ability to leverage increased revenue streams that can be utilized to pursue other community initiatives (see below). A proposed timeline for completion of this project is presented in Figure 5-1.
- Obligate available grant monies toward development of a new inner vessel float at the Ore Dock. Current available grant monies will cover approximately 60% of the cost of Ore Dock improvements. The MOS will need to identify how best to address funding the shortfall. Potential exists to tap into available Cruiseline Passenger Vessel (CPV) Excise Tax funds or obligate MOS general revenues. The option exists to work with WP&YR to assist in project finance, but this would likely require renewal of the tidelands lease, a position the MOS and community may not be willing to pursue at this time. Other funding sources, such as TIGER grants and funds from the Seaport Security Grant Program, may also be available to help defray project costs.
- Include assessment of a ro-ro facility as part of follow-on design effort for Ore Dock expansion. Not evaluated under the original development of planning options, investigation of the potential for Option 3b to accommodate a ro-ro dock should be reviewed. Inclusion of a ro-ro facility will likely increase the overall utility of the Ore Dock facility and increase the overall stature of the proposed investment. Inclusion of the ro-ro element should involve review as to whether this element is integral to the overall Ore Dock improvement as envisioned under Option 3b or can be phased in at a later date.
- Pursue the addition of a community desired upland improvement along with Ore Dock expansion. The public provided several recommendations for improving the linkages between the waterfront and Town and the overall welcome of guests to Skagway. Several of these suggestions are presented in Section 4.3. It is recommended that at least one of these projects be investigated in greater detail. This will allow for a full cost evaluation of the selected project and assess its ability to be brought into the overall implementation package associated with Ore Dock expansion. Project investigation also opens the door for grant application and/or other funding by other entities.
- Pursue a means to implement Ore Dock improvements with the WP&YR railway. With the current lease in place, the WP&YR Railway will need to be party to implementation of any improvements to the Ore Dock and surrounding tidelands. Improvement of the Ore Dock provides short and long-term benefit to the community and WP&YR, and as such, advancement of this initiative should be considered separate from ongoing lease renewal efforts. Agreement by WP&YR to move this initiative forward will build goodwill with the MOS and the community. If an agreement is not achievable and/or subject to unsuccessful lease renewal, the MOS should consider implementation of other landside options presented in Section 4.3. Each option will need to be explored in greater detail.
- Continue to work with WP&YR to address legacy contamination in the Ore Basin. This issue remains at the top of public priorities for the waterfront. Its resolution is fundamental in any movement forward with WP&YR on lease renewal and the long range improvement of the waterfront. The Skagway Port Planning Steering Committee and MOS need to continue to take an active role in bringing legacy

contamination clean-up to a close. The MOS should establish as a goal the completion of an agreement with WP&YR for Ore Basin clean-up on or before the end of 2017 that clearly specifies the responsibilities of all parties and the overall project thresholds (e.g., final permitting) for implementation.

Advance the development of the long range vision and master plan for Skagway's waterfront. With completion of the Skagway Waterfront Short Term Needs Plan, a foundation of planning analysis and community rapport is in place that lends itself to transition to the development of the long range vision and strategic master plan for the waterfront. Governance, market positioning, and environmental and regulatory compliance planning modules and best practices presently being assembled will add to this foundation of knowledge. The long range planning initiative would establish a 20-year planning horizon for waterfront stewardship and enhancement and consider within this timeframe governance, capital improvements, finance, operation, regulatory policy and community equity. The long-range plan should revisit early options presented in Section 4.1.1 and Appendix 2, especially those that had broad community support. Implementation of either Option 3A or 3B is expected to dovetail directly into the long range plan and buildout of the waterfront.

FIGURE 5-1: ESTIMATED DURATION OF ORE DOCK IMPROVEMENT WORKS



6. APPENDICES

A-1 PREFERRED PLAN OPTIONS

A-2 COMMUNITY WORK SESSION 2 PRESENTATION

Presentation provided as part of Community Work Session 2 dated February 28, 2017. Includes updated early concepts reflecting needed edits.

A-3 COMMUNITY WORK SESSION 3 PRESENTATION

Presentation provided as part of Community Work Session 3 dated April 26, 2017. Includes updated refined concepts reflecting needed edits.

A-4 FINAL DRAFT PRESENTATION

Final Draft presentation of Skagway Short Term Waterfront Needs (Phase 1) dated June 15, 2017.

LEGEND

- VESSEL TYPE A — LOA = UP TO 950'
- VESSEL TYPE B — LOA = 950' TO 1,000'
- VESSEL TYPE C — LOA = 1,000' TO 1,050'
- VESSEL TYPE D — LOA = 1,050' TO 1,100'
- VESSEL TYPE E — LOA = 1,100' TO 1,150'

- Controlling Bathymetry (-37' MLLW)
- Skagway Airport
- Alaska Marine Highway Facilities
- Small Boat Harbor
- Ground Transportation Area
- White Pass & Yukon Route Rail Line

SKAGWAY RIVER

SKAGWAY AIRPORT

ALASKA STREET

MAIN STREET

STATE STREET

BROADWAY STREET

SPRING STREET

CONGRESS WAY

POINT ST

1ST

2ND

3RD

4TH

5TH

RAIL LINE

VESSEL TYPE D
LOA = 1,050' TO 1,100'

VESSEL TYPE A
LOA = UP TO 950'

VESSEL TYPE C
LOA = 1,000' TO 1,050'

VESSEL TYPE A
LOA = UP TO 950'

3A IMPROVEMENT AREA ENLARGEMENT

SKAGWAY NAVIGATION CHANNEL

3A

OVERALL IMPROVEMENT PLAN

PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PREFERRED CRUISE OPTIONS

moffatt & nichol | LandDesign | 06.08.2017 | SKAGWAY'S SHORT TERM WATERFRONT NEEDS

GRAPHIC SCALE IN FEET
RATIO 1":200' @ 22 X 34
0 100' 200' 400' 800'

MUNICIPALITY OF SKAGWAY ALASKA SEAL
CITY SEAL 28 JUNE 1900
BOROUGH 25 JUNE 2019

LEGEND

- VESSEL TYPE A — LOA = UP TO 950'
- VESSEL TYPE B — LOA = 950' TO 1,000'
- VESSEL TYPE C — LOA = 1,000' TO 1,050'
- VESSEL TYPE D — LOA = 1,050' TO 1,100'
- VESSEL TYPE E — LOA = 1,100' TO 1,150'

- Controlling Bathymetry (-37' MLLW)
- Existing Cruise/ Berthing Facilities
- Proposed Cruise/ Berthing Facilities
- 1 Approximate Submarine Power Cable Alignment
- 2 50' x 175' Floating Dock
- 3 20' x 140' Gangway
- 4 30' x 80' Concrete Platform
- 5 Mooring Dolphin
- 6 Catwalk
- 7 Reaction Dolphin, TYP.

SKAGWAY RIVER

+/- 355'
MOORING DOLPHINS & CATWALK

+/- 175'
PROPOSED FLOATING DOCK

+/- 210'
EXISTING ORE DOCK EXPANSION

+/- 370'
SOUTH IN-FILL, COVERED WALKWAY, CONVEYOR TRANSFER SUPPORT & SHIP LOADER SUPPORT

+/- 800'
SERVICE PIER, MIDDLE IN-FILL, NORTH IN-FILL, WALKWAY & BARGE DOCK

RAIL LINE

VESSEL TYPE D
LOA = 1,050' TO 1,100'

VESSEL TYPE A
LOA = UP TO 950'

RAIL LINE

SKAGWAY NAVIGATION CHANNEL

3A

ENLARGEMENT IMPROVEMENT PLAN

PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PREFERRED CRUISE OPTIONS

moffatt & nichol | LandDesign | 06.08.2017 | SKAGWAY'S SHORT TERM WATERFRONT NEEDS

GRAPHIC SCALE IN FEET
RATIO 1":100' @ 22 X 34
0 50' 100' 200' 400'

MUNICIPALITY OF SKAGWAY ALASKA SEAL
CITY ESTD 28 JUNE 1900 BOROUGH 25 JUNE 2007

LEGEND

- VESSEL TYPE A — LOA = UP TO 950'
- VESSEL TYPE B — LOA = 950' TO 1,000'
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- VESSEL TYPE D — LOA = 1,050' TO 1,100'
- VESSEL TYPE E — LOA = 1,100' TO 1,150'

- Controlling Bathymetry (-37' MLLW)
- Skagway Airport
- Alaska Marine Highway Facilities
- Small Boat Harbor
- Ground Transportation Area
- White Pass & Yukon Route Rail Line

SKAGWAY RIVER

SKAGWAY AIRPORT

ALASKA STREET

MAIN STREET

STATE STREET

BROADWAY STREET

SPRING STREET

POINT ST

1ST

2ND

3RD

4TH

5TH

RAIL LINE

VESSEL TYPE D
LOA = 1,050' TO 1,100'

VESSEL TYPE A
LOA = UP TO 950'

3B IMPROVEMENT AREA ENLARGEMENT

SKAGWAY NAVIGATION CHANNEL

VESSEL TYPE C
LOA = 1,000' TO 1,050'

VESSEL TYPE A
LOA = UP TO 950'

CONGRESS WAY

3B

OVERALL IMPROVEMENT PLAN

PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PREFERRED CRUISE OPTIONS

moffatt & nichol | LandDesign | 06.08.2017 | SKAGWAY'S SHORT TERM WATERFRONT NEEDS

GRAPHIC SCALE IN FEET
RATIO 1":200' @ 22 X 34
0 100' 200' 400' 800'

MUNICIPALITY OF SKAGWAY ALASKA SEAL

LEGEND

- VESSEL TYPE A — LOA = UP TO 950'
- VESSEL TYPE B — LOA = 950' TO 1,000'
- VESSEL TYPE C — LOA = 1,000' TO 1,050'
- VESSEL TYPE D — LOA = 1,050' TO 1,100'
- VESSEL TYPE E — LOA = 1,100' TO 1,150'

- Controlling Bathymetry (-37' MLLW)
- Existing Cruise/ Berthing Facilities
- Proposed Cruise/ Berthing Facilities
- 1 Approximate Submarine Power Cable Alignment
- 2 50' x 175' Floating Dock
- 3 20' x 140' Gangway
- 4 Mooring Dolphin
- 5 Reaction Dolphin, TYP.

SKAGWAY RIVER

+/- 330'
MOORING DOLPHINS & CATWALK

+/- 210'
EXISTING ORE DOCK EXPANSION

+/- 175'
PROPOSED FLOATING DOCK

+/- 105'
CONVEYOR TRANSFER SUPPORT & SHIP LOADER SUPPORT

+/- 800'
SERVICE PIER, MIDDLE IN-FILL, NORTH IN-FILL, WALKWAY & BARGE DOCK

RAIL LINE

VESSEL TYPE D
LOA = 1,050' TO 1,100'

VESSEL TYPE A
LOA = UP TO 950'

RAIL LINE

SKAGWAY NAVIGATION CHANNEL

3B

ENLARGEMENT IMPROVEMENT PLAN

PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PREFERRED CRUISE OPTIONS

moffatt & nichol | LandDesign | 06.08.2017 | SKAGWAY'S SHORT TERM WATERFRONT NEEDS

GRAPHIC SCALE IN FEET
RATIO 1":100' @ 22 X 34
0 50' 100' 200' 400'

MUNICIPALITY OF SKAGWAY ALASKA SEAL
CITY ESTD 28 JUNE 1900 BOROUGH 25 JUNE 2007

APPENDIX A-2

Community Work Session #2
Skagway's Waterfront, Past and Present
Skagway Port Planning (Phase 1)

Feb 28, 2017

moffatt & nichol

Objectives of Community Work Session Two

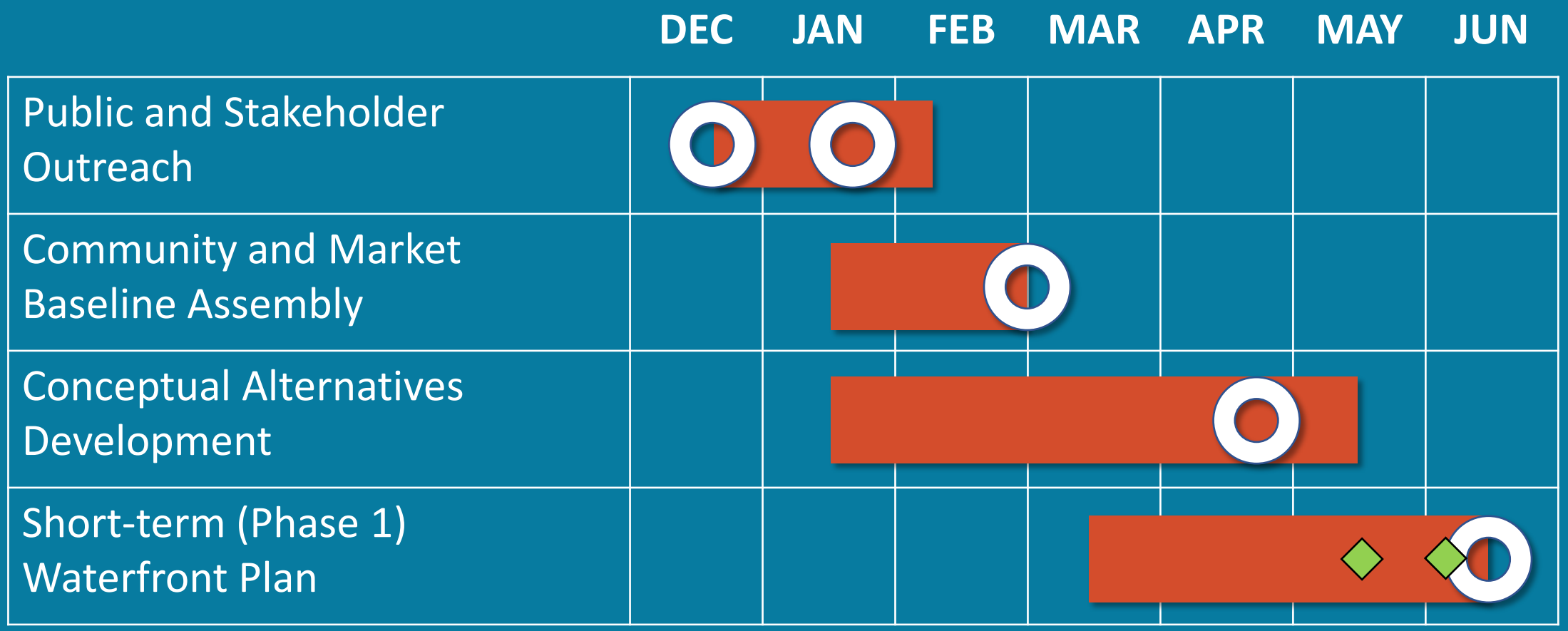
- Inform the community on the Skagway Waterfront project and process
- Present and discuss our ongoing work to develop a clear baseline of site issues and opportunities
- Discuss with the community our initial thoughts on the project planning framework…the elements that serve as the foundation…the defensible “why’s” underpinning the plan
- Present initial planning alternatives that address the planning framework
- Discuss project next steps
- Listen, learn and encourage continued dialog

1. Project Overview

Project Objectives – Phase 1

- Reengage the community and stakeholders and make sure their wants, needs and desires are understood and opportunities for partnership assessed
- Define a clear program of short-term improvements geared to address immediate port needs and grant funding of $8 million
- Outline a framework for preparation of a revised long-range vision of the waterfront focused on the future growth, sustainability and prosperity of the Municipality
- Work to identify a clear path to ensure clean-up of legacy harbor contamination
- Be honest and pragmatic with ourselves in defining and structuring our short- and long-term relationship with waterfront users

Skagway Port Planning Schedule (Phase 1)



Public Meetings in Skagway
12/19 ◦ 1/23 ◦ 2/28-3/1 ◦ 4/26 ◦ 6/15

2. The Community Baseline: Skagway's Past and Present

Value of the Waterfront as a Community Asset

Access
Venues
Lifestyle
Views

Goods for Consumption
Transport
Tourism
Economic Impact

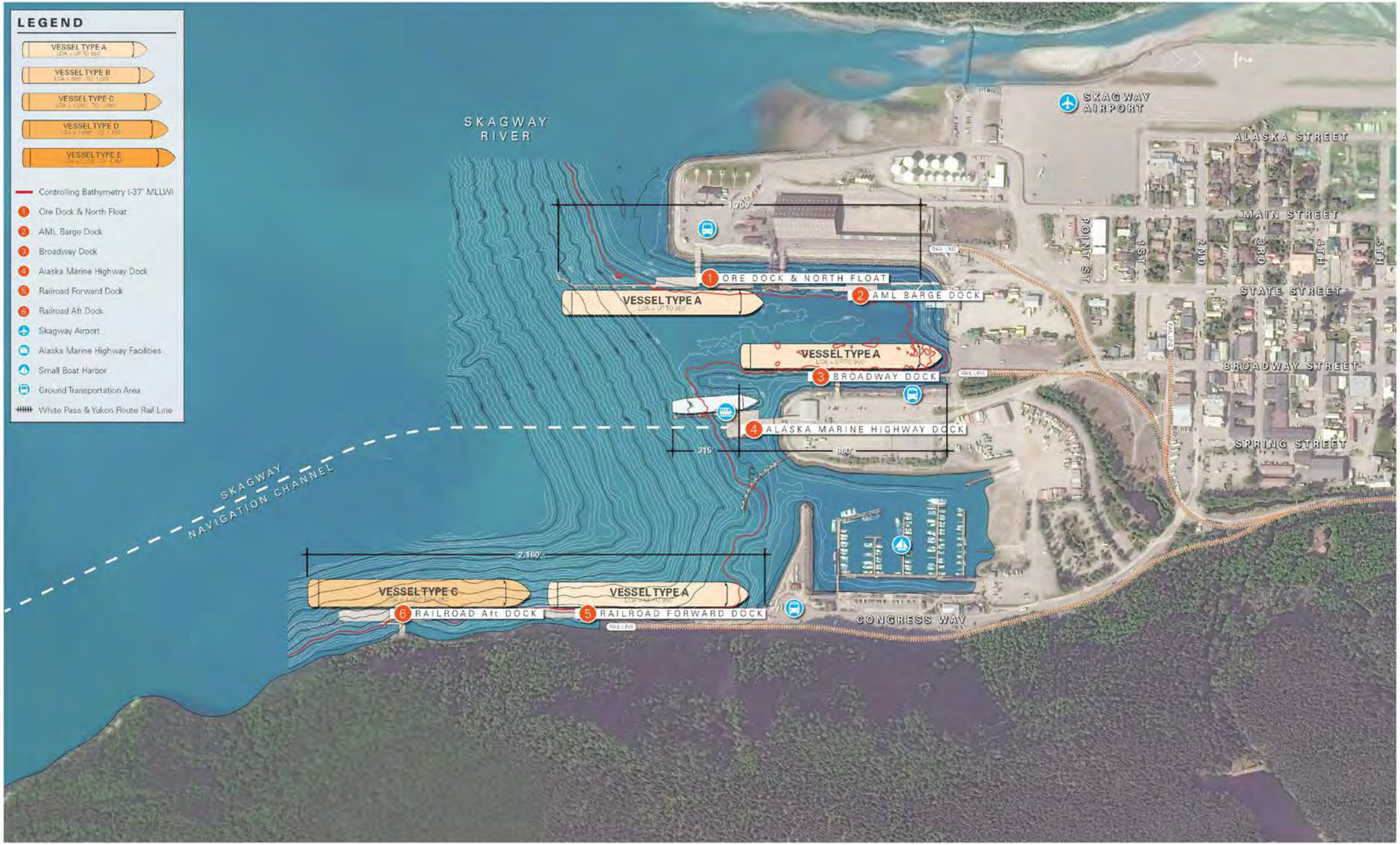
Essential Habitat

Resource

Community Image

Community Baseline Inputs

- Community demography
- Land use and ownership
- Cruise market conditions in the region
- Mining and other cargo conditions in the region
- Ferry and other marine transport
- Environmental conditions



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OVERALL LOCATION PLAN

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100' 200' 400' 800'

Observations and Thoughts: Docks

- One Ore Dock, many challenges
  - *Contamination of the Ore Dock*
  - *Poor position of the Ore Loader; obsolete*
  - *Dock is in deteriorating condition*
- Limited space between Ore and Broadway Docks
- Conflict between cargo and cruise operations
- Underutilized stretches of adjacent waterfront land
  - *Poor pedestrian connections between the northern docks and the community*
- Most improvements are expensive given adjacent deep water
- AMHS ferry monopolizes a huge, strategic portion of the waterfront
- Iconic Alaskan port

Observations and Thoughts: Environment

- Legacy environmental contamination in the harbor
  - *Ore Dock, Loader and adjacent habor*
  - *Source of contamination*
  - *Any dredging and work will need to address contamination*
- Regulatory compliance of cruise ships, the small boat harbor and other operations
  - *Explore the potential for improved best management practices*
- Opportunity for deeper integration of the waterfront with the surrounding natural environment
  - *Parks, greenways and open spaces*
  - *Provision of habitat for nesting birds and other wildlife*

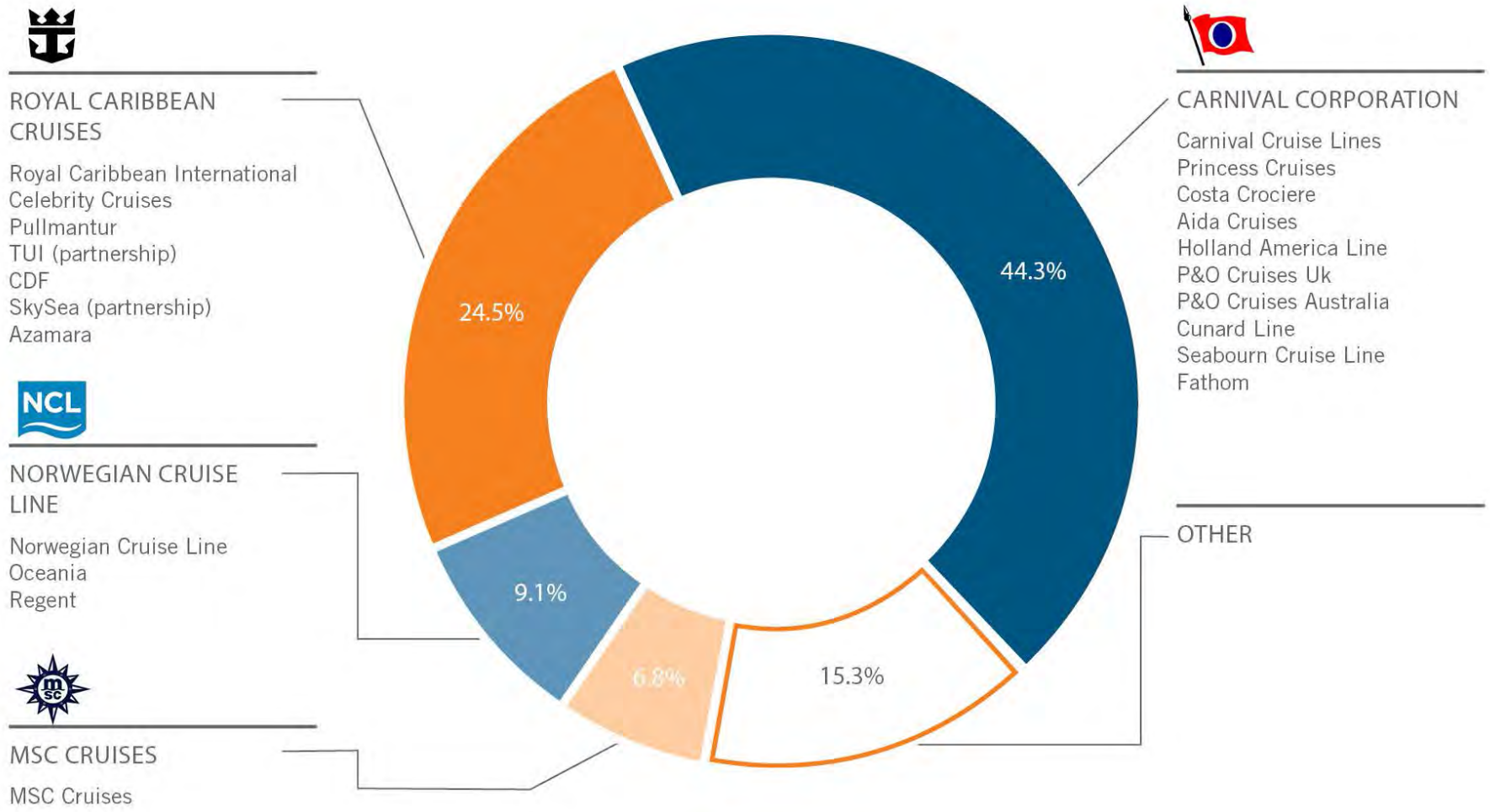
Question: What other major existing conditions and issues should we know about ?

Cruise Industry Growth Factors

- Success in creating new, dynamic vessel and onboard product offerings
- Conversion of land-based resort guests into life-long cruisers
- High level of passenger satisfaction
- A business model adaptable to changing market conditions
- Globalization of product offerings
- Limited competition, constant cost cutting and multiple revenue streams

Cruise Industry Marketshare

Leading Vessel Conglomerates, Brands, Ships and Lower Berths, 2016



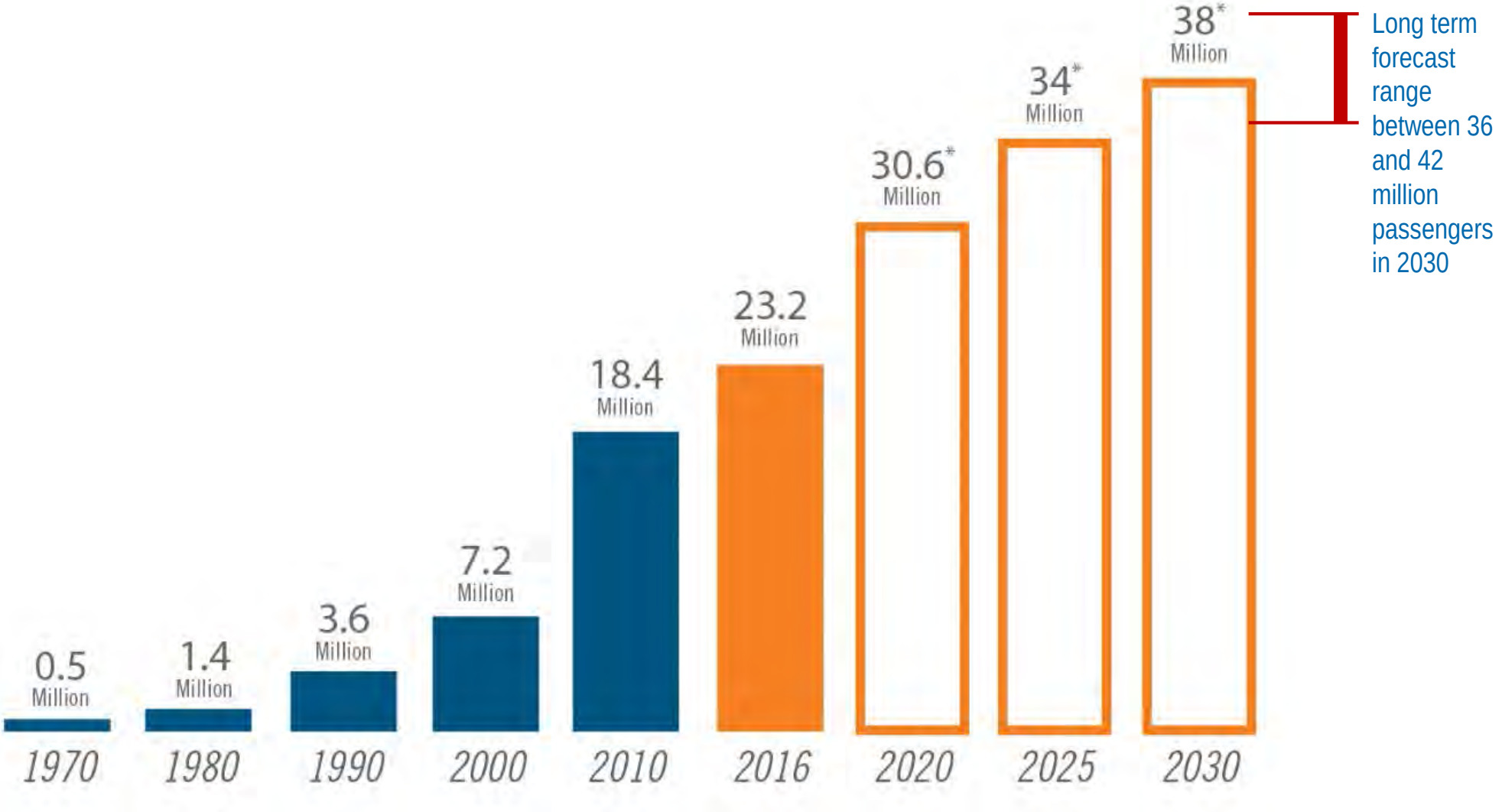
Note: Lower Berth refers to the "lower bed" of a cruise ship cabin as a standard unit for capacity measurement. Cruise ships often run at capacities of greater than total lower berths, using other beds (upper berths) available in some cabins.
Sources: CIN and Moffatt & Nichol, 2017

Trends Moving Forward

- Factors leading to 3 decades of growth remain in place:
  - *New products, guest retention, high level of guest satisfaction and value for money, adaptable business model, mobile assets, globalization of product offerings, limited competition*
- Cruise industry orders are up significantly, with a record 83 new vessels and nearly 250,000 berths on order through 2026
- Big ships will continue to be the operational norm worldwide; more than half on order are of 3,200 passengers or greater
- Demand worldwide will continue for new and larger ports and destinations
- Carnival, RCCL, Norwegian, and MSC are all posed to continue to expand, with Disney, Virgin and other lines also looking to add supply and consumer momentum based on their unique brand positioning

Forecast of Worldwide Passengers

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017*

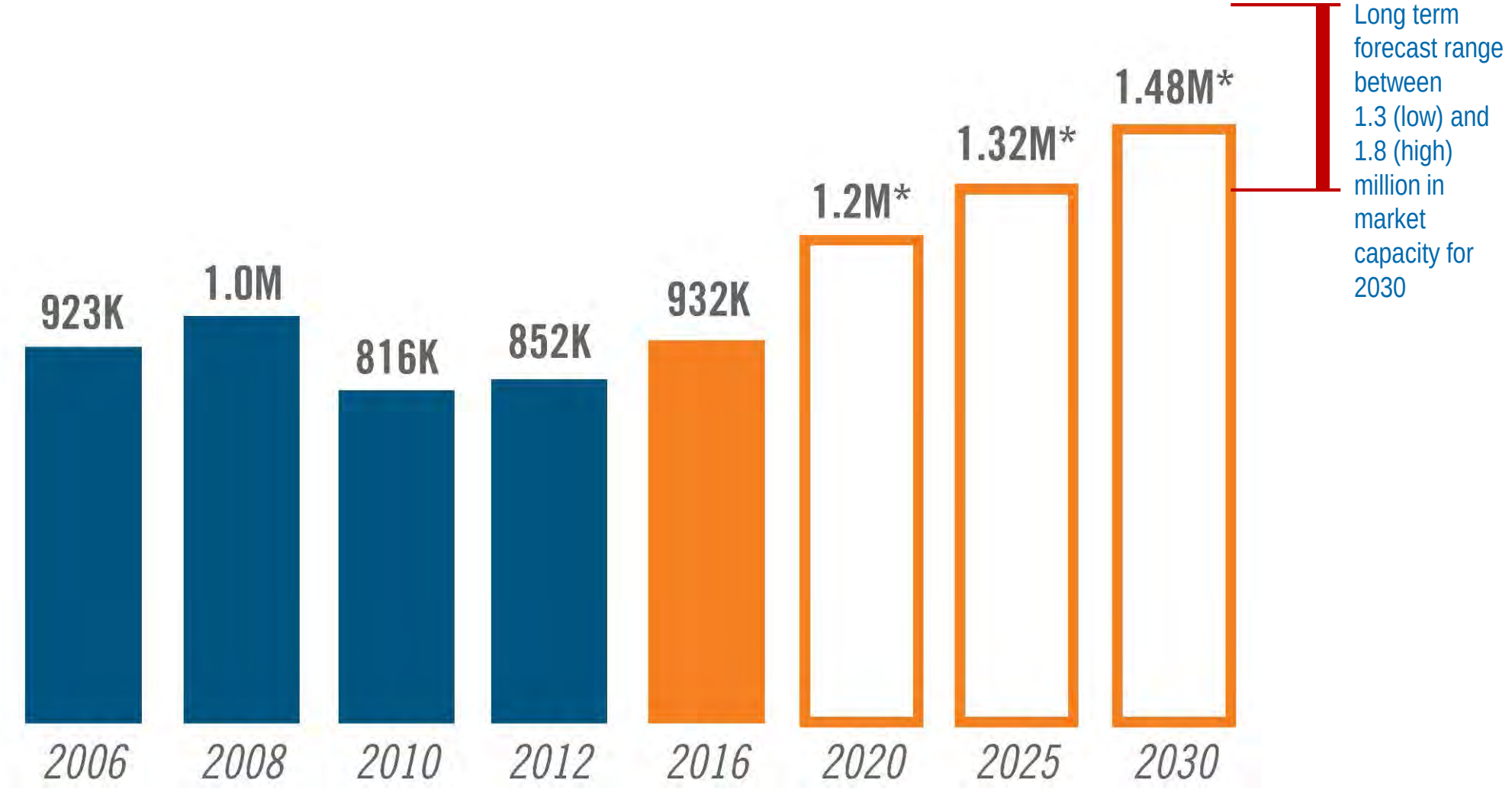
Alaska Today and Moving Forward

- Cruise consumer sentiment toward Alaska is very high
- Expansion of both homeports and ports-of-call ongoing, albeit at a slow place
- Global volatility bolsters Alaskan market health
- A large percentage of growth will originate from vessel replacement vs. increases in ship numbers
  - *The number of ships has remained relatively constant 2010 vs. 2016*
- The June 2016 opening of the expanded Panama Canal increases the ability of lines to move larger vessels to/from the Caribbean
- State of Alaska changes to cruise tax policy remain a risk factor
- Seasonality and available Sat/Sun homeport slots a limiting factor

Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017

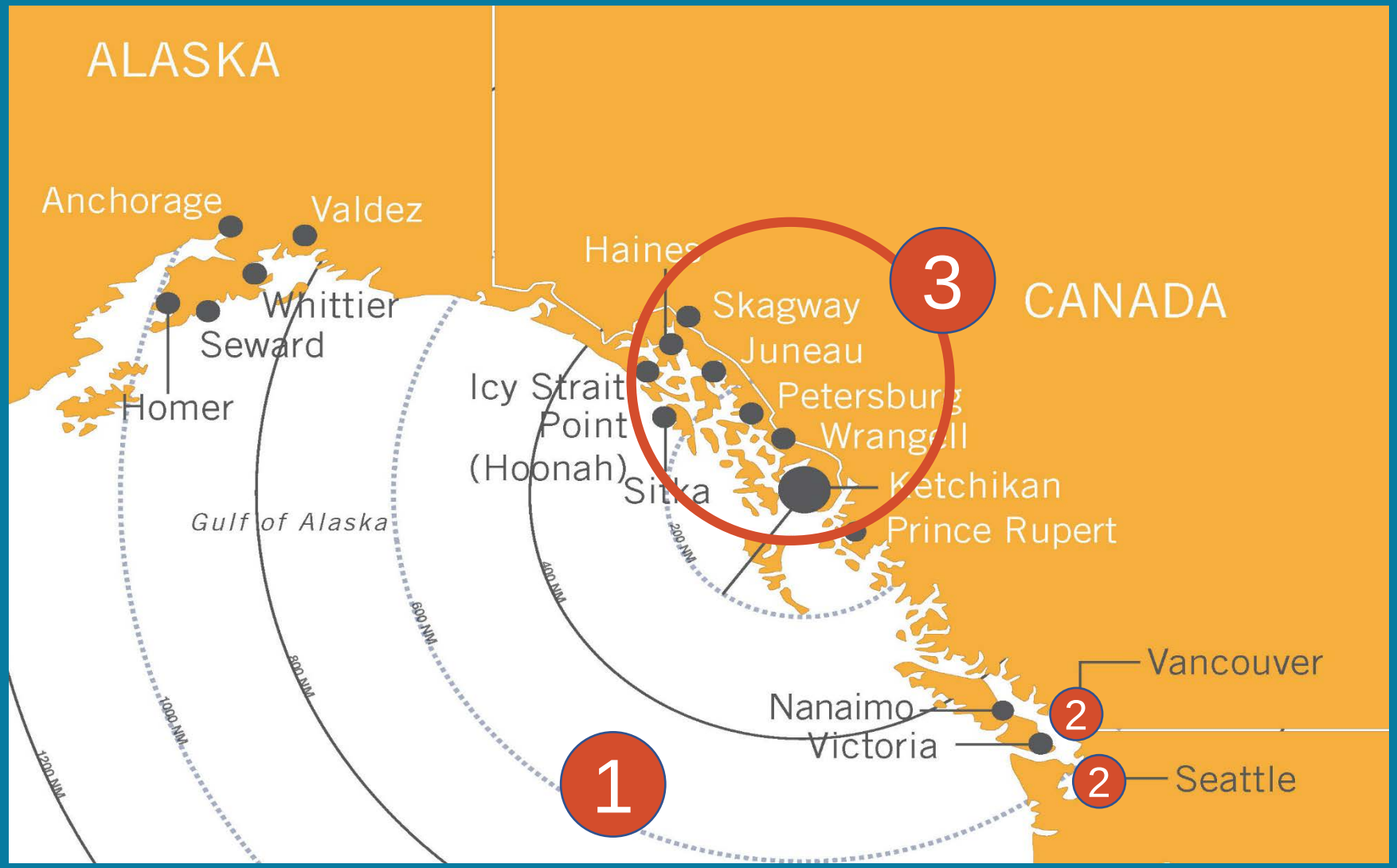
Forecast of Alaskan Capacity

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017.*

Future Deployment: A Balanced System



1. Can capacity get to the region?
   Yes, Panama Canal limits minimized.
2. Can key homeports support this capacity?
   Yes, Seattle and Vancouver can accommodate large vessels.
3. Can key ports-of-call support this capacity?
   Maybe. Work to be done.

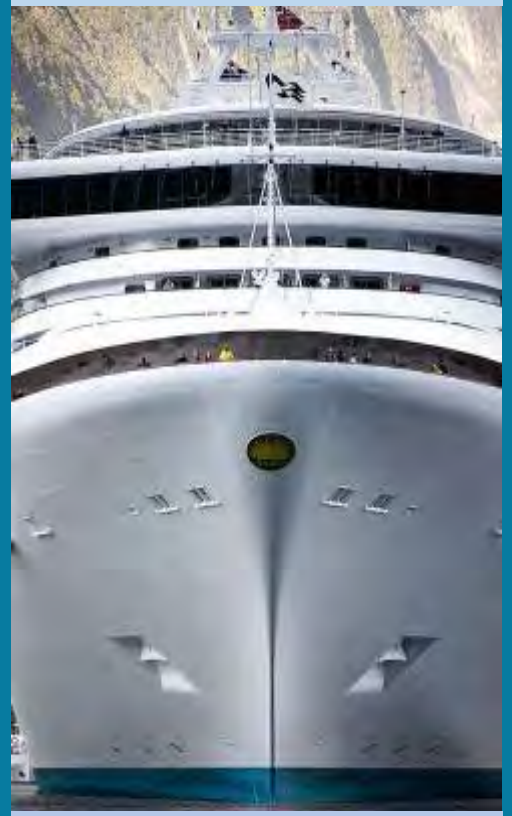
Sources: CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017.

SE Alaska Ports-of-Call

- Ketchikan, Juneau and Skagway are essential to the equation; their ability to provide similar sized facilities over time has market sway over the long term
  - *Juneau is moving to 1,100' berths; potential exists for one or two existing facilities to move to 1,150'*
  - *Ketchikan is studying long term expansion*
- Lines suggest 4 large fixed berths plus 1 to 2 tender locations most likely needed for each
- Sitka, Hoonah and other ports beneficial to region overall

Design Vessel Considerations for Alaska

DESIGN VESSEL A
LOA Up to 960’



Example:
Princess Grand-*class*

DESIGN VESSEL B
LOA 960’ – 1000’

Example:
NCL Disney Magic

DESIGN VESSEL C
LOA 1000’ – 1050’

Example:
Celebrity Solstice-*class*

DESIGN VESSEL D
LOA 1050’ – 1100’

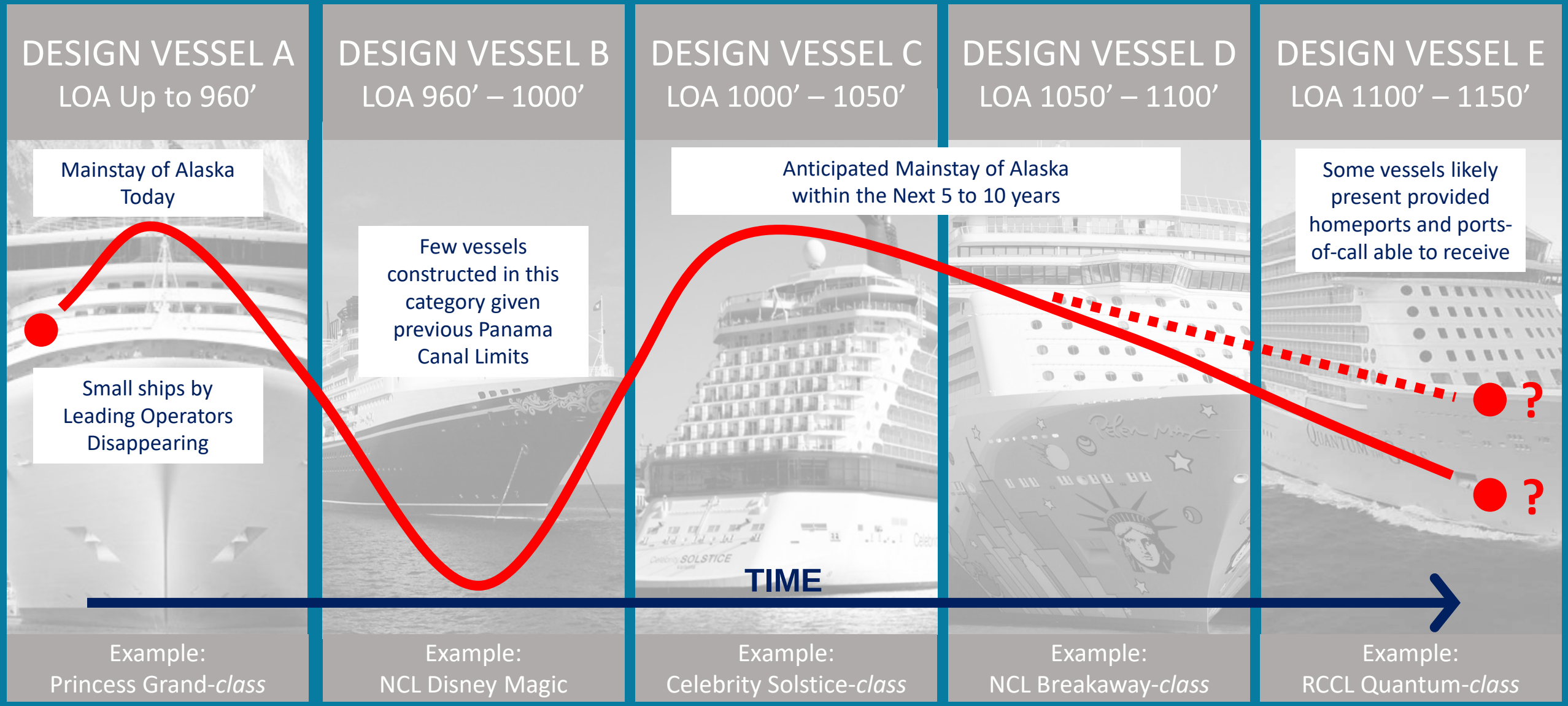
Example:
NCL Breakaway-*class*

DESIGN VESSEL E
LOA 1100’ – 1150’

Example:
RCCL Quantum-*class*

Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffzt & Nichol, 2017

Design Vessel Considerations for Alaska



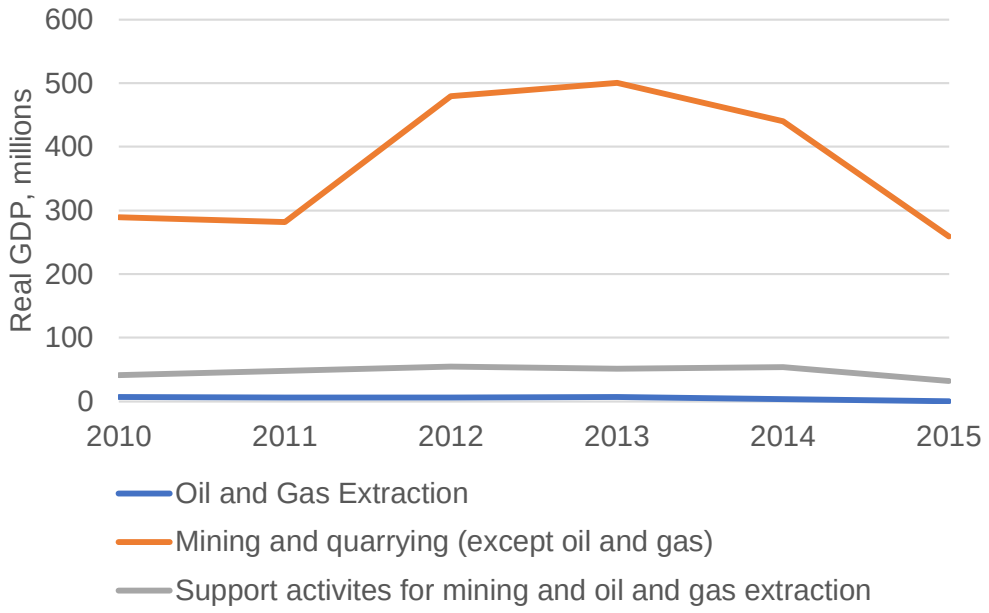
Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffzitt & Nichol, 2017

Mineral Production in the Yukon

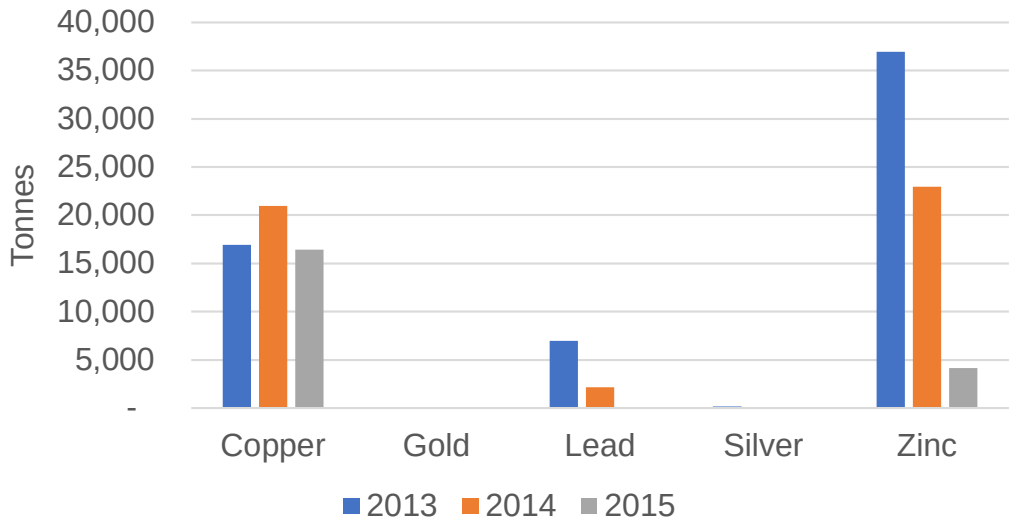
- Real GDP for mining declined by 12% in 2014 and 41% in 2015
- Similar trend for oil and gas extraction and their support activities
- Real GDP for entire territory declined by 6% in 2015 although Canada grew by 2.6%
- Potential and existing exports in the Yukon
  - *Asbestos, Nickel, Barite, Selenium, Copper, Silver, Gold, Tungsten, Lead, Uranium, Molybdenum, Zinc*
- Currently produces copper, gold, lead, silver and zinc

Mineral Production in the Yukon

Yukon, Canada – Real GDP (chained 2007 $US) 2010-2015



Mineral Production in Yukon Territory, Commodities of Interest, 2013-2015



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Mining - Stakeholders

- AIDEA → sublease to Municipality (through WPYR)
  - *Ore Dock and shiploader*
- Prospective mines (ore concentrate):
  - *Capstone (currently 10 shipments/year; ends 2019)*
  - *Western Copper & Gold*
  - *Constantine*
  - *Victoria Gold*
  - *Selwyn Chihong*
  - *Alexco*
- AML → provisioning mines (construction materials)

Mining – Known Challenges

- Ore Dock (old section) in “poor to very poor” condition
- Legacy contamination issues in Ore Basin
- Existing shiploader is obsolete
  - *Over 25 years old*
  - *Stationary → requires repositioning of ships during loading*
  - *Challenging to operate under current environmental best practices*
  - *Mines desire radial or mobile shiploader for efficient loading*
- AIDEA/WPYR lease expires 2023 (concurrent with Skagway/WPYR lease)
  - *Reinvestment will require economic analysis & AIDEA Board approval*
- Supply is market-driven & sensitive to commodity prices
- Mining & shipping to tidewater less expensive in summer
- Smelting expensive in winter due to cost of energy (hydro in summer; fossil fuels in winter)

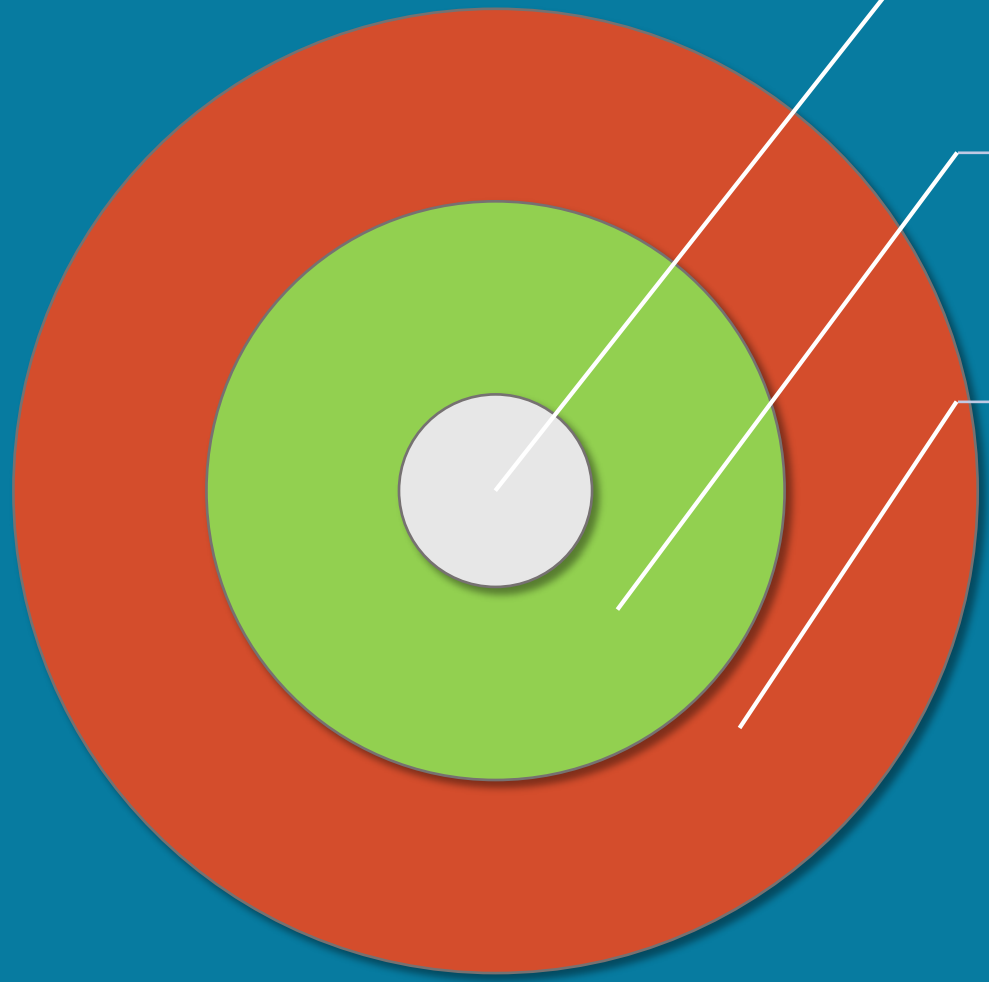
Mining – Questions

- Skagway/AIDEA reinvestment in Ore Dock facilities needs clear understanding of relative revenue stream (mining vs. cruise)
- Desire for year-round economy understandable; but is it achievable through mining industry support?
- Mines are in various stages of exploration & permitting; production dates, rates & markets uncertain
- Intangible benefits to supporting Yukon ore concentrates (highway to Whitehorse)
- Conflicts abound between ore loading & cruise ships → multi-use facilities to handle ore concentrate and cruise ships may be suboptimal for either

Question: What other market opportunities can Skagway capitalize on?

3. Organizing a Planning Framework for Skagway's Waterfront

The planning framework are the features that remain true for each design alternative. They serve as the foundation…the defensible "why's" underpinning the plan.



Best Planning Practices

Economic Opportunity

Community Desire

Community and Stakeholder Meetings to Date

- Community Open House (January 23)
- White Pass & Yukon Route Railroad
- Alaska Industrial Development & Export Authority (AIDEA)
- Alaska Department of Environmental Conservation (ADEC)
- Harbor Enterprises / Petro Marine
- Cruise Line Agencies of Alaska (CLAA)
- TEMSCO
- Alaska Marine Highway System (AMHS)
- Alaska Power & Telephone (APT)
- Yukon Government Department of Economic Development
- Canadian Border Services Agency (CSBA)
- Lynden / Alaska Marine Lines (AML)
- Cruise Lines (Multiple)
- Constantine Metal Resources Ltd.
- Western Copper and Gold
- Capstone Mining Corporation
- Victoria Gold Corporation
- Selwyn Chihong Mining Ltd.
- Alexco Resource Corporation

Missing / Ongoing:

- MSC Cruises
- Norwegian Cruise Lines
- Mineral Services, Inc.
- U.S. Department of Homeland Security
- U.S. Customs and Border Protection

What we are Learning from the Community

- Ensure environmental clean-up of Ore Basin advances and put into place regulations and best practices to safeguard the harbor from future contamination
- Seek approaches to separate tourism from industrial activities
  - *Public safety*
  - *Portrayal of community image*
  - *Lessen impacts to both industries*
- Embrace planning approaches that foster a year-round economy
  - *Swings in population between summer / winter create challenges*
- Continue the high quality delivery of the Skagway experience
  - *Tell our story in compelling ways to visitors and our future generation*
- Seek balance between our past and our future promise

What we are Learning from the Market

- We are the Gateway to the Yukon; we are geographically and economically unique
- Cruise activities have room for growth
  - *Growth will occur predominately through replacement of Panamax (Type A) vessels with larger, 1,100+ LOA ships (Type D and E)*
  - *Do not see need for development of a 5th berth for large vessels*
- Short term prospects for growth in mining activities are nominal
- Maintaining waterfront and port diversity is essential. Each element has purpose. Diversity provides economic flexibility to embrace future market opportunities
- White Pass is a core economic engine in the community
  - *The railroad is an essential aspect of the cruise offer*
  - *Growth in cruise volumes presents opportunities to enhance operations*

Make Connections

Foster creation of interconnected, walkable green areas, blueways, streets, neighborhoods and commercial zones accessible for all. Essential for creation of healthy communities.

Promote Mixed-Use

Embrace a diversity of uses. Create spaces for residents, visitors and long stay guests.

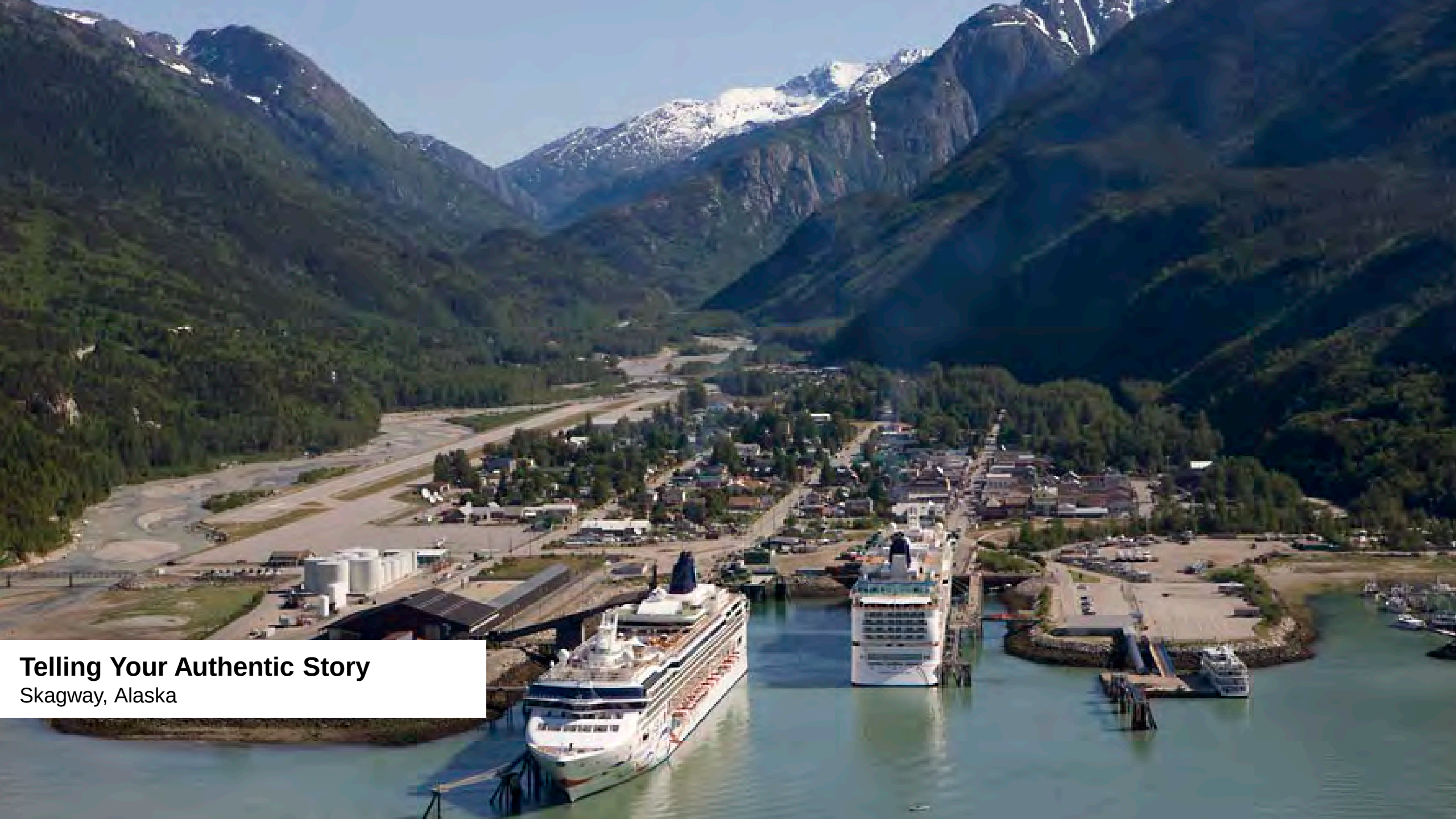
Engage the Water's Edge

Allow the public to view, approach, walk along, and touch the water's edge. Provide opportunities to get onto the water. Essential in waterfront renewal efforts.

- **Foster Innovation**
  Be inventive. Plan for the work…and the worker…of the future. Allow community design to flex to future need and technologies.

Tell Your Authentic Story

Allow the waterfront to look forward and back…explore memory and prophecy. Communicate your values to residents and visitors.



Telling Your Authentic Story

Skagway, Alaska

Telling Your Authentic Story

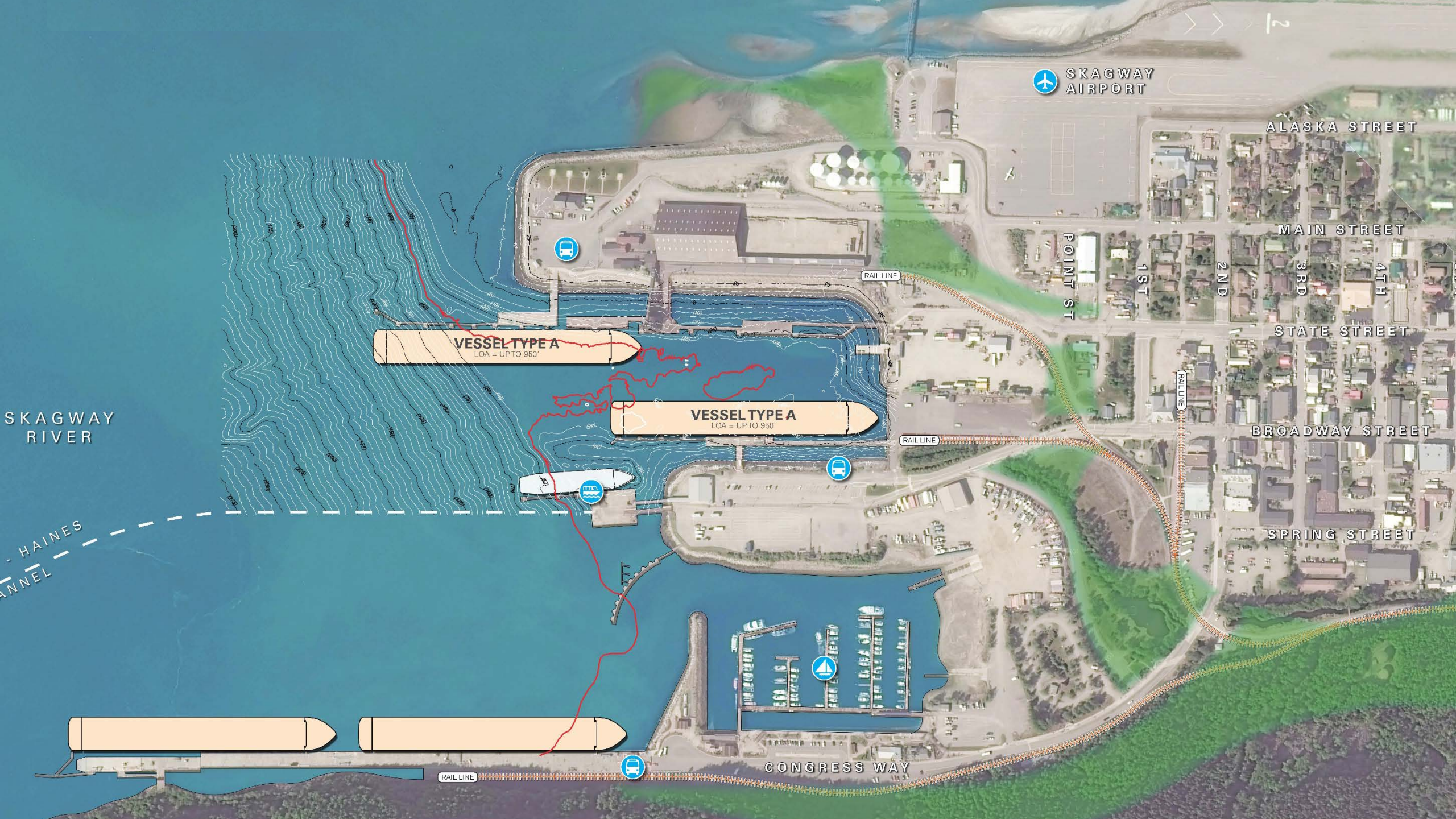
Skagway, Alaska

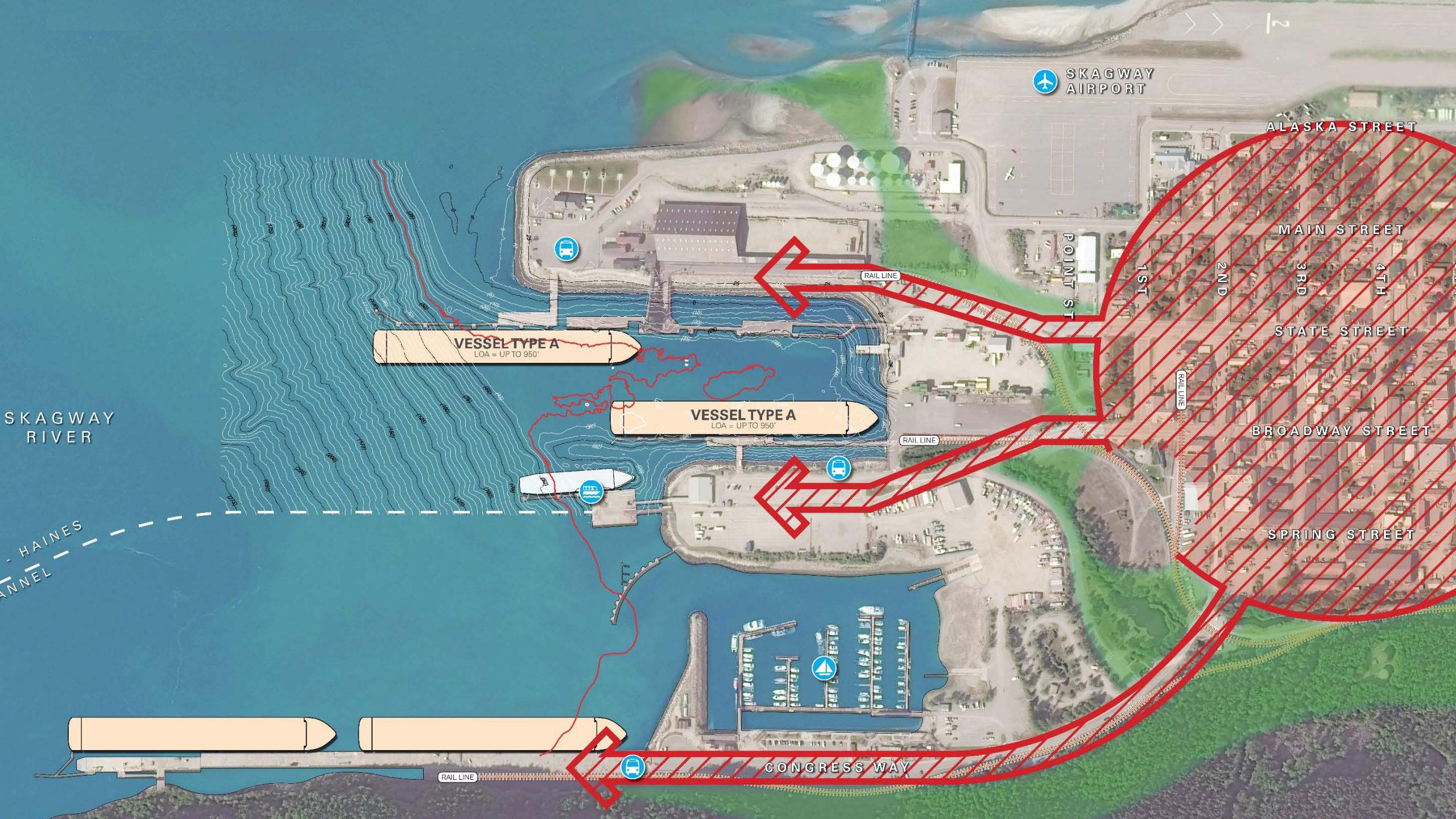
Question: What stories need to be told on your waterfront? What's missing?

4. Early Thoughts on Planning Alternatives

Early Thoughts on Planning Alternatives

- We have significant ground to cover in the formulation of detailed planning alternatives, but want to share initial planning ideas
  - *From “That exactly what I would have done” to “Over my dead body.”*
- Early planning alternatives allow us to:
  - *Elicit feedback*
  - *Illustrate planning framework elements*
  - *Start the process of establishing a means to review revised and detailed options*
- Illustrations are high level and do not take into account all the specific challenges and opportunities along the waterfront
- Represent long range planning alternatives


SKAGWAY AIRPORT
ALASKA STREET
MAIN STREET
POINT ST
1ST
2ND
3RD
4TH
STATE STREET
BROADWAY STREET
SPRING STREET
RAIL LINE
VESSEL TYPE A
LOA = UP TO 950'
VESSEL TYPE A
LOA = UP TO 950'
SKAGWAY RIVER
HAINES
CONGRESS WAY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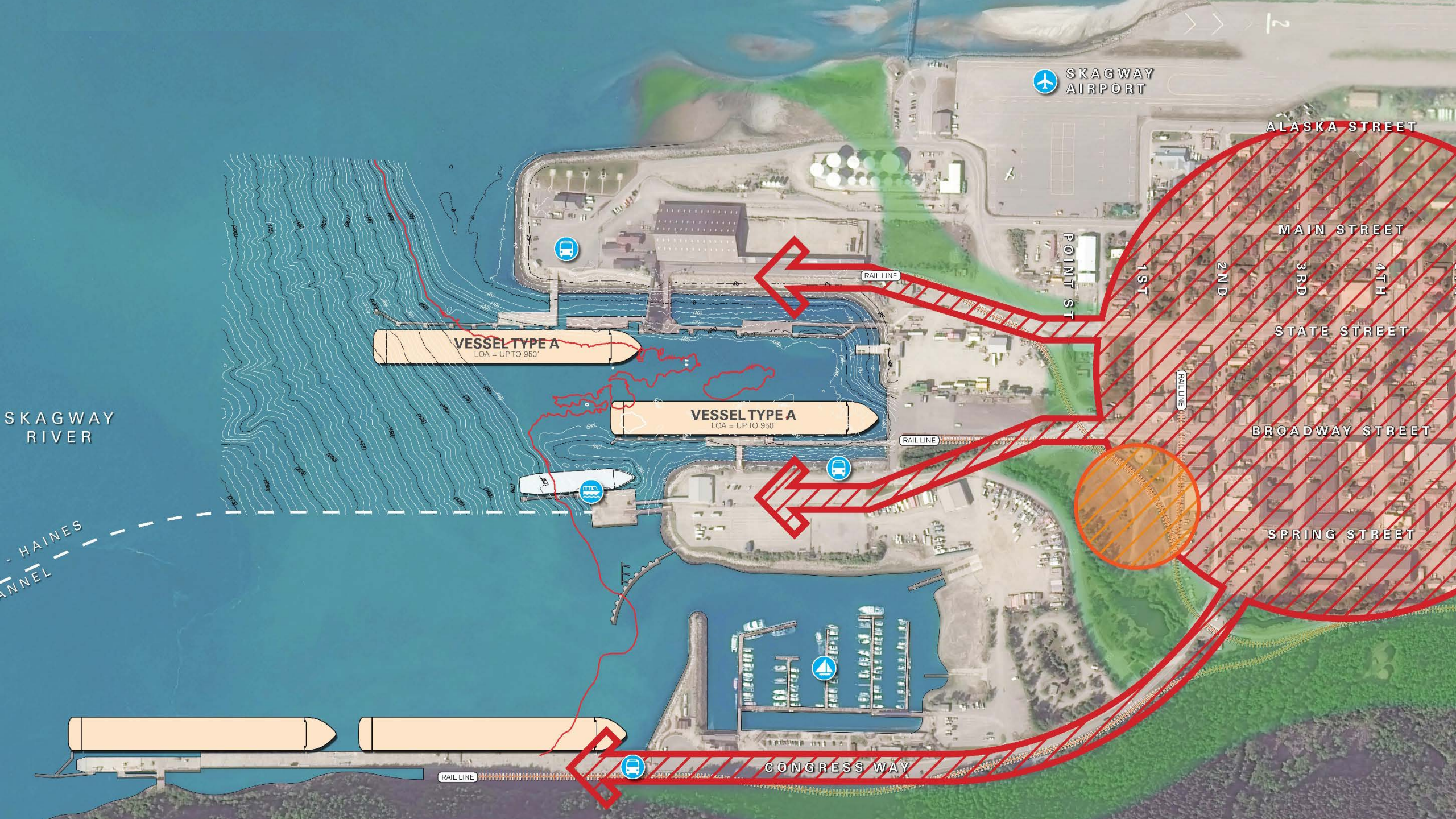
CONGRESS WAY
RAIL LINE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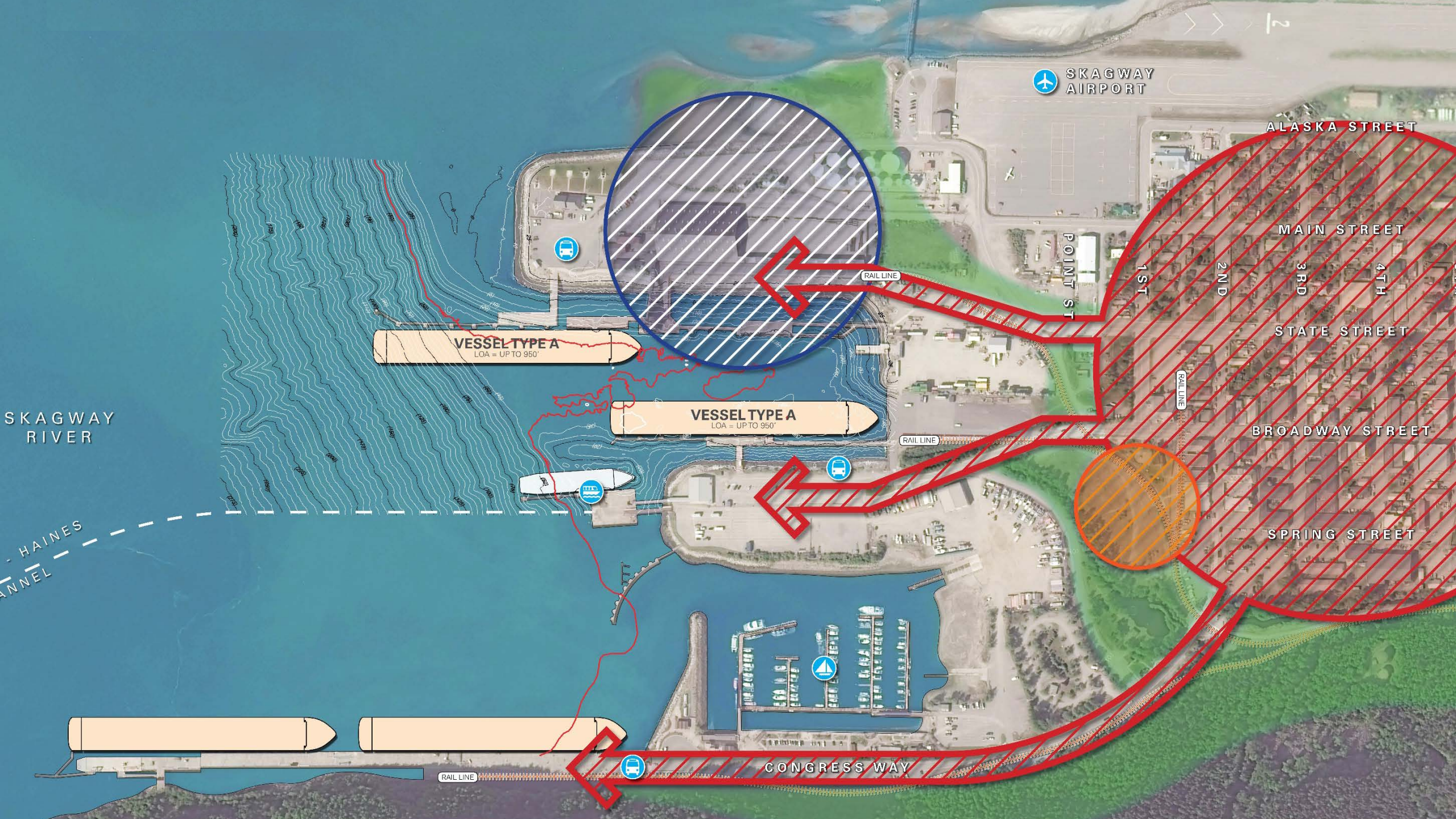
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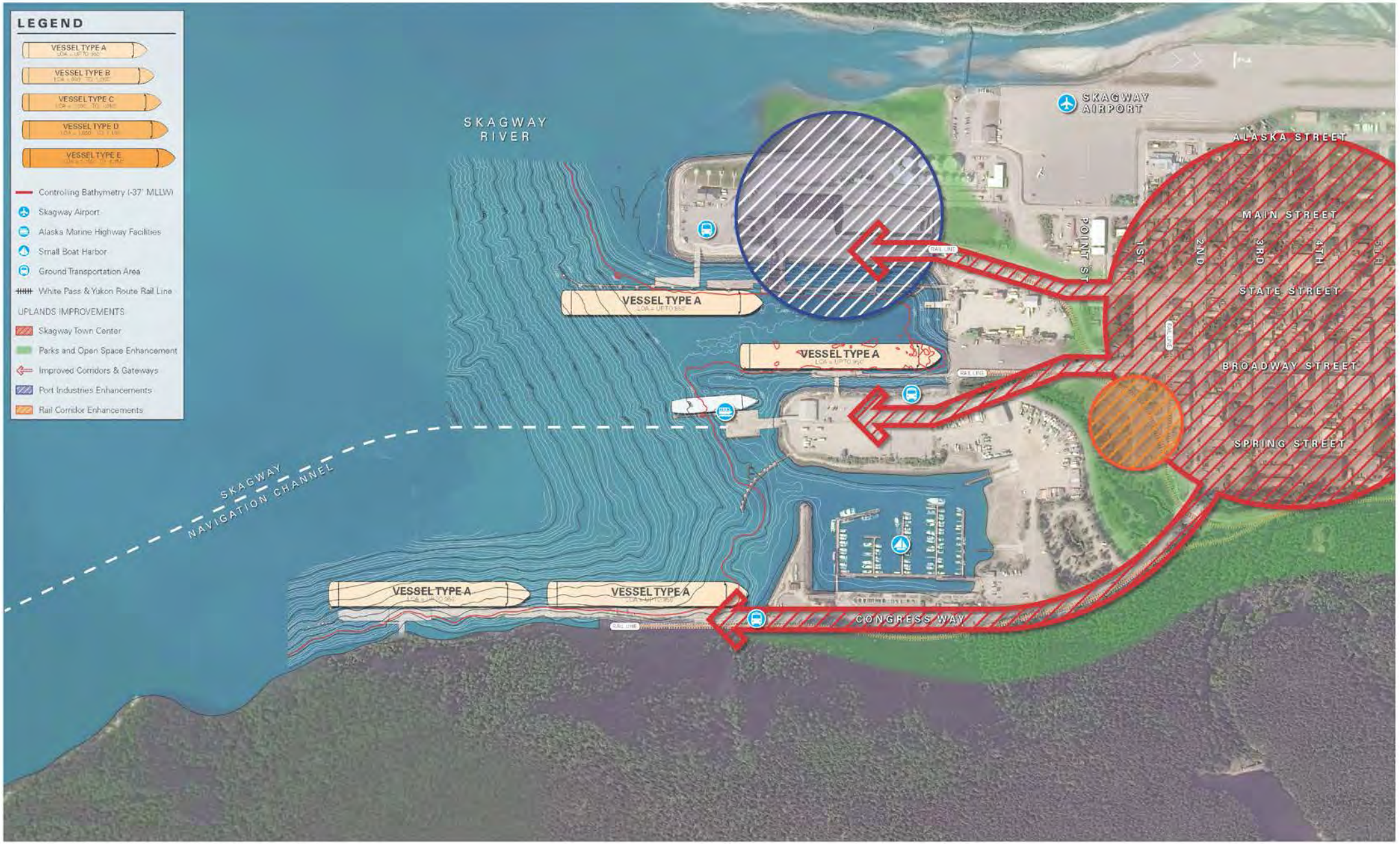
CONGRESS WAY



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 1

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100 200' 400' 800'

OPTION 1

Baseline with Limited In-Water and Landside Improvement

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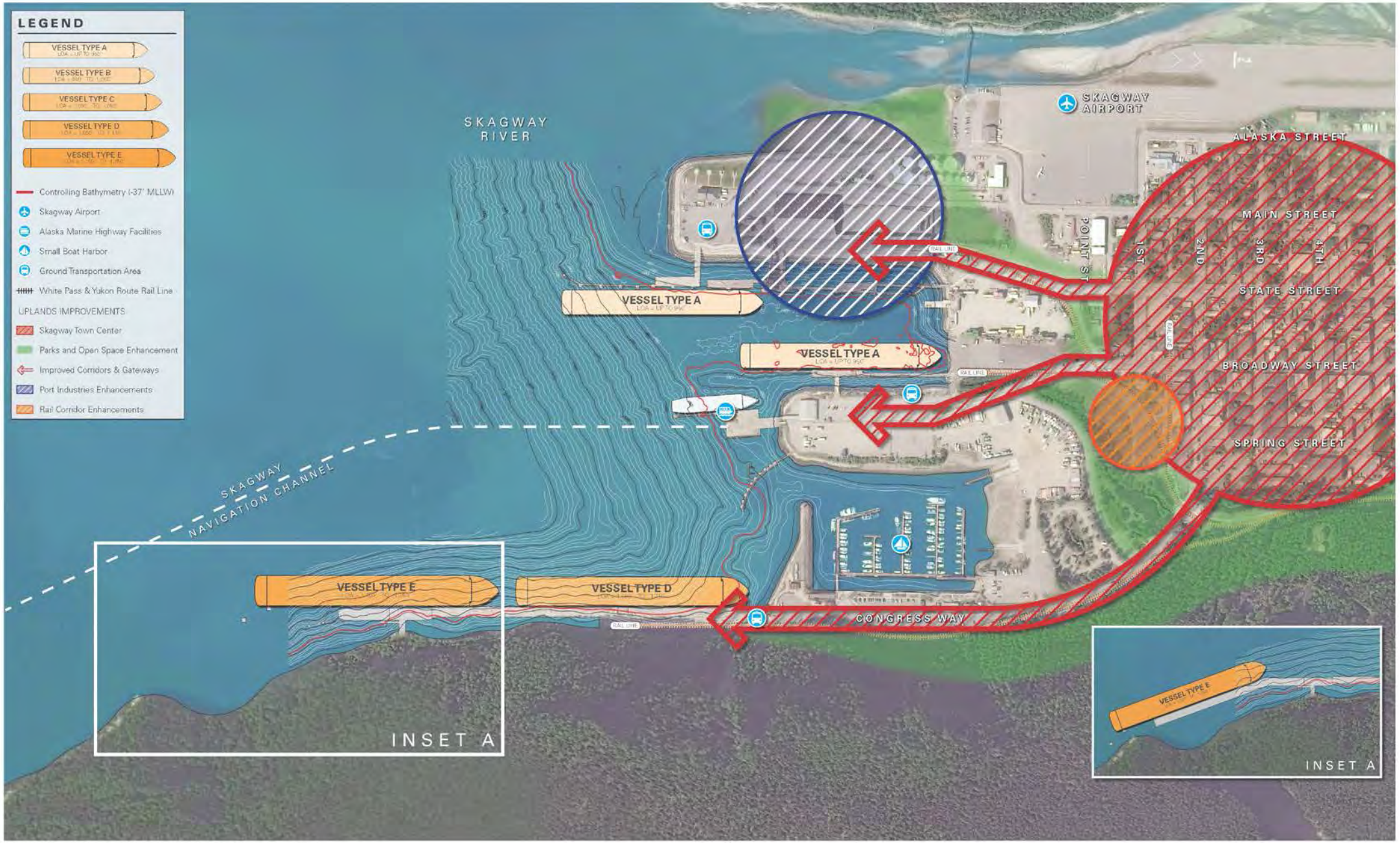
OPTION 2

Extend
Rail Dock



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 2

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100 200' 400' 800'

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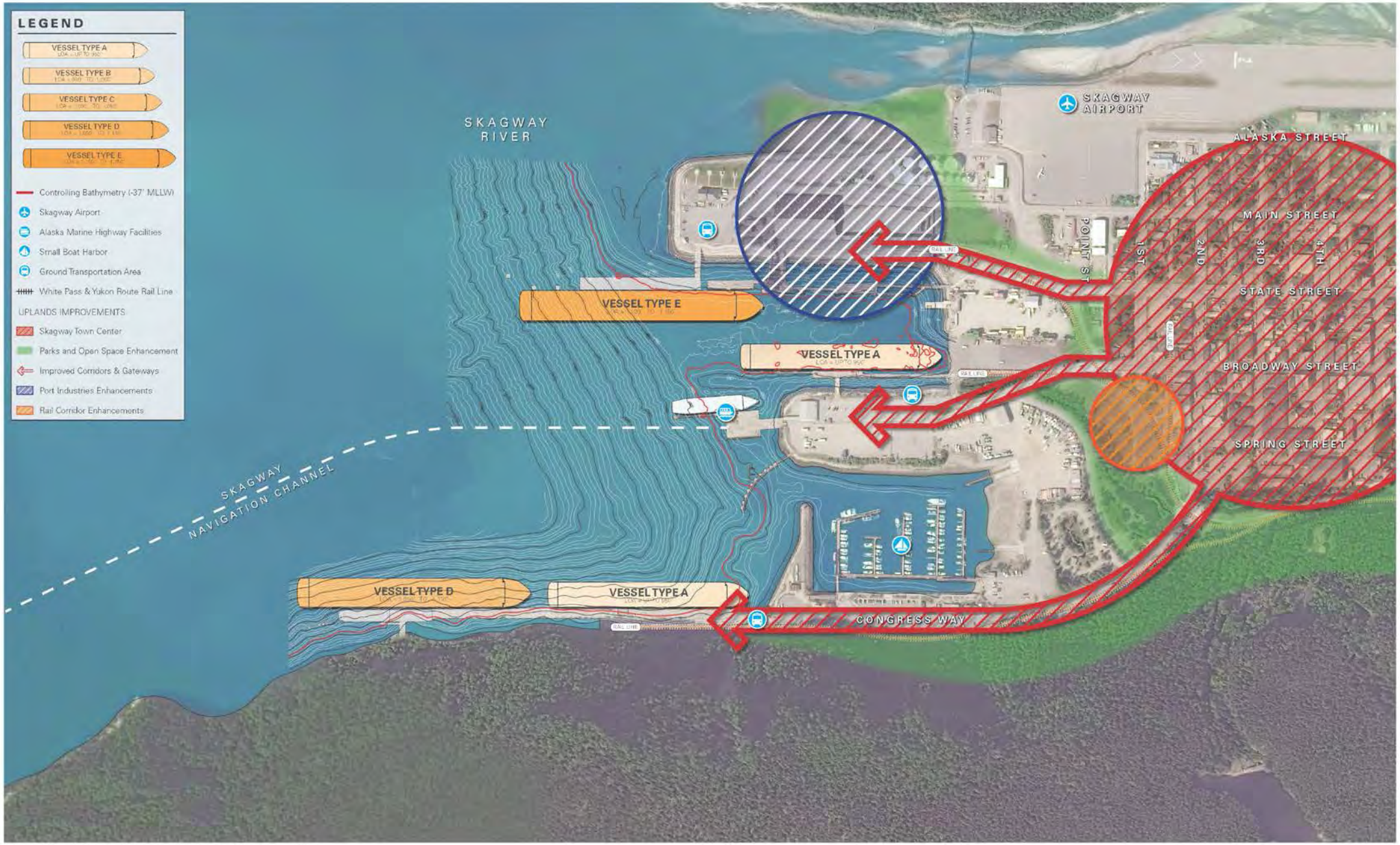

SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 3

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100' 200' 400' 800'

OPTION 3

Extend Rail Dock and Redevelop Northern Vessel Float

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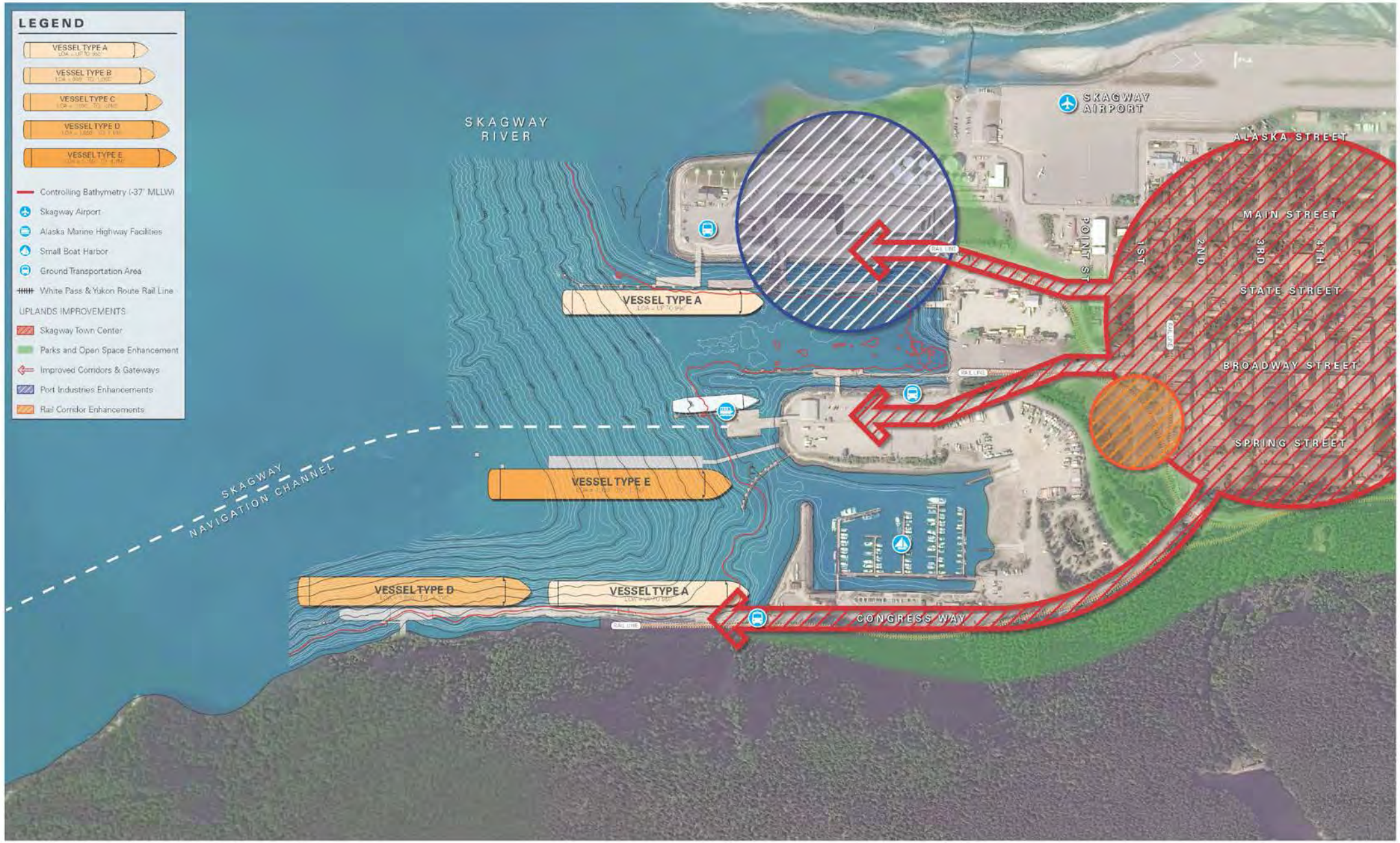

SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 4

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100' 200' 400' 800'

OPTION 4

Extend Rail Dock and New Vessel Float at City Dock

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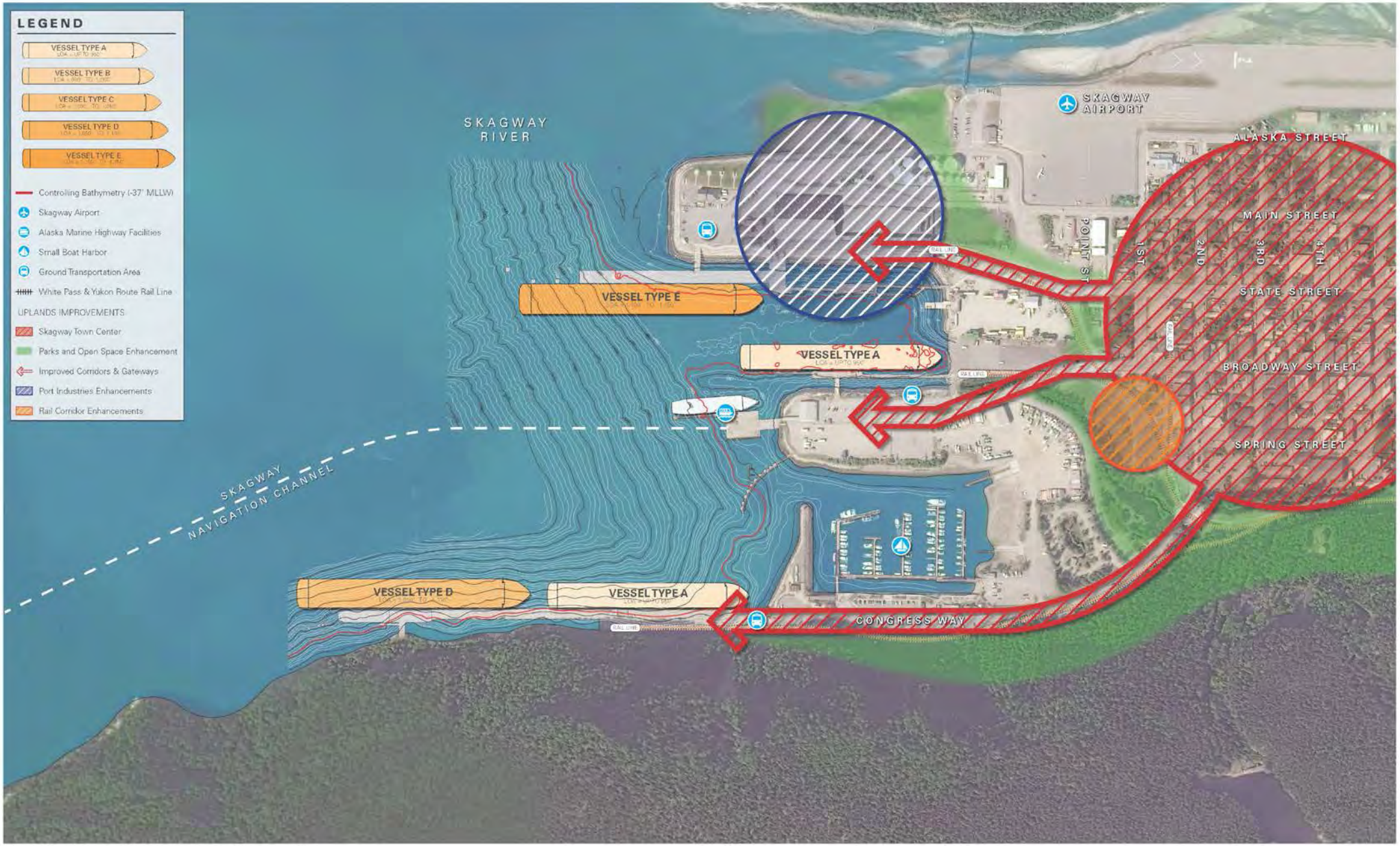


SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 5

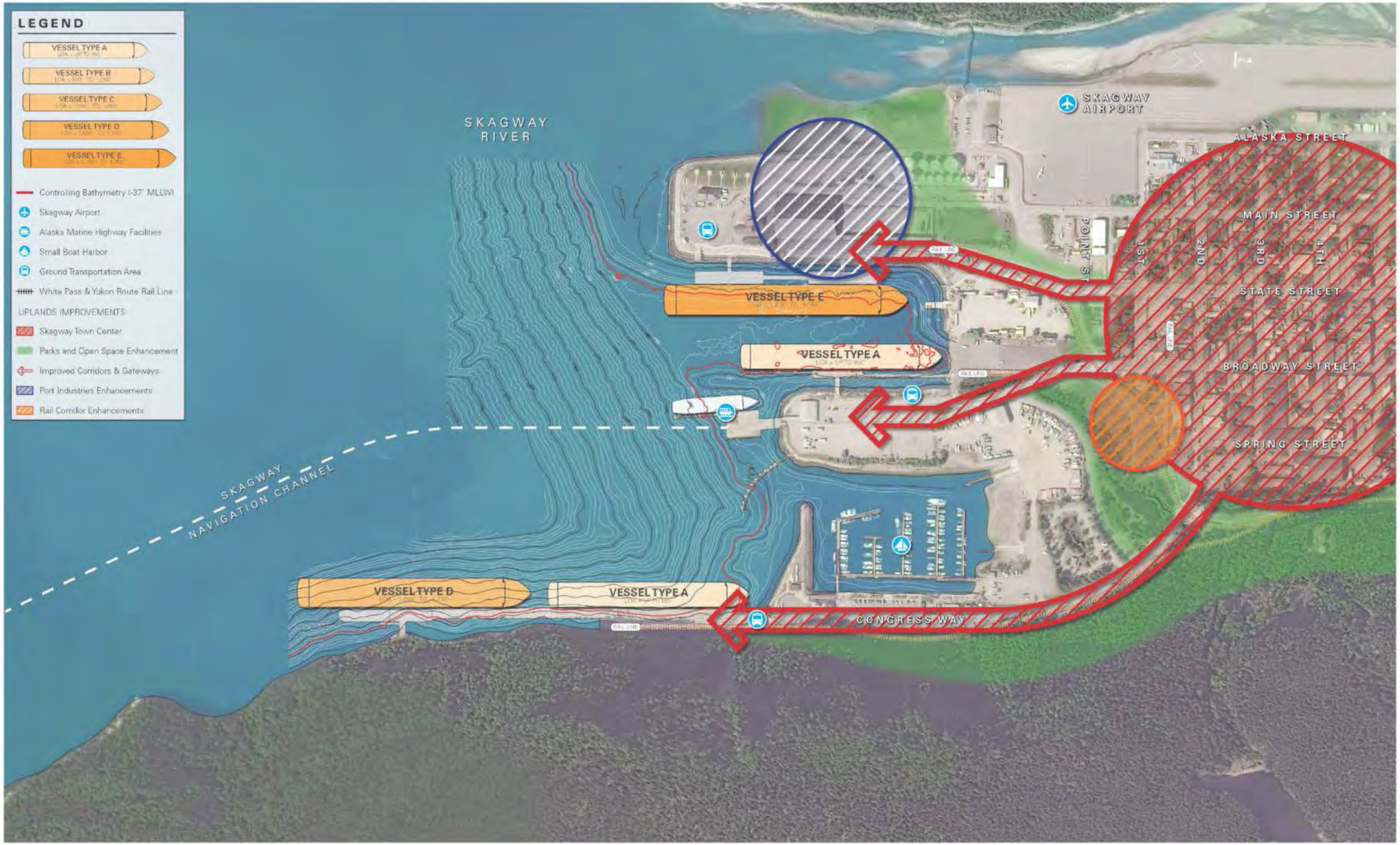
OPTION 5

Extend Rail Dock and Redevelop Ore Dock and North Float

moffatt & nichol

OPTION 6

Extend Rail Dock and Redevelop Ore Dock, AML and North Floats



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 6

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100' 200' 400' 800'

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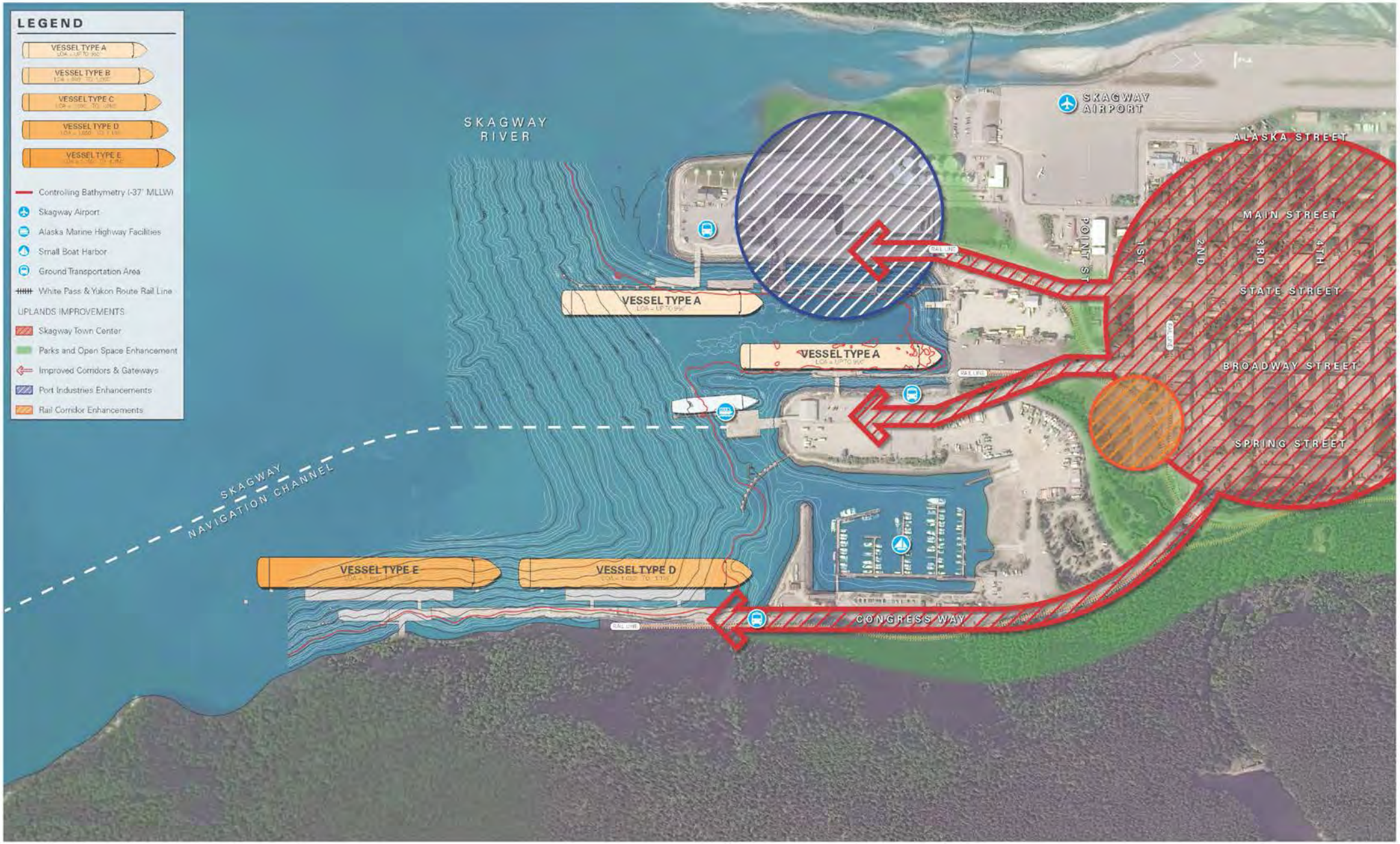

SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 7

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100' 200' 400' 800'

OPTION 7

Develop new Vessel Floats along the Present Rail Dock

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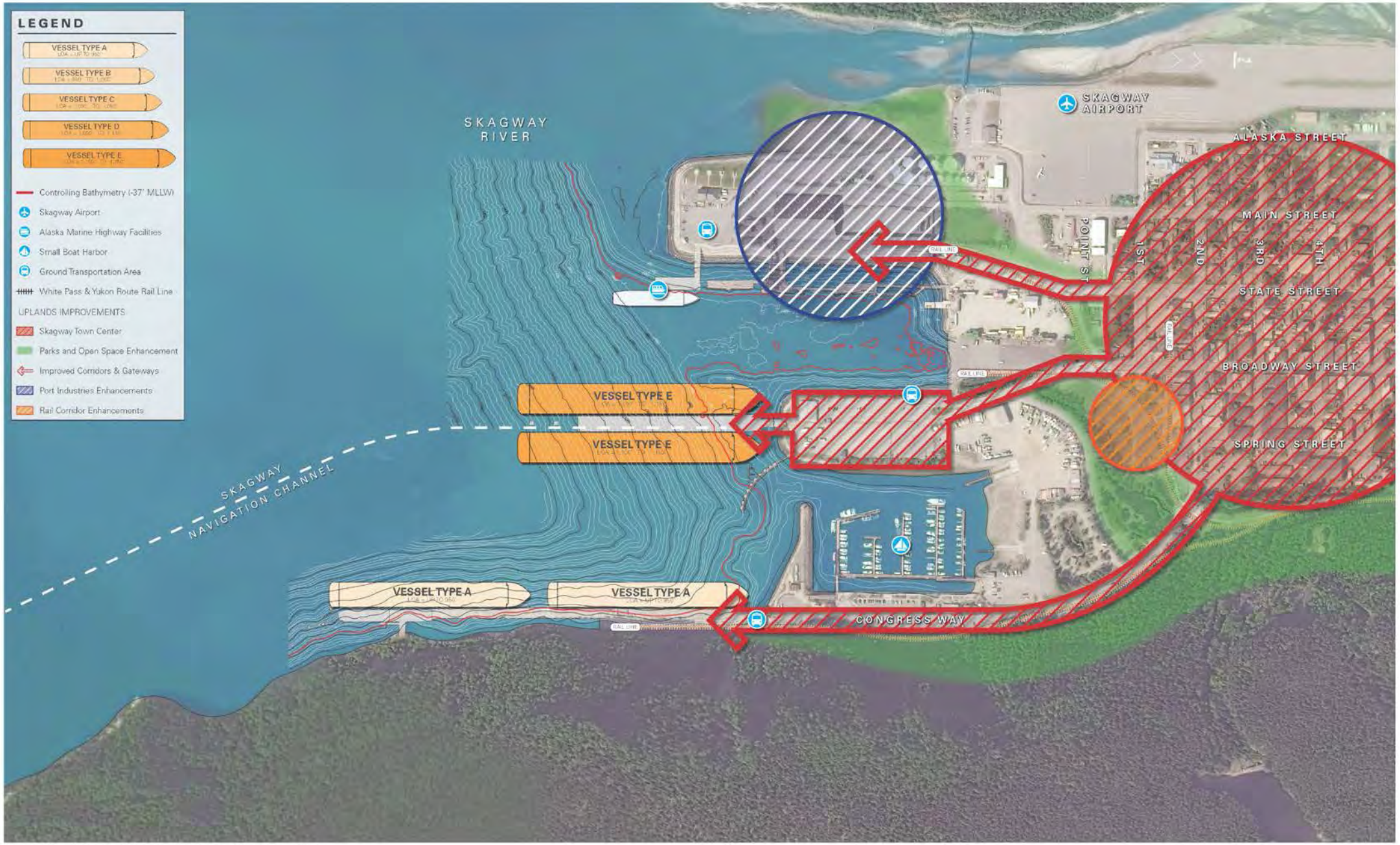
OPTION 8

New AMHS Float and Redevelop City Dock (Version 1)



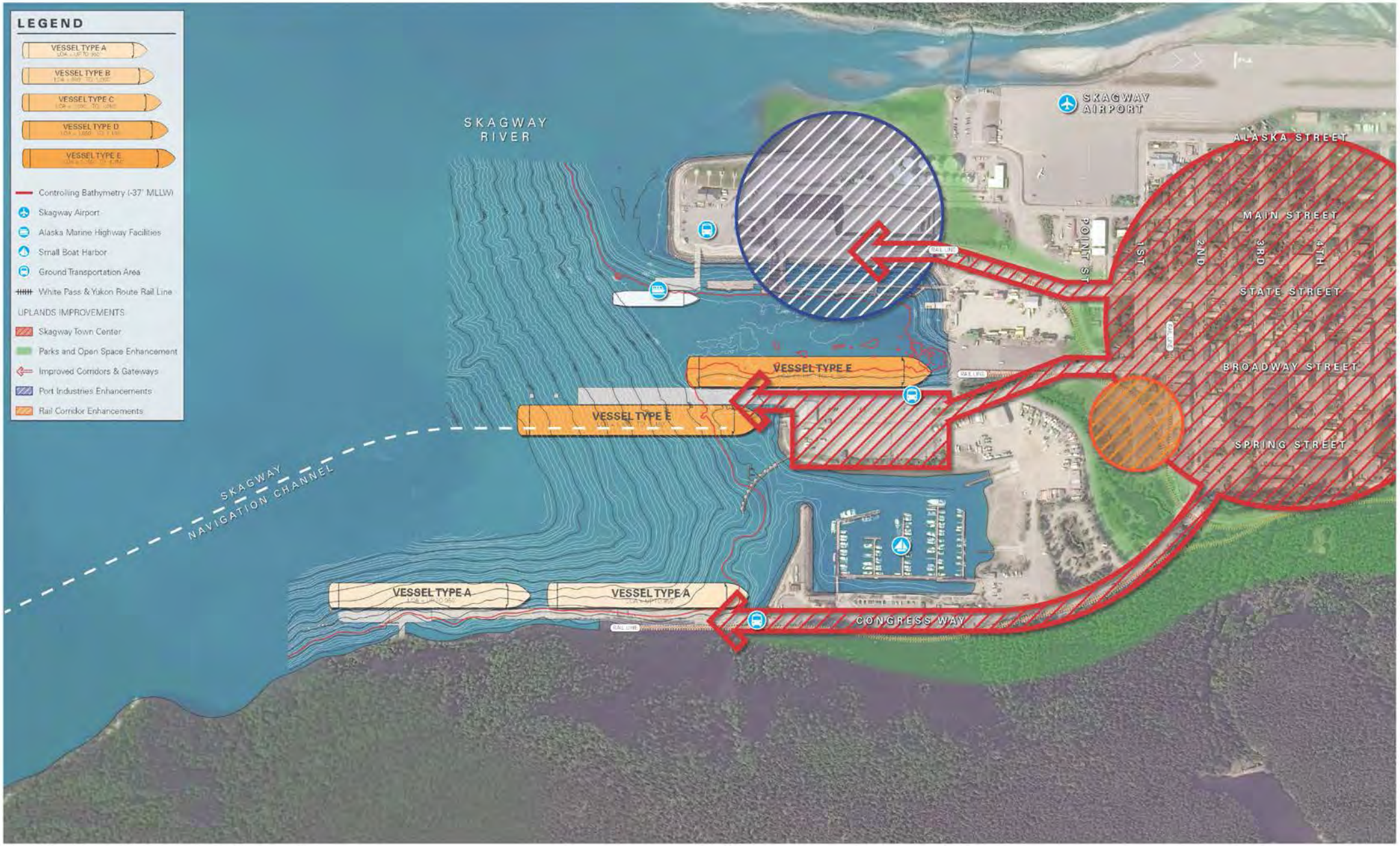
SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 8

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100 200 400 800

OPTION 9

New AMHS Float and Redevelop City Dock (Version 2)



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

PRELIMINARY CRUISE STUDIES
OPTION 9

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Evaluating Alternatives: The Matrix

	Option 1	Option 2	Option …
1. Meets Future Capacity Needs	●	●	●
2. Passenger Preference	●	●	●
3. User Preference	●	●	….
4. Local Business Preference	●	….	….
5. Separates Tourism from Port Industries	….	….	….
6. Maintains a Diverse Waterfront	….	….	….
7. Beneficial to Skagway Quality of Life	….	….	….
8. Cruise Ship Navigation	….	….	….
9. Construction Costs	….	….	….
10. Phasing	….	….	….
11. Environmental Impact	….	….	….
12. Construction Downtime	….	….	….
13. ……	….	….	….
SCORING	#	#	#

LEGEND

- Beneficial / Positive
- Neutral / Average
- Challenging / Adverse

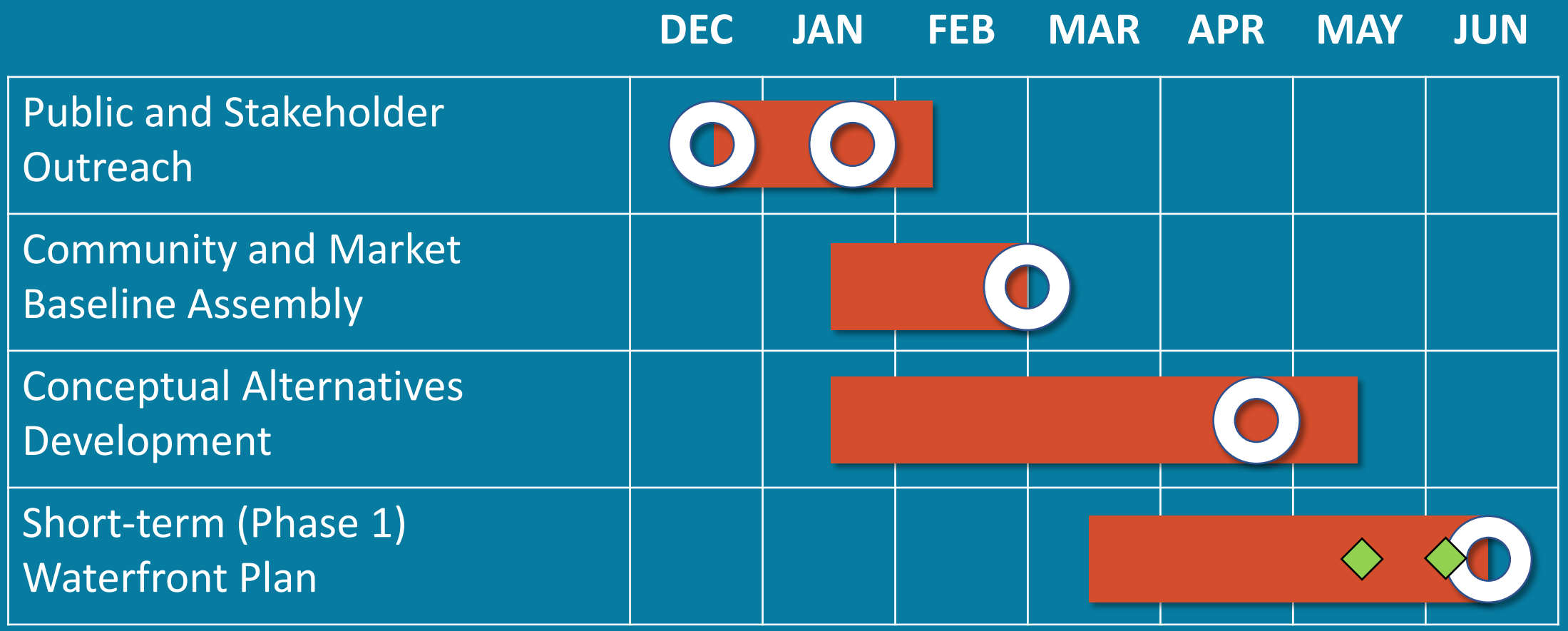
Question: What criteria should we use to evaluate options? What's most important?

5. Next Steps

NEXT STEPS

- Assemble feedback from Community Work Session Two and other ongoing stakeholder meetings and discussions
- Prepare a revised set of detailed conceptual alternatives which address short-term needs
- Complete our initial waterfront real estate valuation
- Hold Community Work Session Three: “Skagway’s Short-Term Waterfront Needs” on April 26th
- Prepare and submit the Short-Term Waterfront Plan
- Hold our final presentation for the Plan on June 15th
- Discuss the scope of work for long range waterfront planning

Skagway Port Planning Schedule (Phase 1)



Public Meetings in Skagway
12/19 ◦ 1/23 ◦ 2/28-3/1 ◦ 4/26 ◦ 6/15

APPENDIX A-3

Community Meeting #3
Skagway's Short Term Waterfront Needs
Skagway Port Planning (Phase 1)

April 26, 2017

moffatt & nichol

Objectives of Community Work Session Three

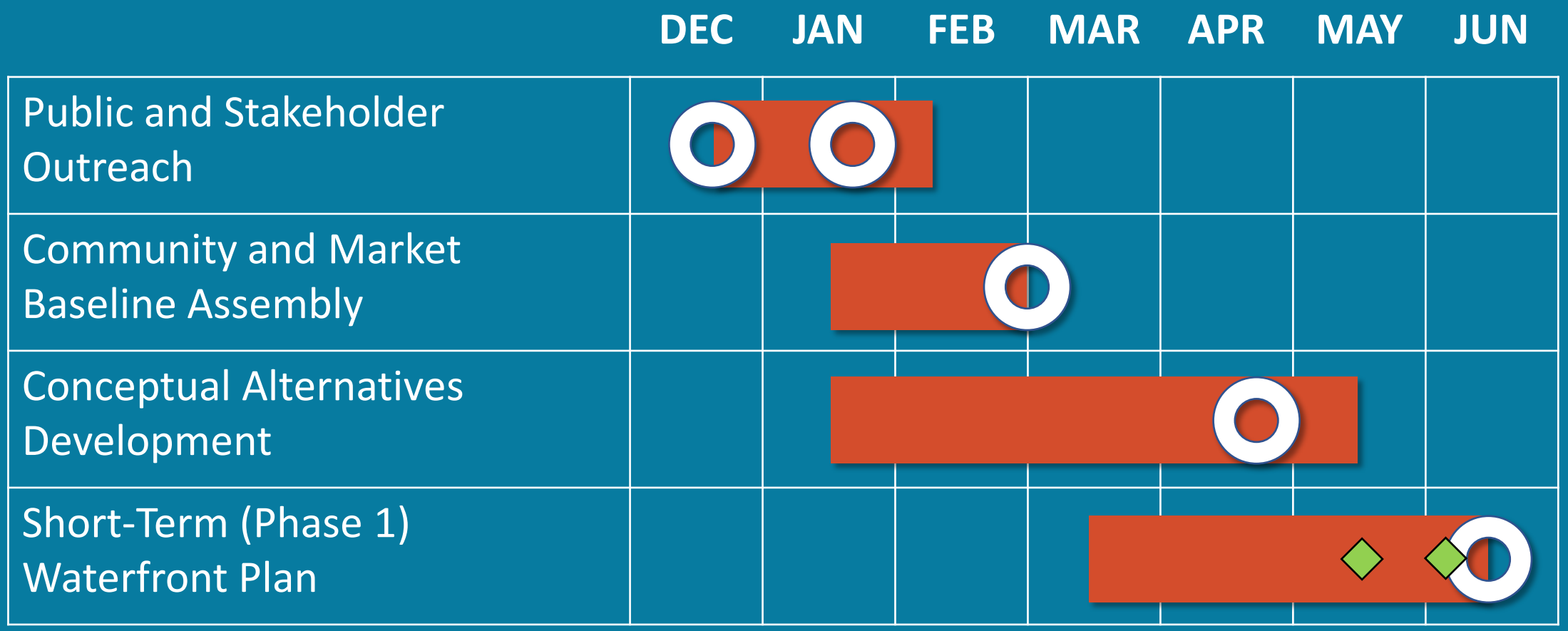
- Recap feedback from Community Work Session Two
- Discuss the framework for the waterfront and how this informs short term approaches to investment
- Present short term planning approaches to meeting waterfront needs
- Discuss how short terms efforts are linked to long terms ideas and work moving forward
- Recap next steps moving forward
- Listen, learn and encourage continued dialog

1. Project Overview

Project Objectives – Phase 1

- Reengage the community and stakeholders and make sure their wants, needs and desires are understood and opportunities for partnership assessed
- Define a clear program of short-term (next two years) improvements geared to address immediate port needs and grant funding of $8 million
- Outline a framework for preparation of a revised long-range vision of the waterfront focused on the future growth, sustainability and prosperity of the Municipality
- Work to identify a clear path to ensure clean-up of legacy harbor contamination
- Be honest and pragmatic with ourselves in defining and structuring our short- and long-term relationship with waterfront users

Skagway Port Planning Schedule (Phase 1)



Public Meetings in Skagway
12/19 ◦ 1/23 ◦ 2/28-3/1 ◦ 4/26 ◦ 6/15

2. Recap from Community Work Session #2

Value of the Waterfront as a Community Asset

Access
Venues
Lifestyle
Views

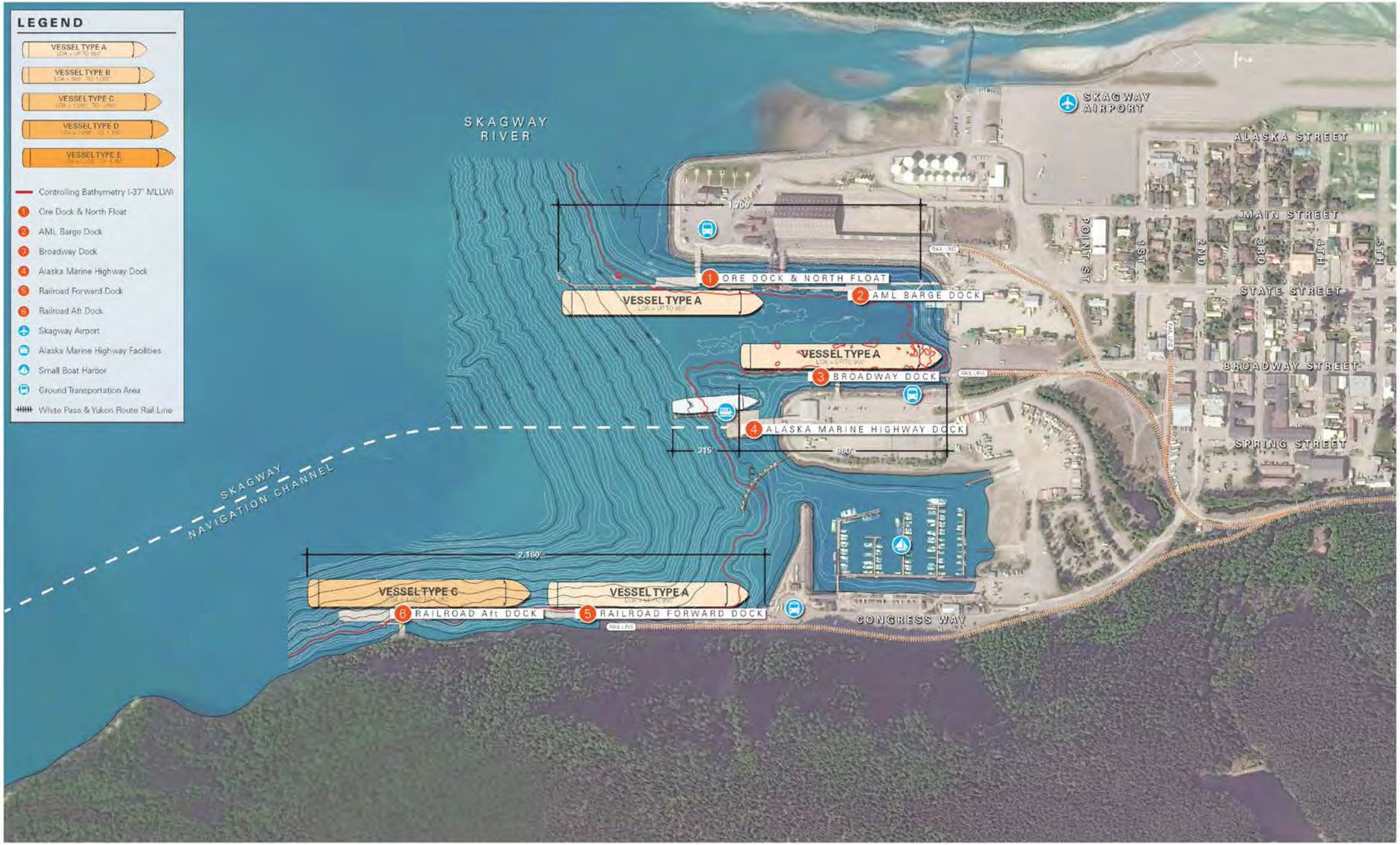
Goods for Consumption
Transport
Tourism
Economic Impact

Essential Habitat

Resource

Community Image

CURRENT



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OVERALL LOCATION PLAN

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100 200 400 800

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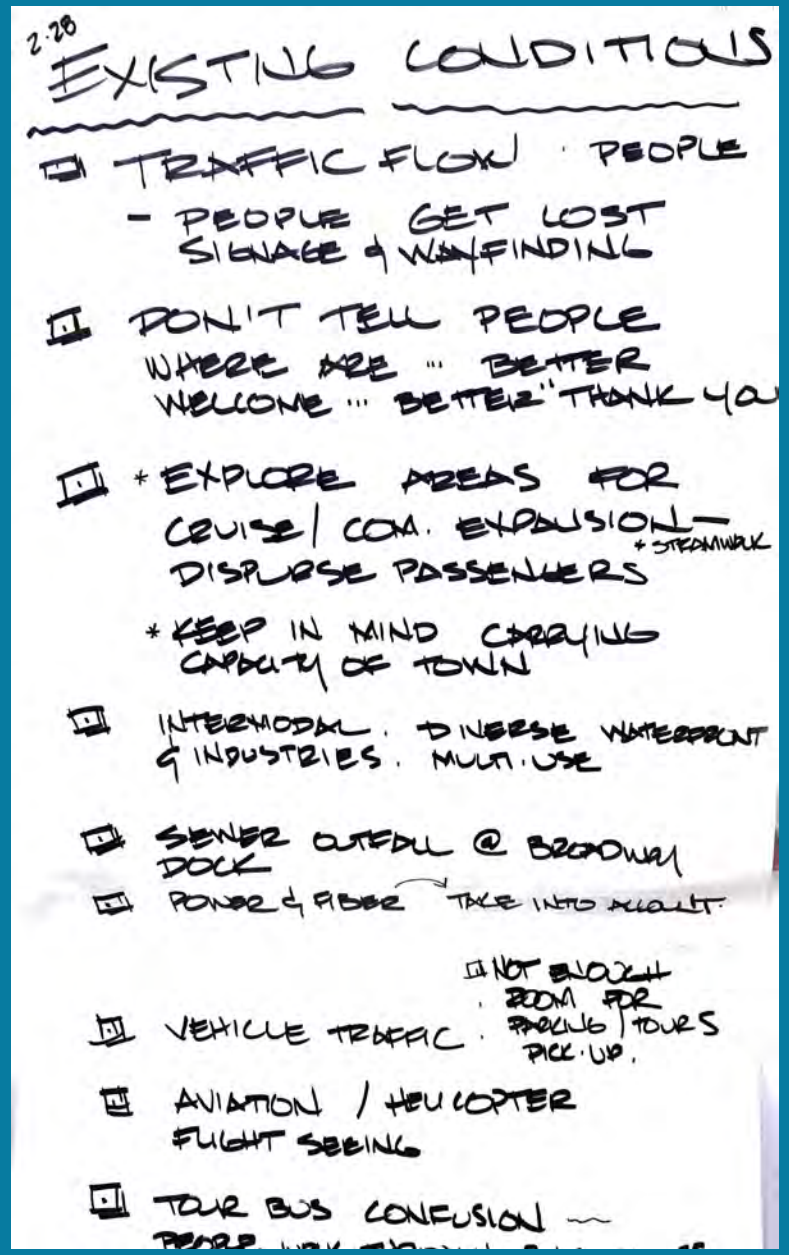
Observations and Thoughts: Docks

- One Ore Dock, many challenges
  - *Contamination of the Ore Dock*
  - *Poor position of the Ore Loader; obsolete*
  - *Dock is in deteriorating condition*
- Limited space between Ore and Broadway Docks
- Conflict between cargo and cruise operations
- Underutilized stretches of adjacent waterfront land
  - *Poor pedestrian connections between the northern docks and the community*
- Most improvements are expensive given adjacent deep water
- AMHS ferry monopolizes a huge, strategic portion of the waterfront
- Iconic Alaskan port

Observations and Thoughts: Environment

- Legacy environmental contamination in the harbor
  - *Ore Dock, Loader and adjacent harbor*
  - *Source of contamination*
  - *Any dredging and work will need to address contamination*
- Regulatory compliance of cruise ships, the small boat harbor and other operations
  - *Explore the potential for improved best management practices*
- Opportunity for deeper integration of the waterfront with the surrounding natural environment
  - *Parks, greenways and open spaces*
  - *Provision of habitat for nesting birds and other wildlife*

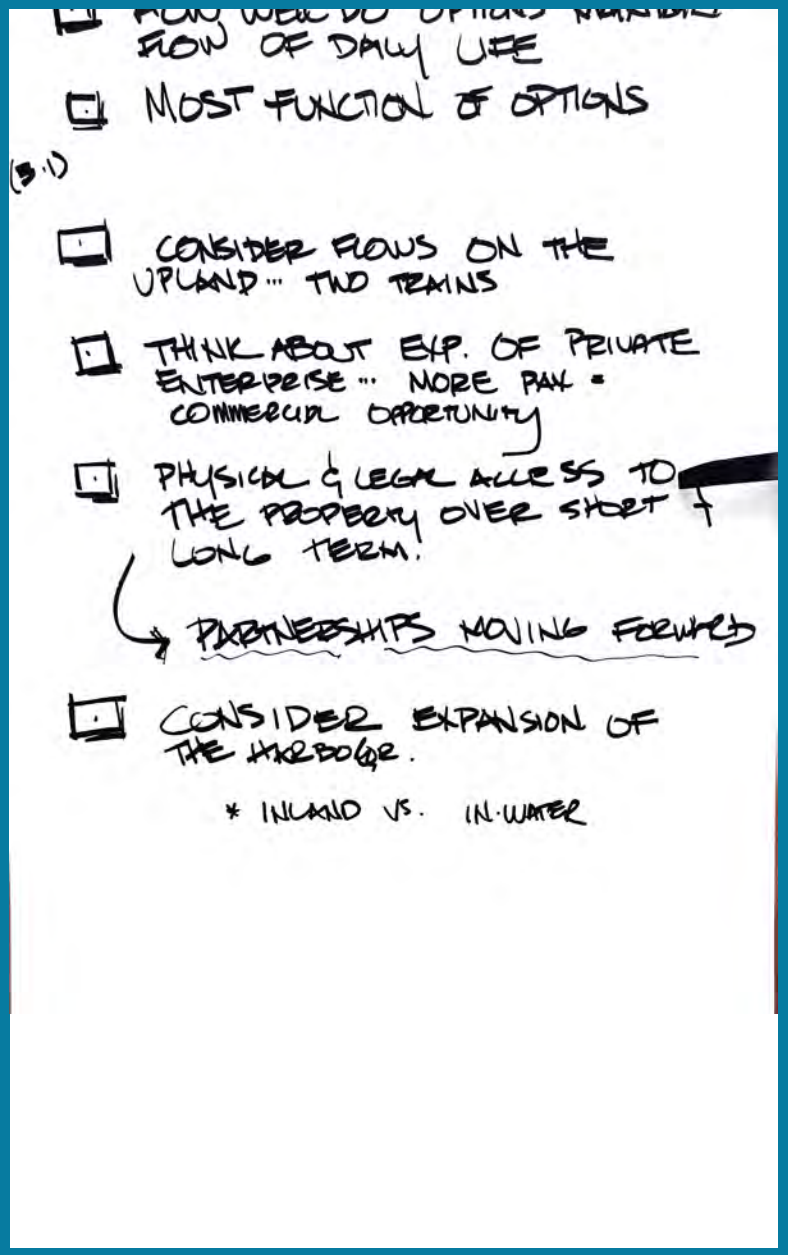
Existing Conditions – Public Comments



2.28

EXISTING CONDITIONS

- TRAFFIC FLOW · PEOPLE
  - PEOPLE GET LOST
  - SIGNAGE & WAYFINDING
- DON'T TELL PEOPLE WHERE ARE ... BETTER WELCOME ... BETTER" THANK YOU
- * EXPLORE AREAS FOR CRUISE / COM. EXPANSION + STEAMWALK
  - DISPERSE PASSENGERS
  - * KEEP IN MIND CARRYING CAPACITY OF TOWN
- INTERMODAL. DIVERSE WATERFRONT & INDUSTRIES. MULTI-USE
- SEWER OUTFALL @ BROADWAY DOCK
- POWER & FIBER → TAKE INTO ACCOUNT
- VEHICLE TRAFFIC. → NOT ENOUGH ROOM FOR PARKING / TOURS PICK-UP.
- AVIATION / HELICOPTER FLIGHT SEEING
- TOUR BUS CONFUSION —



FLOW OF DAILY LIFE

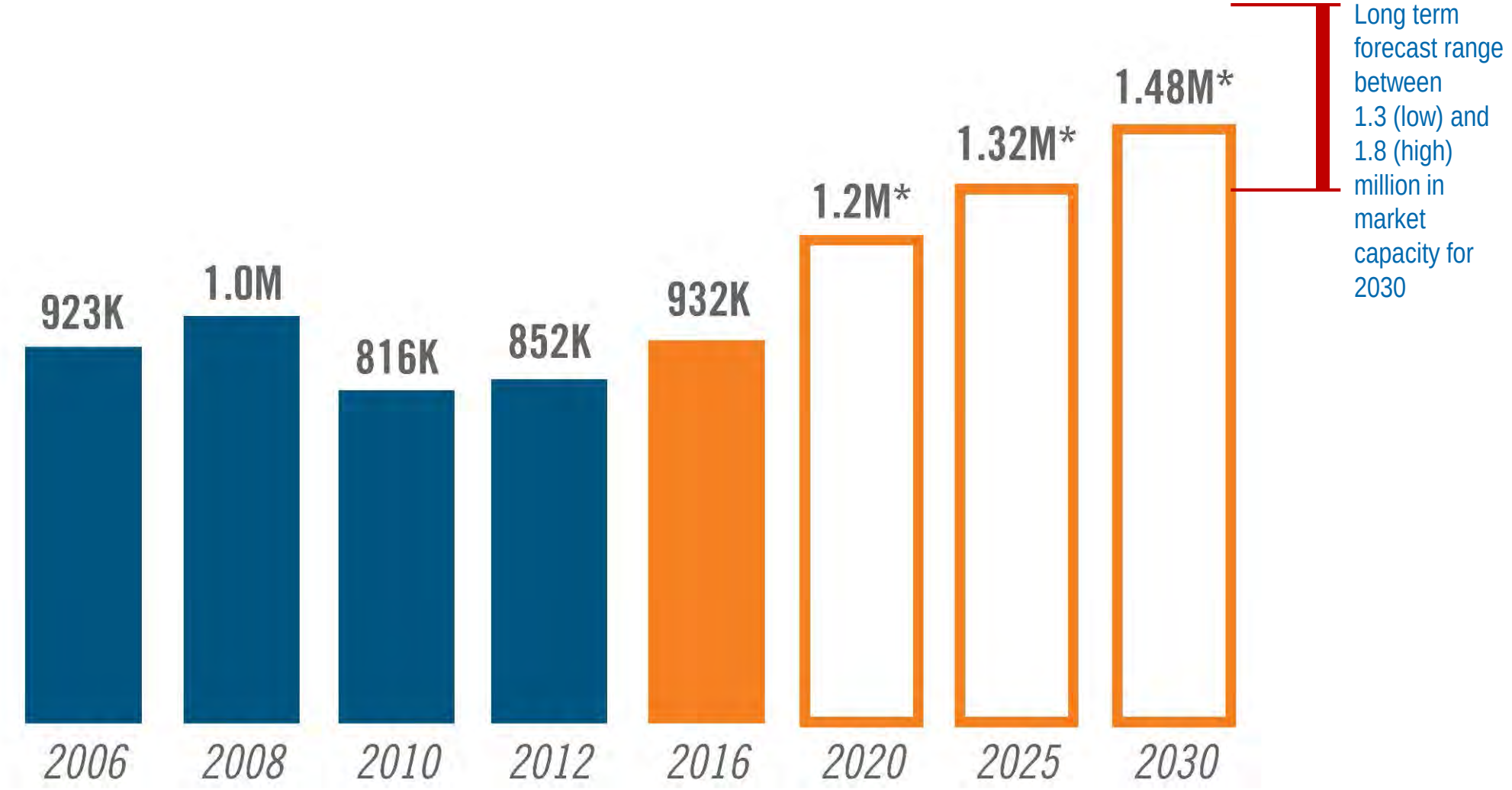
- MOST FUNCTION OF OPTIONS

(3.1)

- CONSIDER FLOWS ON THE UPLAND ... TND TRAINS
- THINK ABOUT EXP. OF PRIVATE ENTERPRISE ... MORE PAX = COMMERCIAL OPPORTUNITY
- PHYSICAL & LEGAL ACCESS TO THE PROPERTY OVER SHORT + LONG TERM.
  - → PARTNERSHIPS MOVING FORWARD
- CONSIDER EXPANSION OF THE HARBOR.
  - * INLAND VS. IN-WATER

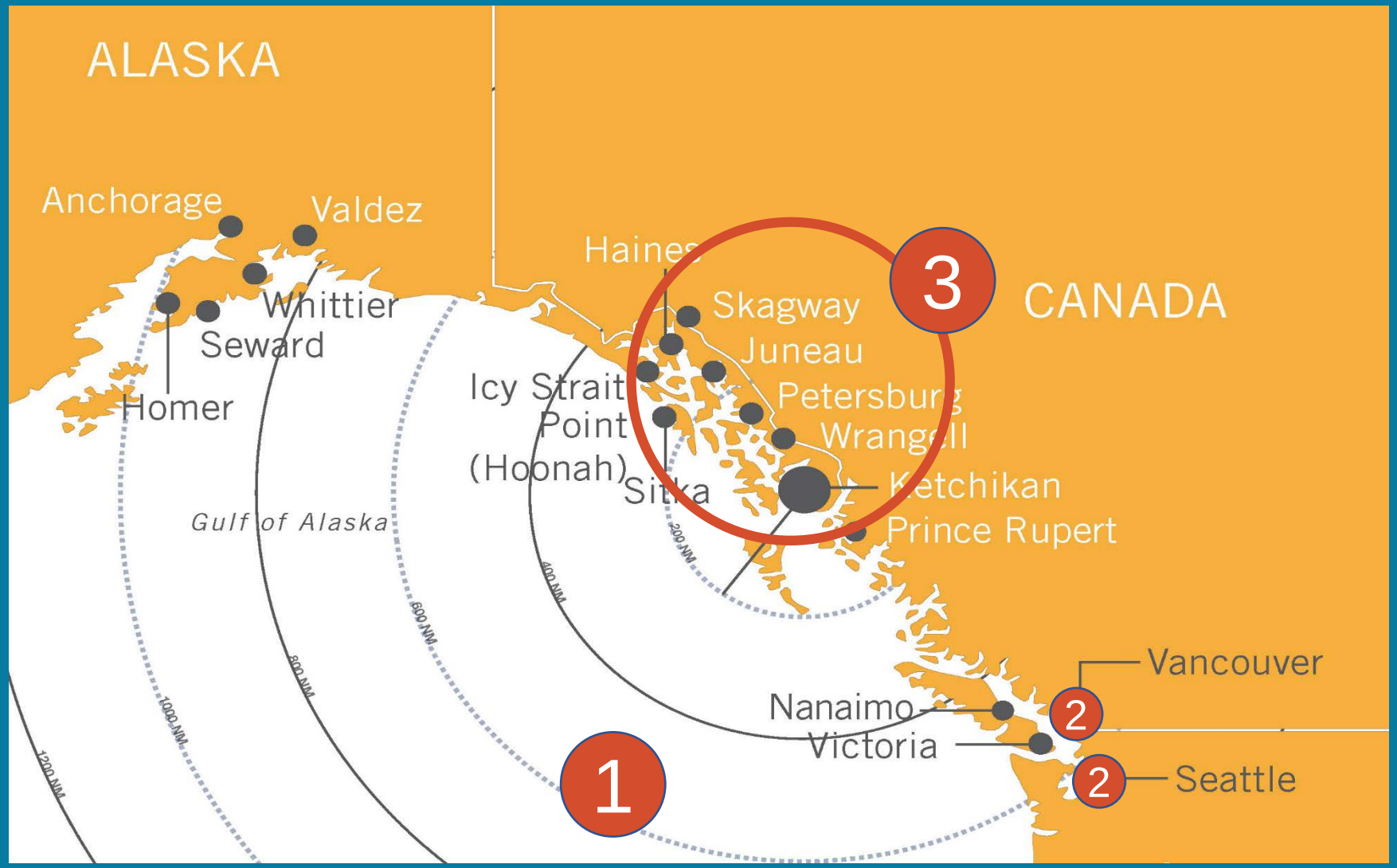
Forecast of Alaskan Capacity

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017.*

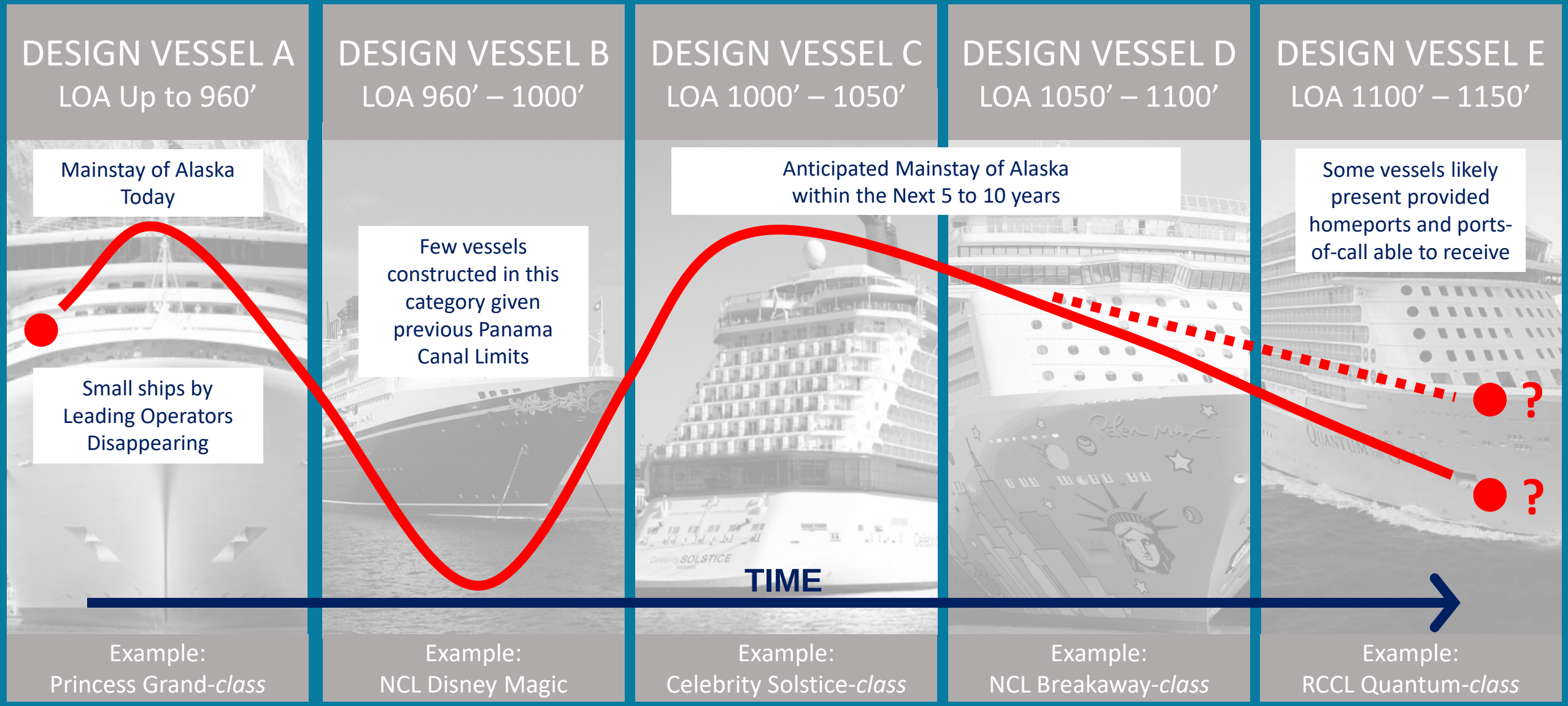
Future Deployment: A Balanced System



1. Can capacity get to the region?
   Yes, Panama Canal limits minimized.
2. Can key homeports support this capacity?
   Yes, Seattle and Vancouver can accommodate large vessels.
3. Can key ports-of-call support this capacity?
   Maybe. Work to be done.

Sources: CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017.

Design Vessel Considerations for Alaska



Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017

Mineral Production in the Yukon

- Real GDP for mining declined by 12% in 2014 and 41% in 2015
- Similar trend for oil and gas extraction and their support activities
- Real GDP for entire territory declined by 6% in 2015 although Canada grew by 2.6%
- Potential and existing exports in the Yukon
  - *Asbestos, Nickel, Barite, Selenium, Copper, Silver, Gold, Tungsten, Lead, Uranium, Molybdenum, Zinc*
- Currently produces copper, gold, lead, silver and zinc

Mining – Known Challenges

- Ore Dock (old section) in “poor to very poor” condition
- Legacy contamination issues in Ore Basin
- Existing shiploader is obsolete
  - *Over 25 years old*
  - *Stationary → requires repositioning of ships during loading*
  - *Challenging to operate under current environmental best practices*
  - *Mines desire radial or mobile shiploader for efficient loading*
- AIDEA/WPYR lease expires 2023 (concurrent with Skagway/WPYR lease)
  - *Reinvestment will require economic analysis & AIDEA Board approval*
- Supply is market-driven & sensitive to commodity prices
- Mining & shipping to tidewater less expensive in summer
- Smelting expensive in winter due to cost of energy (hydro in summer; fossil fuels in winter)

3.1

- HOUSING "LITTLE ROOM FOR GROWTH" "NO PLACE TO PUT WORKERS | OTHERS DURING SEASON & YEAR ROUND HOUSING
- MINING INCREASES MAY/WILL IMPACT TRAFFIC ON ROADWAYS

(3.1)

MARKETS

- *WHAT IS THE BENEFIT OF MORE MINING ACTIVITY TO SKAGWAY? JOBS "COMMERCE
  - * HERITAGE VS. LEGACY (ENV.) NEED TO MAKE SURE LEGACY UNDERSTOOD MOVING FORWARD (LOST "HERITAGE" ETC.
- *NEED TO THINK ABOUT IMPACTS FOR ALL MARITIME INDUSTRIES
  - * WE DO HAVE GOOD DATA ON PAX SPENDING → INCOME TO CITY. MINING? NEED TO UNDERSTAND INCOME

2.28

MARKETS

- EXPORT VIA YUKON
- * SUMMER PEOPLE TRAFFIC MOVING THE TOWN "HIGHWAY FERRY
  - * ACCESS TO PEOPLE FROM THE YUKON "STATUS, ETC.
- [redacted] - IMPORTANT PIPELINE AMHS
- "RENEW" SHOP — IND. AS A MARKET
- * MINING → SKAGWAY IS * TRANSPORTATION CORRIDOR (MULTI EXPLORED)
  - * SKAGWAY IS YUKON'S PORT "BUT A LOT OF TRAFFIC IS GOING ON ALL CANADA ROUTE
- MINING HERITAGE IS IMPORTANT
  - → MAY LEVERAGE MORE YEAR-ROUND JOBS

2.28

- CONCERNS OF ORE TRUCKS MOVING THROUGH TOWN "WOULD LIKE TO SEE COST BEN. ANALYSIS (SOME IN COMM. FEEL WE HAVE ENOUGH.)

- MINING HERITAGE IS IMPORTANT
  - → MAY LEVERAGE MORE YEAR-ROUND JOBS

2.28

- CONCERNS OF ORE TRUCKS MOVING THROUGH TOWN "WOULD LIKE TO SEE COST BEN. ANALYSIS (SOME IN COMM. FEEL WE HAVE ENOUGH.)

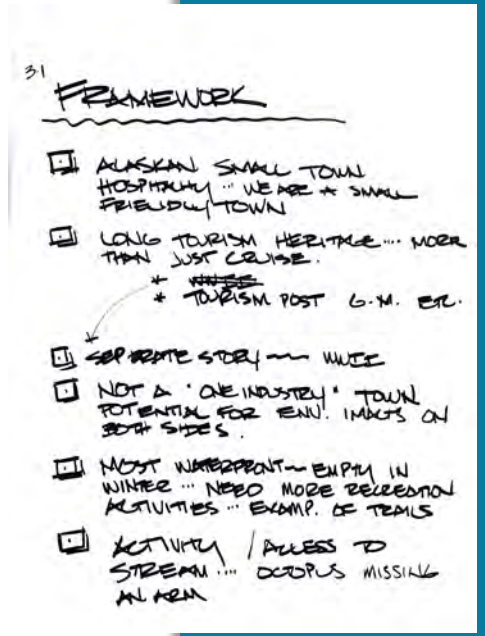
- * CRUISE QUALITY VS. QUANTITY "ISSUE IN THE BACK OF OUR MINDS
  - * IF WE GROW THE PORT "WE NEED GROW THE INFRASTRUCTURE
  - * RETAIL LINE CREATES A LINE
  - * ESSENTIAL THAT SKAGWAY HANDLE LARGER VESSELS "THIS IS WILL BE A POINT OF TENSION IN THE PLAN
- HOUSING DEMAND IN THE SUMMER.

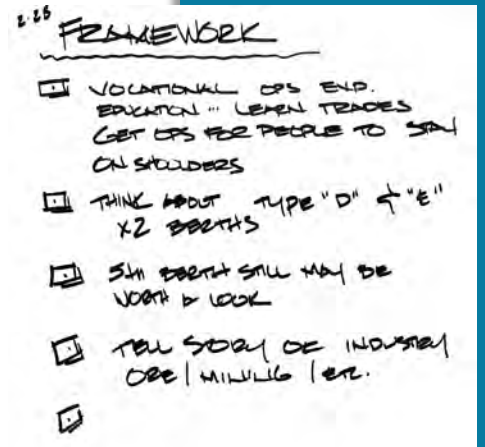
3. Solidifying the Planning Framework for Skagway's Waterfront

The planning framework are the features that remain true for each design alternative. They serve as the foundation…the defensible "why's" underpinning the plan.

Learning from the Community

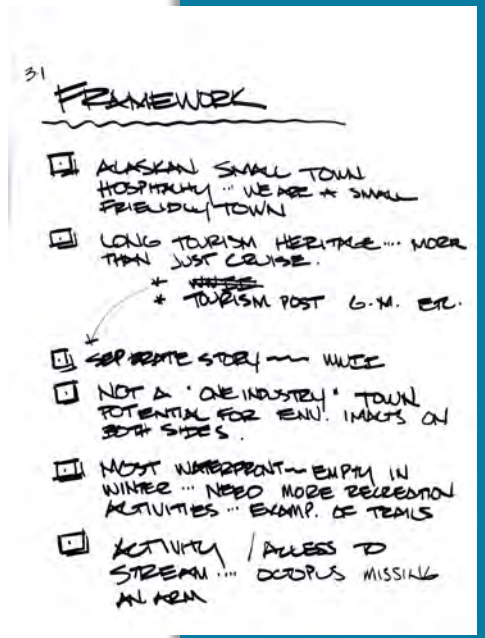
- Ensure environmental clean-up of Ore Basin advances and put into place regulations and best practices to safeguard the harbor from future contamination
- Seek approaches to separate tourism from industrial activities
  - *Public safety; portrayal of community image; lessen impacts to both industries*
- Embrace planning approaches that foster a year-round economy
  - *Swings in population between summer / winter create challenges*
- Continue the high quality delivery of the Skagway experience
  - *Tell our story in compelling ways to visitors and our future generation*
- Seek balance between our past and our future promise
- **** Find opportunities for life-long learning and vocations ****

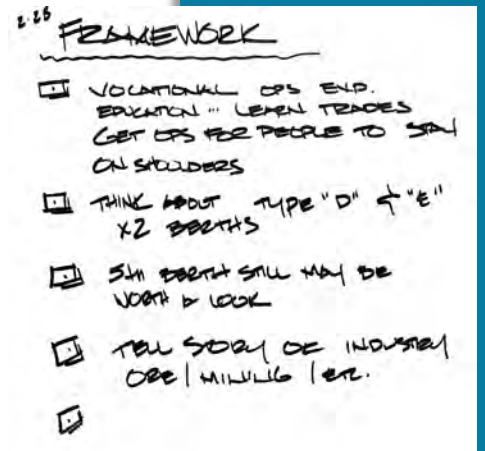




Learning from the Market

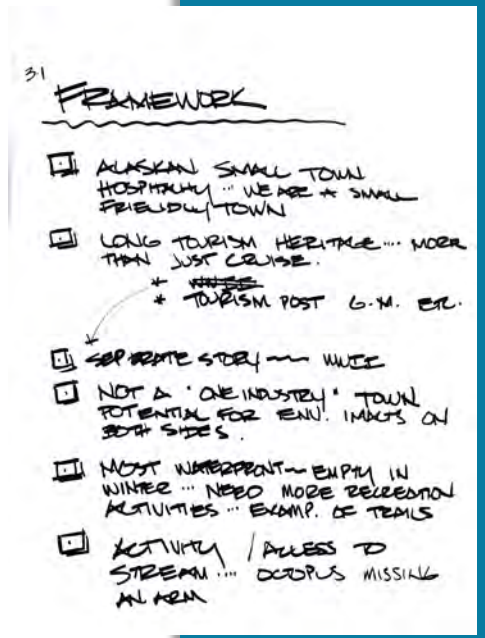
- We are the Gateway to the Yukon; we are geographically and economically unique
- Cruise activities have room for growth
  - *Growth will occur predominately through replacement of Panamax (Type A) vessels with larger, 1,100+ LOA ships (Type D and E)*
  - ***** Have long term flexibility for a 5th berth for large vessels *****
- Short term prospects for growth in mining activities are nominal
- Maintaining waterfront and port diversity is essential. Each element has purpose. Diversity provides economic flexibility to embrace future market opportunities
- White Pass is a core economic engine in the community
  - *The railroad is an essential aspect of the cruise offer*
  - *Growth in cruise volumes presents opportunities to enhance operations*



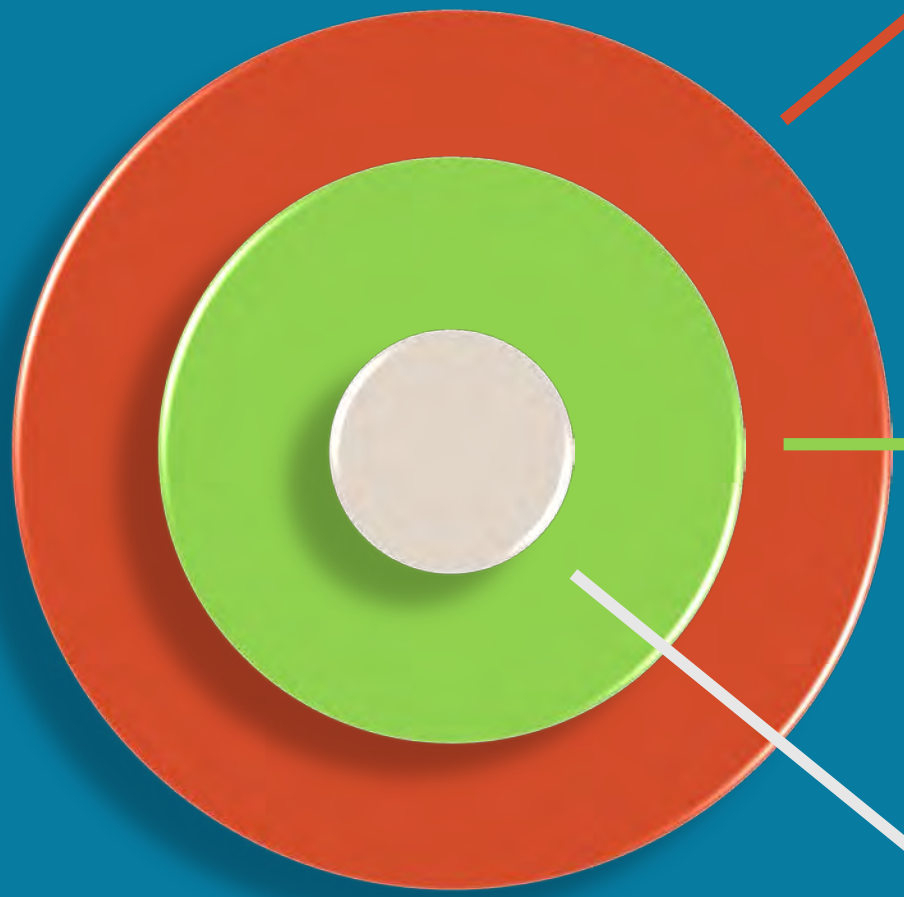


Learning from Planning Best Practices

- Make connections. Foster creation of interconnected, walkable green areas, streets, and commercial zones accessible for all.
  - ***** Create improved linkages to the steam area and hiking trails *****
- Embrace a diversity of uses. Create spaces for residents, visitors, AMHS travelers and other guests.
- Allow the public to view, approach, walk along, and touch the water's edge. Provide opportunities to get onto the water.
- Foster Innovation. Be inventive. Plan for the work…and the worker…of the future. Allow community design to flex to future need and technologies.
- Tell Your Authentic Story. Allow the waterfront to look forward and back…explore memory and prophecy.
  - ***** We are a small, friendly town *****
  - ***** Tell stories about our working heritage *****



Framework Synopsis



Community Desire

Ore Basin Clean-up (!!)
Separate Tourism and Industry
Embrace a Year Round Economy
Community Life Long Learning
Great Guest Experience
Balance Past and Future

Economic Opportunity

Economic Uniqueness
Cruise has Room for Growth
Waterfront and port diversity is essential
Maintain Port Diversity
WPYR is an Economic Engine

Best Planning Practices

Make Connections
Promote Mixed Use
Engage the Water's Edge
Foster Innovation
Tell Your Authentic Story

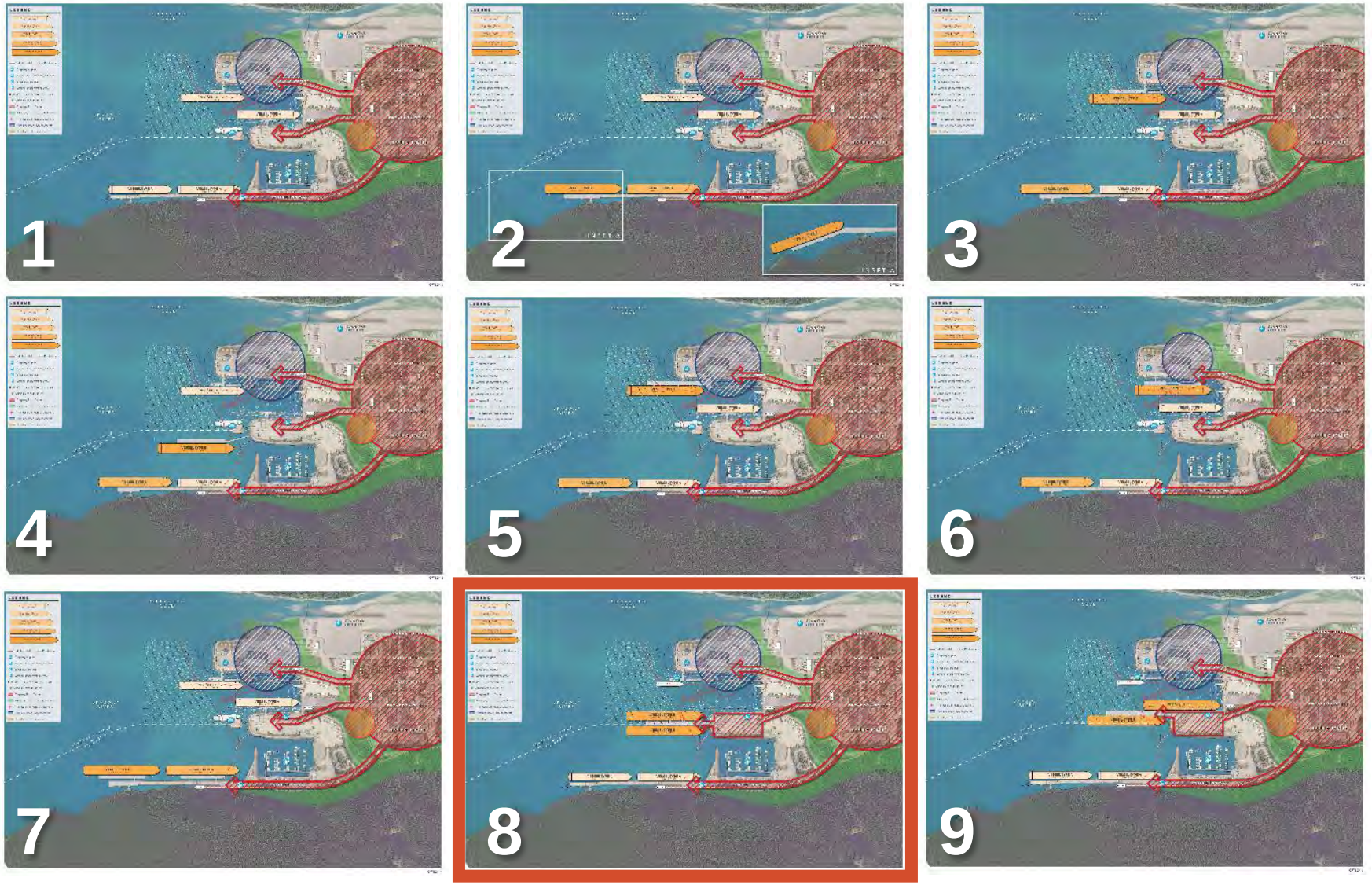
Question: Is the Framework Complete? What's missing?

4. Short Term Planning Approaches

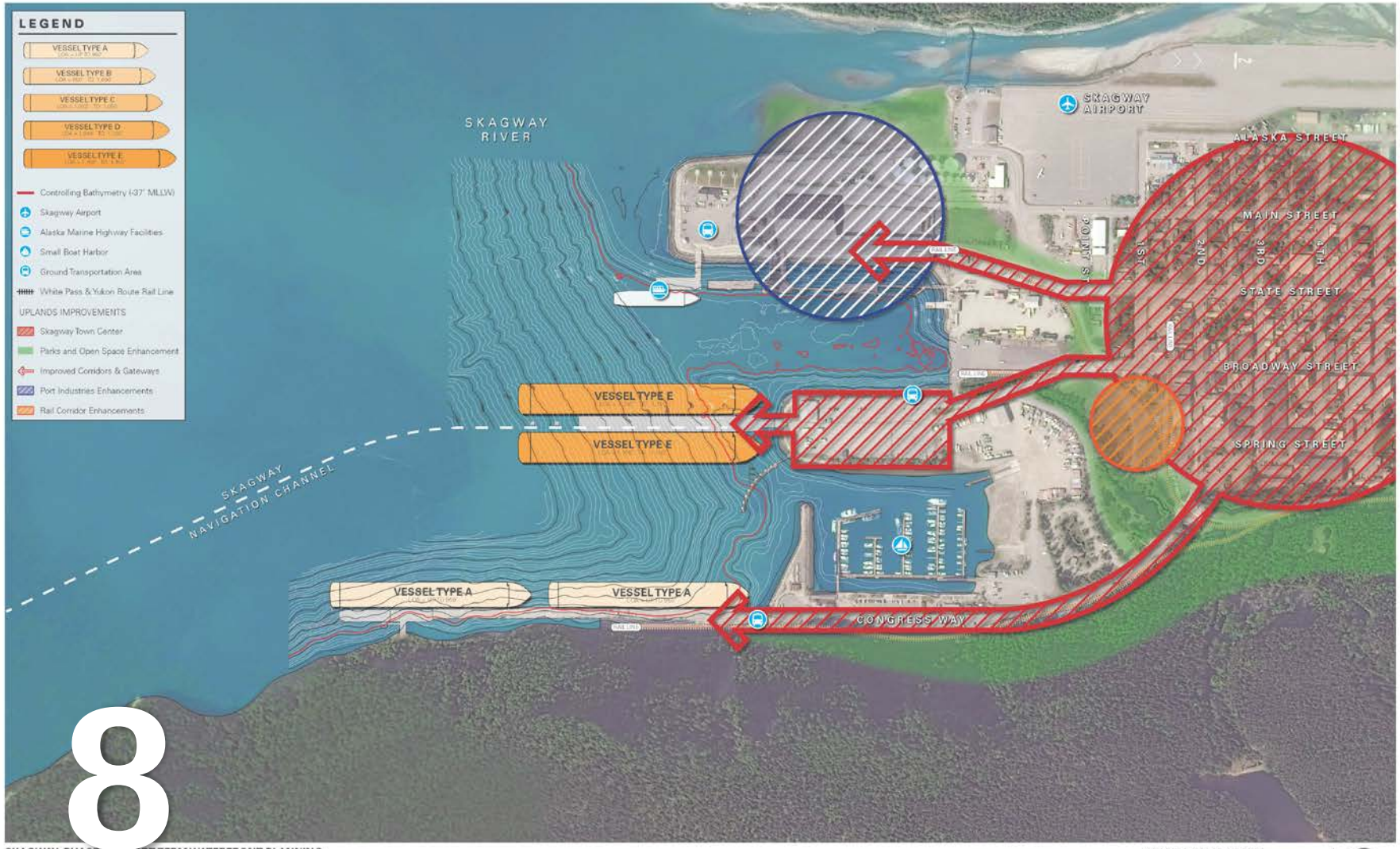
Transitioning to Short Term Approaches

- Define a clear program of short-term (next 2 years) improvements geared to address immediate port needs and available grant funding of $8 million
- Balance trade-offs associated with near-term alternatives
  - *Market opportunities and their ability to advance economic and social benefit*
  - *Environmental Impacts*
  - *Cost*
  - *Implementation duration*
  - *Implementing entity*
  - *Construction downtime*
- Provide flexibility to allow multiple, long range planning options
  - *In water approaches*
  - *Upland approaches*

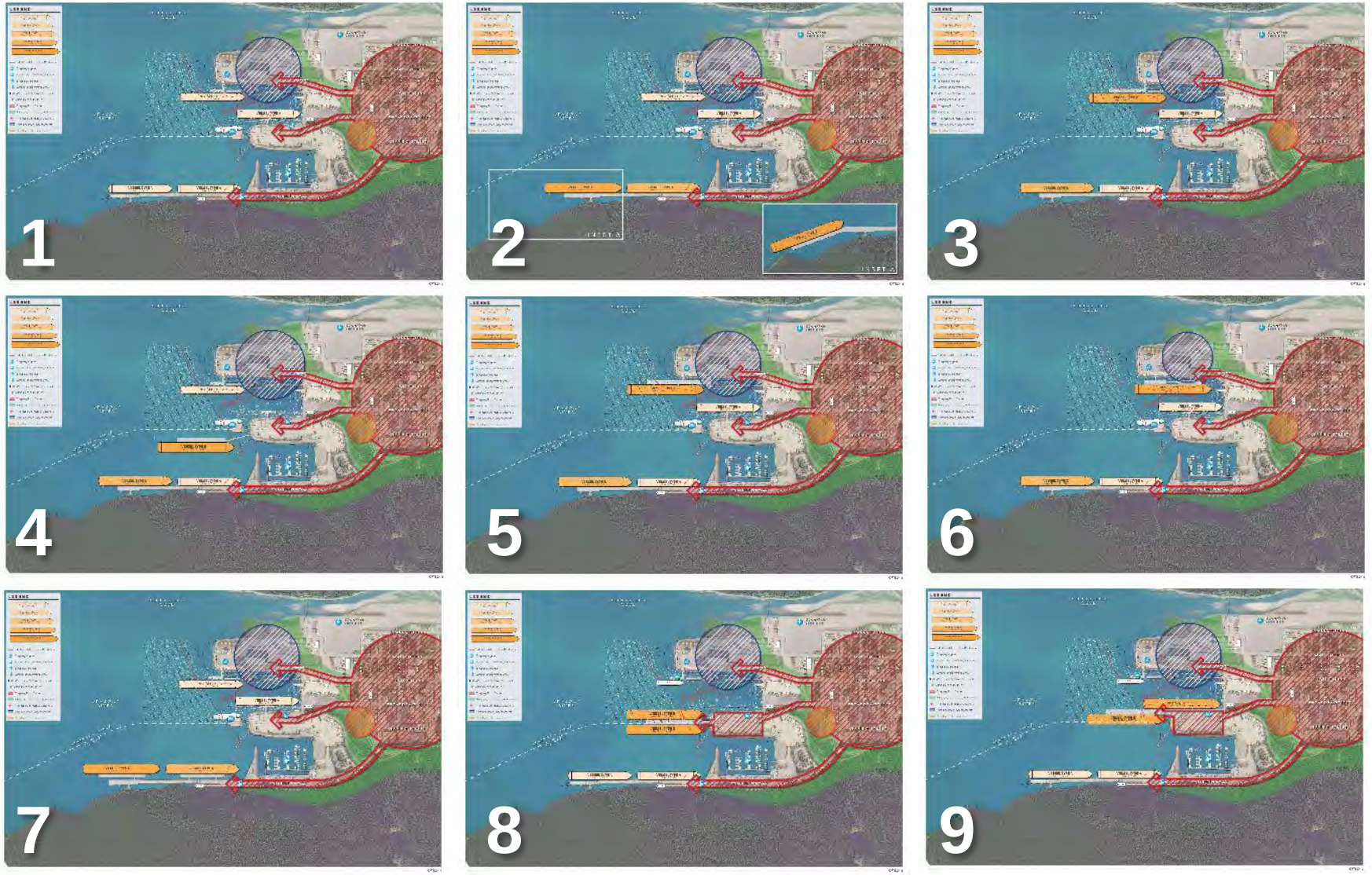
Initial Planning Options



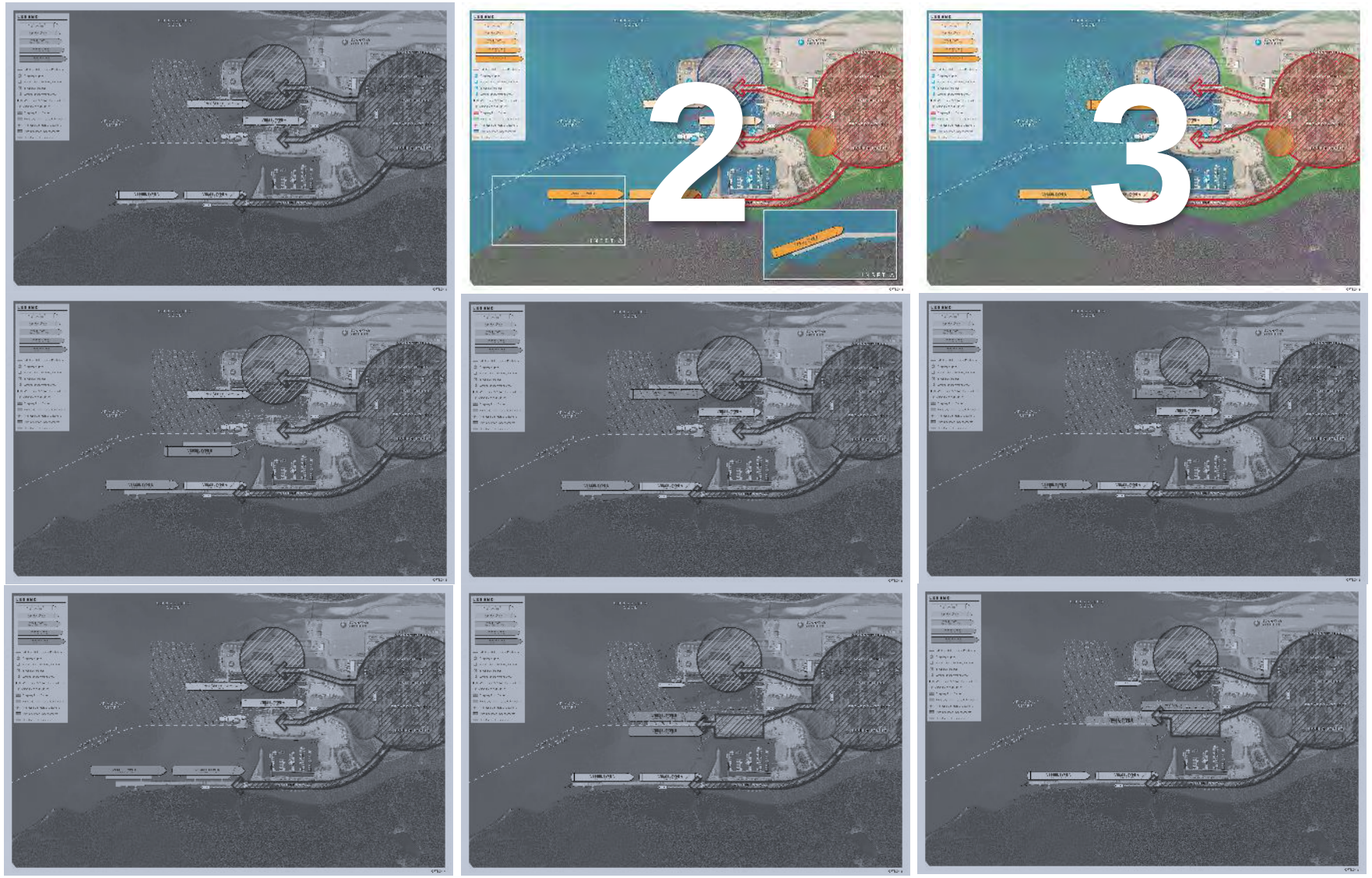
Initial Planning Options

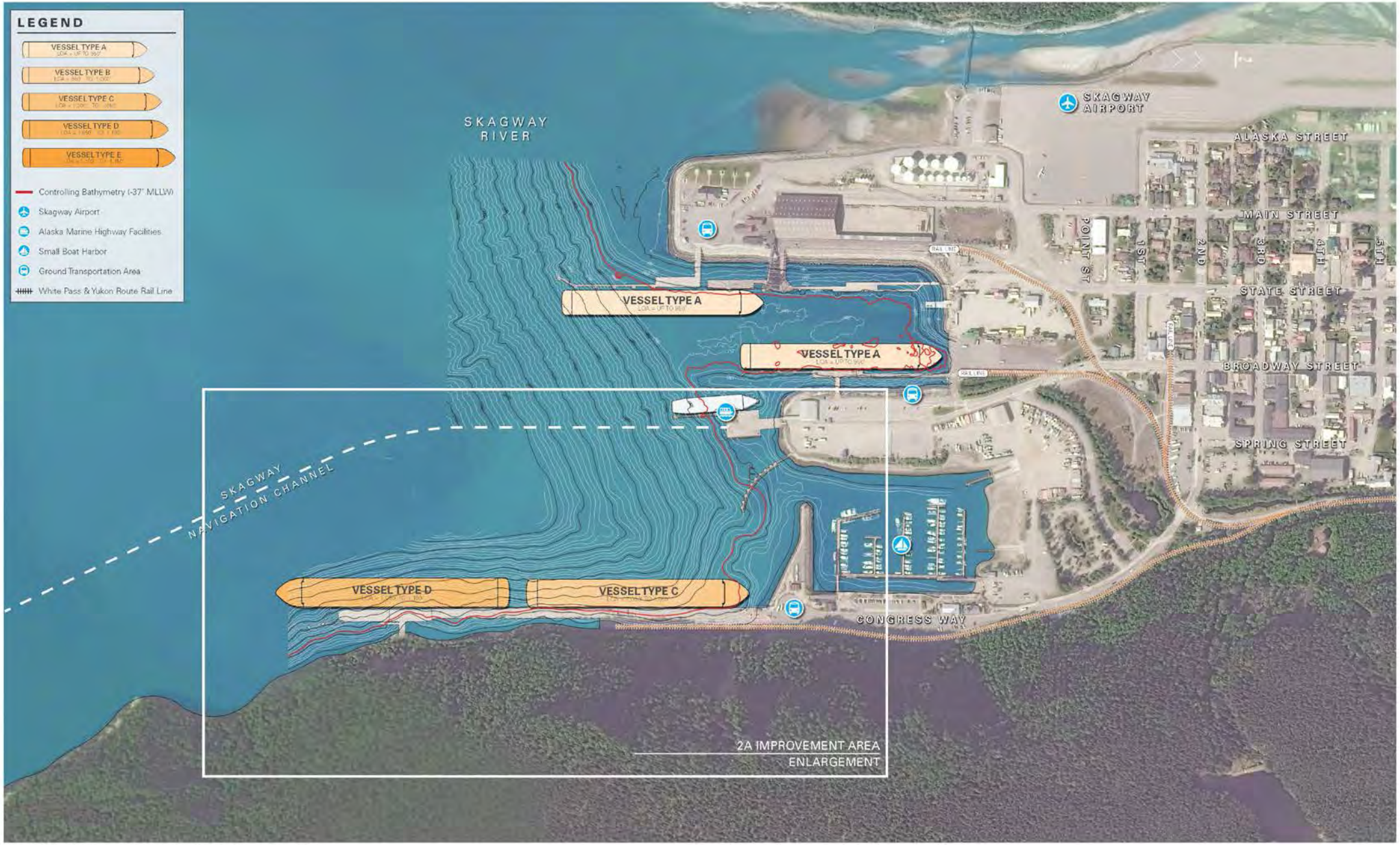


Initial Planning Options



Initial Long Term Planning Options





SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 2A

GRAPHIC SCALE IN FEET
RATIO 1" = 200' @ 22 X 34
0 100 200 400 800

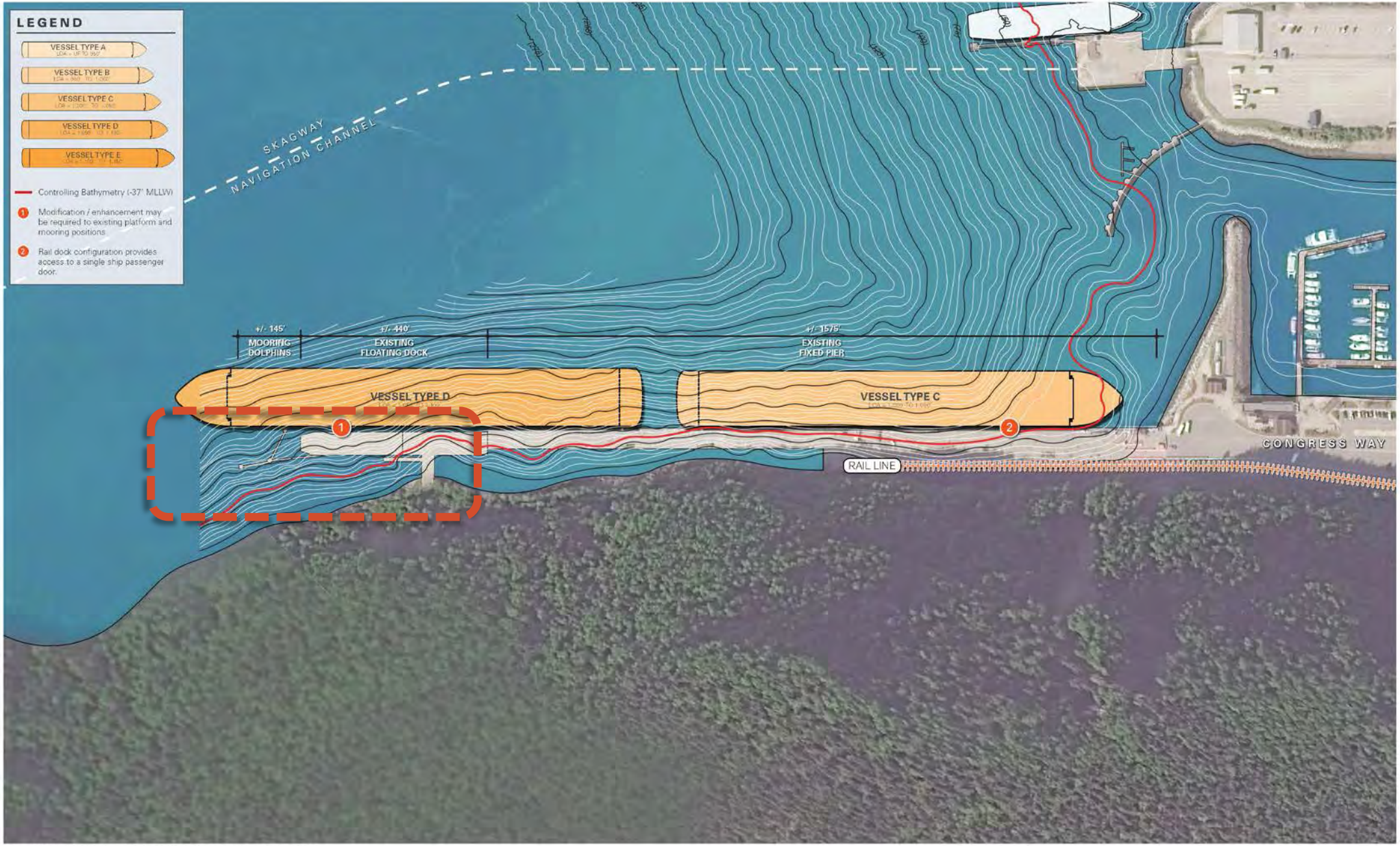
OPTION 2a

Rail Dock Modifications

moffatt & nichol

OPTION 2a

Rail Dock Modifications



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 2A - ENLARGEMENT

GRAPHIC SCALE IN FEET
RATIO 1" 100' @ 22 X 34
0 50' 100' 200' 400'

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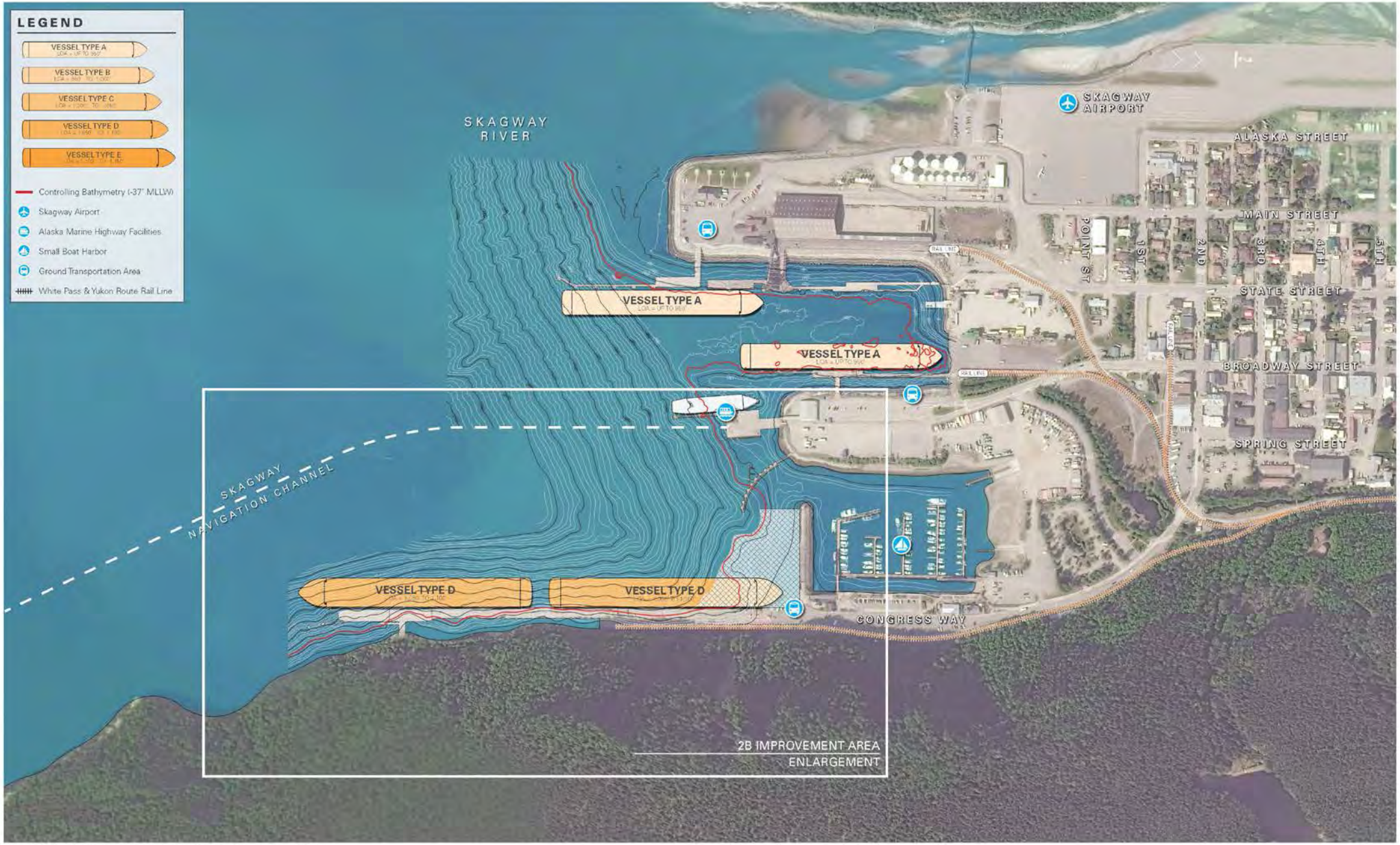

SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 2B

GRAPHIC SCALE IN FEET
RATIO 1" 200' @ 22 X 34
0 100 200 400 800

OPTION 2b

Rail Dock Modifications With Dredging Next to Small Boat Harbor

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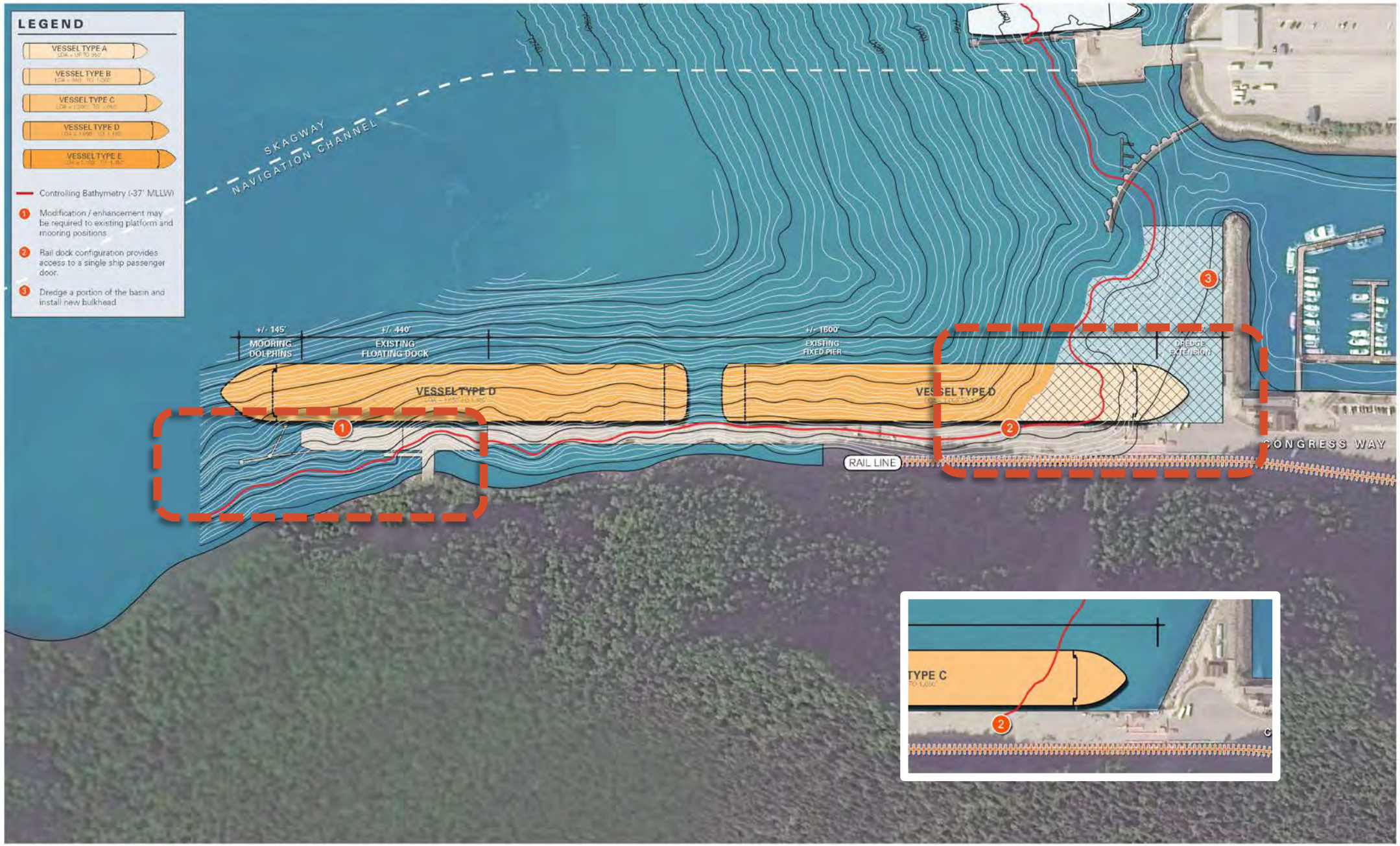


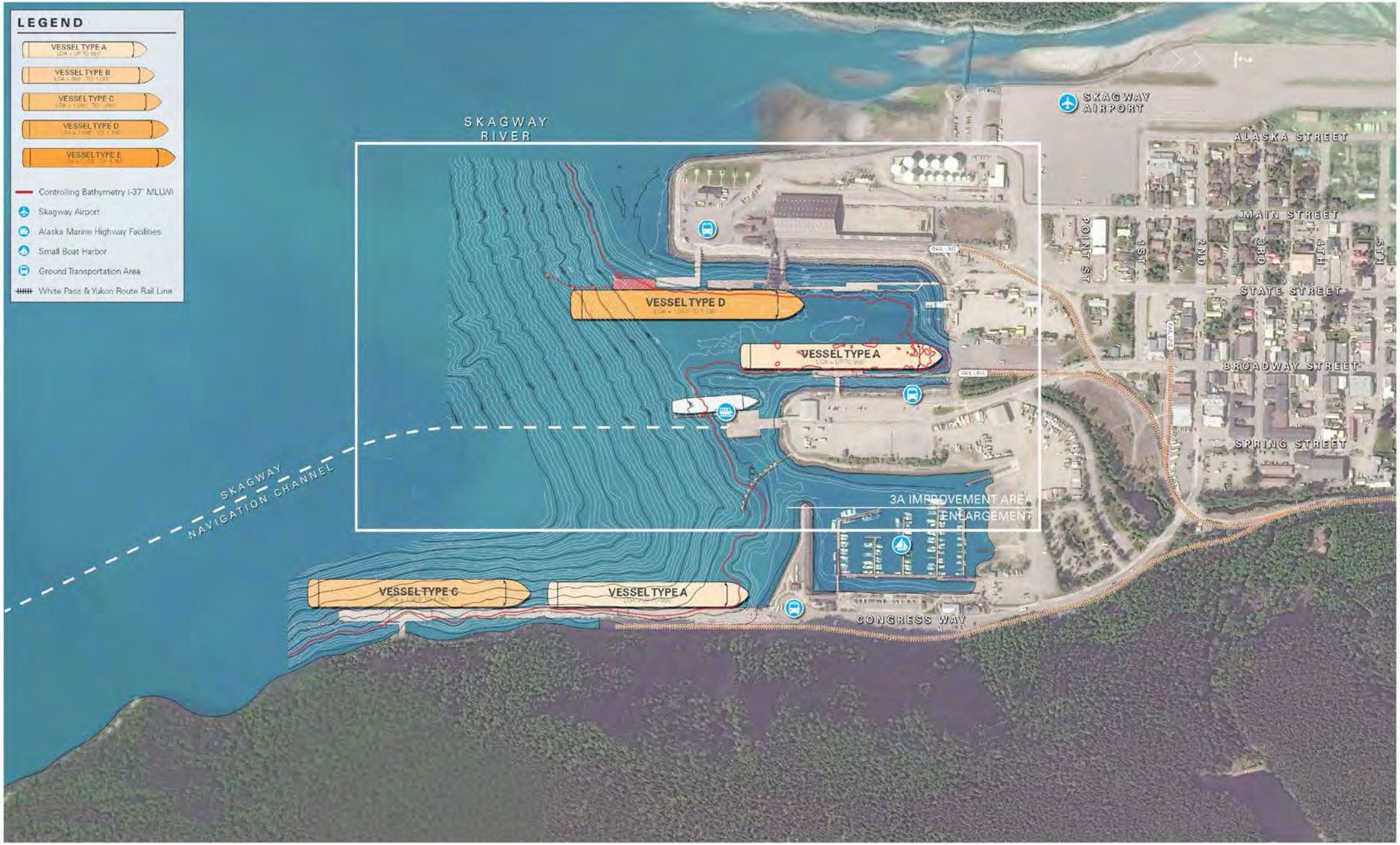
SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 2B - ENLARGEMENT

GRAPHIC SCALE IN FEET
RATIO 1": 100' @ 22 X 34
0 50' 100' 200' 400'

OPTION 2b

Rail Dock Modifications With Dredging Next to Small Boat Harbor



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 3A

OPTION 3a

New Outer Float at the Ore Dock

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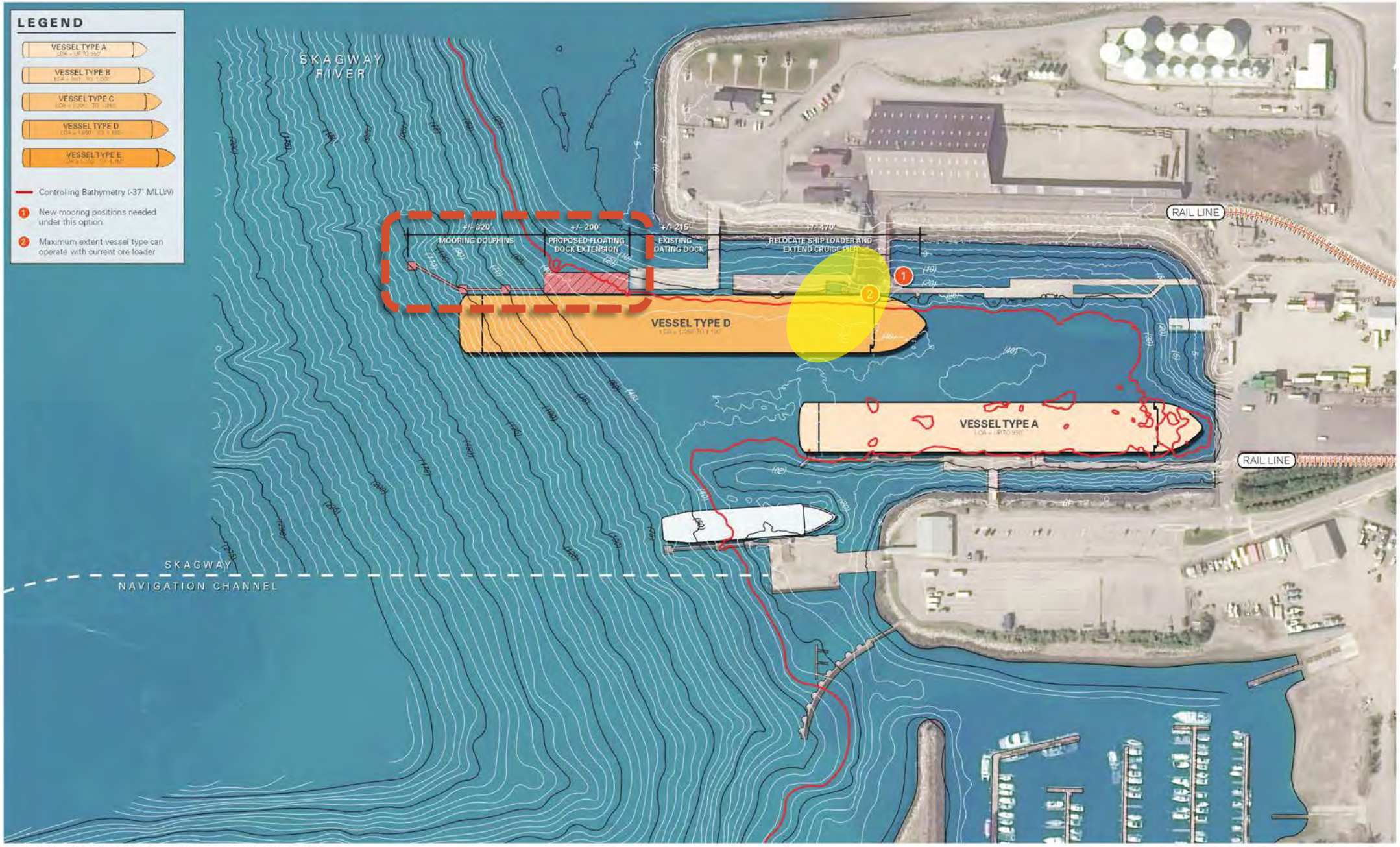
OPTION 3a

New Outer Float at the Ore Dock



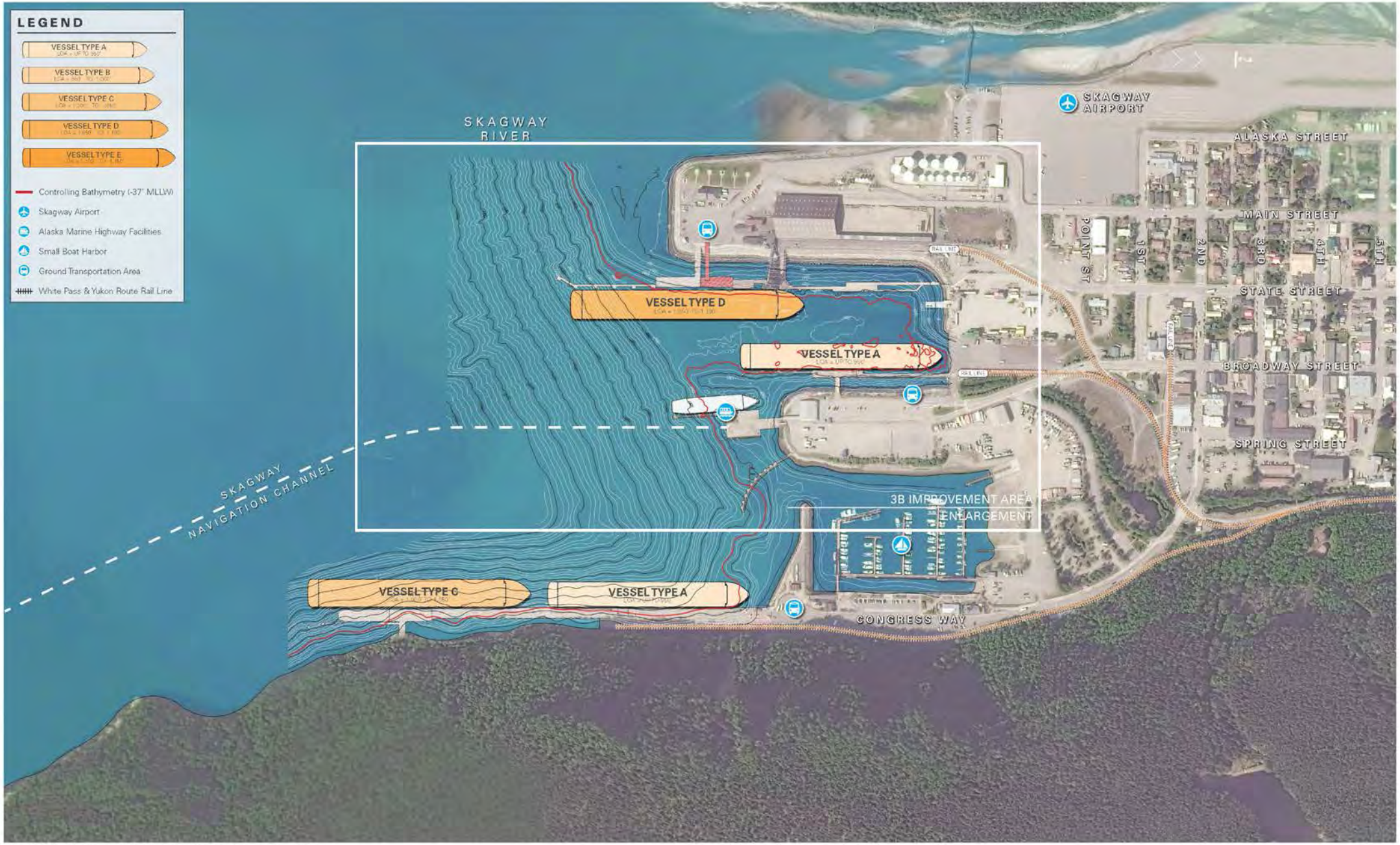
SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 3A - ENLARGEMENT

OPTION 3a

New Outer Float at the Ore Dock

moffatt & nichol



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 3B

GRAPHIC SCALE IN FEET
RATIO 1" = 200' @ 22 X 34
0 100 200 400 800

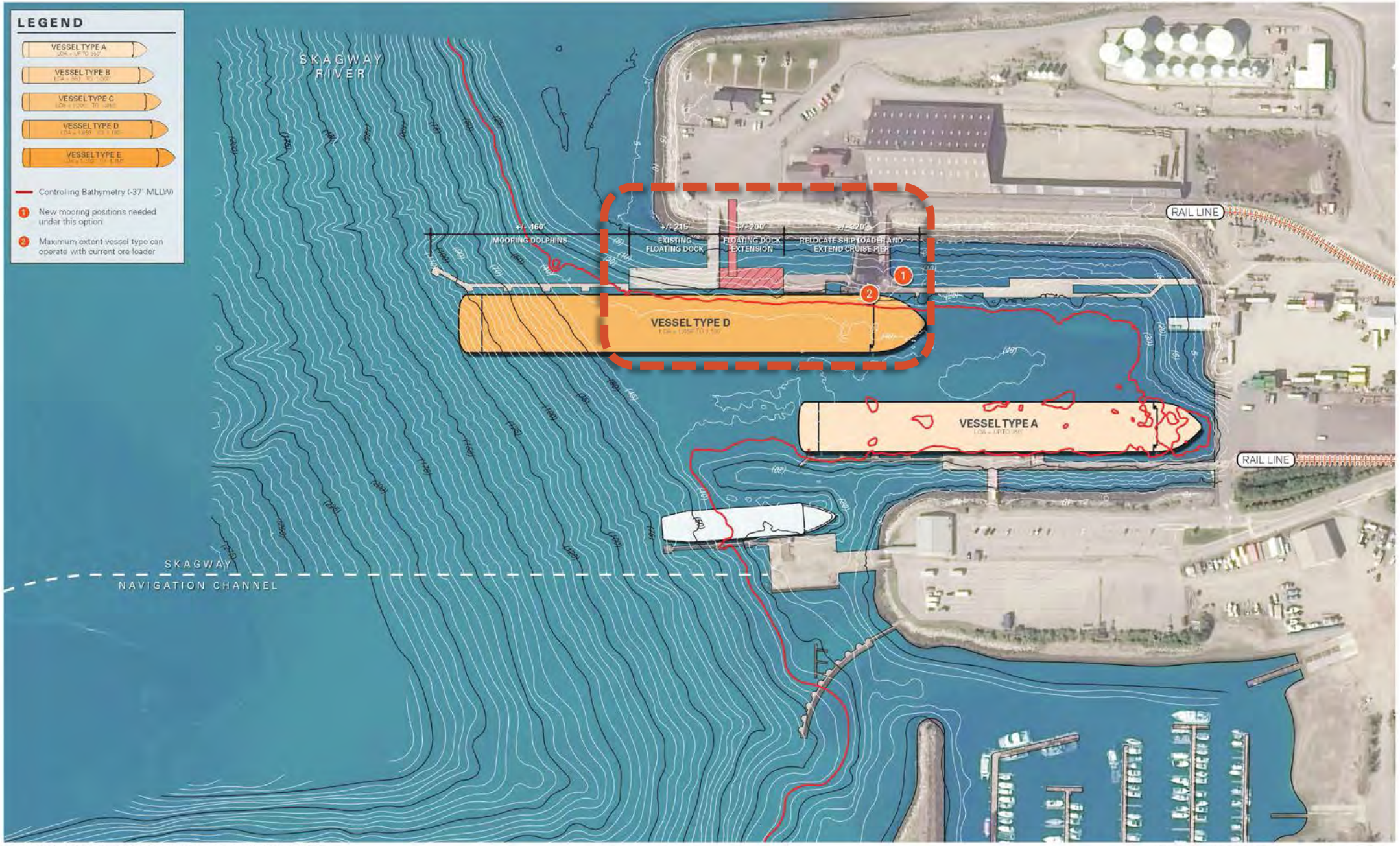
OPTION 3b

New Inner Float at the Ore Dock

moffatt & nichol

OPTION 3b

New Inner Float at the Ore Dock



SKAGWAY: PHASE 1 - SHORT-TERM WATERFRONT PLANNING

REVISED CRUISE STUDIES
OPTION 3B - ENLARGEMENT

moffatt & nichol

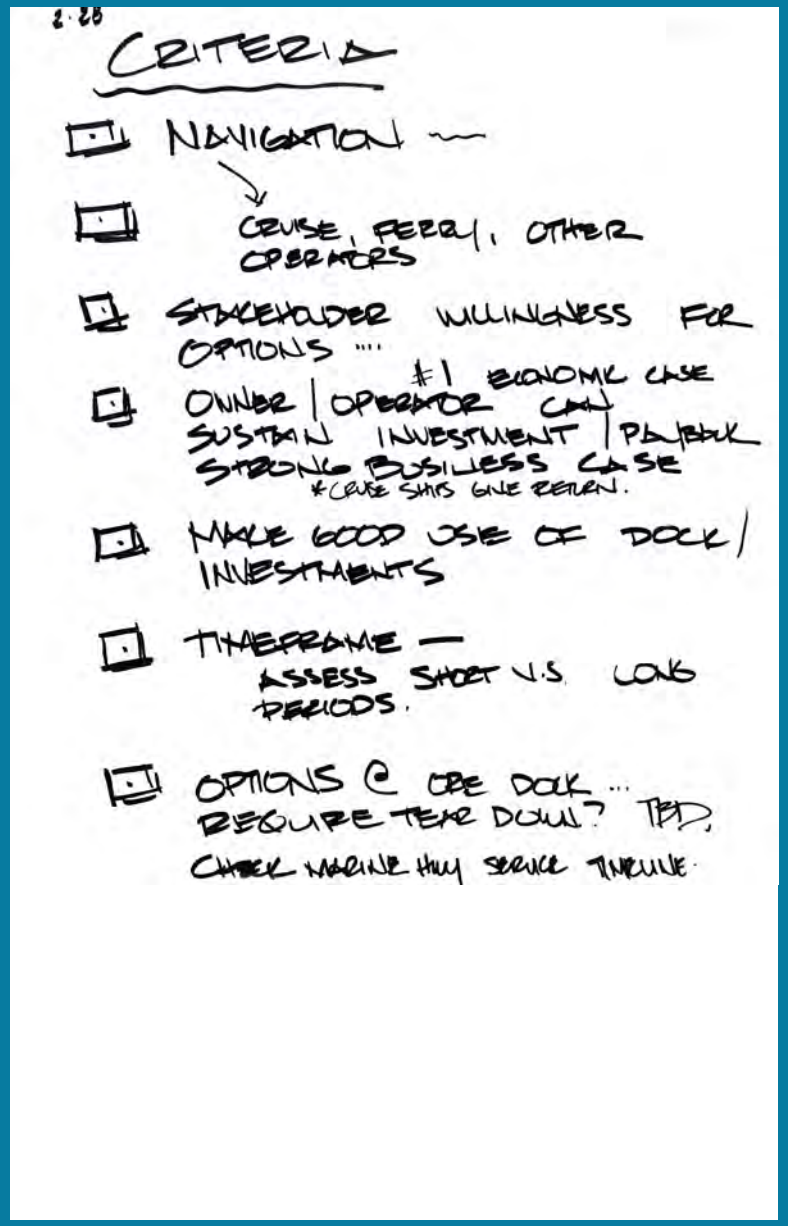
Preliminary Matrix (Work Session #2)

	Option 1	Option 2	Option …
1. Meets Future Capacity Needs	●	●	●
2. Passenger Preference	●	●	●
3. User Preference	●	●	….
4. Local Business Preference	●	….	….
5. Separates Tourism from Port Industries	….	….	….
6. Maintains a Diverse Waterfront	….	….	….
7. Beneficial to Skagway Quality of Life	….	….	….
8. Cruise Ship Navigation	….	….	….
9. Construction Costs	….	….	….
10. Phasing	….	….	….
11. Environmental Impact	….	….	….
12. Construction Downtime	….	….	….
13. ……	….	….	….
SCORING	#	#	#

LEGEND

- ● Beneficial / Positive
- ● Neutral / Average
- ● Challenging / Adverse

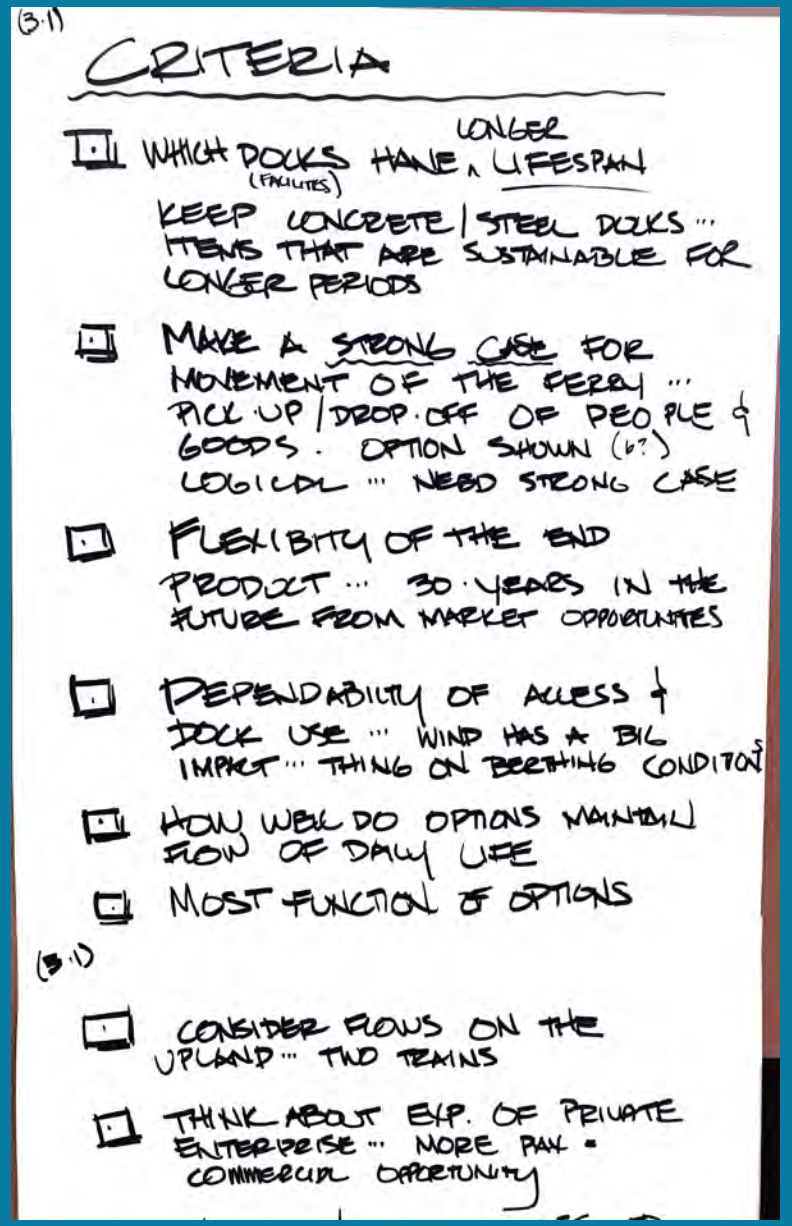
Evaluating Short-Term Alternatives: The Matrix



2.28

CRITERIA

- NAVIGATION —
  - CRUISE, FERRY, OTHER OPERATORS
- STAKEHOLDER WILLINGNESS FOR OPTIONS ....
- OWNER / OPERATOR CAN SUSTAIN INVESTMENT / PAYBACK STRONG BUSINESS CASE #1 ECONOMIC CASE
  * CRUISE SHIPS GIVE RETURN.
- MAKE GOOD USE OF DOCK / INVESTMENTS
- TIMEFRAME — ASSESS SHORT V.S. LONG PERIODS.
- OPTIONS @ ONE DOCK ... REQUIRE TEAR DOWN? TBD; CHECK MARINE HWY SERVICE TIMELINE.



(3.1)

CRITERIA

- WHICH DOCKS (FACILITIES) HAVE LONGER LIFESPAN
  KEEP CONCRETE / STEEL DOCKS ... ITEMS THAT ARE SUSTAINABLE FOR LONGER PERIODS
- MAKE A STRONG CASE FOR MOVEMENT OF THE FERRY ... PICK UP / DROP OFF OF PEOPLE & GOODS. OPTION SHOWN (6?) LOGICAL ... NEED STRONG CASE
- FLEXIBITY OF THE END PRODUCT ... 30 YEARS IN THE FUTURE FROM MARKET OPPORTUNITIES
- DEPENDABILITY OF ACCESS & DOCK USE ... WIND HAS A BIG IMPACT ... THING ON BERTHING CONDITIONS
- HOW WELL DO OPTIONS MAINTAIN FLOW OF DAILY LIFE
- MOST FUNCTION OF OPTIONS

(3.1)

- CONSIDER FLOWS ON THE UPLAND ... TNC TRAINS
- THINK ABOUT EXP. OF PRIVATE ENTERPRISE ... MORE PAX = COMMERCIAL OPPORTUNITY

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)				
2. Guest Preference and Experience				
3. Guest Safety				
4. Cruise Line (User) Preference				
5. Separates Tourism / Port Industries				
6. ** Dependability **				
7. ** Impact to Navigation **				
8. Construction Costs				
9. Construction Period/Downtime				
10. Environmental Impact				
11. ** Useful Life of Improvements **				
12. ** Impact to Upland Flows **				

Beneficial / Positive **Neutral / Average** **Challenging / Adverse**

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	2A/1C/1D			
2. Guest Preference and Experience	●			
3. Guest Safety	●			
4. Cruise Line (User) Preference	●			
5. Separates Tourism / Port Industries	●			
6. Dependability	●			
7. Impact to Navigation	●			
8. Construction Costs	$			
9. Construction Period/Downtime	●			
10. Environmental Impact	●			
11. Useful Life of Improvements	●			
12. Impact to Upland Flows	●			

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	2A/1C/1D	2A/2D		
2. Guest Preference and Experience	●	●		
3. Guest Safety	●	●		
4. Cruise Line (User) Preference	●	●		
5. Separates Tourism / Port Industries	●	●		
6. Dependability	●	●		
7. Impact to Navigation	●	●		
8. Construction Costs	$	$$$		
9. Construction Period/Downtime	●	●		
10. Environmental Impact	●	●		
11. Useful Life of Improvements	●	●		
12. Impact to Upland Flows	●	●		

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

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1. Meets Future Needs (Today 3A/1D)	2A/1C/1D	2A/2D	1A/1C/2D	
2. Guest Preference and Experience	●	●	●	
3. Guest Safety	●	●	●	
4. Cruise Line (User) Preference	●	●	●	
5. Separates Tourism / Port Industries	●	●	●	
6. Dependability	●	●	●	
7. Impact to Navigation	●	●	●	
8. Construction Costs	$	$$$	$$$	
9. Construction Period/Downtime	●	●	●	
10. Environmental Impact	●	●	●	
11. Useful Life of Improvements	●	●	●	
12. Impact to Upland Flows	●	●	●	

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

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1. Meets Future Needs (Today 3A/1D)	2A/1C/1D	2A/2D	1A/1C/2D	1A/1C/2D
2. Guest Preference and Experience	🟠	🟢	🔴	🔴
3. Guest Safety	🔴	🔴	🟠	🟠
4. Cruise Line (User) Preference	🟠	🟢	🟠	🟠
5. Separates Tourism / Port Industries	🟠	🟠	🟠	🟠
6. Dependability	🔴	🟠	🟢	🟢
7. Impact to Navigation	🟢	🟢	🟢	🟢
8. Construction Costs	$	$$$	$$$	$$
9. Construction Period/Downtime	🟢	🔴	🟠	🔴
10. Environmental Impact	🟢	🟠	🟠	🔴
11. Useful Life of Improvements	🔴	🟢	🟠	🟠
12. Impact to Upland Flows	🔴	🔴	🟠	🟠

🟢 **Beneficial / Positive** 🟠 **Neutral / Average** 🔴 **Challenging / Adverse**

Short-Term Alternative Synopsis

- All short-term alternatives have strengths and weaknesses
  - *Alternatives 2A and 2B advance improvements to facilities and areas the Municipality does not control at present or in the future*
  - *Conversely, Alternatives 3A and 3B may take longer to implement given environmental permitting issues and timing of Ore Basin clean-up*
- Select one of the four options presented
- Any other short-term options not previously considered?
- Shift focus of available grant monies to upland enhancements (if grants permit this approach)

Question: Which short-term alternative do you feel is most workable?

5. Big Picture Considerations

Fitting in is a Short Term Strategy.
Standing out Pays Off
in the Long Run.

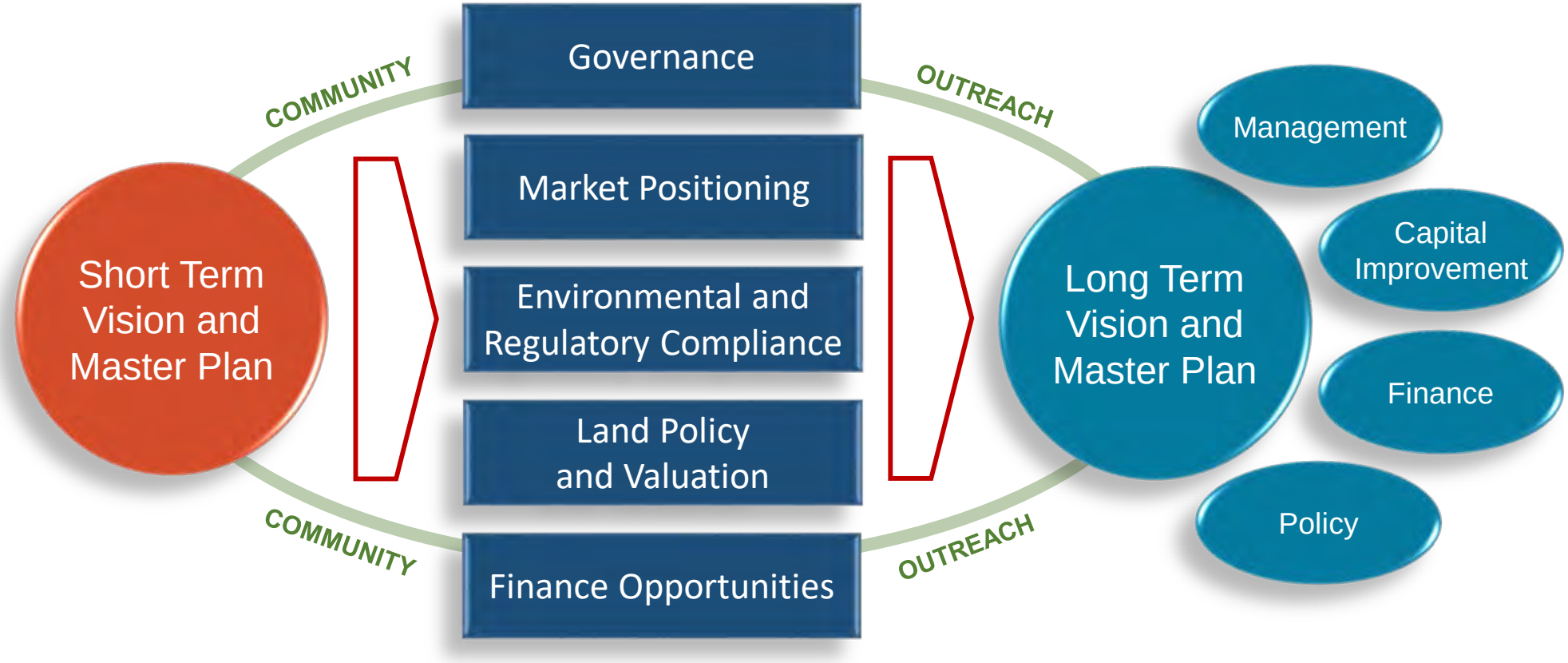
Seth Godin
Marketing Consultant

Linking Short Term Plans to Long Term Thinking

1. **Address Short Term Opportunities and Need**

2. **Study Best Practices**

3. **Formulate Long Term Plan and Strategy Moving Forward**



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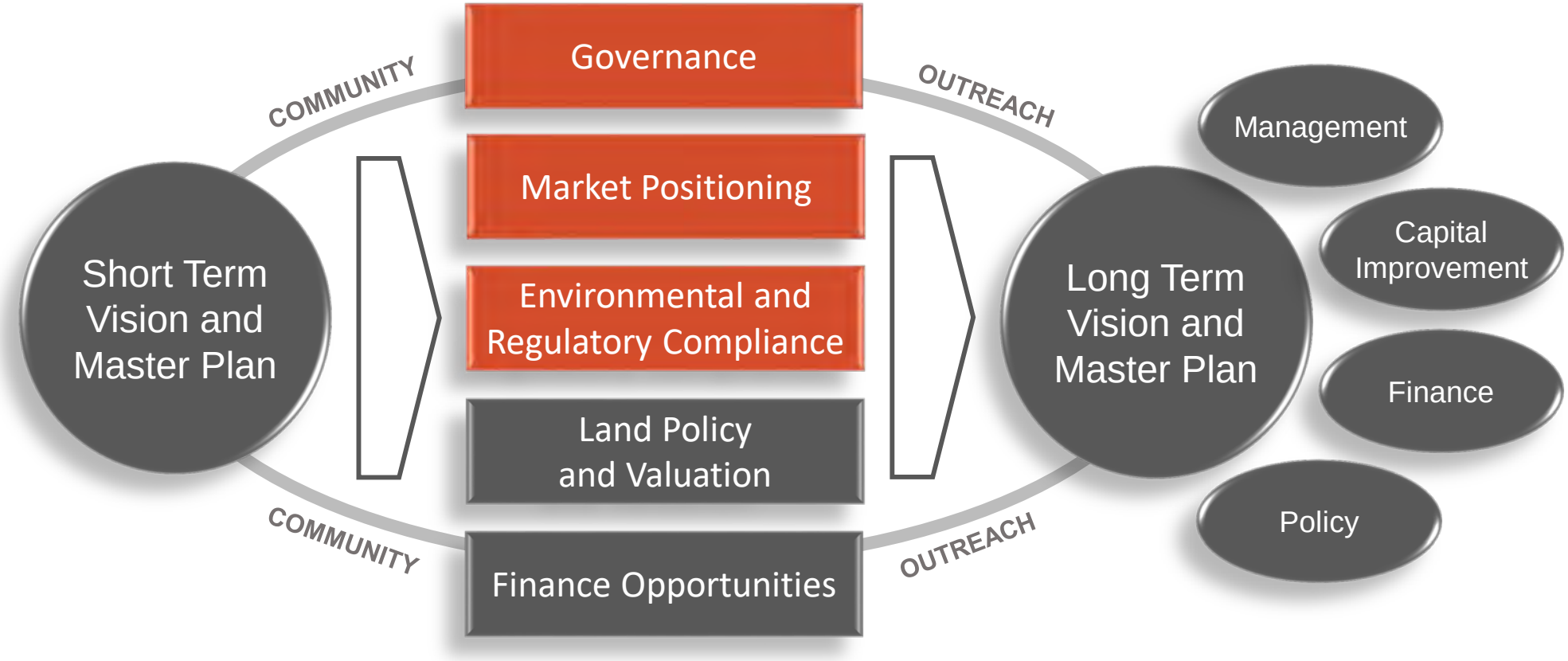


Economic Analysis and Market Positioning

- Evaluate revenue streams and operational expenses for various port related activities, focusing on key sectors of economy:
  - *Cruise ship industry*
  - *Mining industry*
  - *Small boat harbor*
  - *Fuel commodities*
  - *Barge and ferry services*
- Information gathering for revenue and expense evaluation will include stakeholder meetings (week of April 24) and data collection from previously published data as well as records from the Municipality
- Conduct scenario analysis for changes in tourism and mining industry
- Summarize findings and perform risk analysis showing how changes to underlying assumptions will affect revenues and expenses
  - *Analysis will assist the MOS in formulating strategies for decision making with the assistance of MN team*
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Port Governance

- Evaluate alternative governance and operating structures
  - *Overview of different types of governance models, focusing on ports and waterfronts with business profiles similar to Municipality*
- Benchmarking of governance and operating models at three similarly situated ports
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Environmental and Regulatory

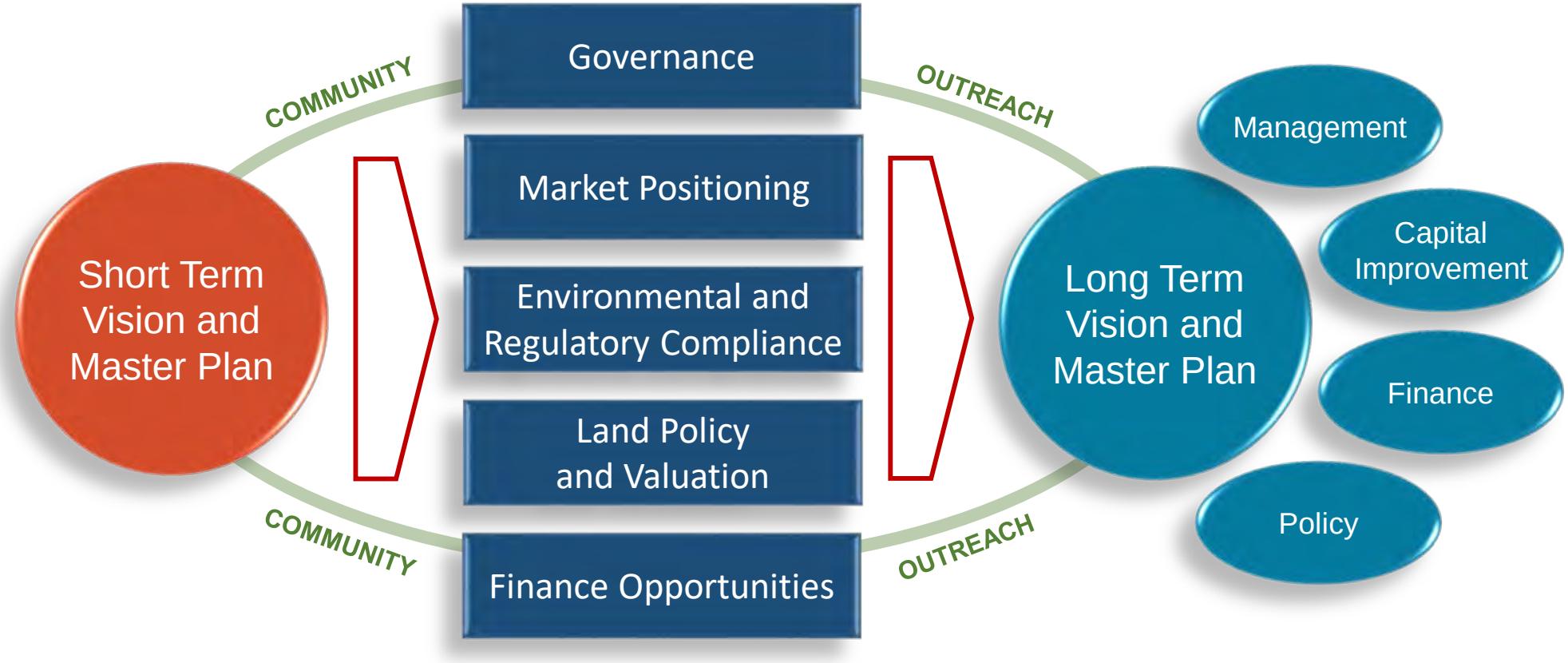
- Identify regulatory compliance requirements and challenges for existing port waterfront operations focusing on key topics:
  - *Air, water (wastewater storm water), contaminated sediments/soils, etc.*
- Identify regulatory issues with adjacent operations:
  - *Border/customs, traffic, AMHS, airport, other*
- Identify other key topics brought up by community
  - *Week of April 24: Site visit, stakeholder meetings, data collection (local, state and federal regulations; previously published reports; existing permits)*
- Summarize findings and discuss with respect to future opportunities and development
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Linking Short Term Plans to Long Term Thinking

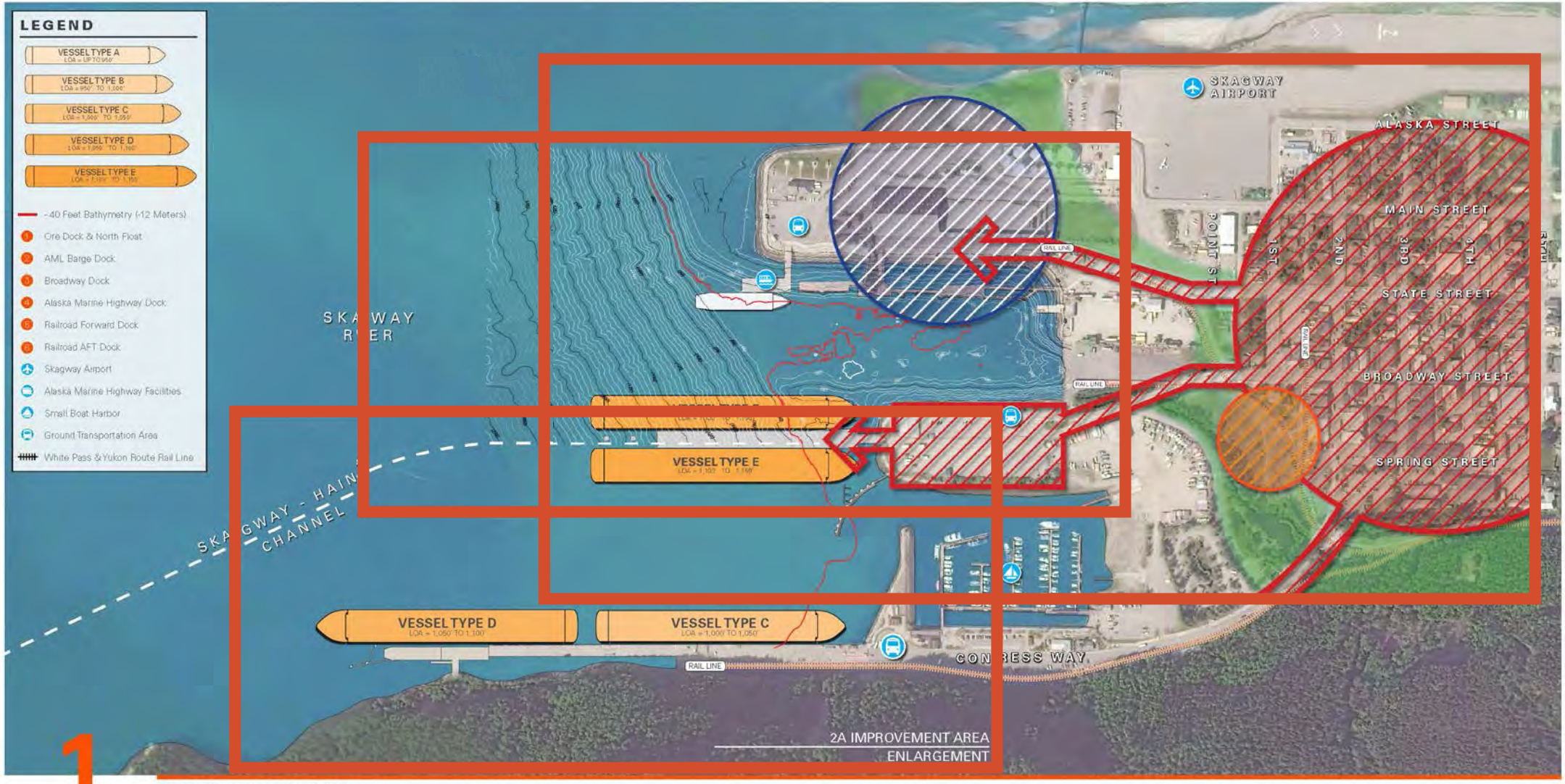
1. **Address Short Term Opportunities and Need**

2. **Study Best Practices**

3. **Formulate Long Term Plan and Strategy Moving Forward**



SHORT TO LONG TERM EVOLUTION



1 *OVERALL LOCATION PLAN*

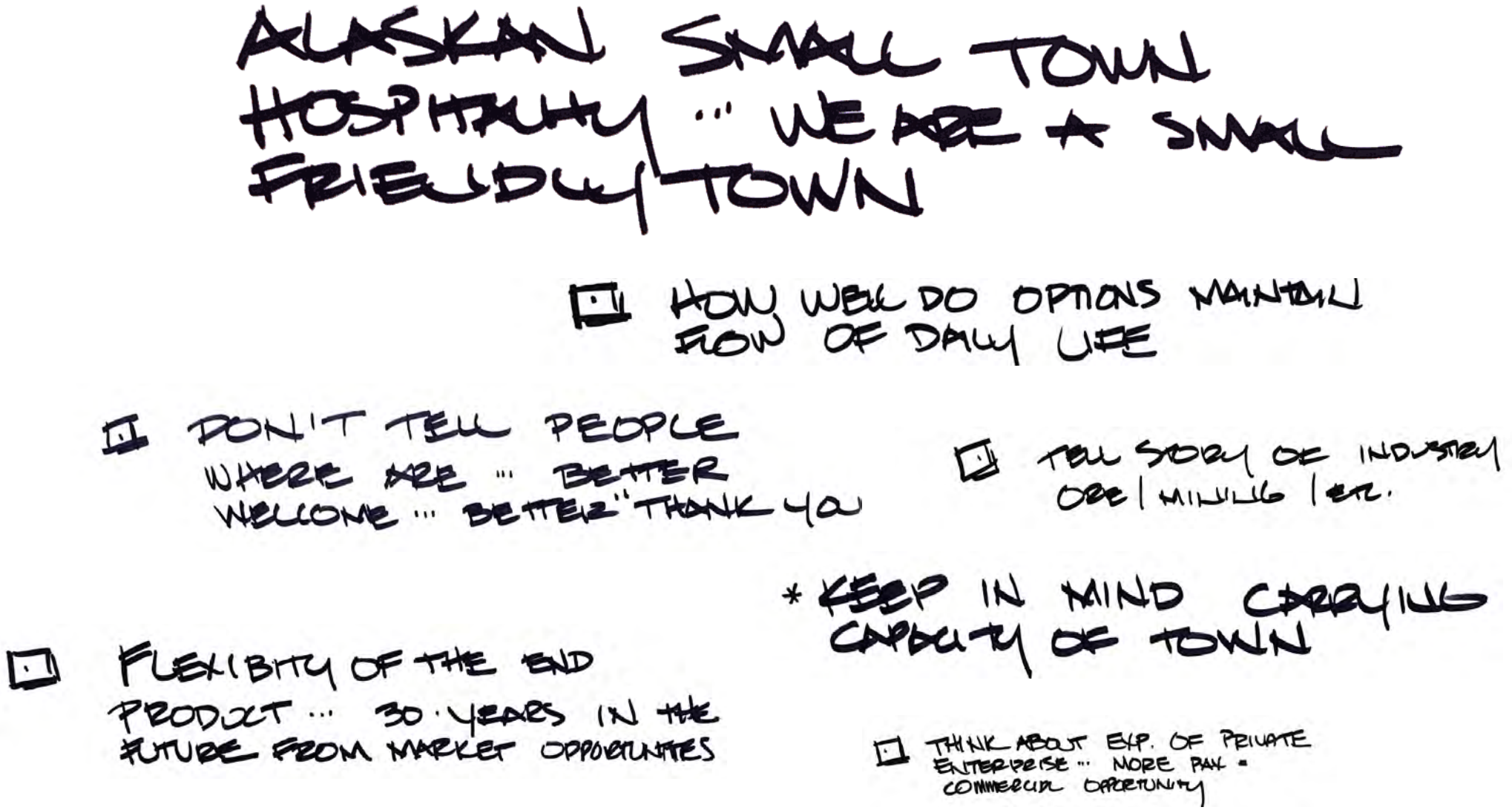
COMMUNITY WORK SESSION # 3

PREFERRED CRUISE OPTIONS - EARLY ACTION IMPROVEMENTS

moffatt & nichol LandDesign.

GRAPHIC SCALE IN FEET

We are a Welcoming Community

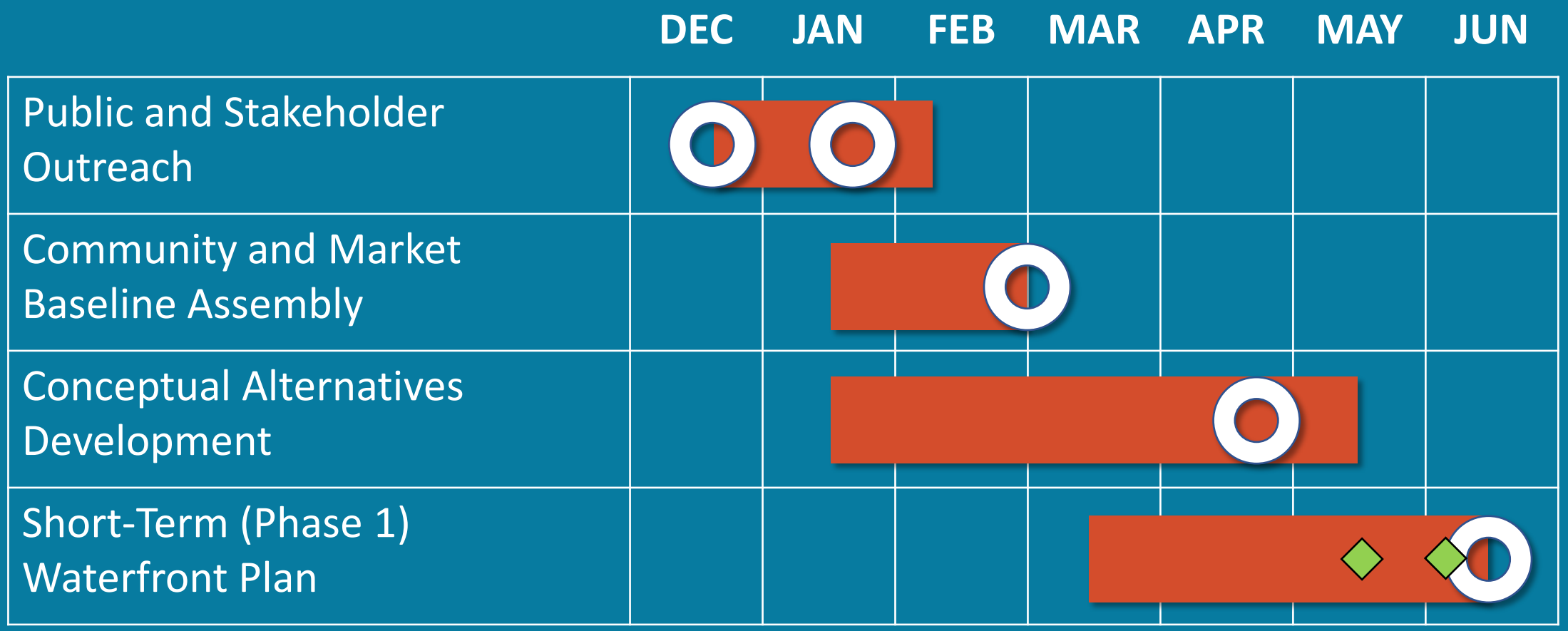


6. Next Steps

NEXT STEPS

- Assemble feedback from Community Work Session Three and other ongoing stakeholder meetings and discussions
- Prepare and submit the Short-Term Waterfront Plan by end of May
- Hold our final presentation for the Phase 1 Plan on June 15th

Skagway Port Planning Schedule (Phase 1)



Public Meetings in Skagway
12/19 ◦ 1/23 ◦ 2/28-3/1 ◦ 4/26 ◦ 6/15

Question: What additional things should we be thinking of? What ideas do you have that will make Skagway's waterfront a better place for the community?

APPENDIX A-4

Draft Conclusions
Skagway's Short Term Waterfront Needs
Skagway Port Planning (Phase 1)

June 7, 2017

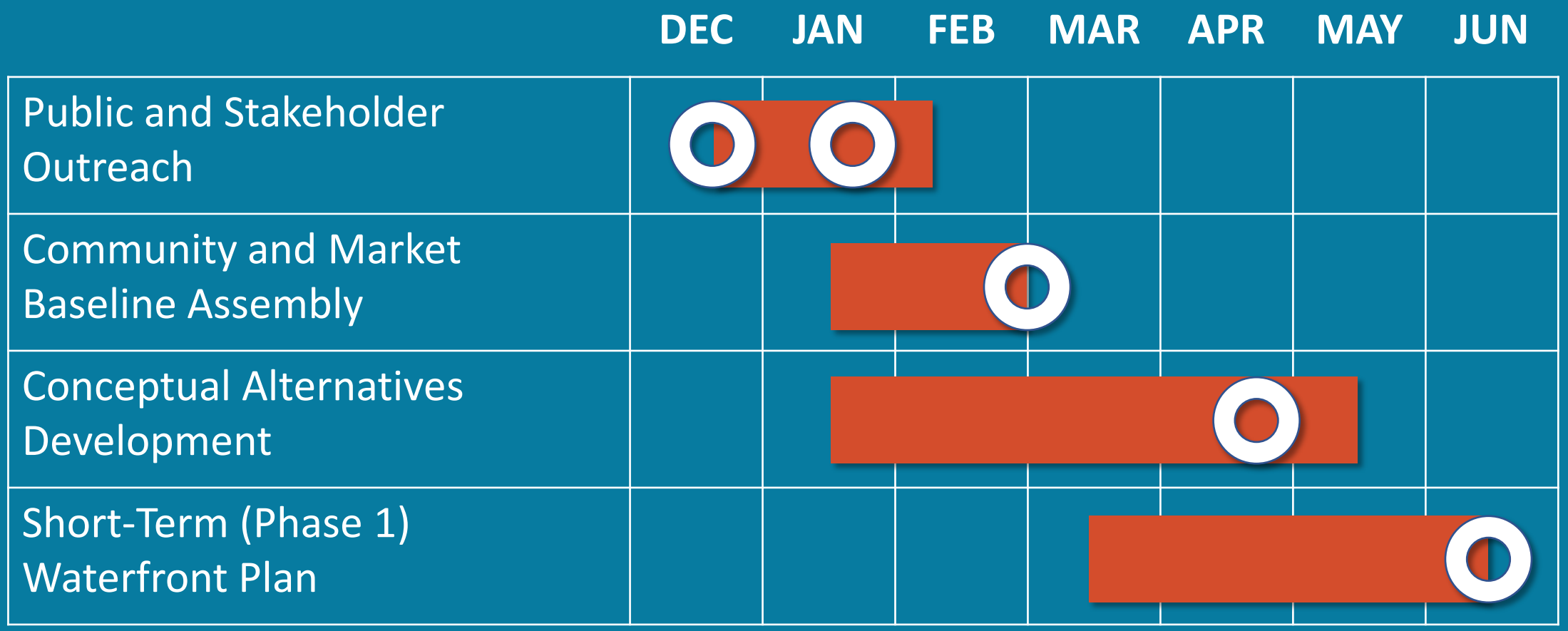
moffatt & nichol

1. Project Overview

Project Objectives – Phase 1

- Reengage the community and stakeholders and make sure their wants, needs and desires are understood and opportunities for partnership assessed
- Define a clear program of short-term (next two years) improvements geared to address immediate port needs and grant funding of $8 million
- Outline a framework for preparation of a revised long-range vision of the waterfront focused on the future growth, sustainability and prosperity of the Municipality
- Work to identify a clear path to ensure clean-up of legacy harbor contamination
- Be honest and pragmatic with ourselves in defining and structuring our short- and long-term relationship with waterfront users

Skagway Port Planning Schedule (Phase 1)



Public Meetings in Skagway
12/19 ◦ 1/23 ◦ 2/28-3/1 ◦ 4/26 ◦ 6/15

2. Recap from Community Work Session #3

Recap from Community Work Session #3

- Favorable participation and feedback by the community at both work sessions with some supporting information provided via survey
- Provided update on previous work effort
- Refined the overall project planning framework (discussed herein)
- Presented revised options 2A, 2B, 3A and 3B and received feedback (discussed herein)
  - *Community and Client support to advance 3A and 3B*
- Provided overview on best practices modules
  - *Economic analysis and market positioning*
  - *Port governance*
  - *Environmental and regulatory*
- Discussed next project steps

3. Final Planning Framework

The planning framework are the features that remain true for each design alternative. They serve as the foundation…the defensible "why's" underpinning the plan.

Final Planning Framework

Collaboratively developed, the Skagway community has validated the following planning framework to guide preparation and evaluation of planning alternatives under the short term and longer term planning efforts. All planning options and adopted plans should strive to meet these aims.

Community Desire

- Clean up the Ore Basin
- Offer a great guest experience
- Create separation between tourism and industrial waterfront areas
- Balance our heritage and future economic opportunities
- Promote opportunities for life long learning
- Expand public recreation and natural features along the water's edge

Economic Opportunity

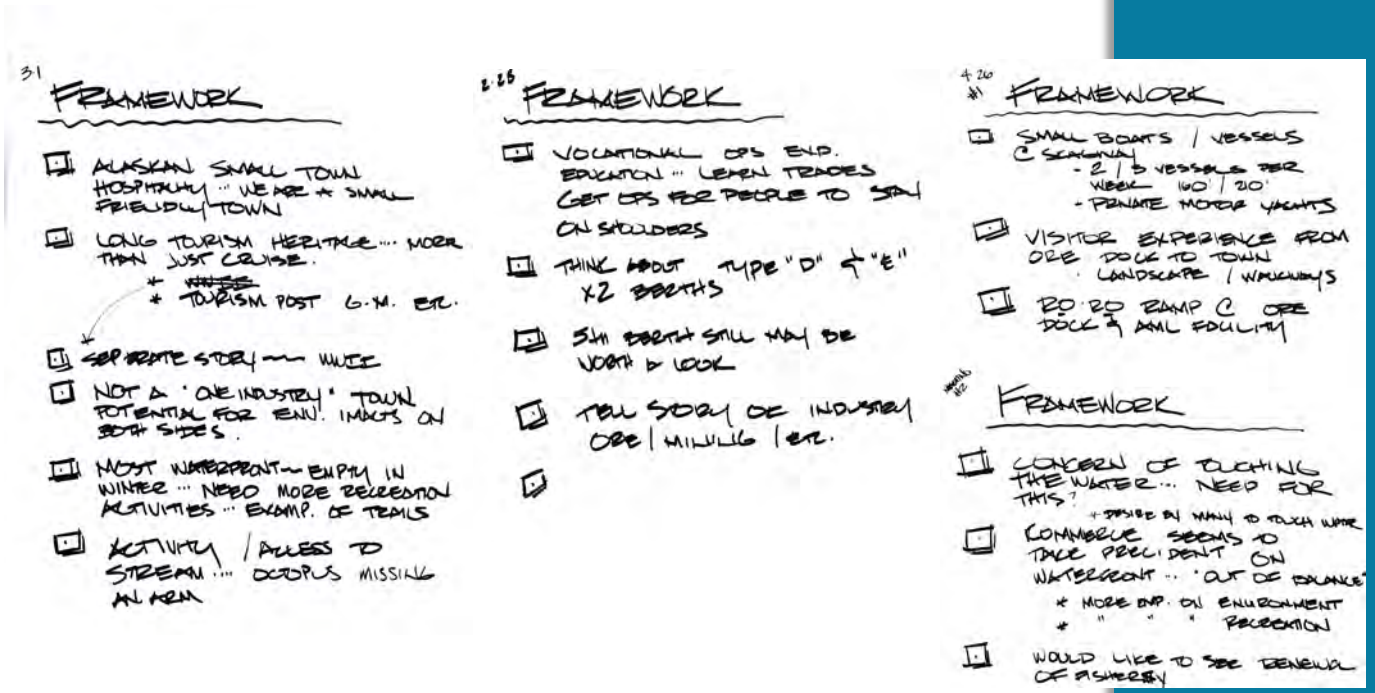
- Capitalize on Skagway's strategic location and economic uniqueness
- Maintain the economic diversity of the port
- Grow cruise operations, including more small vessel activities
- Foster year round economic activity
- Leverage the brand and economic benefit of WPYR

Best Practices

- Expand quality connections between the town and waterfront
- Promote diversity of uses along with waterfront / town interface
- Expand the methods and venues communicating Skagway's history and distinctive stories
- Explore innovative solutions to long term challenges

Final Planning Framework

- Multiple community meetings and other methods of engagement resulted in a framework that will serve throughout all planning efforts moving forward
  - *Short Term Plan*
  - *Planning Modules*
  - *Long Term Plan*
- The final iteration of the plan will nuance and show linkages to as many of the framework items as possible



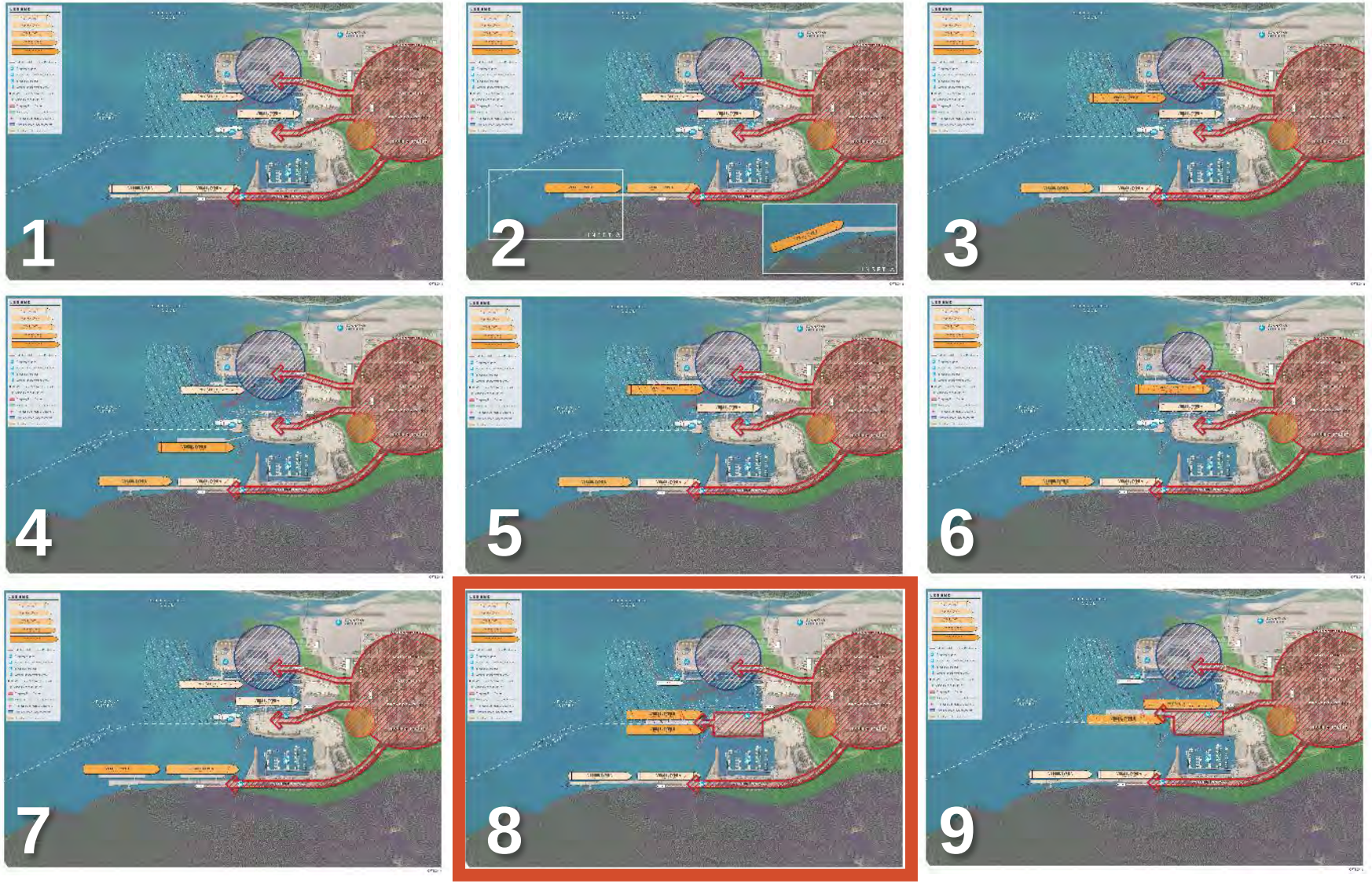
4. Addressing Short Term Planning Needs

Address Short Term Planning Needs…

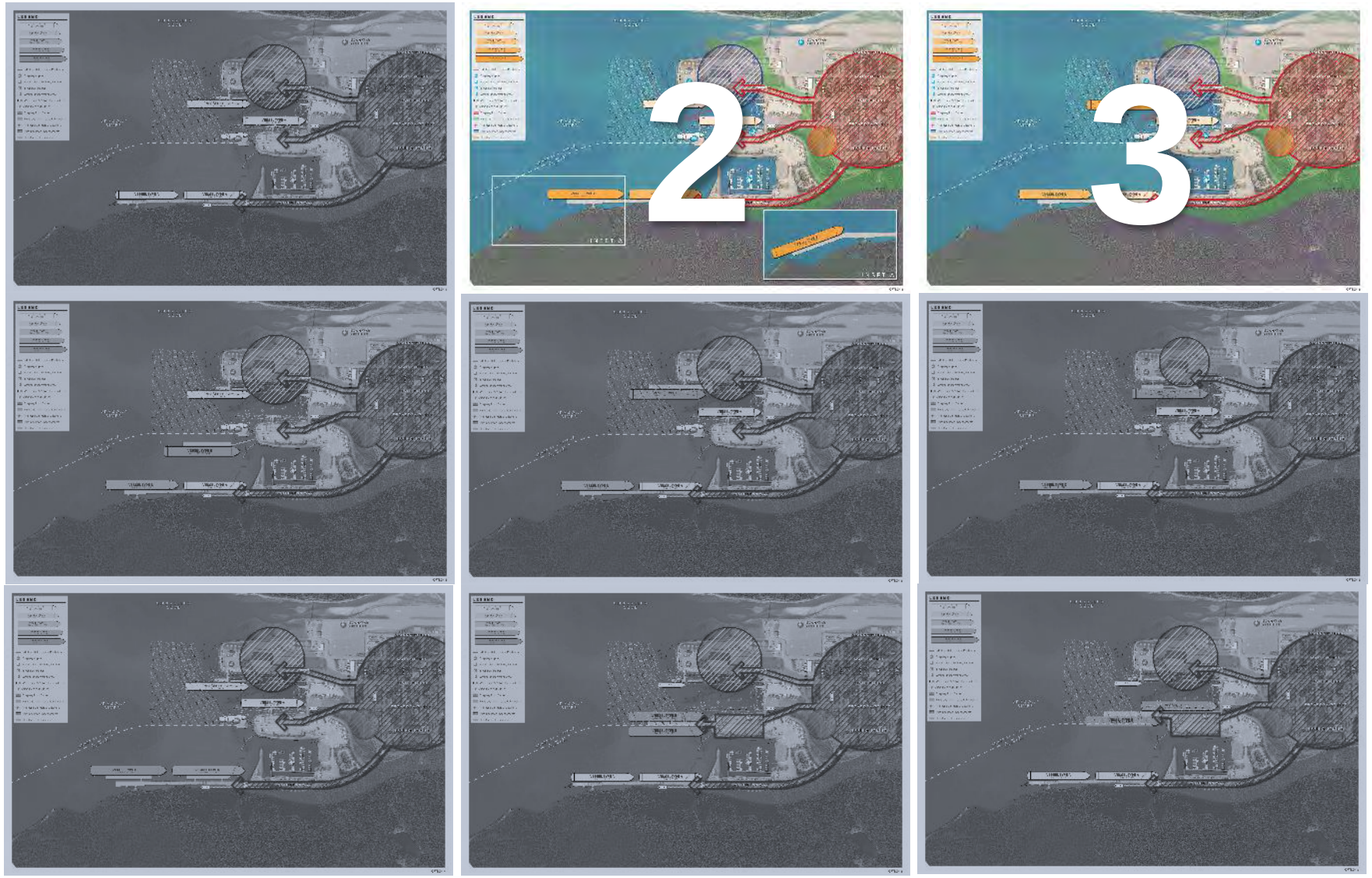
- Define a clear program of short-term (next 2 years) improvements geared to address immediate port needs and available grant funding of $8 million
- Balance trade-offs associated with near-term alternatives
  - *Market opportunities and their ability to advance economic and social benefit*
  - *Environmental Impacts*
  - *Cost*
  - *Implementation duration*
  - *Implementing entity*
  - *Construction downtime*
- Provide flexibility to allow multiple, long range planning options
  - *In-water approaches*
  - *Upland approaches*

…and Build a Foundation for Long Term

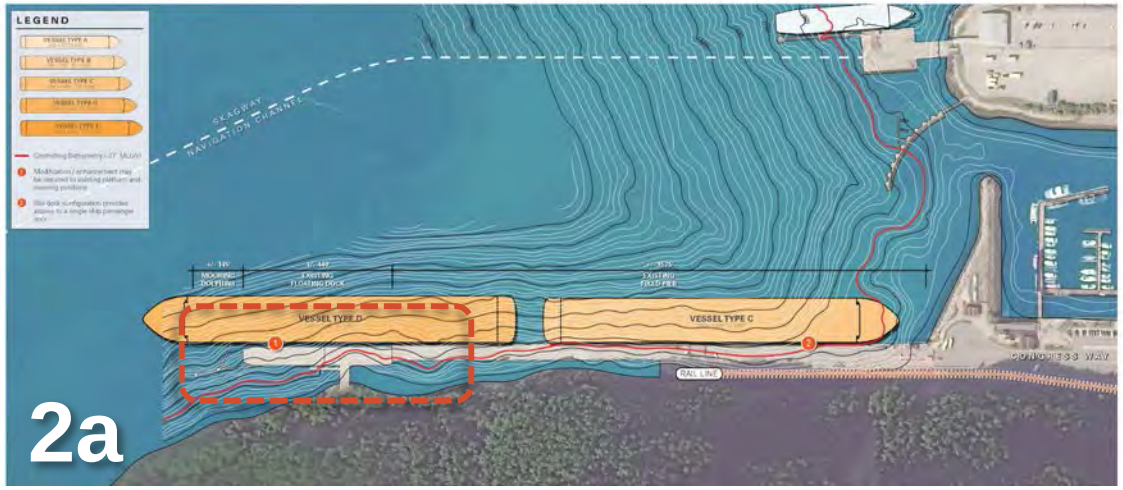
Initial Planning Options (Feb 28-Mar 1)

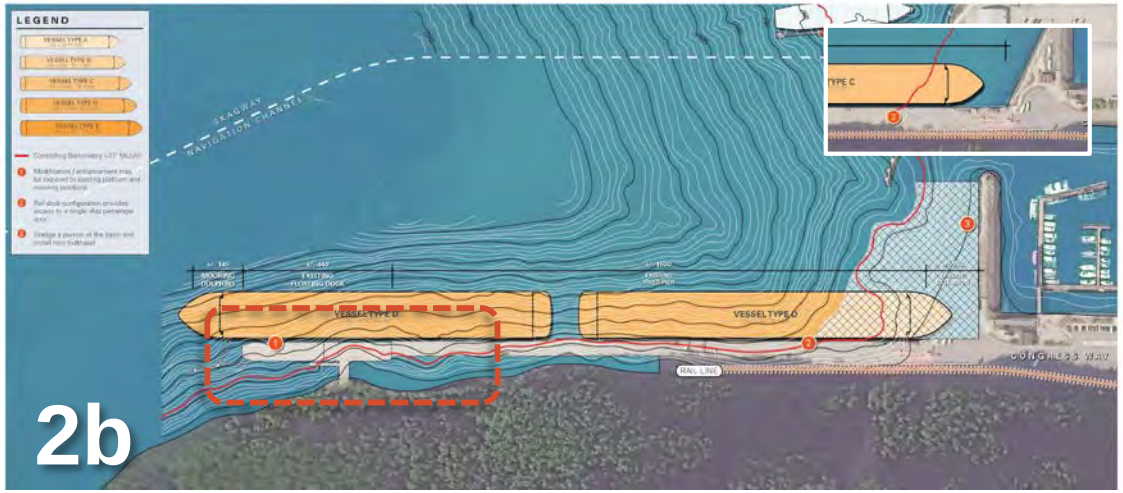


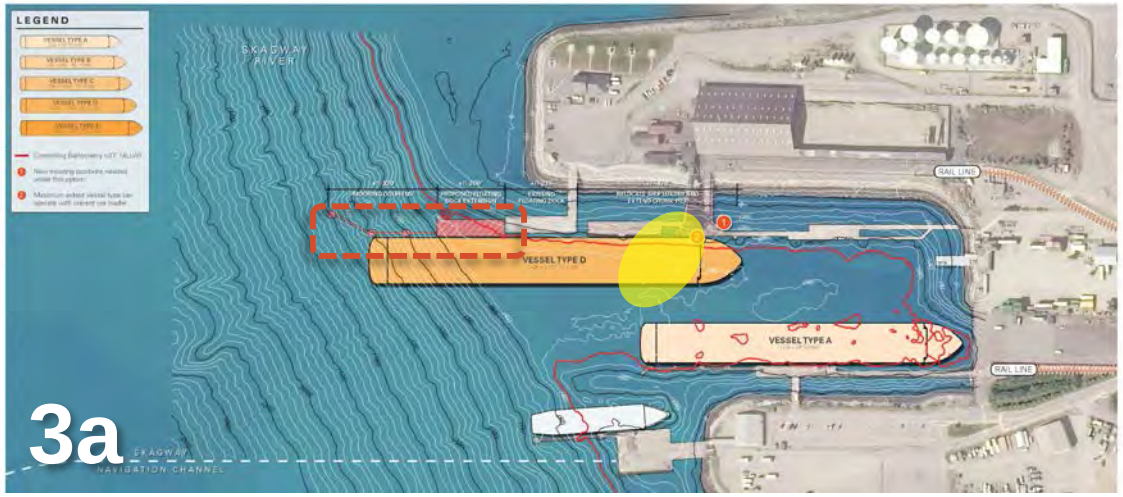
Initial Planning Options (Feb 28-Mar 1)

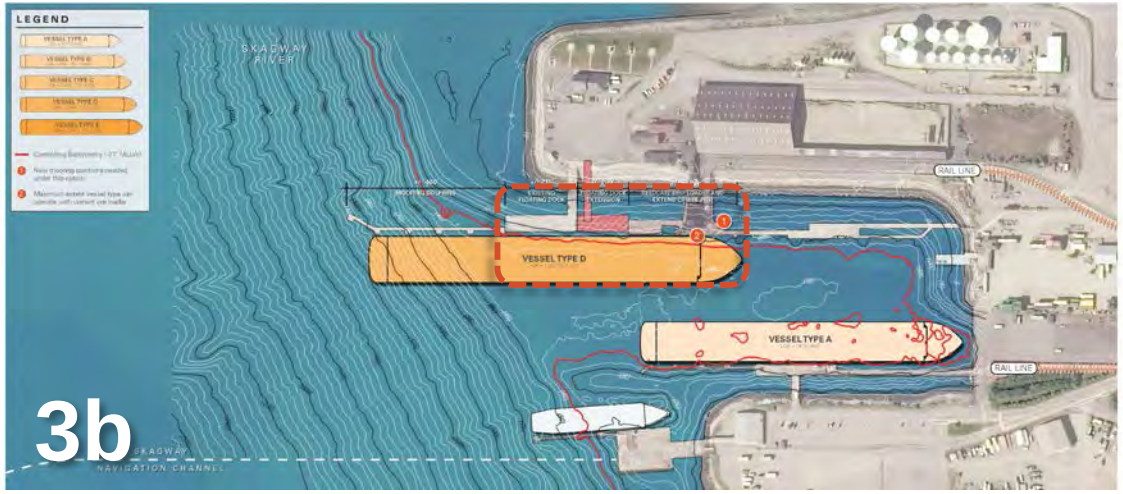


Refined, Short Term Planning Options (Apr 26)









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Evaluating Short-Term Alternatives

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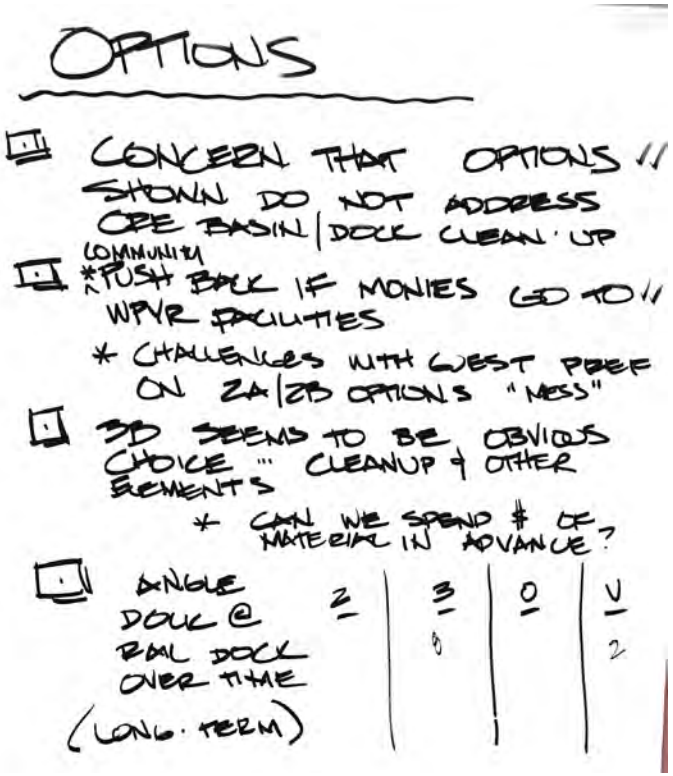
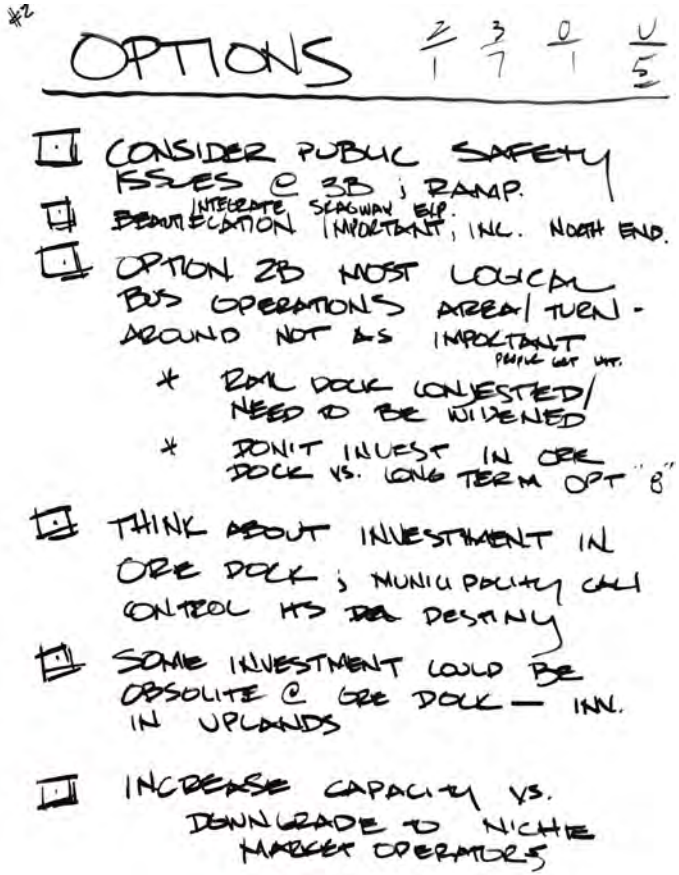
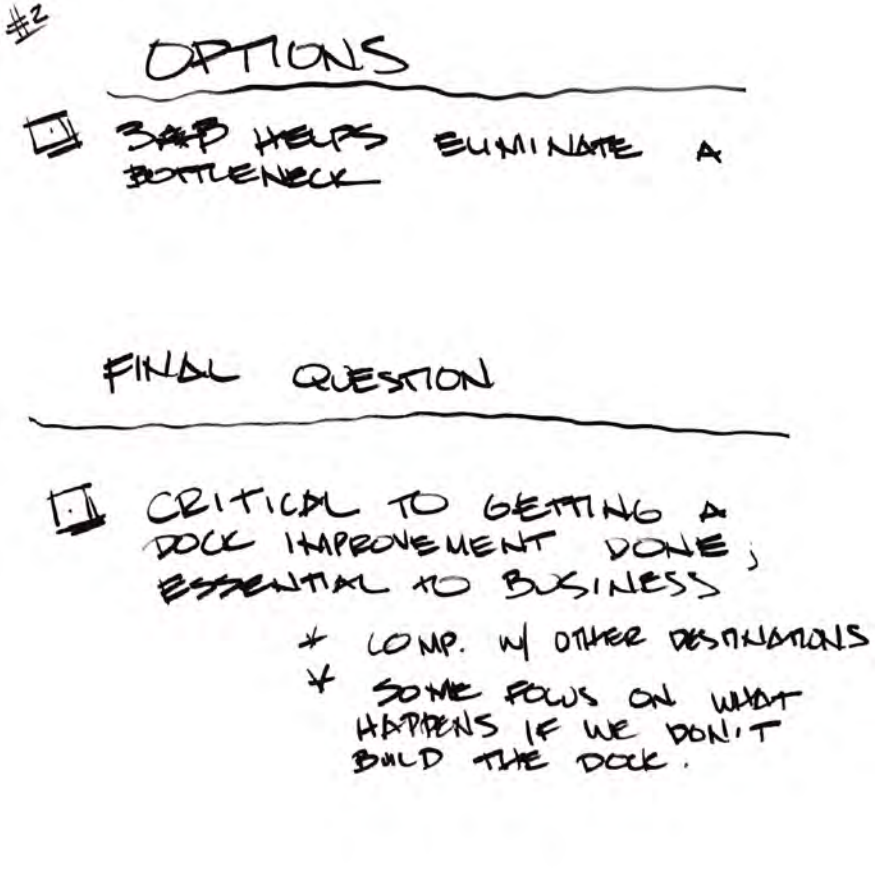
2. Guest Preference and Experience	🟠	🟢	🔴	🔴
3. Guest Safety	🔴	🔴	🟠	🟠
4. Cruise Line (User) Preference	🟠	🟢	🟠	🟠
5. Separates Tourism / Port Industries	🟠	🟠	🟠	🟠
6. Dependability	🔴	🟠	🟢	🟢
7. Impact to Navigation	🟢	🟢	🟢	🟢
8. Construction Costs	$	$$$	$$$	$$
9. Construction Period/Downtime	🟢	🔴	🟠	🔴
10. Environmental Impact	🟢	🟠	🟠	🔴
11. Useful Life of Improvements	🔴	🟢	🟠	🟠
12. Impact to Upland Flows	🔴	🔴	🟠	🟠

🟢 **Beneficial / Positive** 🟠 **Neutral / Average** 🔴 **Challenging / Adverse**

Evaluating Short-Term Alternatives







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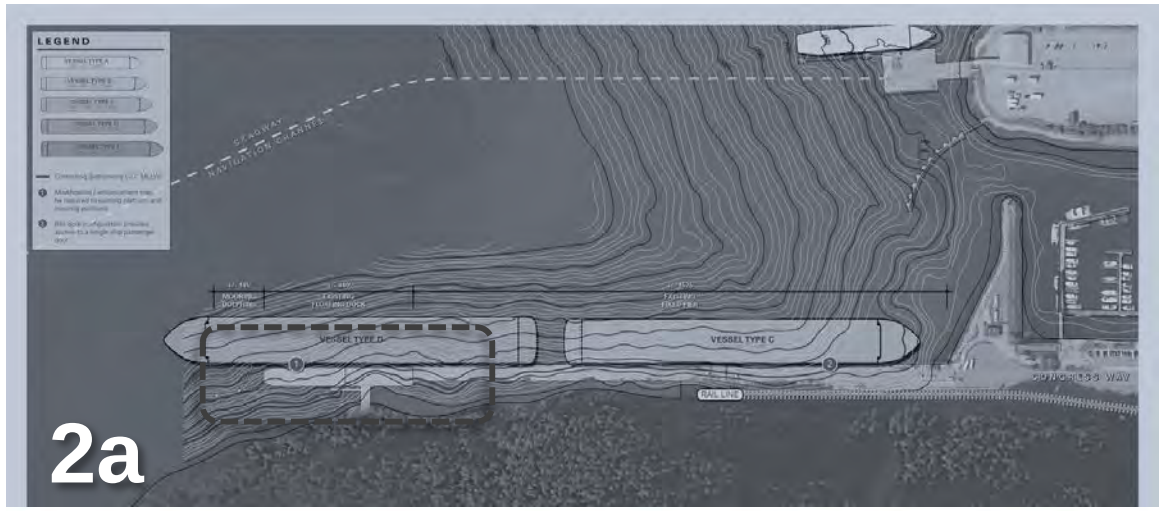
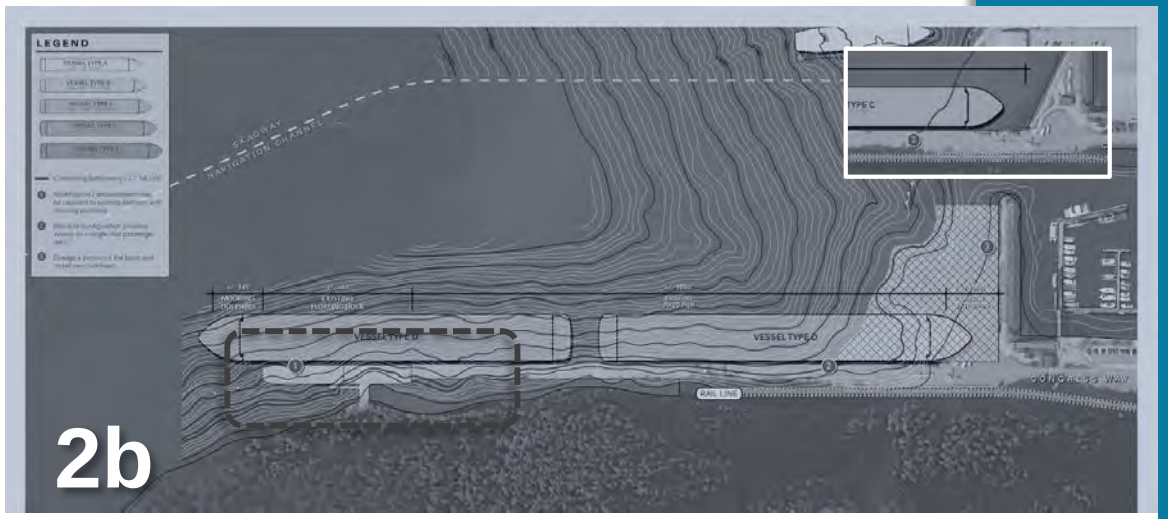
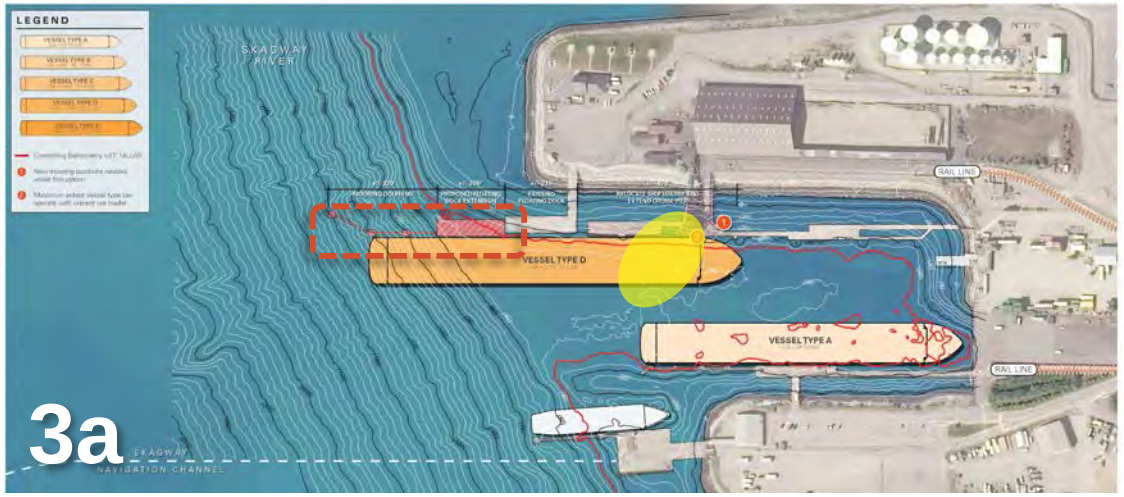
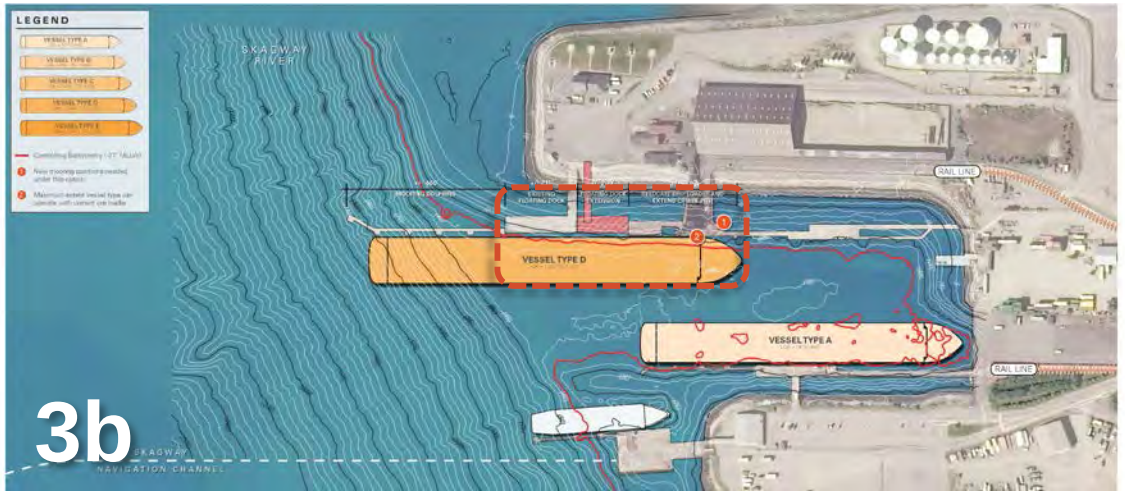




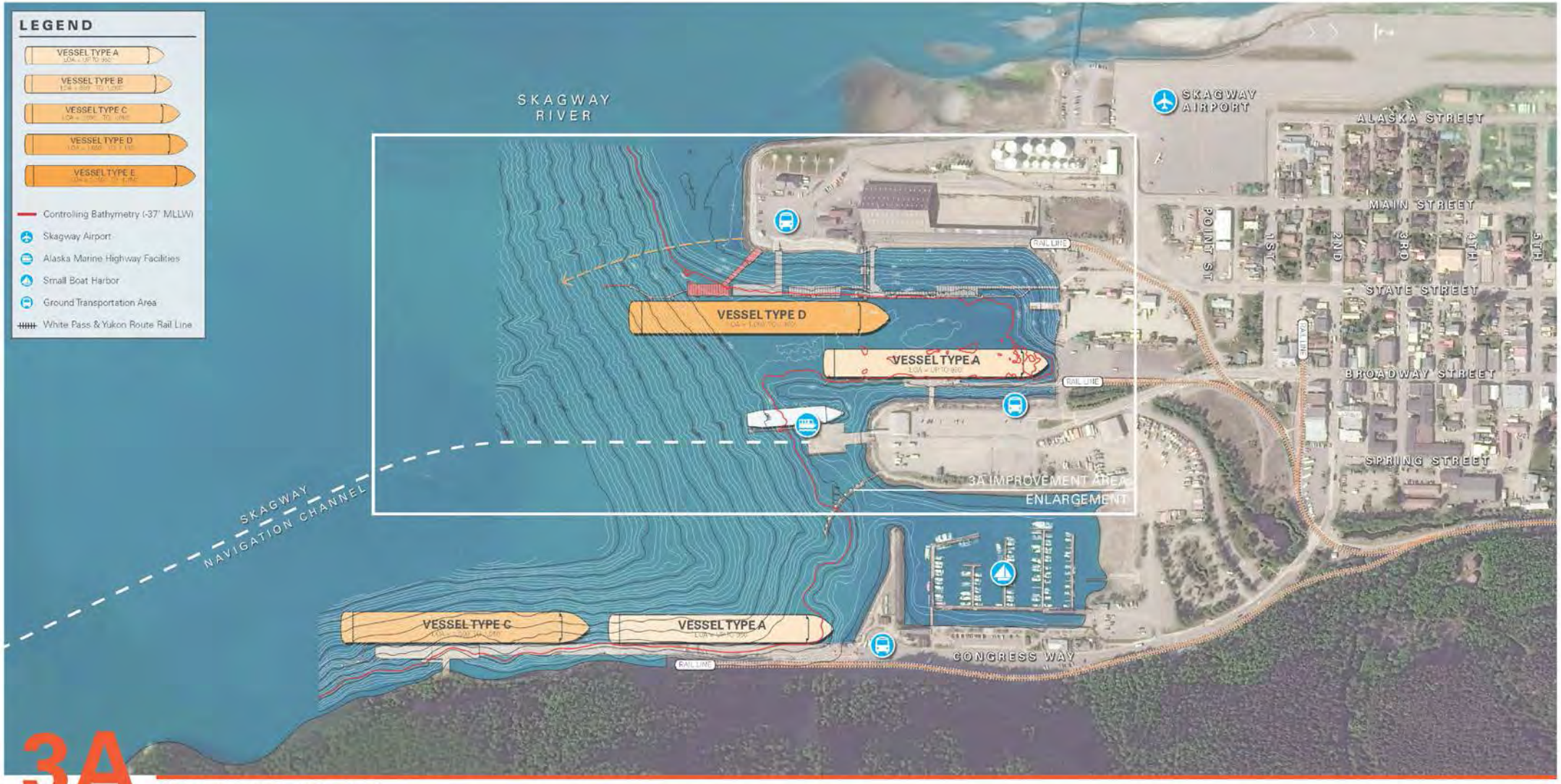




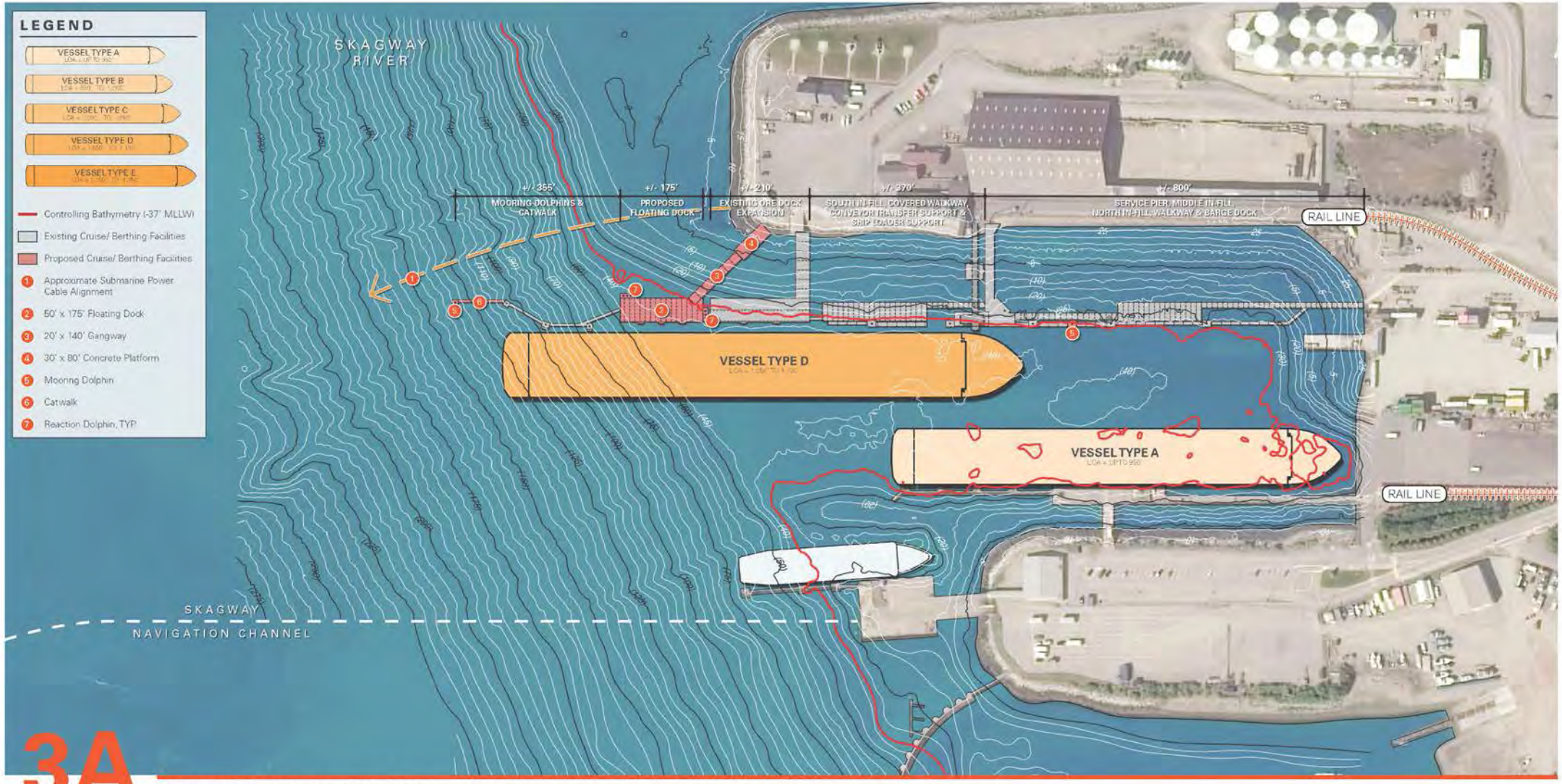
moffatt & nichol


Holland America Line

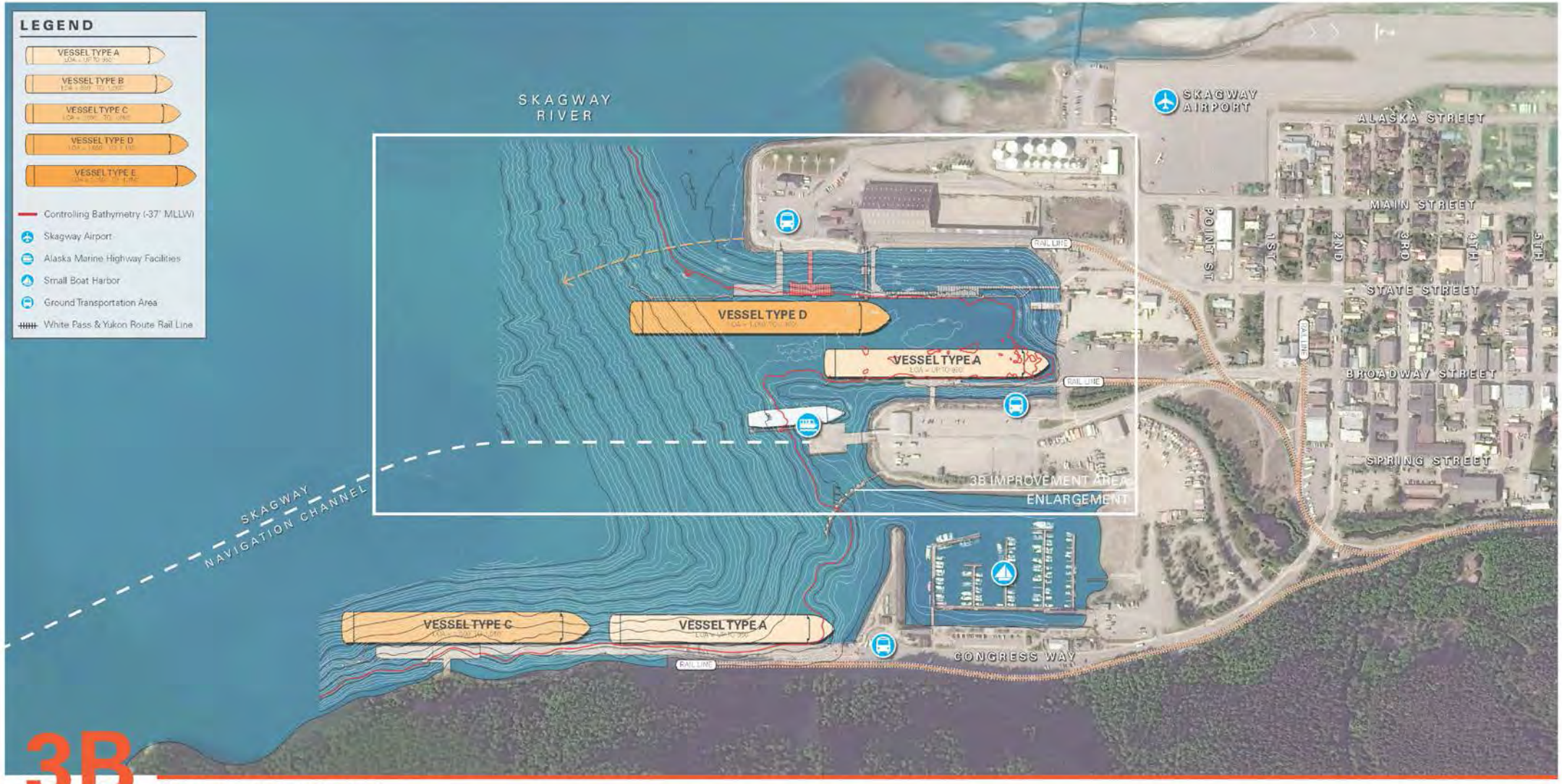
REVISED OPTION 3A



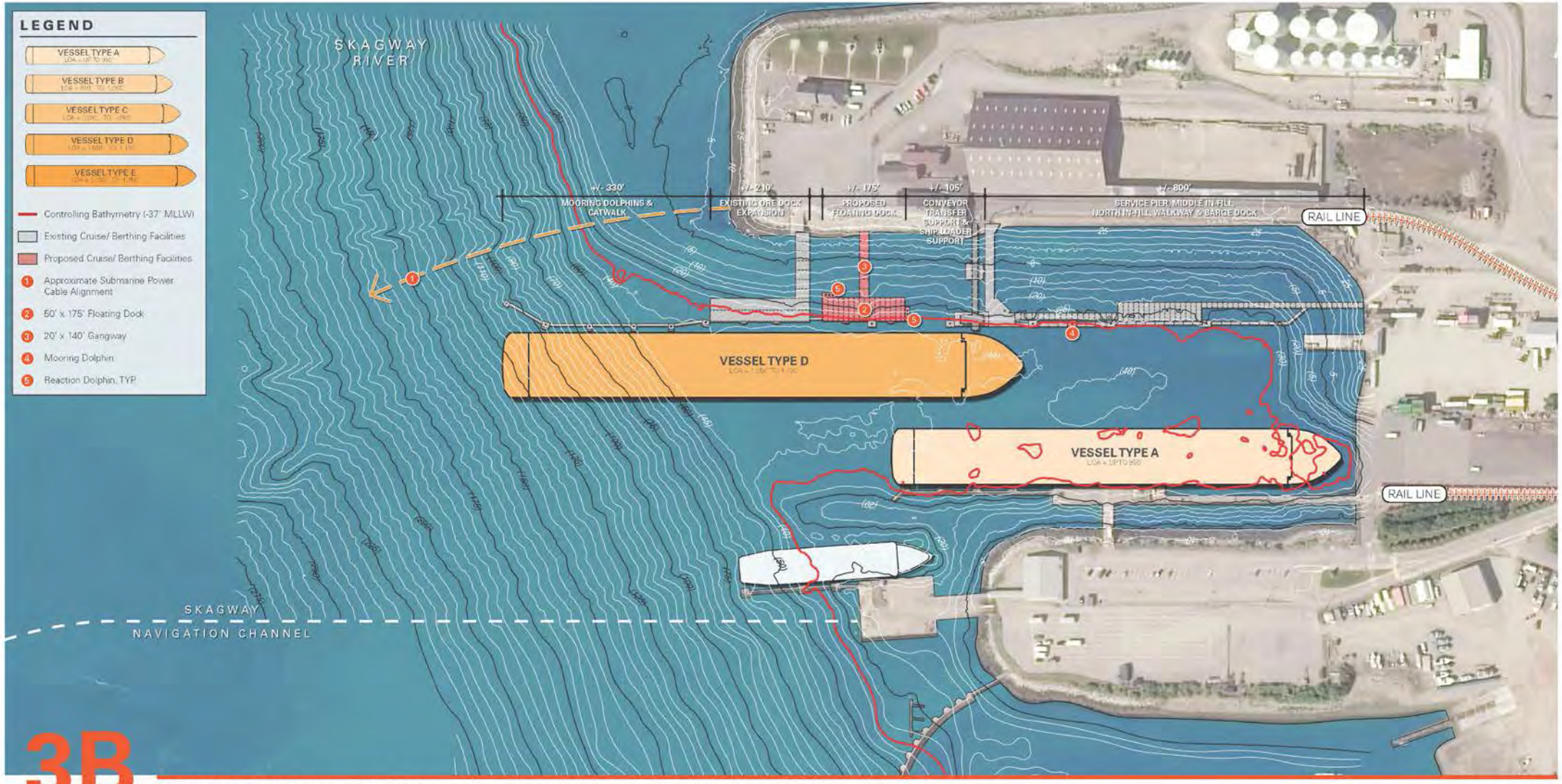
REVISED OPTION 3A



REVISED OPTION 3B



REVISED OPTION 3B



3B *ENLARGEMENT IMPROVEMENT PLAN*

PHASE 1 - SHORT-TERM WATERFRONT PLANNING
PREFERRED CRUISE OPTIONS

moffatt & nichol LandDesign | 06.08.2013 | SKAGWAY'S SHORT TERM WATERFRONT NEEDS

GRAPHIC SCALE IN FEET
RATIO 1" = 100' @ 22 X 34
0 50 100 200 300

Estimated Cost Comparison

Revised Option 3A

Item	Description			Qty	UM	UP	Sub Total	Total
1	Floating Dock System:			1	EA			$6,195,000
		50' x 175' Dock		8,750	sf	$350	$3,062,500	
		Pnuematic Fenders		3	ea	$40,000	$120,000	
		Piles:						
			Furnish	10	ea	$61,250	$612,500	
			Install	10	ea	$30,000	$300,000	
			Rock Socket	10	ea	$150,000	$1,500,000	
		Reaction Cap		2	ea	$300,000	$600,000	
2	30' x 80' Concrete Platform			2,400	SF	$400	$960,000	$960,000
3	Dock Lighting			1	LS	$150,000	$150,000	$150,000
4	Dock Water			1	LS	$100,000	$100,000	$100,000
5	Catw alks			2	ea	$75,000	$150,000	$150,000
6	Mooring Dolphin (in ~135 ft w ater):			1	EA			$1,970,000
		Piles:						
			Furnish	6	ea	$75,000	$450,000	
			Install	6	ea	$40,000	$240,000	
			Rock Socket	6	ea	$180,000	$1,080,000	
		Platform & Framing		1	ea	$200,000	$200,000	
7	20' x 160' Gangw ay			1	EA	$1,400,000	$1,400,000	$1,400,000
8	Demolition			1	LS	$200,000	$200,000	$200,000
9	Mobilization			1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total							**$15,125,000**
	Soft Costs:							
		Survey & Permit		4	%	$605,000	$605,000	$605,000
		Design & Const. Docs.		6	%	$907,500	$907,500	$907,500
		Contract Admin		5	%	$756,250	$756,250	$756,250
	Total							**$17,393,750**

Revised Option 3B

Item	Description			Qty	UM	UP	Sub Total	Total
1	Floating Dock System:			1	EA			$6,195,000
		50' x 175' Dock		8,750	sf	$350	$3,062,500	
		Pnuematic Fenders		3	ea	$40,000	$120,000	
		Piles:						
			Furnish	10	ea	$61,250	$612,500	
			Install	10	ea	$30,000	$300,000	
			Rock Socket	10	ea	$150,000	$1,500,000	
		Reaction Cap		2	ea	$300,000	$600,000	
2	Concrete Abutment for Gangw ay			1	LS	$100,000	$100,000	$100,000
3	Dock Lighting			1	LS	$150,000	$150,000	$150,000
4	Dock Water			1	LS	$100,000	$100,000	$100,000
5	20' x 160' Gangw ay			1	EA	$1,400,000	$1,400,000	$1,400,000
6	Demolition			1	LS	$650,000	$650,000	$650,000
7	Mobilization			1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total							**$12,595,000**
	Soft Costs:							
		Survey & Permit		4	%	$503,800	$503,800	$503,800
		Design & Const. Docs.		6	%	$755,700	$755,700	$755,700
		Contract Admin		5	%	$629,750	$629,750	$629,750
	Total							**$14,484,250**

Notes: Costs represented in May 2017 USD; Class 4 Estimate Accuracy defined by AACE.

Evaluating Final Short-Term Planning Alternatives

	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	1A/1C/2D	1A/1C/2D
2. Guest Preference and Experience	🔴	🔴
3. Guest Safety	🔴	🟠
4. Cruise Line (User) Preference	🟠	🟠
5. Separates Tourism / Port Industries	🟠	🟠
6. Dependability	🟢	🟢
7. Impact to Navigation	🟢	🟢
8. Construction Costs	$17.4	$14.5
9. Construction Period/Downtime	🟠	🟠
10. Environmental Impact	🟠	🟠
11. Useful Life of Improvements	🟠	🟠
12. Impact to Upland Flows	🟠	🟠

🟢 **Beneficial / Positive** 🟠 **Neutral / Average** 🔴 **Challenging / Adverse**

Final Planning Framework

Collaboratively developed, the Skagway community has validated the following planning framework to guide preparation and evaluation of planning alternatives under the short term and longer term planning efforts. All planning options and adopted plans should strive to meet these aims.

Community Desire

- Clean up the Ore Basin
- Offer a great guest experience
- Create separation between tourism and industrial waterfront areas
- Balance our heritage and future economic opportunities
- Promote opportunities for life long learning
- Expand public recreation and natural features along the water's edge

Economic Opportunity

- Capitalize on Skagway's strategic location and economic uniqueness
- Maintain the economic diversity of the port
- Grow cruise operations, including more small vessel activities
- Foster year round economic activity
- Leverage the brand and economic benefit of WPYR

Best Practices

- Expand quality connections between the town and waterfront
- Promote diversity of uses along with waterfront / town interface
- Expand the methods and venues communicating Skagway's history and distinctive stories
- Explore innovative solutions to long term challenges

Formulating a Final, Actionable Strategy

- Both options exceed available grant funding ($17.4 v. $14.5 million)
  - *Seek additional grant funding (see next slide)*
  - *Seek Cruiseline Passenger Vessel (CPV) Excise Tax monies (remaining balance in the account of $14 million)*
  - *Use MOS funding for the difference*
  - *Partner with WPYR*
- The benefit of implementing either option addresses most elements under the economic opportunity framework
  - *Are there strategies / opportunities to showcase additional benefit of the Short Term Plan within the "Community Desire" framework items?*
  - *Implementation of 3a / 3b builds economic benefit which will bolster community benefit over the mid- to long-terms*
- In assembly of the final recommendations, what additional projects, endeavors and assets should be incorporated?

Sampling of Additional Grant Outlets

Recreational Boating Federal Funding Programs

- Boating Infrastructure Grant Program
- Boating Access Grant Program
- Clean Vessel Act Grant Program

Restoration, Mitigation & Recovery Federal Funding Programs

- Coastal Ecosystem Resiliency Grant Program
- Gulf Environmental Benefit Fund
- FEMA Hazard Mitigation & Disaster Recovery Programs

Economic Recovery & Security Federal Funding Programs

- Transportation Investment Generating Economic Recovery
- Port Security Grant Program
- Moving Ahead for Progress in the 21st Century Act

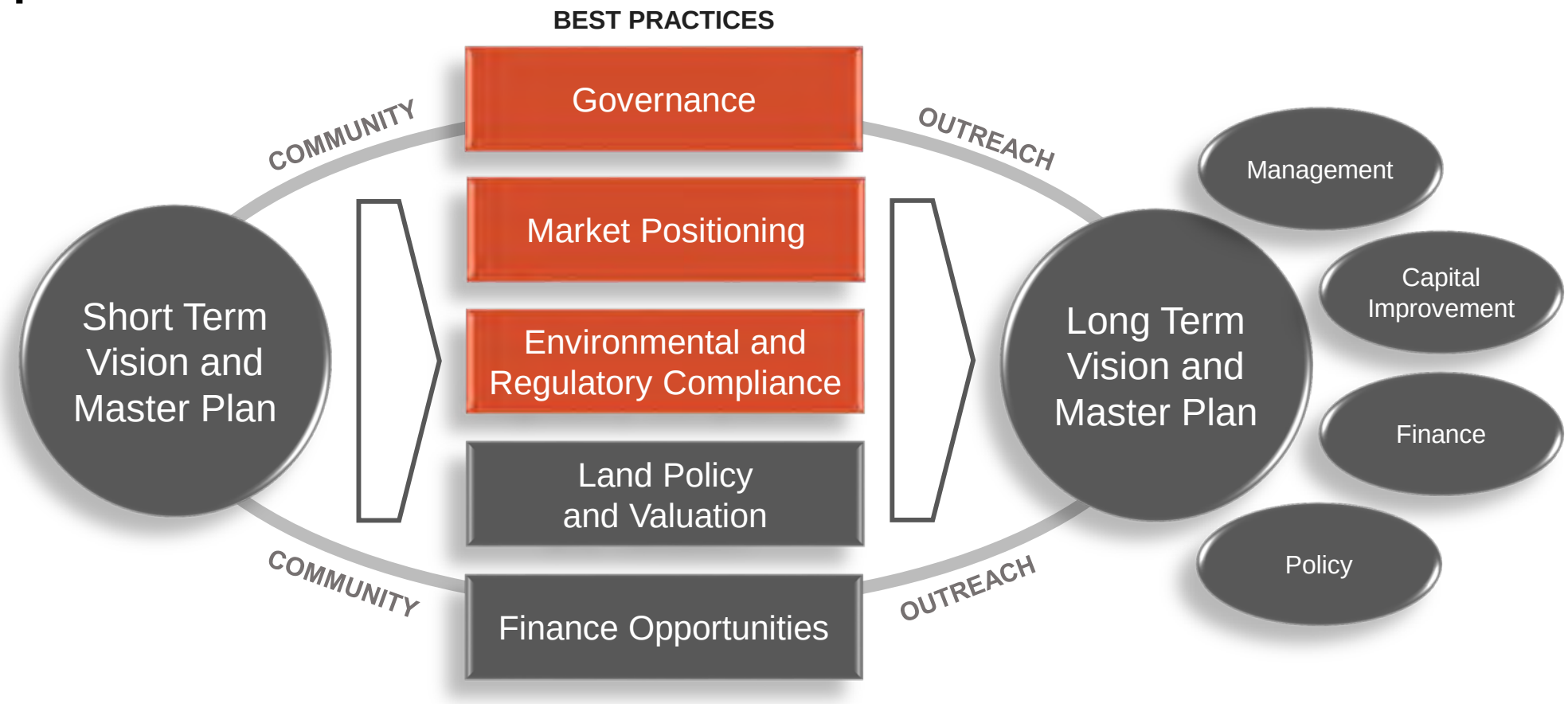
5. Big Picture Considerations

Linking Short Term Plans to Long Term Thinking

1. **Address Short Term Opportunities and Need**

2. **Study Best Practices**

3. **Formulate Long Term Plan and Strategy Moving Forward**



Economic Analysis and Market Positioning

- Data gathering and evaluation of revenue streams and operational expenses for various port related activities is ongoing with main focus thus far on tourism-related revenue and expenses
  - *Analysis of CPV Excise tax, population projections, historic ore transshipments, and sales tax revenues primarily complete*
  - *Analysis of other sectors continues next week*
- Base model is set up and includes initial assumptions for scenario analysis work to be done later in the process
- Economics team meeting weekly for updates and data discussion
- Draft Report scheduled for submittal on June 26; final report on July 13

Port Governance

- Evaluation process of alternative governance and operating structures has begun
  - *Port funding models and financing capacity analysis is included in evaluation*
  - *Examples of public/private financing of port infrastructure investments is also under evaluation*
- Selection of three similarly situated ports for benchmarking has been finalized
  - *Seward, Juneau and Ketchikan are the three ports we will benchmark*
- Draft Report scheduled for submittal on June 26; final report on July 13

Environmental and Regulatory

- Information gathering and stakeholder engagement is ongoing
- Stakeholder outreach with waterfront and adjacent businesses, elected officials, state and local agencies, etc. provided:
  - *Descriptions of existing and future operations and compliance responsibilities (permits)*
  - *Site data and relevant studies*
- Gathered data and information undergoing dissemination and review:
  - *Air, water (wastewater storm water), contaminated sediments/soils, species and habitat, etc.*
  - *Environmental and regulatory considerations in existing port area and for anticipated future operations*
  - *Consideration of adjacent operations (border/customs, traffic)*
- Draft Report will be complete late June; Final Report in early July

6. Next Steps

NEXT STEPS

- Hold our final presentation for the Phase 1 Plan on June 15th
- Assemble feedback
- Prepare and submit a Final Short-Term Waterfront Plan
- Prepare methodology and approach for Phase 2

APPENDIX A-2

Community Work Session #2
Skagway's Waterfront, Past and Present
Skagway Port Planning (Phase 1)

Feb 28, 2017

moffatt & nichol

Objectives of Community Work Session Two

- Inform the community on the Skagway Waterfront project and process
- Present and discuss our ongoing work to develop a clear baseline of site issues and opportunities
- Discuss with the community our initial thoughts on the project planning framework…the elements that serve as the foundation…the defensible "why's" underpinning the plan
- Present initial planning alternatives that address the planning framework
- Discuss project next steps
- Listen, learn and encourage continued dialog

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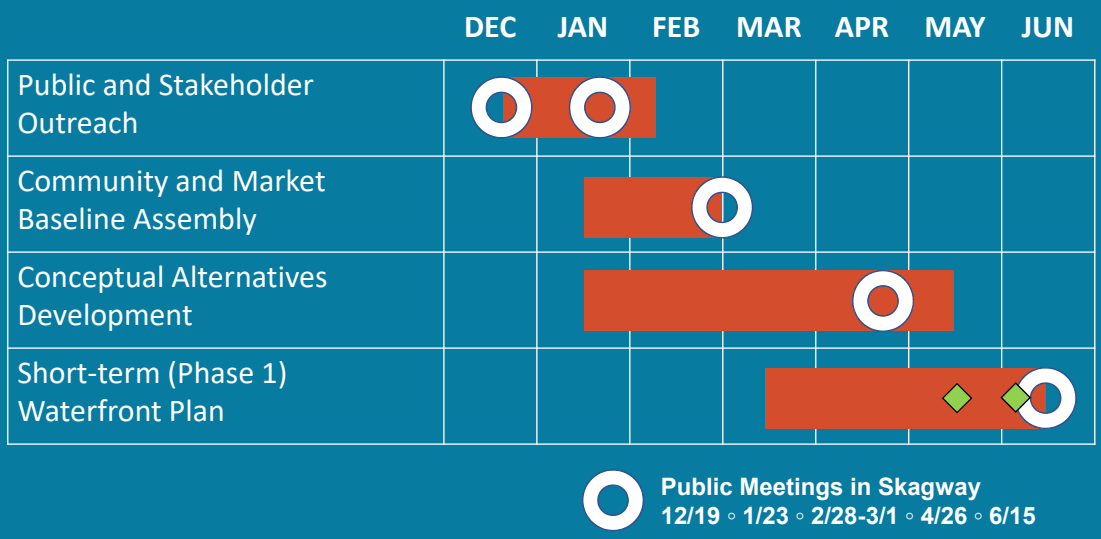
Project Objectives – Phase 1

- **Define a clear program of short-term improvements geared to address immediate port needs and +$8 million in grants**
- Engage the Skagway community, making sure their needs and desires are understood and translated in a meaningful way into short-and long-term waterfront project efforts
- Rebuild trust with the community through planning efforts, allowing project work to make strong inroads in dealing with long standing waterfront challenges and opportunities
- Formulate a planning framework that will help guide waterfront initiatives
  - *Should consider future growth, sustainability and the ultimate prosperity of Skagway*
- Work to identify a clear path to ensure clean-up of legacy harbor contamination

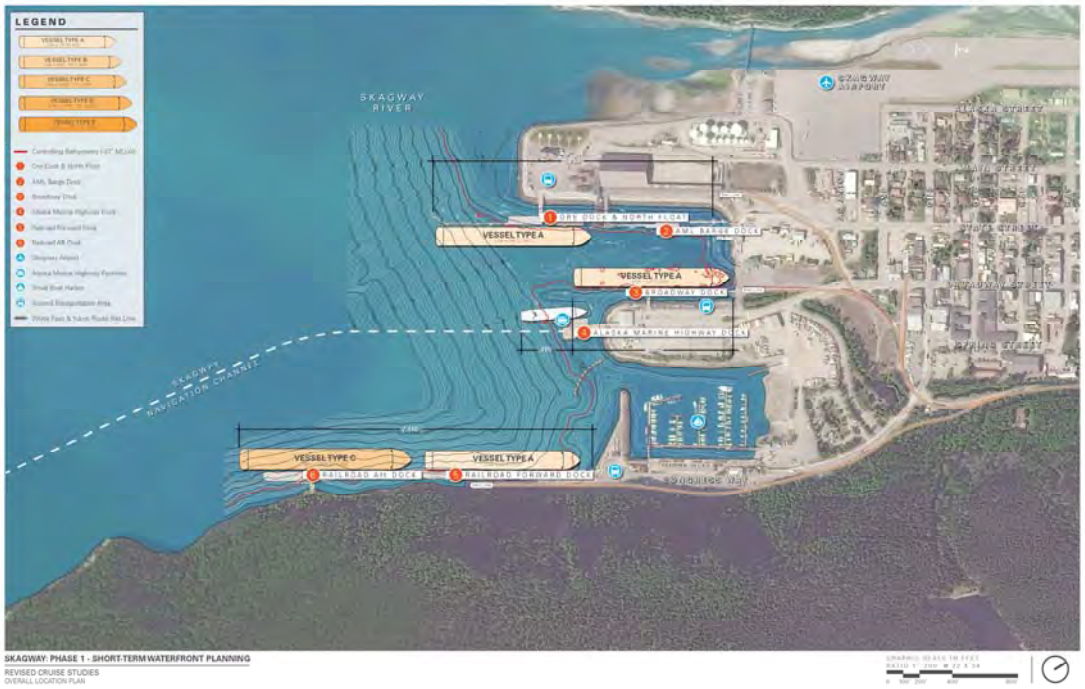
Skagway Port Planning Schedule (Phase 1)



Value of the Waterfront as a Community Asset

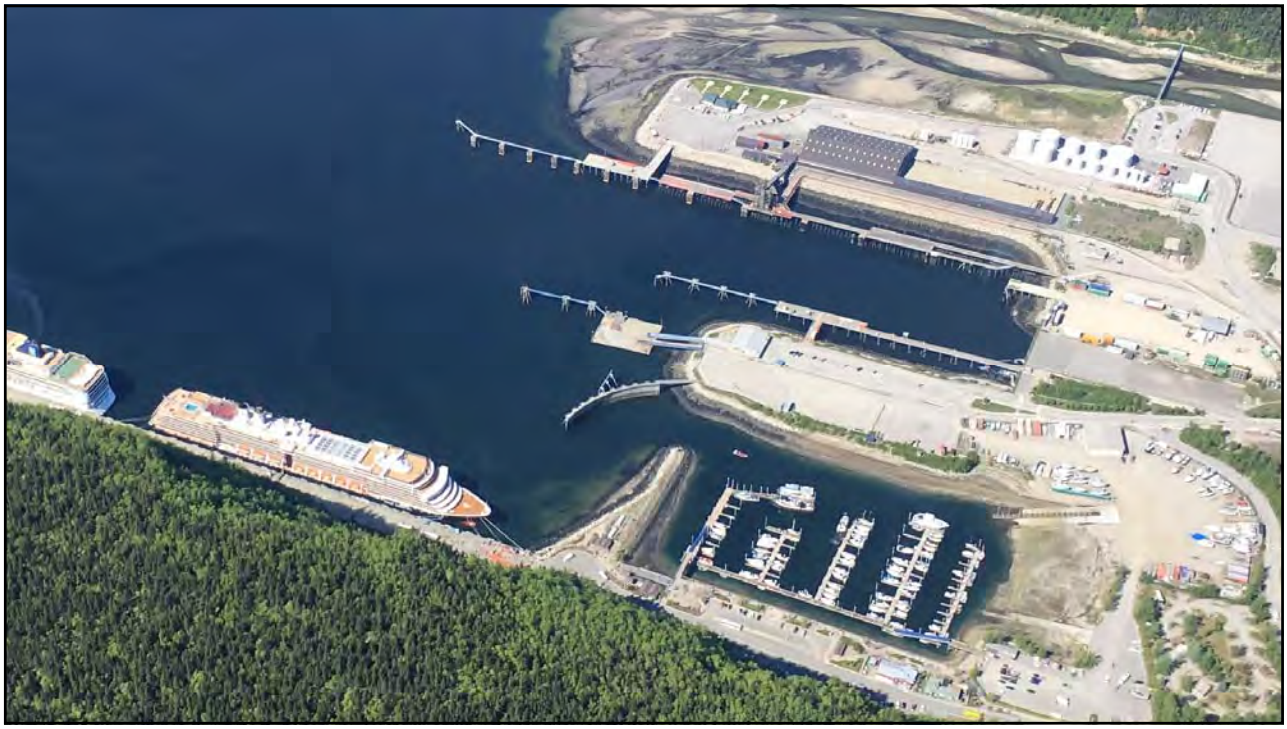
Community Baseline Inputs

- Community demography
- Land use and ownership
- Cruise market conditions in the region
- Mining and other cargo conditions in the region
- Ferry and other marine transport
- Environmental conditions



Observations and Thoughts: Docks

- One Ore Dock, many challenges
  - *Contamination of the Ore Dock*
  - *Poor position of the Ore Loader; obsolete*
  - *Dock is in deteriorating condition*
- Limited space between Ore and Broadway Docks
- Conflict between cargo and cruise operations
- Underutilized stretches of adjacent waterfront land
  - *Poor pedestrian connections between the northern docks and the community*
- Most improvements are expensive given adjacent deep water
- AMHS ferry monopolizes a huge, strategic portion of the waterfront
- Iconic Alaskan port



Observations and Thoughts: Environment

- Legacy environmental contamination in the harbor
  - *Ore Dock, Loader and adjacent habor*
  - *Source of contamination*
  - *Any dredging and work will need to address contamination*
- Regulatory compliance of cruise ships, the small boat harbor and other operations
  - *Explore the potential for improved best management practices*
- Opportunity for deeper integration of the waterfront with the surrounding natural environment
  - *Parks, greenways and open spaces*
  - *Provision of habitat for nesting birds and other wildlife*

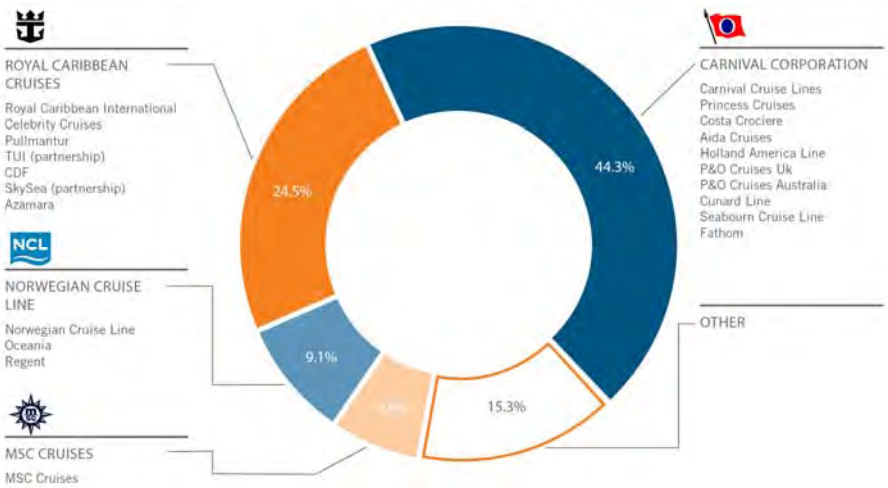
Question: What other major existing conditions and issues should we know about ?

Cruise Industry Growth Factors

- Success in creating new, dynamic vessel and onboard product offerings
- Conversion of land-based resort guests into life-long cruisers
- High level of passenger satisfaction
- A business model adaptable to changing market conditions
- Globalization of product offerings
- Limited competition, constant cost cutting and multiple revenue streams

Cruise Industry Marketshare

Leading Vessel Conglomerates, Brands, Ships and Lower Berths, 2016



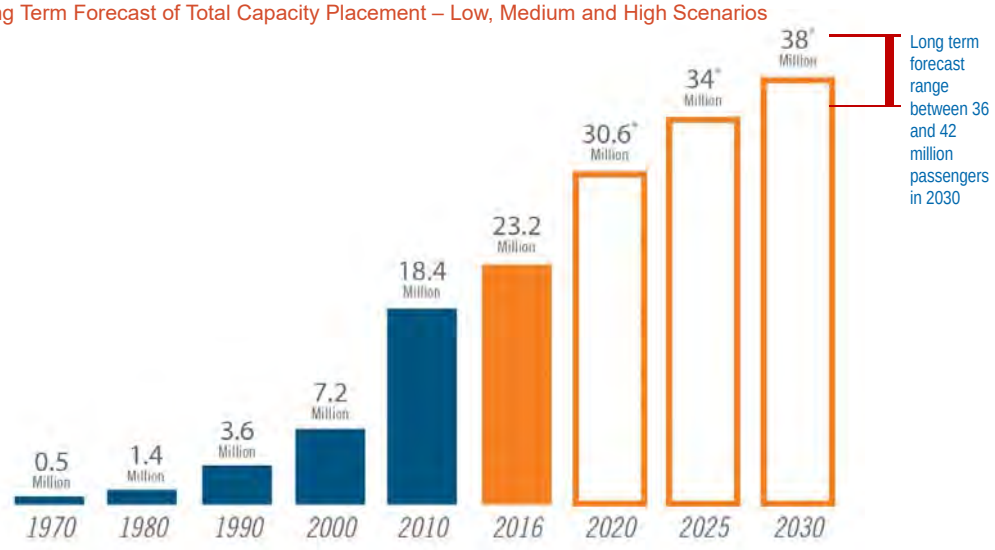
Note: Lower Berth refers to the "lower bed" of a cruise ship cabin as a standard unit for capacity measurement. Cruise ships often run at capacities of greater than total lower berths, using other beds (upper berths) available in some cabins.
Sources: CIN and Moffatt & Nichol, 2017

Trends Moving Forward

- Factors leading to 3 decades of growth remain in place:
  - *New products, guest retention, high level of guest satisfaction and value for money, adaptable business model, mobile assets, globalization of product offerings, limited competition*
- Cruise industry orders are up significantly, with a record 83 new vessels and nearly 250,000 berths on order through 2026
- Big ships will continue to be the operational norm worldwide; more than half on order are of 3,200 passengers or greater
- Demand worldwide will continue for new and larger ports and destinations
- Carnival, RCCL, Norwegian, and MSC are all posed to continue to expand, with Disney, Virgin and other lines also looking to add supply and consumer momentum based on their unique brand positioning

Forecast of Worldwide Passengers

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017*

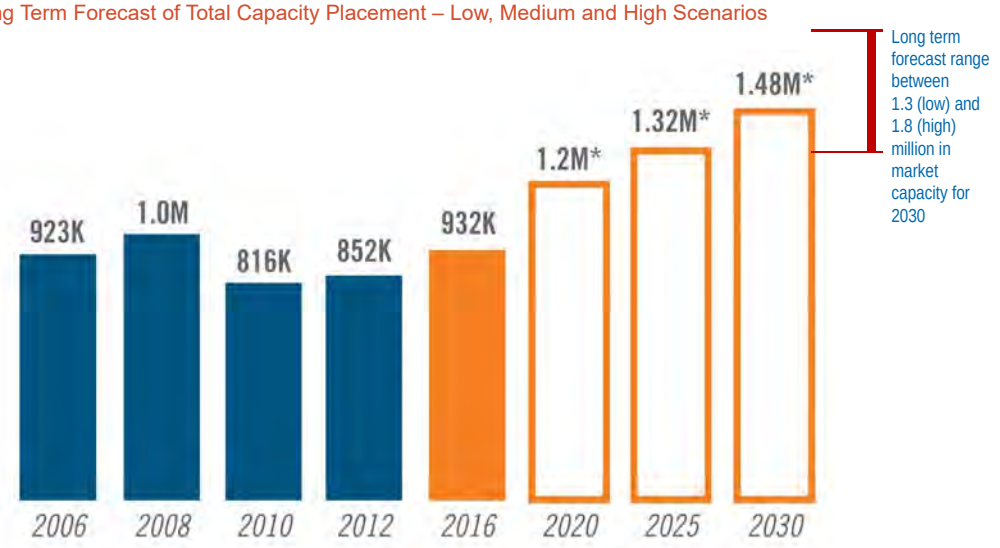
Alaska Today and Moving Forward

- Cruise consumer sentiment toward Alaska is very high
- Expansion of both homeports and ports-of-call ongoing, albeit at a slow place
- Global volatility bolsters Alaskan market health
- A large percentage of growth will originate from vessel replacement vs. increases in ship numbers
  - *The number of ships has remained relatively constant 2010 vs. 2016*
- The June 2016 opening of the expanded Panama Canal increases the ability of lines to move larger vessels to/from the Caribbean
- State of Alaska changes to cruise tax policy remain a risk factor
- Seasonality and available Sat/Sun homeport slots a limiting factor

Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017

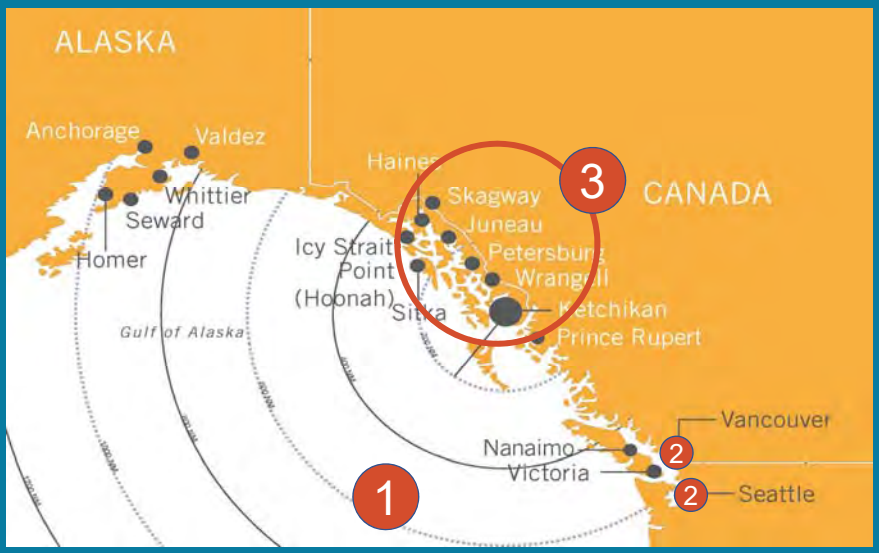
Forecast of Alaskan Capacity

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017.*

Future Deployment: A Balanced System



1. Can capacity get to the region?
   ✓ *Yes, Panama Canal limits minimized.*
2. Can key homeports support this capacity?
   ✓ *Yes, Seattle and Vancouver can accommodate large vessels.*
3. Can key ports-of-call support this capacity?
   Maybe. Work to be done.

Sources: CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017.

SE Alaska Ports-of-Call

- Ketchikan, Juneau and Skagway are essential to the equation; their ability to provide similar sized facilities over time has market sway over the long term
  - *Juneau is moving to 1,100' berths; potential exists for one or two existing facilities to move to 1,150'*
  - *Ketchikan is studying long term expansion*
- Lines suggest 4 large fixed berths plus 1 to 2 tender locations most likely needed for each
- Sitka, Hoonah and other ports beneficial to region overall

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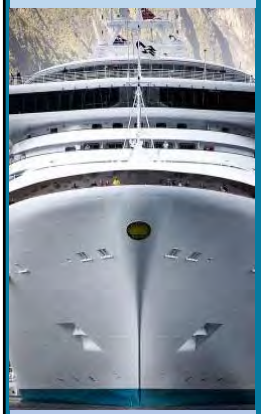
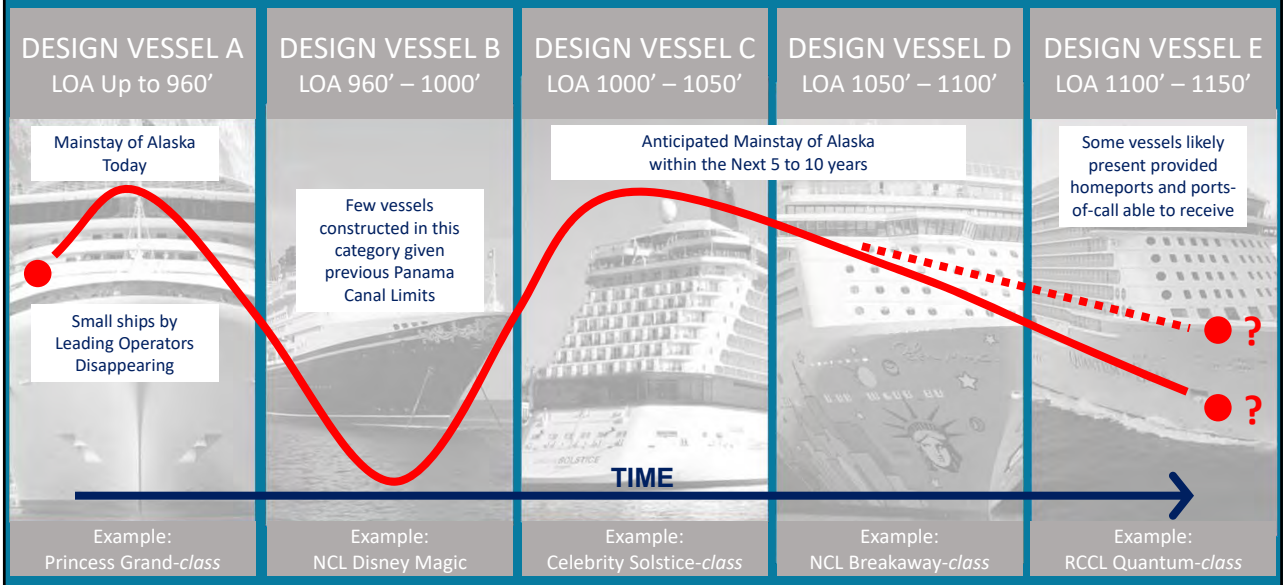
Design Vessel Considerations for Alaska

DESIGN VESSEL A LOA Up to 960'	DESIGN VESSEL B LOA 960' – 1000'	DESIGN VESSEL C LOA 1000' – 1050'	DESIGN VESSEL D LOA 1050' – 1100'	DESIGN VESSEL E LOA 1100' – 1150'
				
Example: Princess Grand-*class*	Example: NCL Disney Magic	Example: Celebrity Solstice-*class*	Example: NCL Breakaway-*class*	Example: RCCL Quantum-*class*

Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffztt & Nichol, 2017

Design Vessel Considerations for Alaska



Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffztt & Nichol, 2017

Mineral Production in the Yukon

- Real GDP for mining declined by 12% in 2014 and 41% in 2015
- Similar trend for oil and gas extraction and their support activities
- Real GDP for entire territory declined by 6% in 2015 although Canada grew by 2.6%
- Potential and existing exports in the Yukon
  - *Asbestos, Nickel, Barite, Selenium, Copper, Silver, Gold, Tungsten, Lead, Uranium, Molybdenum, Zinc*
- Currently produces copper, gold, lead, silver and zinc

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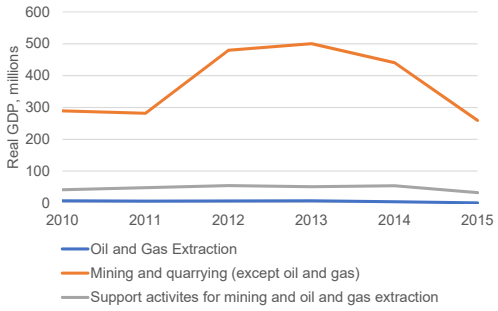
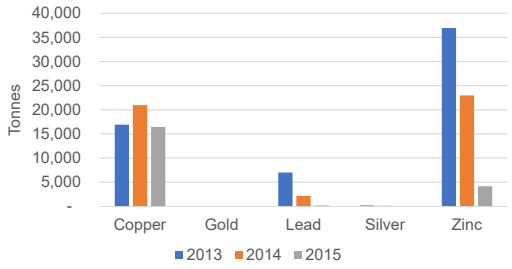
Mineral Production in the Yukon

**Yukon, Canada –
Real GDP (chained 2007 $US) 2010-2015**



**Mineral Production in Yukon Territory,
Commodities of Interest, 2013-2015**



Mining - Stakeholders

- AIDEA → sublease to Municipality (through WPYR)
  - *Ore Dock and shiploader*
- Prospective mines (ore concentrate):
  - *Capstone (currently 10 shipments/year; ends 2019)*
  - *Western Copper & Gold*
  - *Constantine*
  - *Victoria Gold*
  - *Selwyn Chihong*
  - *Alexco*
- AML → provisioning mines (construction materials)

Mining – Known Challenges

- Ore Dock (old section) in “poor to very poor” condition
- Legacy contamination issues in Ore Basin
- Existing shiploader is obsolete
  - *Over 25 years old*
  - *Stationary → requires repositioning of ships during loading*
  - *Challenging to operate under current environmental best practices*
  - *Mines desire radial or mobile shiploader for efficient loading*
- AIDEA/WPYR lease expires 2023 (concurrent with Skagway/WPYR lease)
  - *Reinvestment will require economic analysis & AIDEA Board approval*
- Supply is market-driven & sensitive to commodity prices
- Mining & shipping to tidewater less expensive in summer
- Smelting expensive in winter due to cost of energy (hydro in summer; fossil fuels in winter)

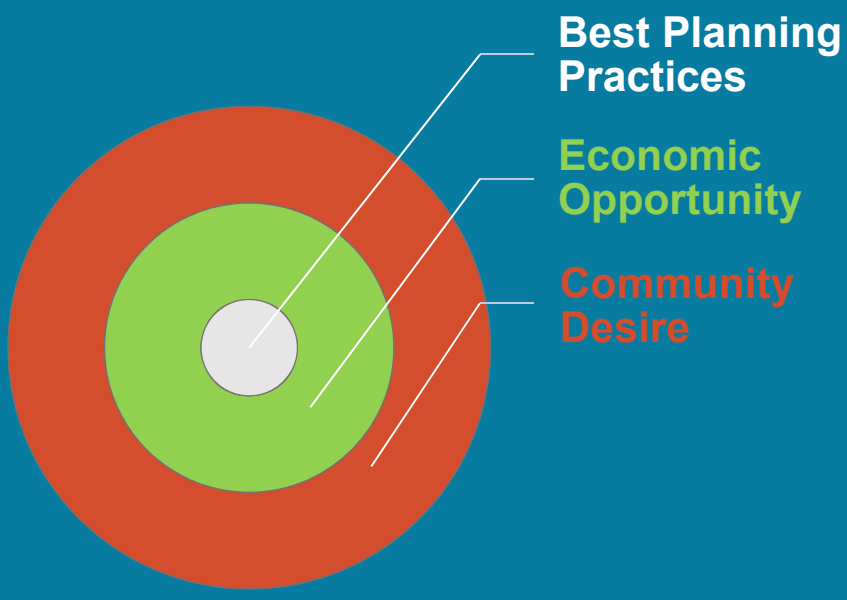
Mining – Questions

- Skagway/AIDEA reinvestment in Ore Dock facilities needs clear understanding of relative revenue stream (mining vs. cruise)
- Desire for year-round economy understandable; but is it achievable through mining industry support?
- Mines are in various stages of exploration & permitting; production dates, rates & markets uncertain
- Intangible benefits to supporting Yukon ore concentrates (highway to Whitehorse)
- Conflicts abound between ore loading & cruise ships → multi-use facilities to handle ore concentrate and cruise ships may be suboptimal for either

Question: What other market opportunities can Skagway capitalize on?

3. Organizing a Planning Framework for Skagway's Waterfront

The planning framework are the features that remain true for each design alternative. They serve as the foundation…the defensible "why's" underpinning the plan.



Community and Stakeholder Meetings to Date

- Community Open House (January 23)
- White Pass & Yukon Route Railroad
- Alaska Industrial Development & Export Authority (AIDEA)
- Alaska Department of Environmental Conservation (ADEC)
- Harbor Enterprises / Petro Marine
- Cruise Line Agencies of Alaska (CLAA)
- TEMSCO
- Alaska Marine Highway System (AMHS)
- Alaska Power & Telephone (APT)
- Yukon Government Department of Economic Development
- Canadian Border Services Agency (CSBA)
- Lynden / Alaska Marine Lines (AML)
- Cruise Lines (Multiple)
- Constantine Metal Resources Ltd.
- Western Copper and Gold
- Capstone Mining Corporation
- Victoria Gold Corporation
- Selwyn Chihong Mining Ltd.
- Alexco Resource Corporation

Missing / Ongoing:

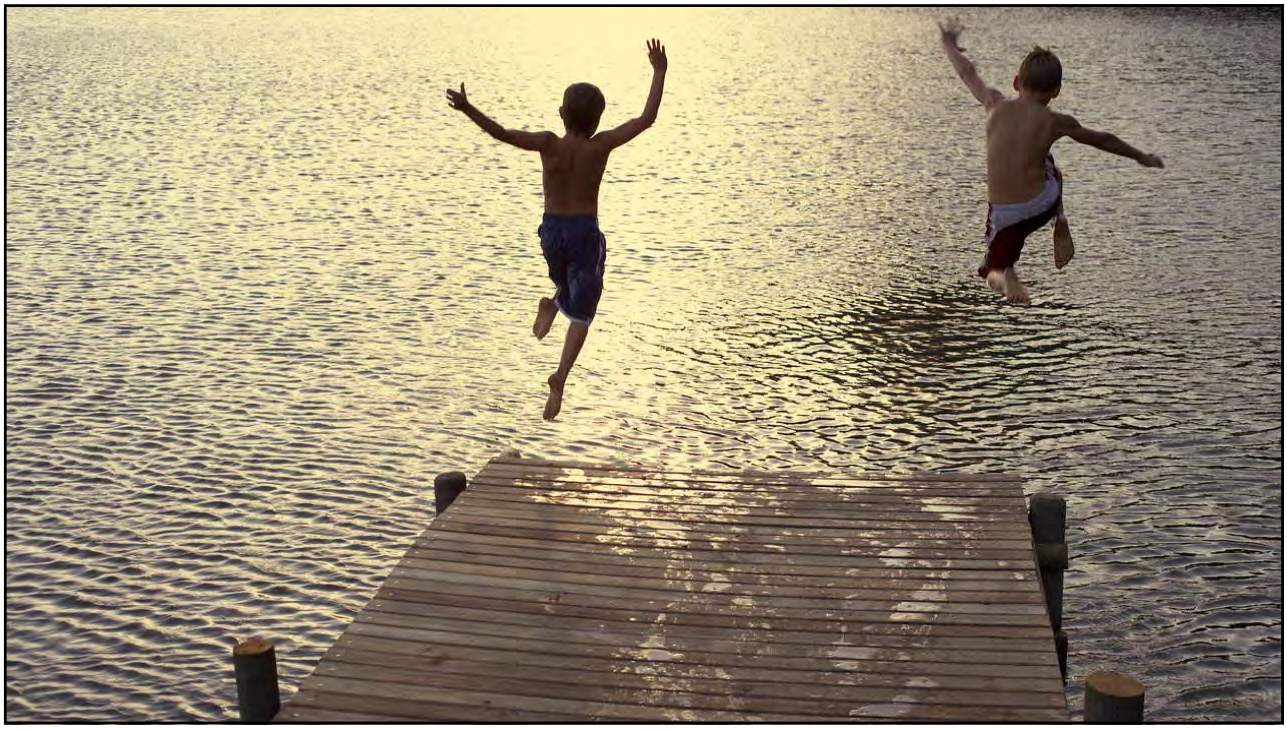
- MSC Cruises
- Norwegian Cruise Lines
- Mineral Services, Inc.
- U.S. Department of Homeland Security
- U.S. Customs and Border Protection

What we are Learning from the Community

- Ensure environmental clean-up of Ore Basin advances and put into place regulations and best practices to safeguard the harbor from future contamination
- Seek approaches to separate tourism from industrial activities
  - *Public safety*
  - *Portrayal of community image*
  - *Lessen impacts to both industries*
- Embrace planning approaches that foster a year-round economy
  - *Swings in population between summer / winter create challenges*
- Continue the high quality delivery of the Skagway experience
  - *Tell our story in compelling ways to visitors and our future generation*
- Seek balance between our past and our future promise

What we are Learning from the Market

- We are the Gateway to the Yukon; we are geographically and economically unique
- Cruise activities have room for growth
  - *Growth will occur predominately through replacement of Panamax (Type A) vessels with larger, 1,100+ LOA ships (Type D and E)*
- Short term prospects for growth in mining activities are nominal
- Maintaining waterfront and port diversity is essential. Each element has purpose. Diversity provides economic flexibility to embrace future market opportunities
- White Pass is a core economic engine in the community
  - *The railroad is an essential aspect of the cruise offer*
  - *Growth in cruise volumes presents opportunities to enhance operations*



- **Make Connections**
  Foster creation of interconnected, walkable green areas, blueways, streets, neighborhoods and commercial zones accessible for all. Essential for creation of healthy communities.

- **Promote Mixed-Use**
  Embrace a diversity of uses. Create spaces for residents, visitors and long stay guests.

- **Engage the Water's Edge**
  Allow the public to view, approach, walk along, and touch the water's edge. Provide opportunities to get onto the water. Essential in waterfront renewal efforts.

- **Foster Innovation**
  Be inventive. Plan for the work…and the worker…of the future. Allow community design to flex to future need and technologies.

- **Tell Your Authentic Story**
  Allow the waterfront to look forward and back…explore memory and prophecy. Communicate your values to residents and visitors.

Telling Your Authentic Story
Skagway, Alaska

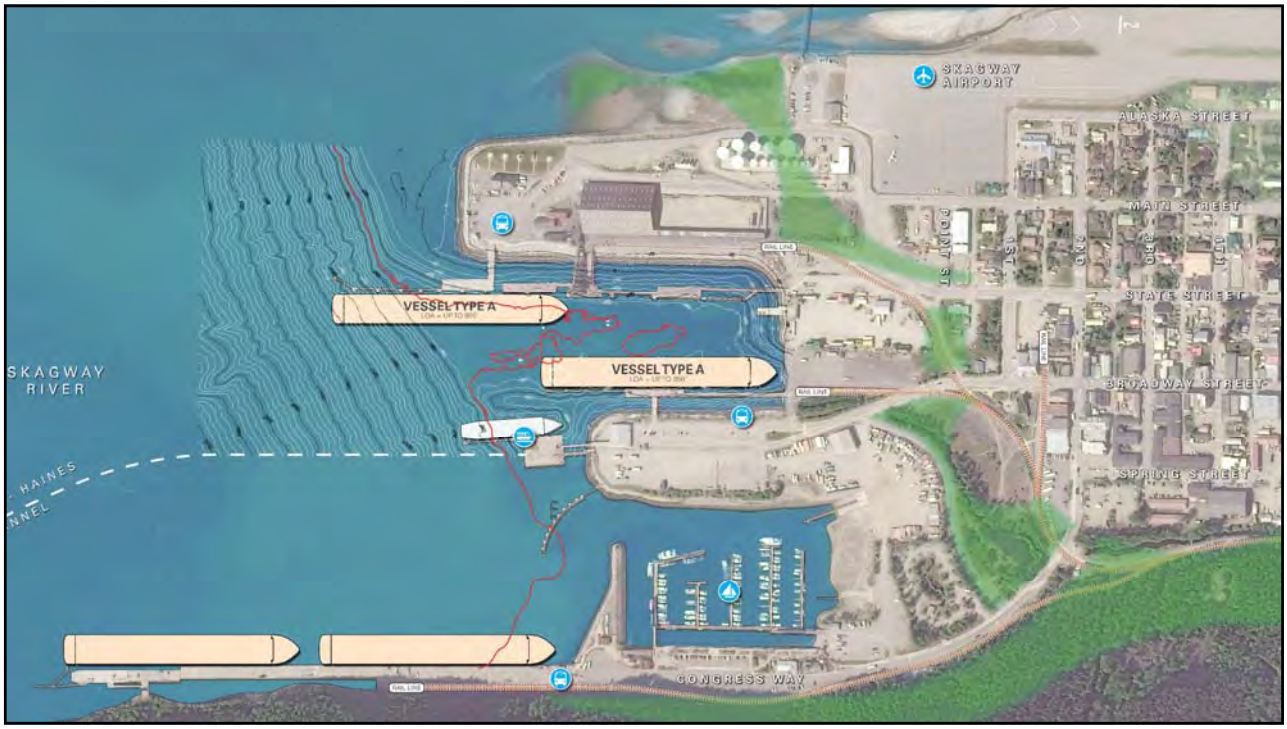
Telling Your Authentic Story
Skagway, Alaska

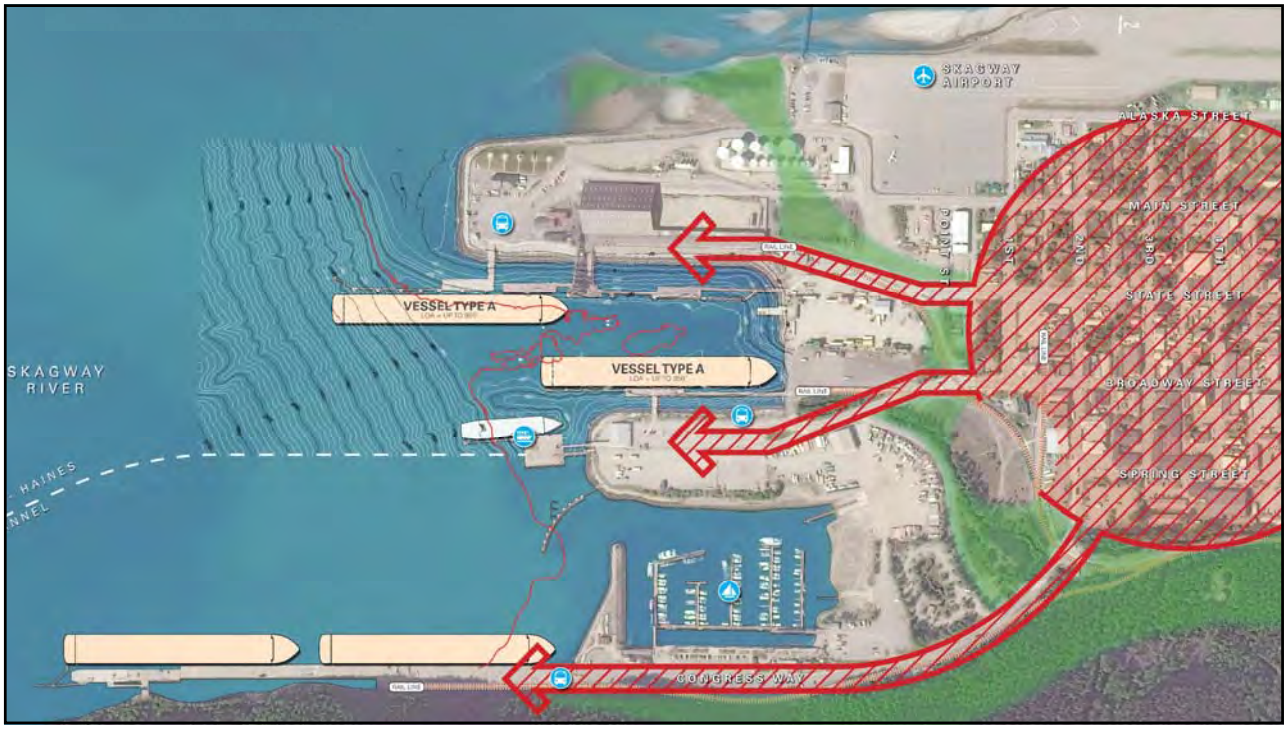
Question: What stories need to be told on your waterfront? What's missing?

4. Early Thoughts on Planning Alternatives

Early Thoughts on Planning Alternatives

- We have significant ground to cover in the formulation of detailed planning alternatives, but want to share initial planning ideas
  - *From "That's exactly what I would have done" to "Over my dead body."*
- Early planning alternatives allow us to:
  - *Elicit feedback*
  - *Illustrate planning framework elements*
  - *Start the process of establishing a means to review revised and detailed options*
- Illustrations are high level and do not take into account all the specific challenges and opportunities along the waterfront
- Represent long range planning alternatives


SKAGWAY AIRPORT
ALASKA STREET
MAIN STREET
POINT ST
1ST
2ND
3RD
4TH
STATE STREET
BROADWAY STREET
SPRING STREET
VESSEL TYPE A
VESSEL TYPE A
SKAGWAY RIVER
HAINES
CONGRESS WAY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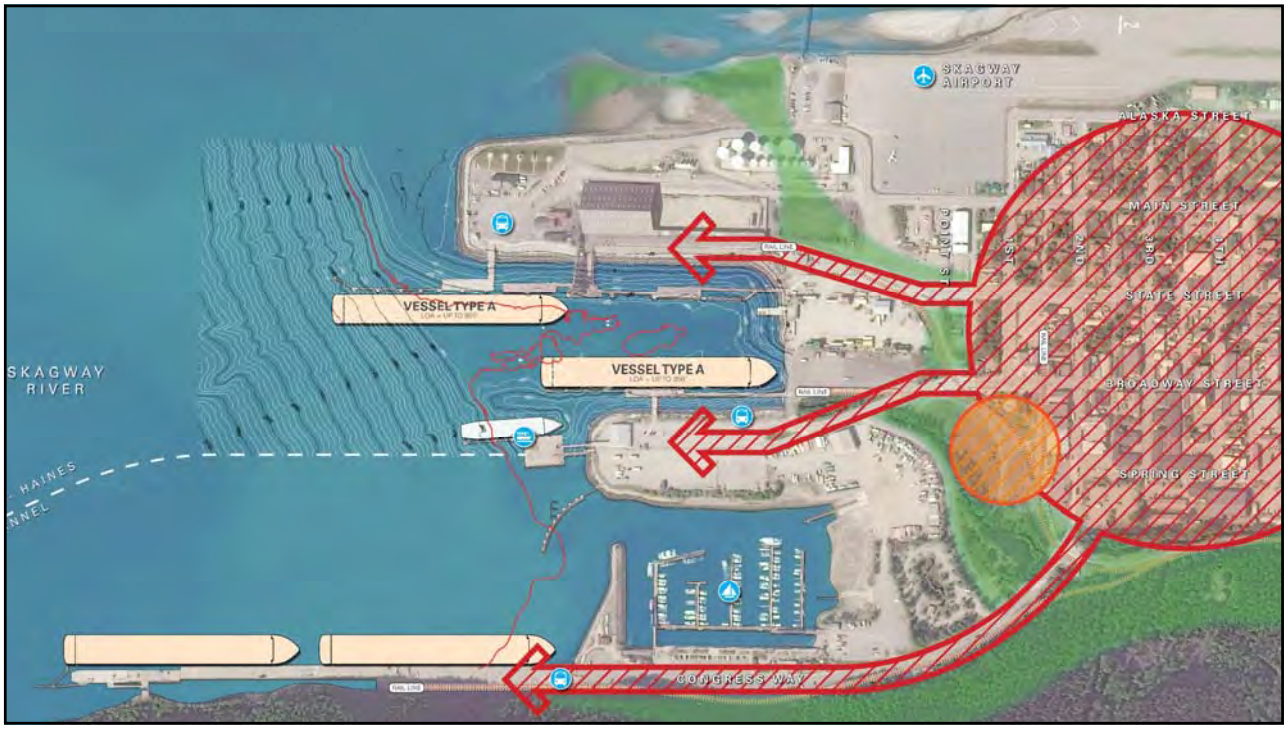
CONGRESS WAY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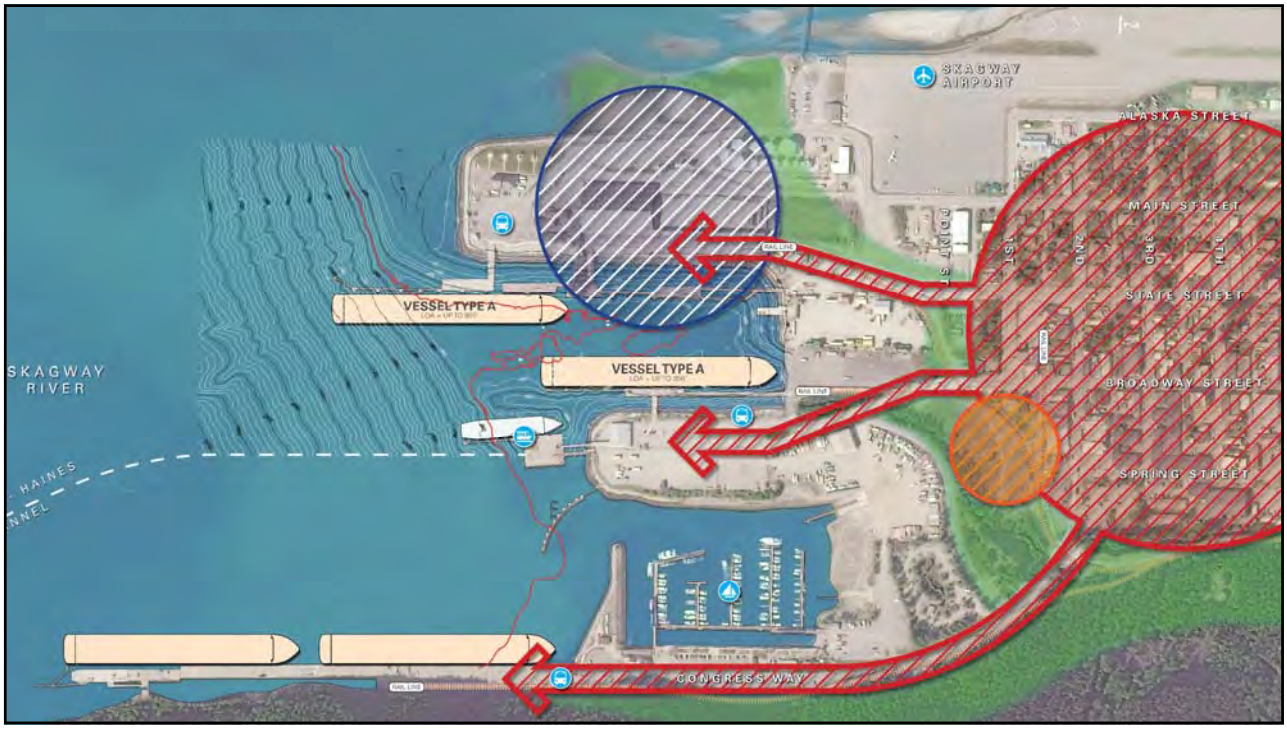
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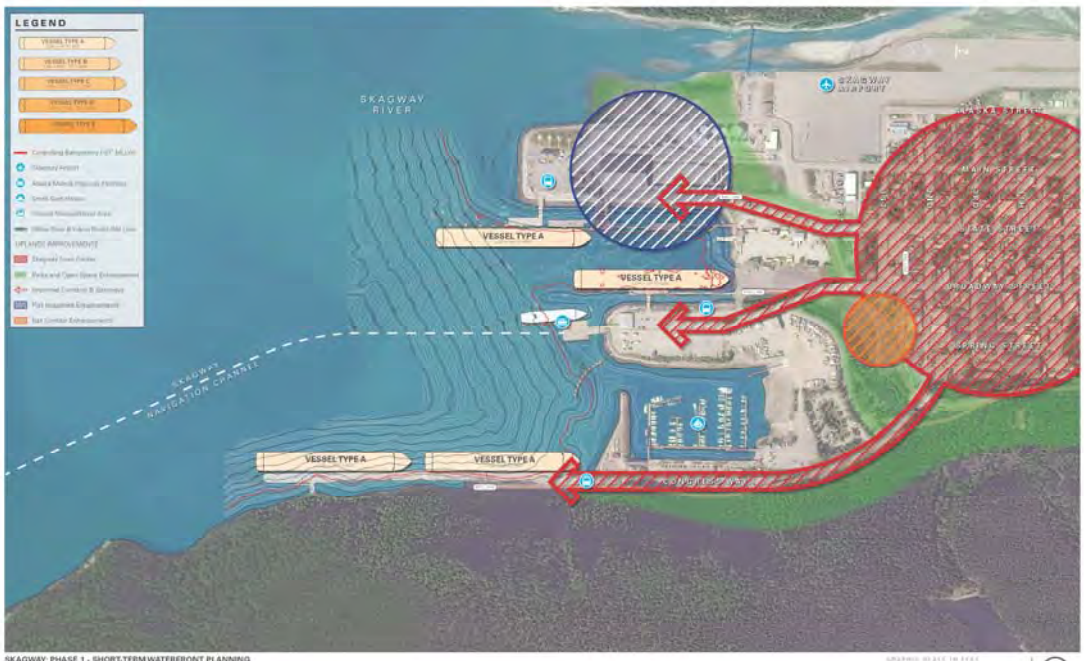
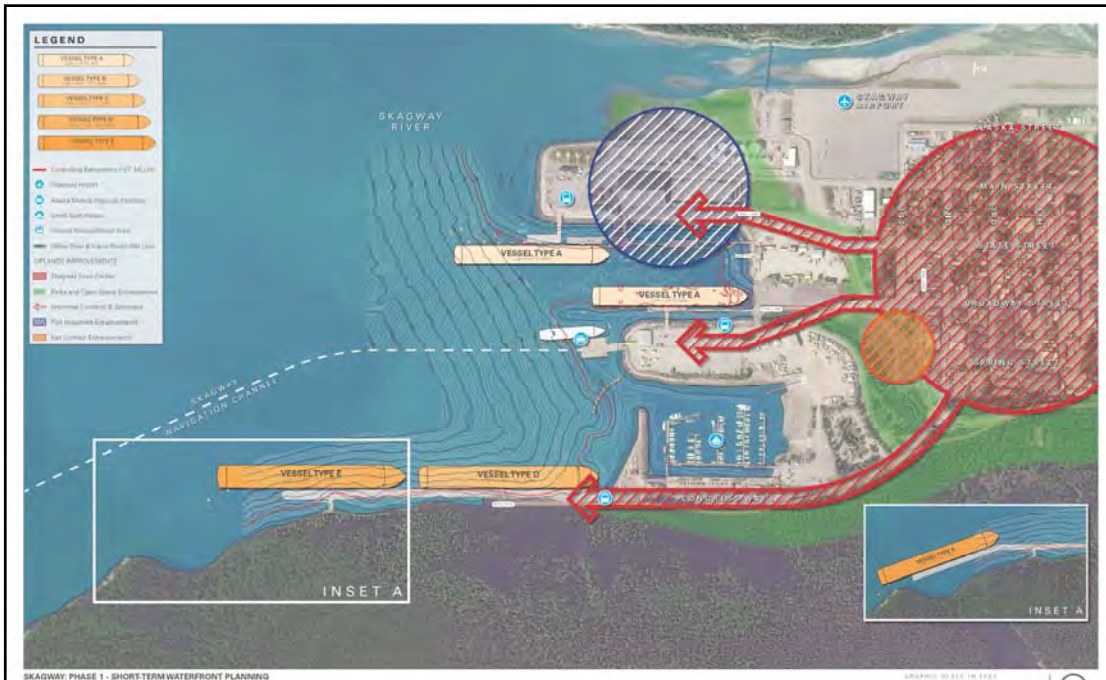
CONGRESS WAY



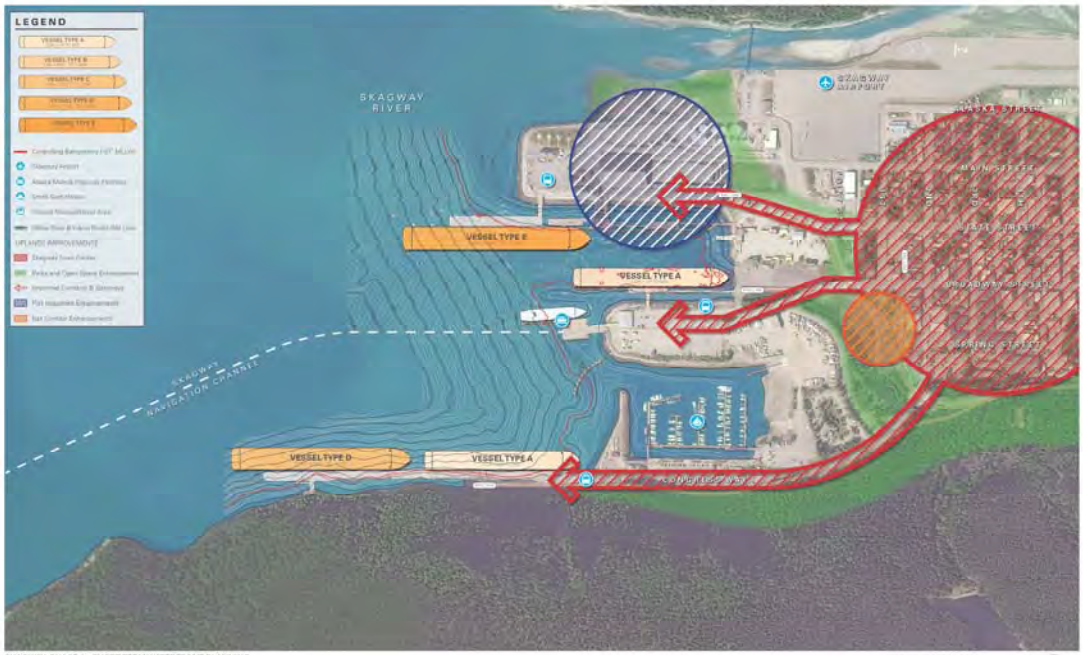
OPTION 1

Baseline with Limited In-Water and Landside Improvement



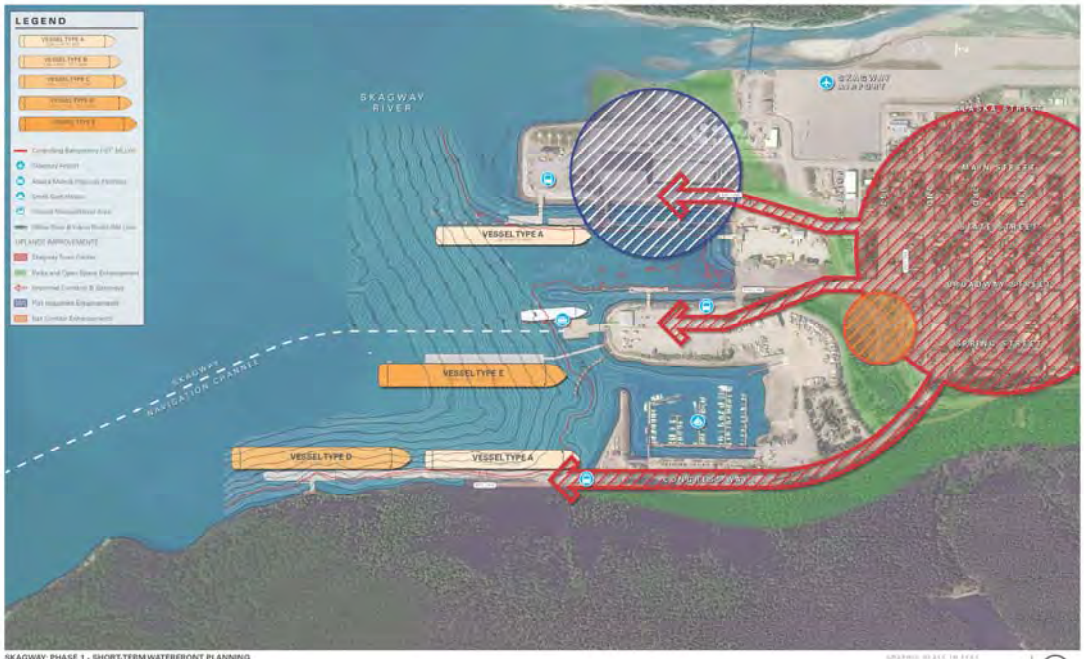
OPTION 2

Extend Rail Dock



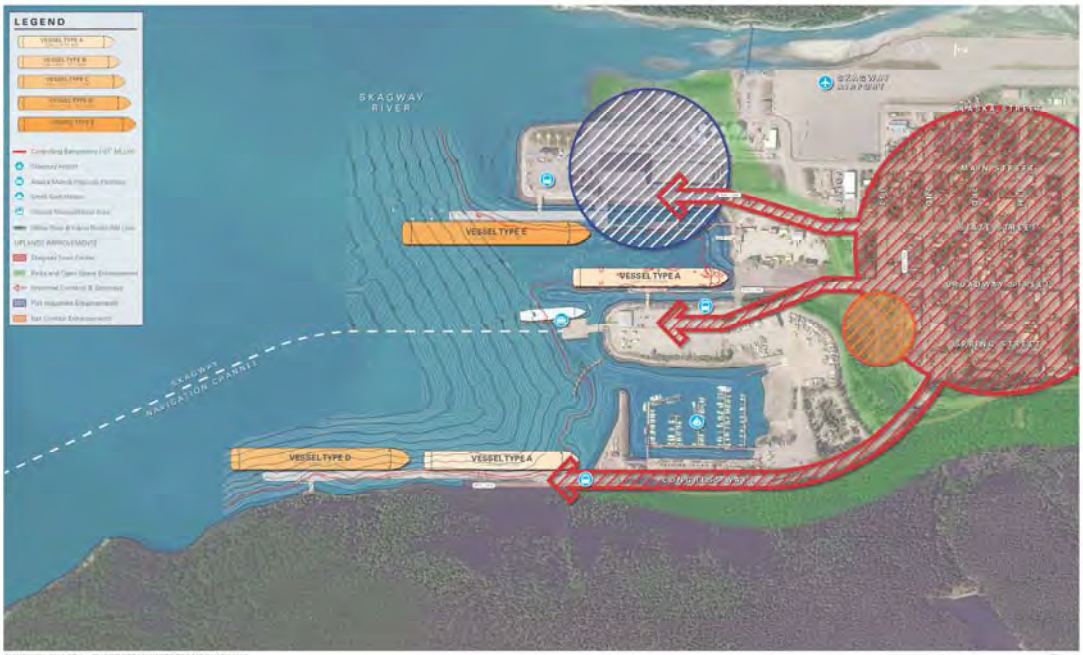
OPTION 3

Extend Rail Dock and Redevelop Northern Vessel Float



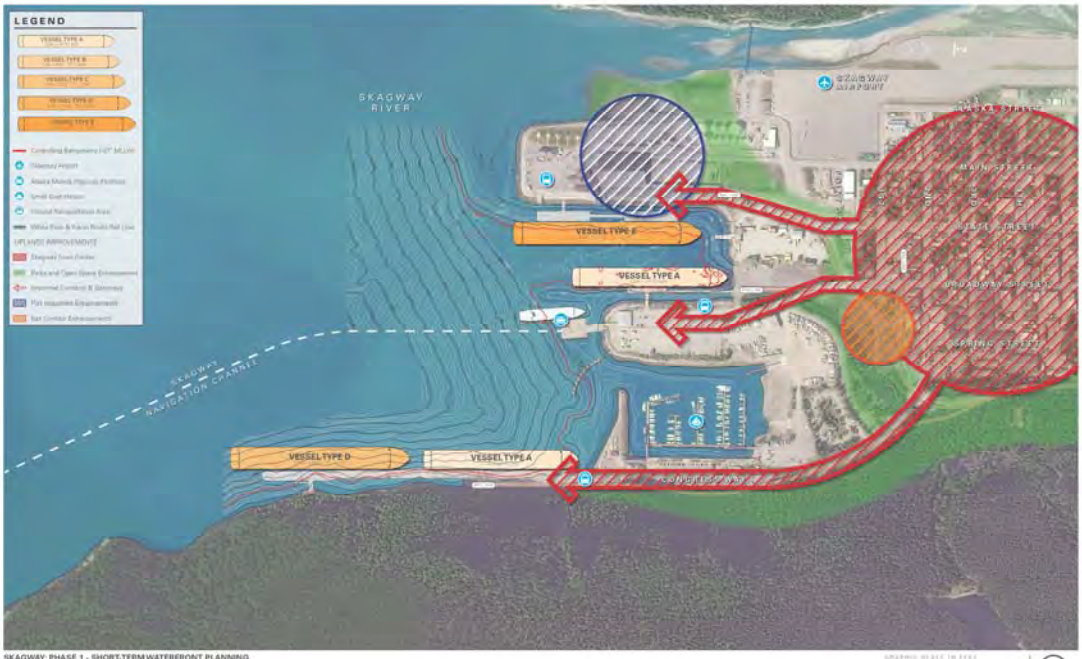
OPTION 4

Extend Rail Dock and New Vessel Float at City Dock



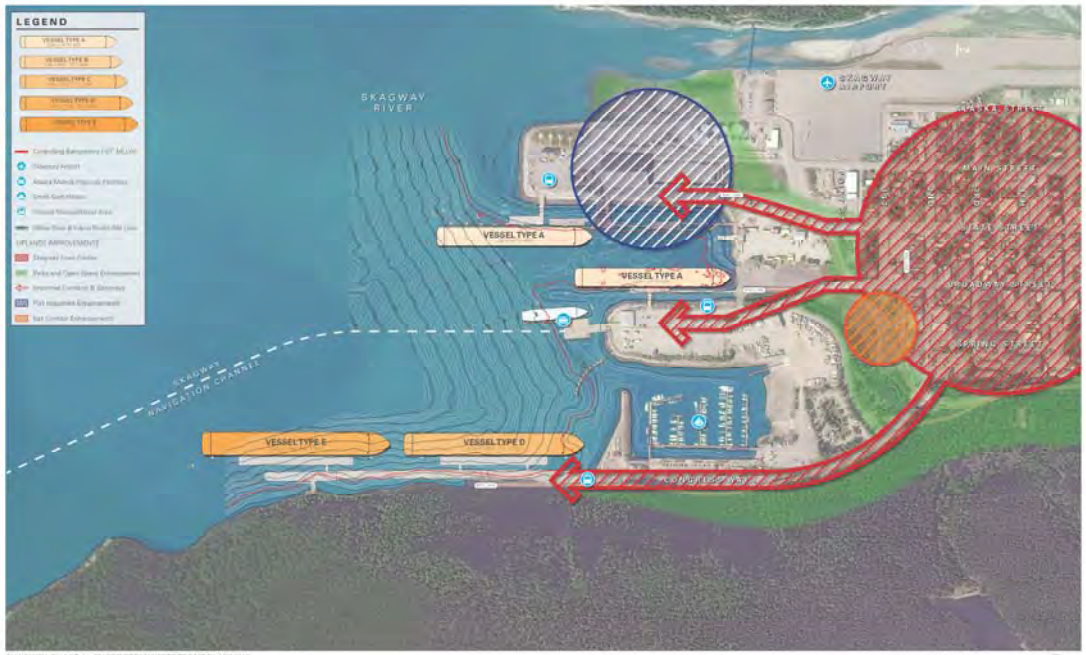
OPTION 5

Extend Rail Dock and Redevelop Ore Dock and North Float



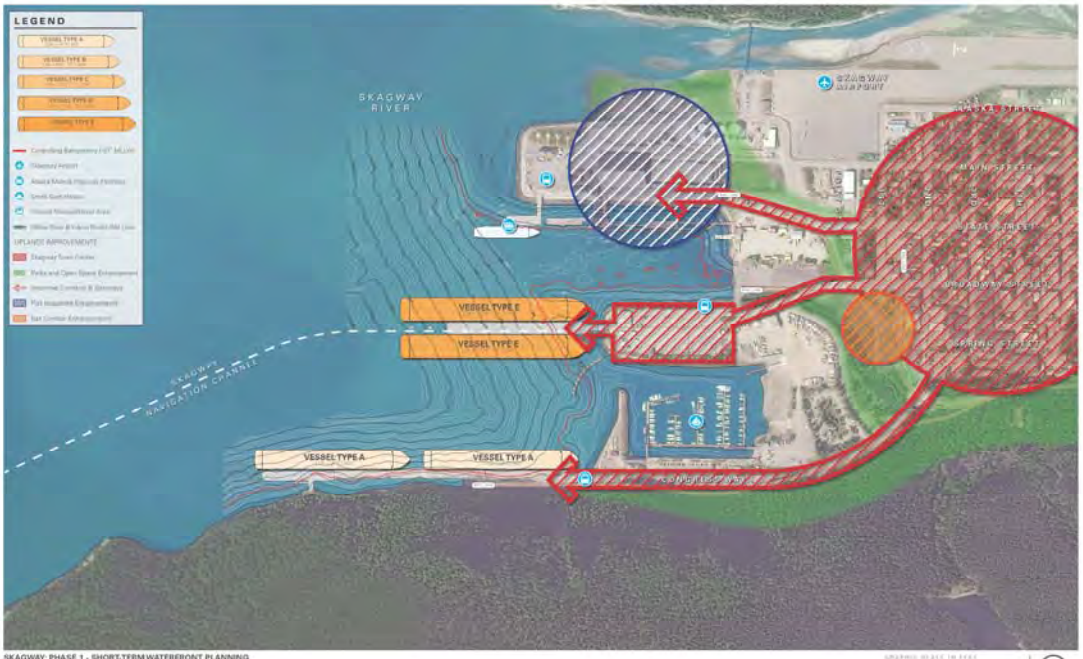
OPTION 6

Extend Rail Dock and Redevelop Ore Dock, AML and North Floats



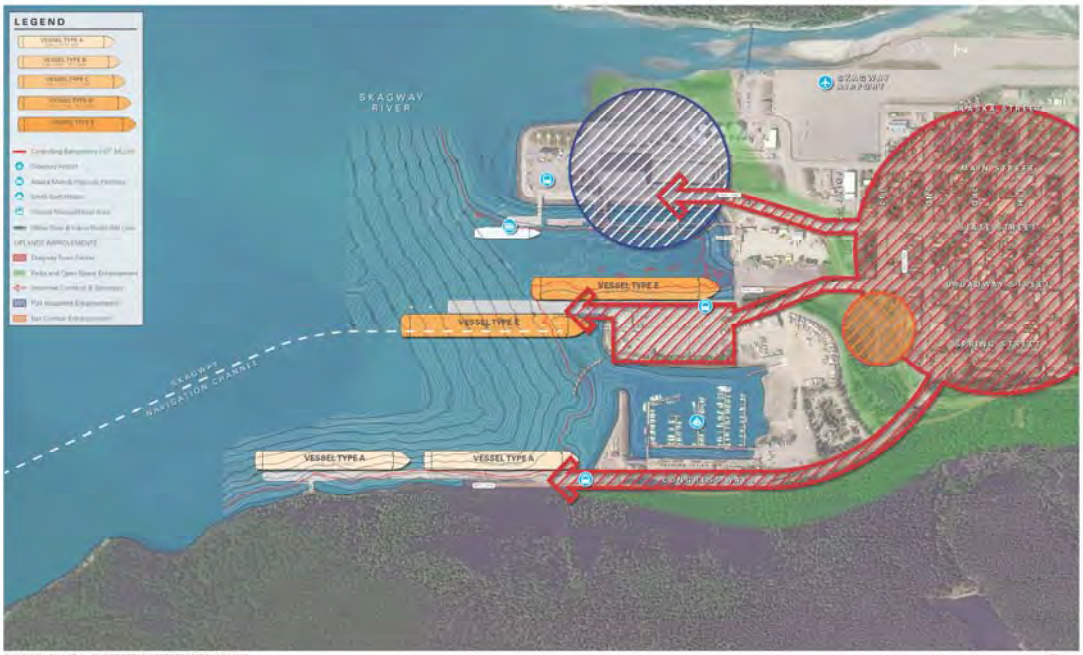
OPTION 7

Develop new Vessel Floats along the Present Rail Dock



OPTION 8

New AMHS Float and Redevelop City Dock (Version 1)



OPTION 9

New AMHS Float and Redevelop City Dock (Version 2)

- 59 -

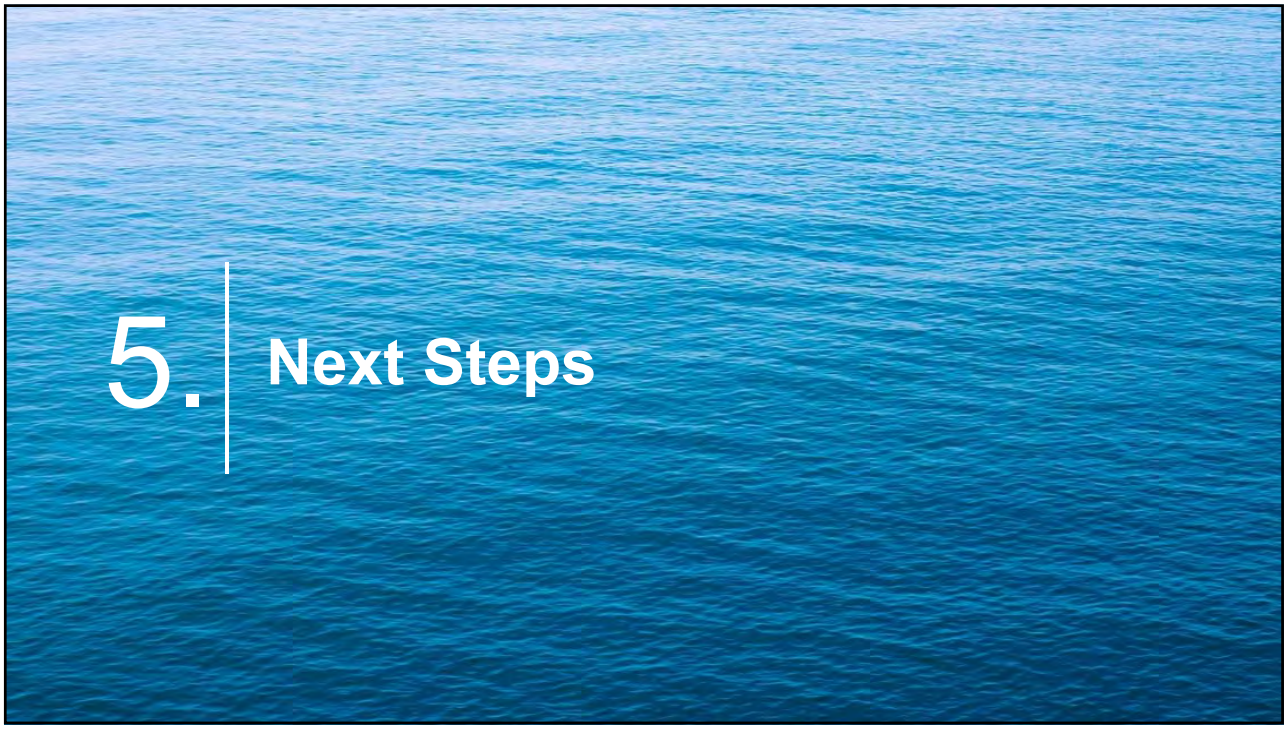
Evaluating Alternatives: The Matrix

	Option 1	Option 2	Option …
1. Meets Future Capacity Needs	●	●	●
2. Passenger Preference	●	●	●
3. User Preference	●	●	….
4. Local Business Preference	●	….	….
5. Separates Tourism from Port Industries	….	….	….
6. Maintains a Diverse Waterfront	….	….	….
7. Beneficial to Skagway Quality of Life	….	….	….
8. Cruise Ship Navigation	….	….	….
9. Construction Costs	….	….	….
10. Phasing	….	….	….
11. Environmental Impact	….	….	….
12. Construction Downtime	….	….	….
13. ……	….	….	….
SCORING	#	#	#

LEGEND

- ● Beneficial / Positive
- ● Neutral / Average
- ● Challenging / Adverse

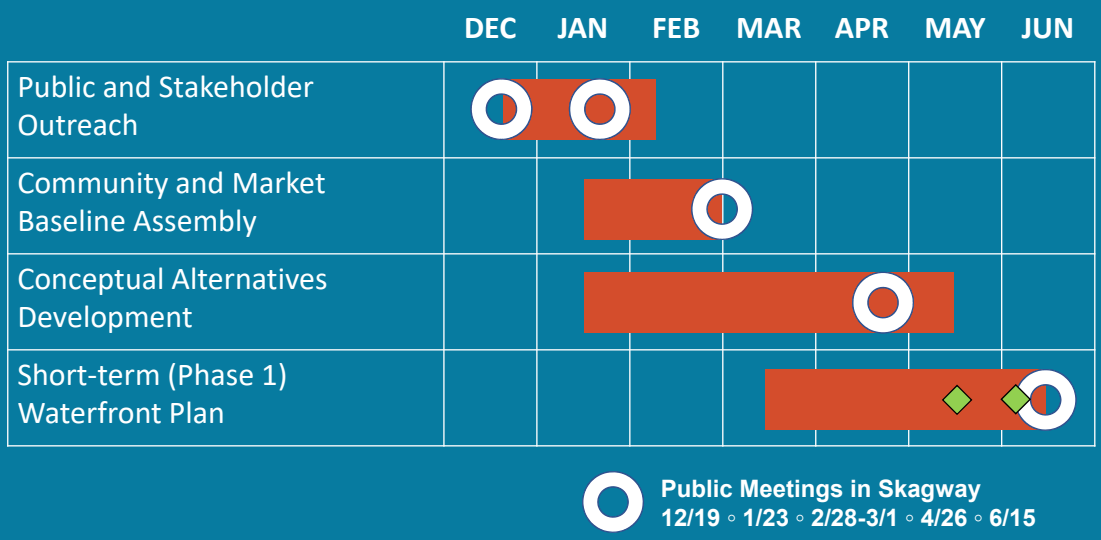
Question: What criteria should we use to evaluate options? What's most important?



NEXT STEPS

- Assemble feedback from Community Work Session Two and other ongoing stakeholder meetings and discussions
- Prepare a revised set of detailed conceptual alternatives which address short-term needs
- Complete our initial waterfront real estate valuation
- Hold Community Work Session Three: “Skagway’s Short-Term Waterfront Needs” on April 26th
- Prepare and submit the Short-Term Waterfront Plan
- Hold our final presentation for the Plan on June 15th
- Discuss the scope of work for long range waterfront planning

Skagway Port Planning Schedule (Phase 1)




Community Work Session #2
Skagway's Waterfront, Past and Present
Skagway Port Planning (Phase 1)
Feb 28, 2017
moffatt & nichol

APPENDIX A-3

Community Meeting #3
Skagway's Short Term Waterfront Needs
Skagway Port Planning (Phase 1)

April 26, 2017

moffatt & nichol

Objectives of Community Work Session Three

- Recap feedback from Community Work Session Two
- Discuss the framework for the waterfront and how this informs short term approaches to investment
- Present short term planning approaches to meeting waterfront needs
- Discuss how short terms efforts are linked to long terms ideas and work moving forward
- Recap next steps moving forward
- Listen, learn and encourage continued dialog

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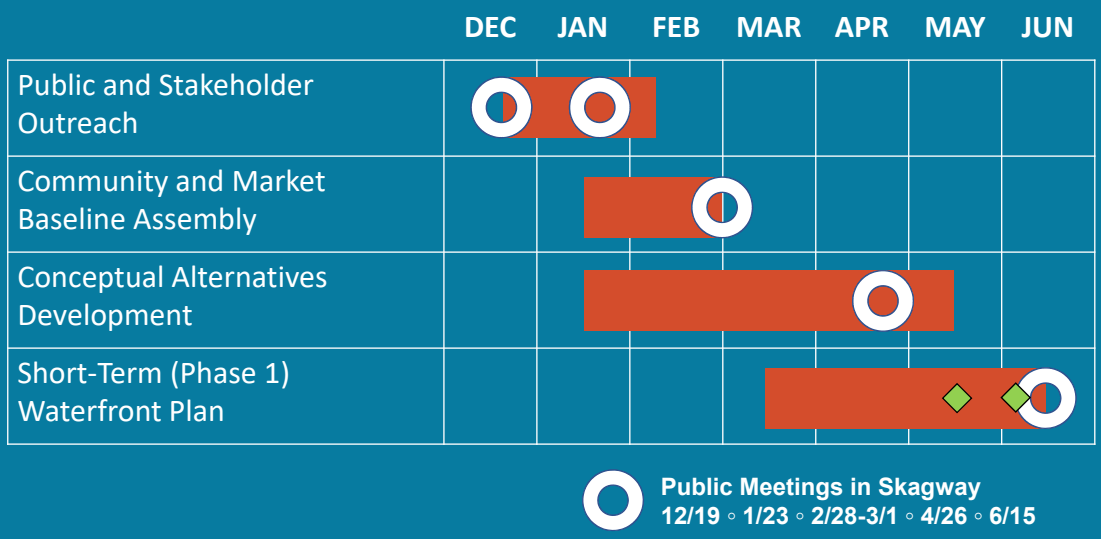
Project Objectives – Phase 1

- **Define a clear program of short-term improvements geared to address immediate port needs and +$8 million in grants**
- Engage the Skagway community, making sure their needs and desires are understood and translated in a meaningful way into short-and long-term waterfront project efforts
- Rebuild trust with the community through planning efforts, allowing project work to make strong inroads in dealing with long standing waterfront challenges and opportunities
- Formulate a planning framework that will help guide waterfront initiatives
  - *Should consider future growth, sustainability and the ultimate prosperity of Skagway*
- Work to identify a clear path to ensure clean-up of legacy harbor contamination

Skagway Port Planning Schedule (Phase 1)

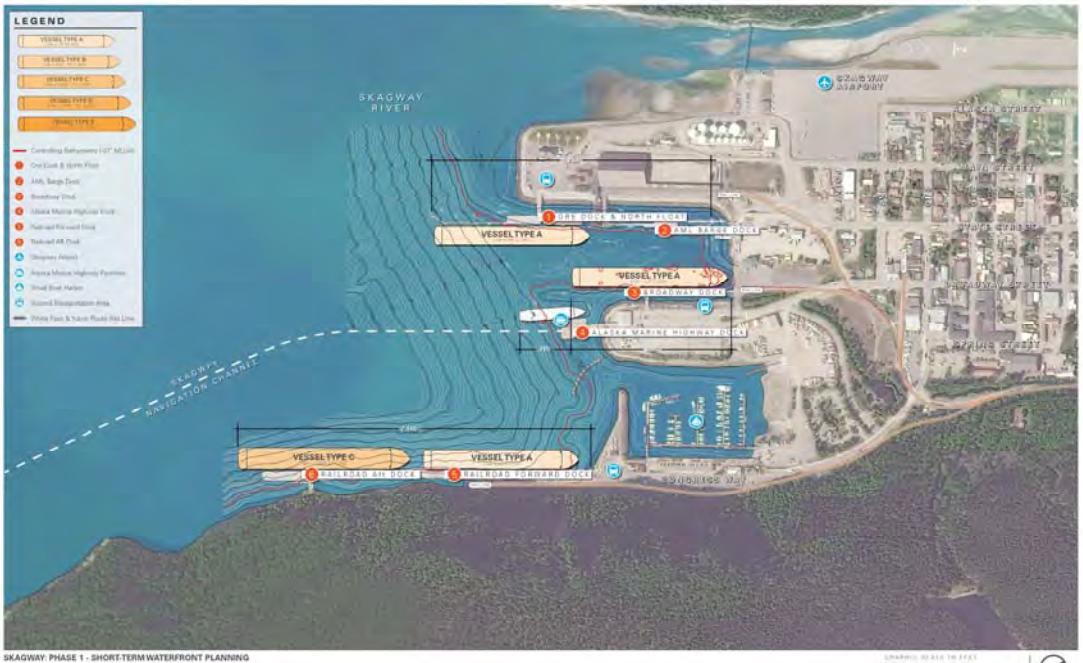


Value of the Waterfront as a Community Asset

Access
Venues
Lifestyle
Views

Goods for Consumption
Transport
Tourism
Economic Impact

Essential Habitat
Resource
Community Image



SKAGWAY PHASE 1 - SHORT-TERM WATERFRONT PLANNING
REVISED CRUISE STUDIES
OVERALL LOCATION PLAN

CURRENT

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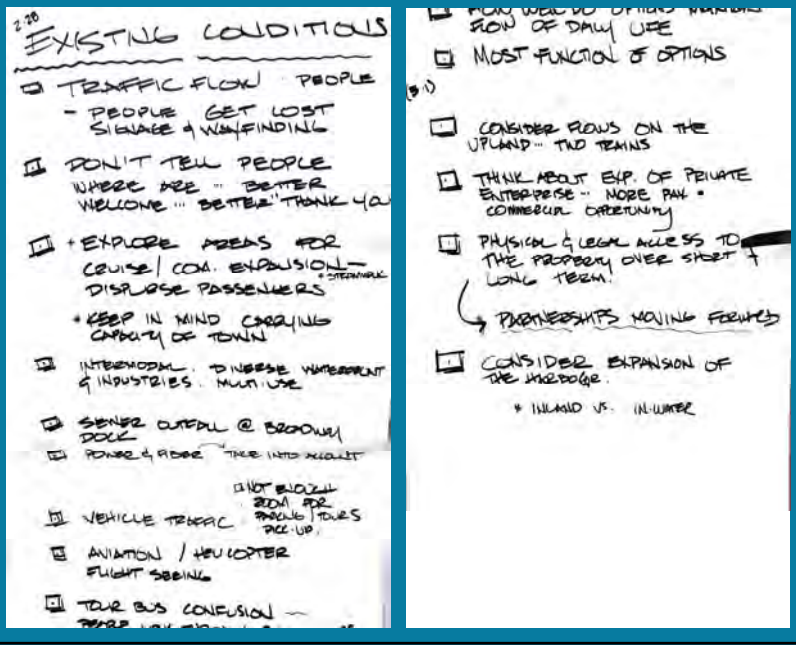
Observations and Thoughts: Docks

- One Ore Dock, many challenges
  - *Contamination of the Ore Dock*
  - *Poor position of the Ore Loader; obsolete*
  - *Dock is in deteriorating condition*
- Limited space between Ore and Broadway Docks
- Conflict between cargo and cruise operations
- Underutilized stretches of adjacent waterfront land
  - *Poor pedestrian connections between the northern docks and the community*
- Most improvements are expensive given adjacent deep water
- AMHS ferry monopolizes a huge, strategic portion of the waterfront
- Iconic Alaskan port

Observations and Thoughts: Environment

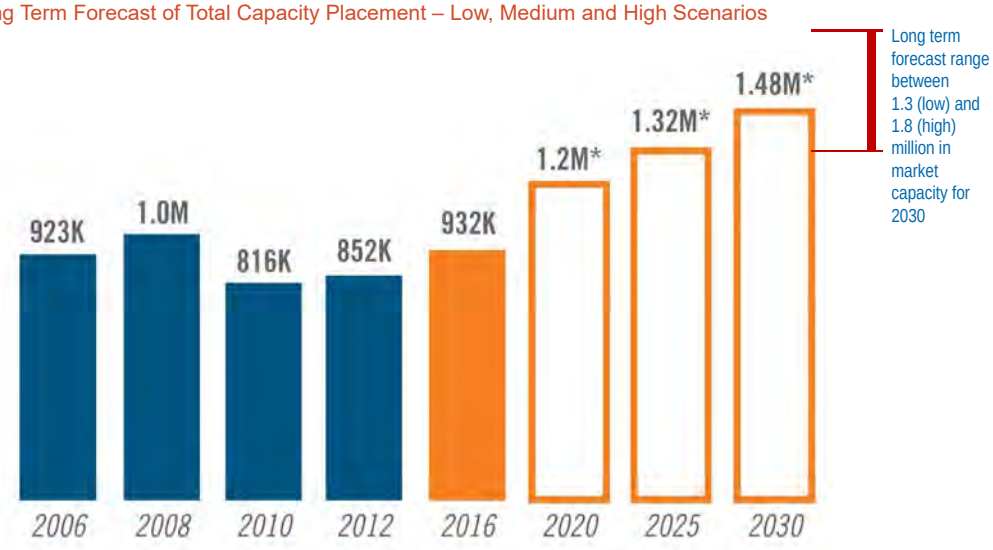
- Legacy environmental contamination in the harbor
  - *Ore Dock, Loader and adjacent harbor*
  - *Source of contamination*
  - *Any dredging and work will need to address contamination*
- Regulatory compliance of cruise ships, the small boat harbor and other operations
  - *Explore the potential for improved best management practices*
- Opportunity for deeper integration of the waterfront with the surrounding natural environment
  - *Parks, greenways and open spaces*
  - *Provision of habitat for nesting birds and other wildlife*

Existing Conditions – Public Comments



Forecast of Alaskan Capacity

Long Term Forecast of Total Capacity Placement – Low, Medium and High Scenarios



*Sources: CIN, CLIA and Moffatt & Nichol, 2017; *Projections prepared by Moffatt & Nichol, 2017.*

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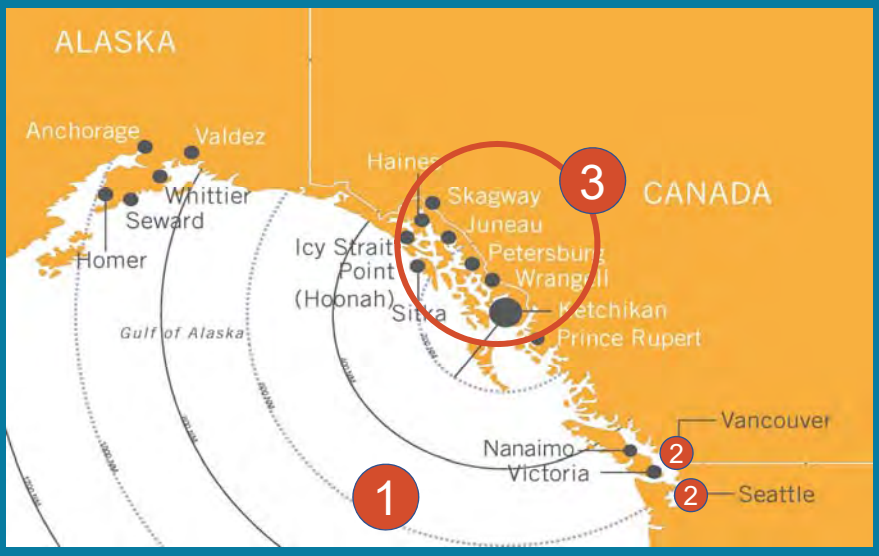
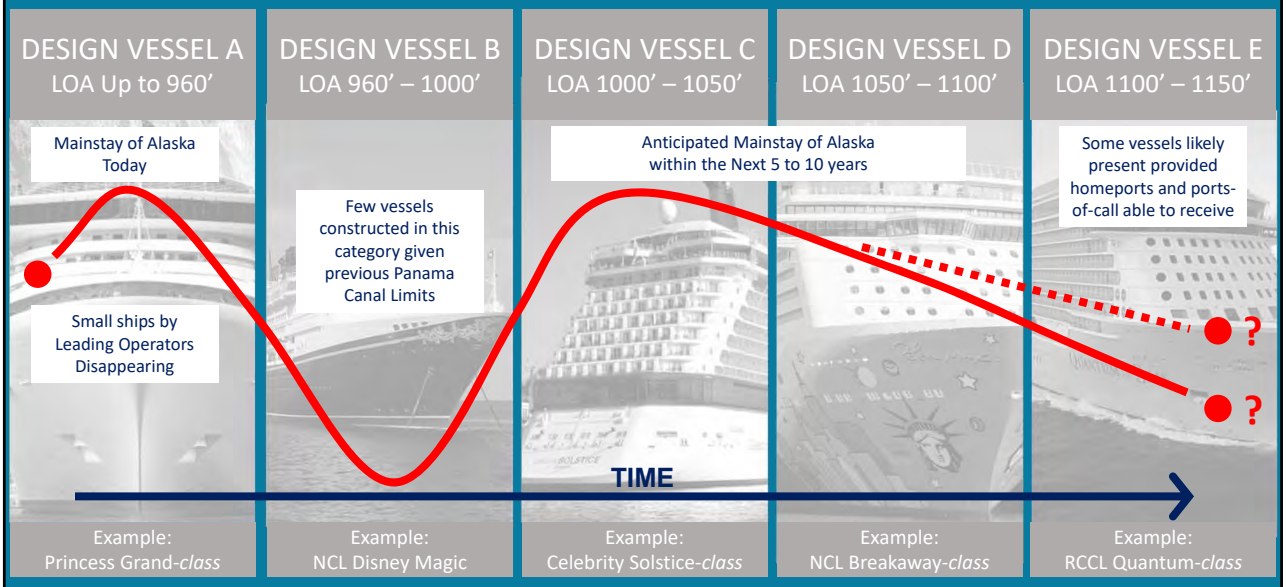
Future Deployment: A Balanced System



1. Can capacity get to the region?
   Yes, Panama Canal limits minimized.
2. Can key homeports support this capacity?
   Yes, Seattle and Vancouver can accommodate large vessels.
3. Can key ports-of-call support this capacity?
   Maybe. Work to be done.

Sources: CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017.

Design Vessel Considerations for Alaska



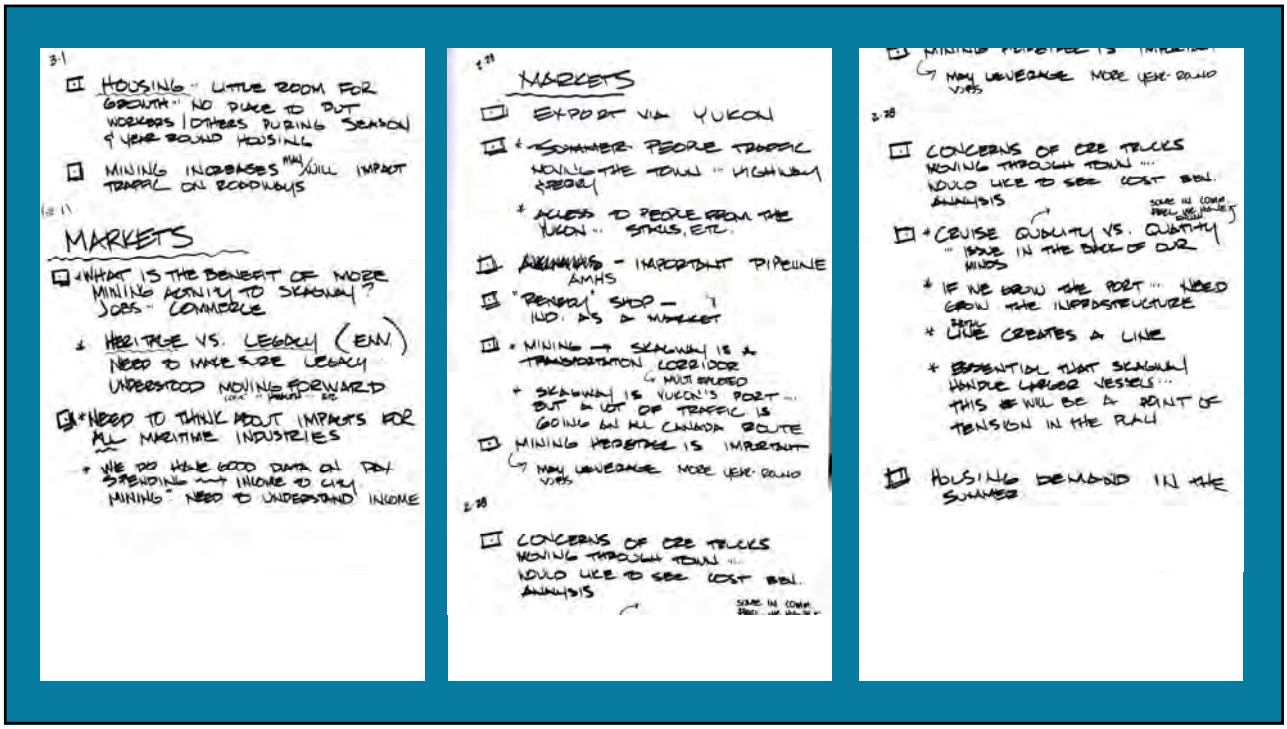
Sources: CIN, CLIA, CLAA, Cruise Lines Meetings and Moffatt & Nichol, 2017

Mineral Production in the Yukon

- Real GDP for mining declined by 12% in 2014 and 41% in 2015
- Similar trend for oil and gas extraction and their support activities
- Real GDP for entire territory declined by 6% in 2015 although Canada grew by 2.6%
- Potential and existing exports in the Yukon
  - *Asbestos, Nickel, Barite, Selenium, Copper, Silver, Gold, Tungsten, Lead, Uranium, Molybdenum, Zinc*
- Currently produces copper, gold, lead, silver and zinc

Mining – Known Challenges

- Ore Dock (old section) in “poor to very poor” condition
- Legacy contamination issues in Ore Basin
- Existing shiploader is obsolete
  - *Over 25 years old*
  - *Stationary → requires repositioning of ships during loading*
  - *Challenging to operate under current environmental best practices*
  - *Mines desire radial or mobile shiploader for efficient loading*
- AIDEA/WPYR lease expires 2023 (concurrent with Skagway/WPYR lease)
  - *Reinvestment will require economic analysis & AIDEA Board approval*
- Supply is market-driven & sensitive to commodity prices
- Mining & shipping to tidewater less expensive in summer
- Smelting expensive in winter due to cost of energy (hydro in summer; fossil fuels in winter)



- HOUSING - LITTLE ROOM FOR GROWTH - NO PLACE TO PUT WORKERS / OTHERS DURING SEASON & YEAR ROUND HOUSING
- MINING INCREASES MAY/WILL IMPACT TRAFFIC ON ROADWAYS

MARKETS

- WHAT IS THE BENEFIT OF MORE MINING ACTIVITY TO SKAGWAY? JOBS - COMMERCE
  - HERITAGE VS. LEGACY (ENV.) NEED TO MAKE SURE LEGACY UNDERSTOOD MOVING FORWARD
- NEED TO THINK ABOUT IMPACTS FOR ALL MARITIME INDUSTRIES
  - WE DO HAVE GOOD DATA ON PAX SPENDING — INCOME TO CITY MINING - NEED TO UNDERSTAND INCOME

MARKETS

- EXPORT VIA YUKON
- + SUMMER PEOPLE TRAFFIC MOVING THE TOWN - HIGHLIGHT STREET
  - ACCESS TO PEOPLE FROM THE YUKON - STATS, ETC.
- AMHS - IMPORTANT PIPELINE
- "RESIDENT" SHOP — IND. AS A MARKET
- MINING → SKAGWAY IS A TRANSPORTATION CORRIDOR
  - MULTI MODES
  - + SKAGWAY IS YUKON'S PORT - BUT A LOT OF TRAFFIC IS GOING ON ALL CANADA ROUTE
- MINING HERITAGE IS IMPORTANT
  - MAY LEVERAGE MORE VER. BOUND VISITS

- CONCERNS OF CRE TRUCKS MOVING THROUGH TOWN - WOULD LIKE TO SEE COST BEN. ANALYSIS

- MINING HERITAGE IS IMPORTANT
  - MAY LEVERAGE MORE VER. BOUND VISITS

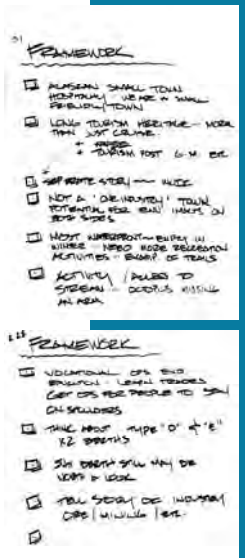
- CONCERNS OF CRE TRUCKS MOVING THROUGH TOWN - WOULD LIKE TO SEE COST BEN. ANALYSIS
  - + CRUISE QUALITY VS. QUANTITY - ISSUE IN THE BACK OF OUR MINDS
  - + IF WE GROW THE PORT - NEED GROW THE INFRASTRUCTURE
  - + CRUISE CREATES A LINE
  - + ESSENTIAL THAT SKAGWAY HANDLE LARGER VESSELS - THIS WE WILL BE A POINT OF TENSION IN THE PLAN
- HOUSING DEMAND IN THE SUMMER

3. Solidifying the Planning Framework for Skagway's Waterfront

The planning framework are the features that remain true for each design alternative. They serve as the foundation…the defensible "why's" underpinning the plan.

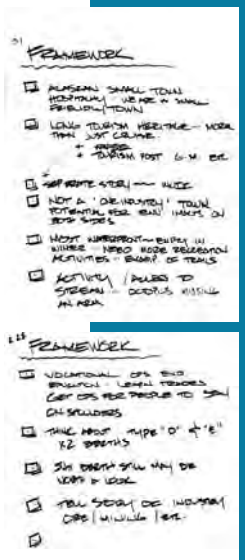
Learning from the Community

- Ensure environmental clean-up of Ore Basin advances and put into place regulations and best practices to safeguard the harbor from future contamination
- Seek approaches to separate tourism from industrial activities
  - *Public safety; portrayal of community image; lessen impacts to both industries*
- Embrace planning approaches that foster a year-round economy
  - *Swings in population between summer / winter create challenges*
- Continue the high quality delivery of the Skagway experience
  - *Tell our story in compelling ways to visitors and our future generation*
- Seek balance between our past and our future promise
- **** Find opportunities for life-long learning and vocations ****



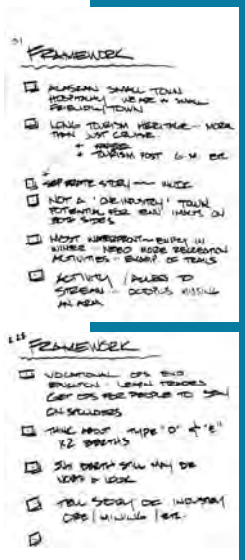
Learning from the Market

- We are the Gateway to the Yukon; we are geographically and economically unique
- Cruise activities have room for growth
  - *Growth will occur predominately through replacement of Panamax (Type A) vessels with larger, 1,100+ LOA ships (Type D and E)*
  - ***** Have long term flexibility for a 5th berth for large vessels *****
- Short term prospects for growth in mining activities are nominal
- Maintaining waterfront and port diversity is essential. Each element has purpose. Diversity provides economic flexibility to embrace future market opportunities
- White Pass is a core economic engine in the community
  - *The railroad is an essential aspect of the cruise offer*
  - *Growth in cruise volumes presents opportunities to enhance operations*

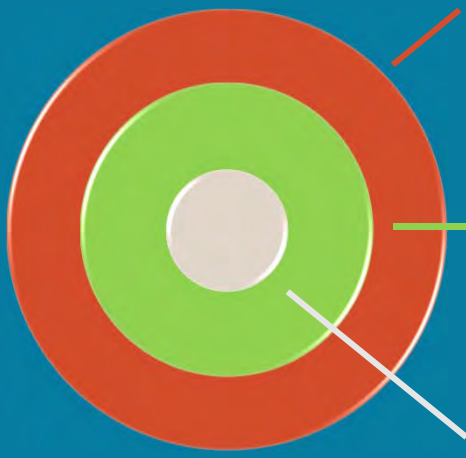


Learning from Planning Best Practices

- Make connections. Foster creation of interconnected, walkable green areas, streets, and commercial zones accessible for all.
  - ***** Create improved linkages to the steam area and hiking trails *****
- Embrace a diversity of uses. Create spaces for residents, visitors, AMHS travelers and other guests.
- Allow the public to view, approach, walk along, and touch the water's edge. Provide opportunities to get onto the water.
- Foster Innovation. Be inventive. Plan for the work…and the worker…of the future. Allow community design to flex to future need and technologies.
- Tell Your Authentic Story. Allow the waterfront to look forward and back…explore memory and prophecy.
  - ***** We are a small, friendly town *****
  - ***** Tell stories about our working heritage *****



Framework Synopsis



Community Desire

Ore Basin Clean-up (!!)
Separate Tourism and Industry
Embrace a Year Round Economy
Community Life Long Learning
Great Guest Experience
Balance Past and Future

Economic Opportunity

Economic Uniqueness
Cruise has Room for Growth
Waterfront and port diversity is essential
Maintain Port Diversity
WPYR is an Economic Engine

Best Planning Practices

Make Connections
Promote Mixed Use
Engage the Water's Edge
Foster Innovation
Tell Your Authentic Story

Question: Is the Framework Complete? What's missing?

4. Short Term Planning Approaches

Transitioning to Short Term Approaches

- Define a clear program of short-term (next 2 years) improvements geared to address immediate port needs and available grant funding of $8 million
- Balance trade-offs associated with near-term alternatives
  - *Market opportunities and their ability to advance economic and social benefit*
  - *Environmental Impacts*
  - *Cost*
  - *Implementation duration*
  - *Implementing entity*
  - *Construction downtime*
- Provide flexibility to allow multiple, long range planning options
  - *In water approaches*
  - *Upland approaches*

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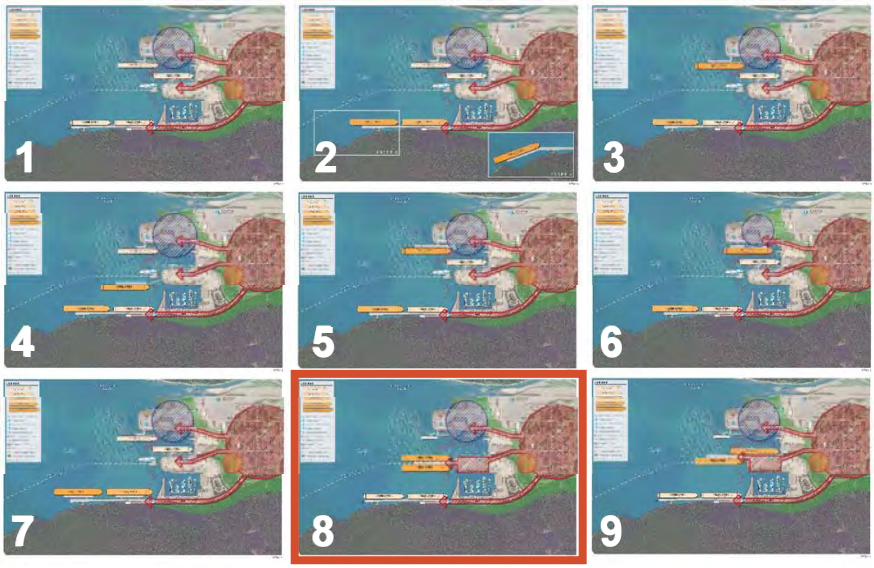
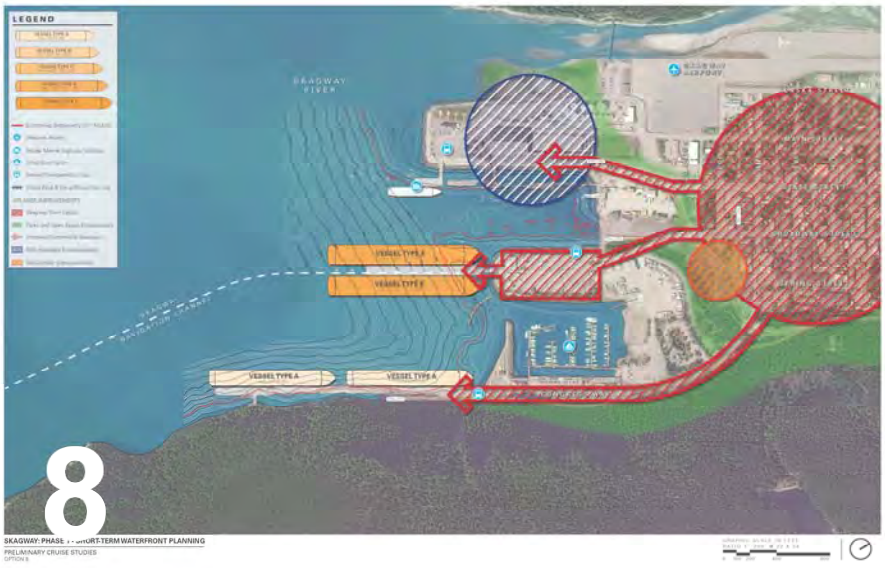
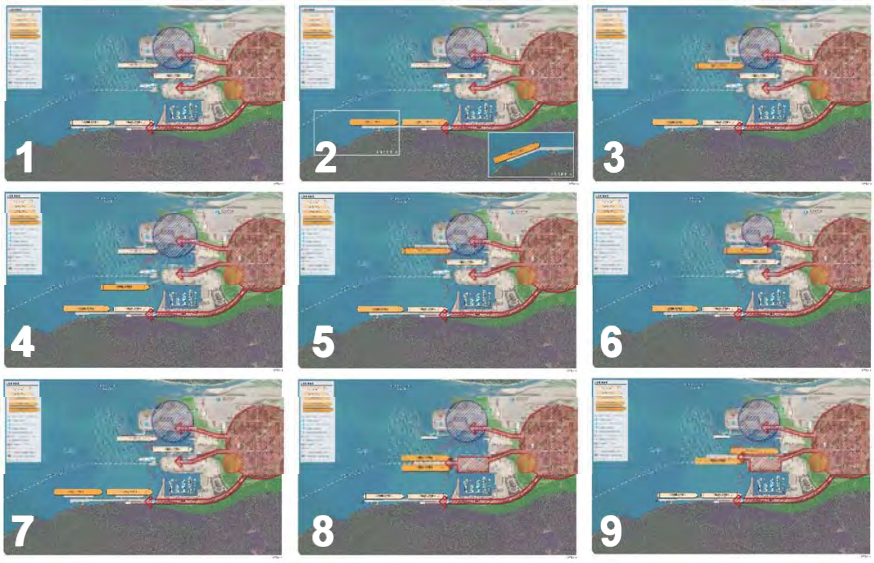
Initial Planning Options



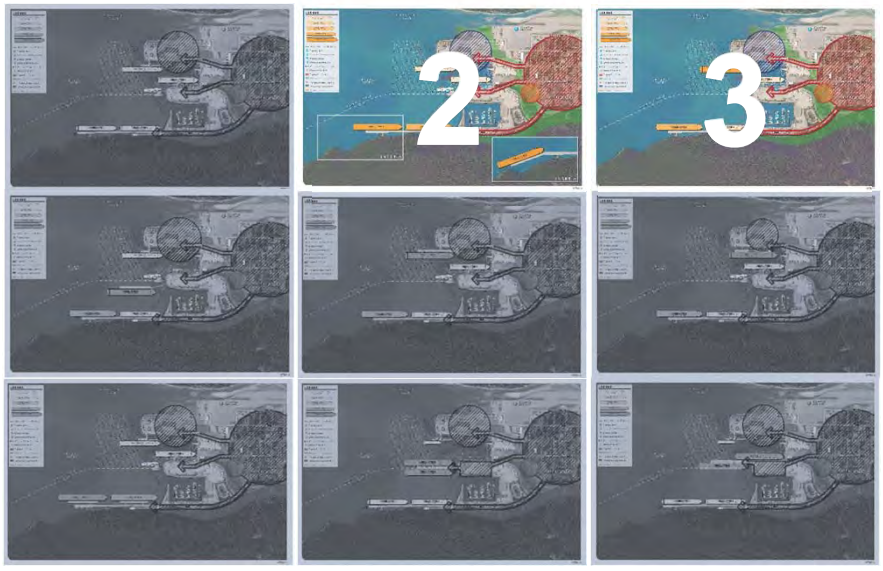
Initial Planning Options

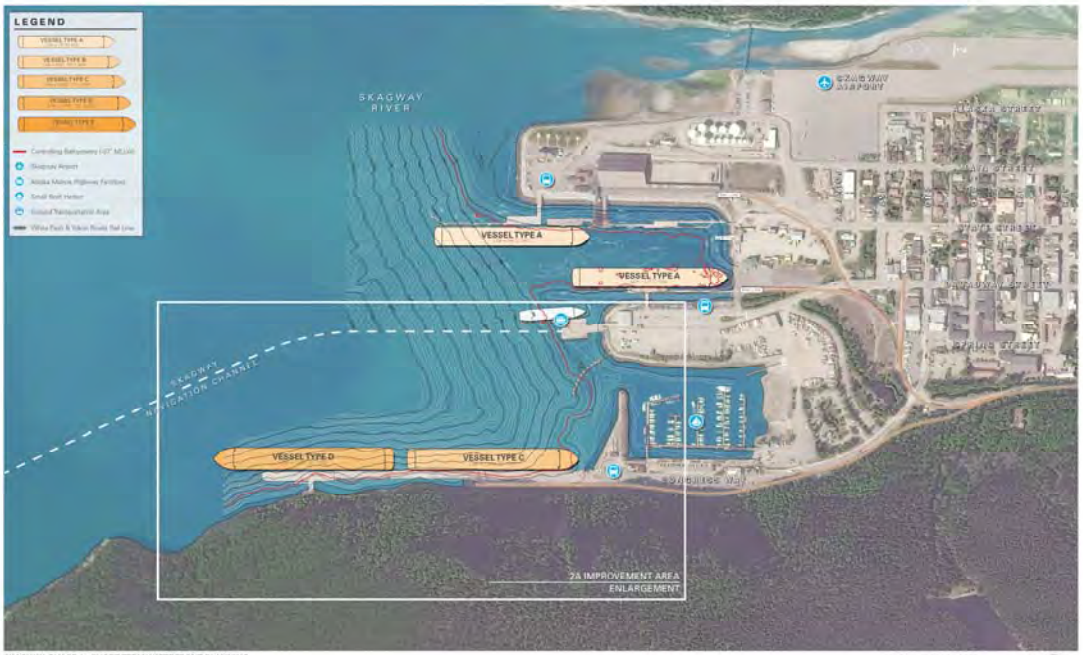


Initial Planning Options



Initial Long Term Planning Options

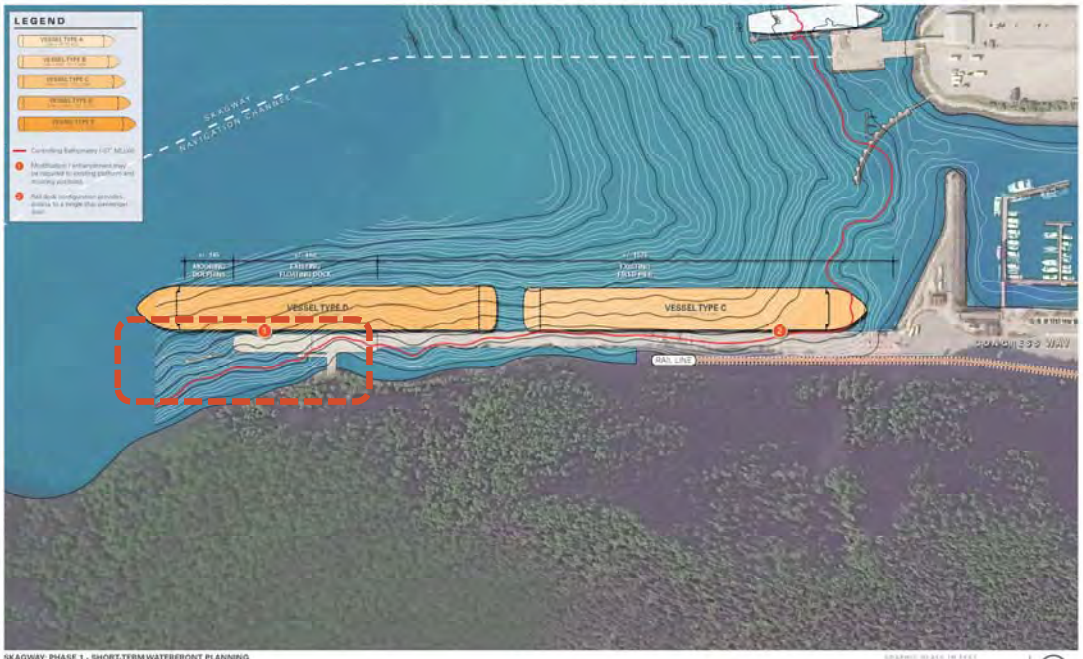




OPTION 2a

Rail Dock Modifications

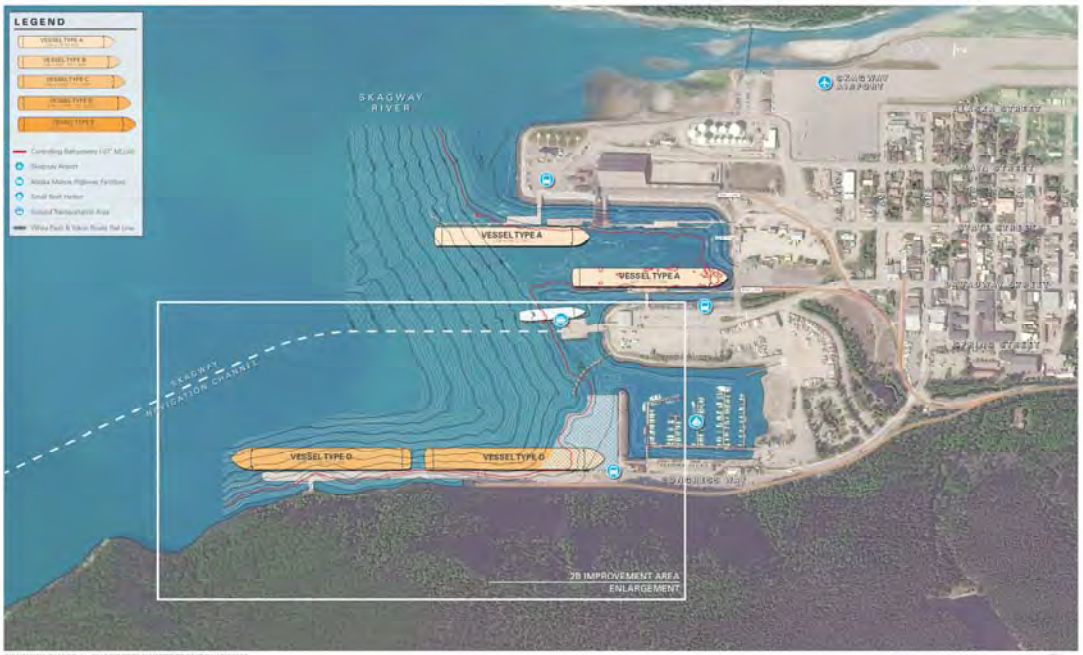
- 31 -



OPTION 2a

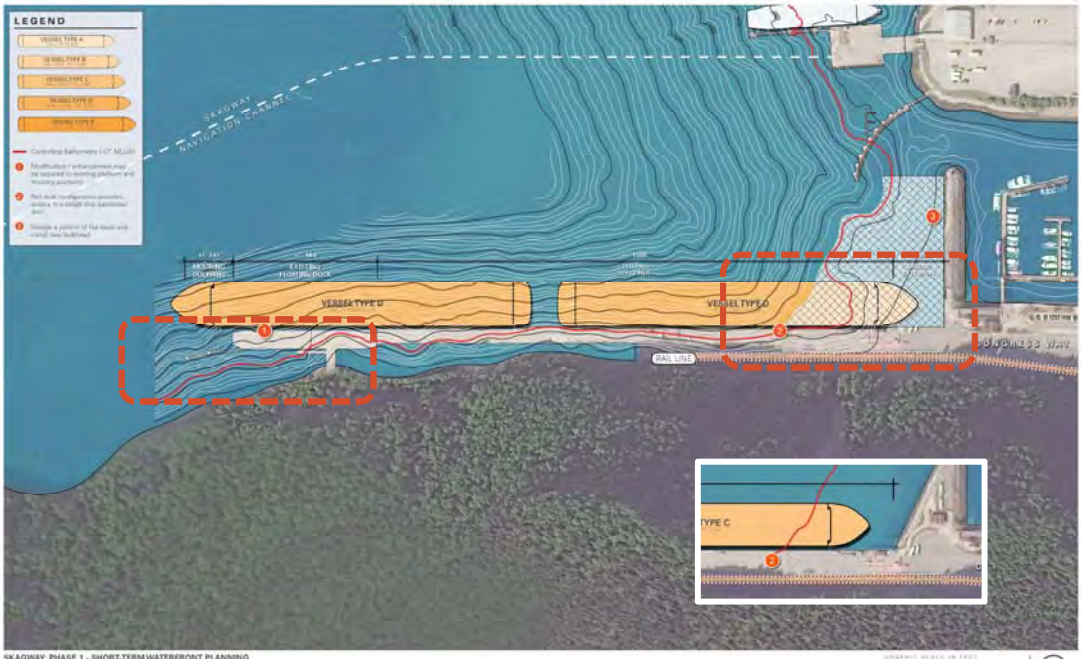
Rail Dock Modifications

- 32 -



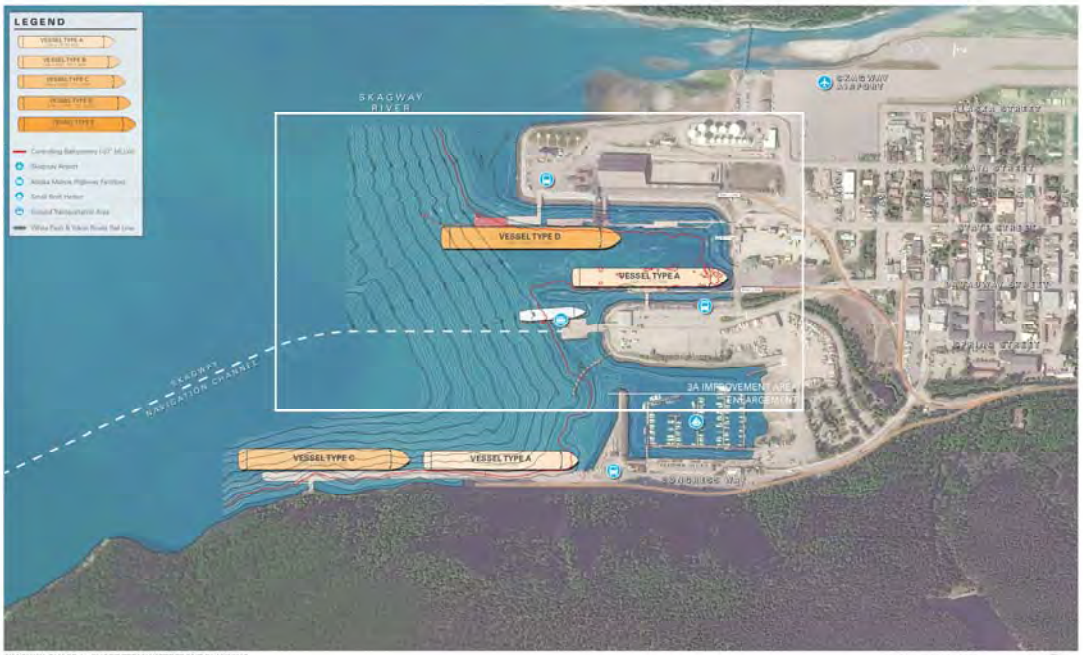
OPTION 2b

Rail Dock Modifications With Dredging Next to Small Boat Harbor



OPTION 2b

Rail Dock Modifications With Dredging Next to Small Boat Harbor



OPTION 3a

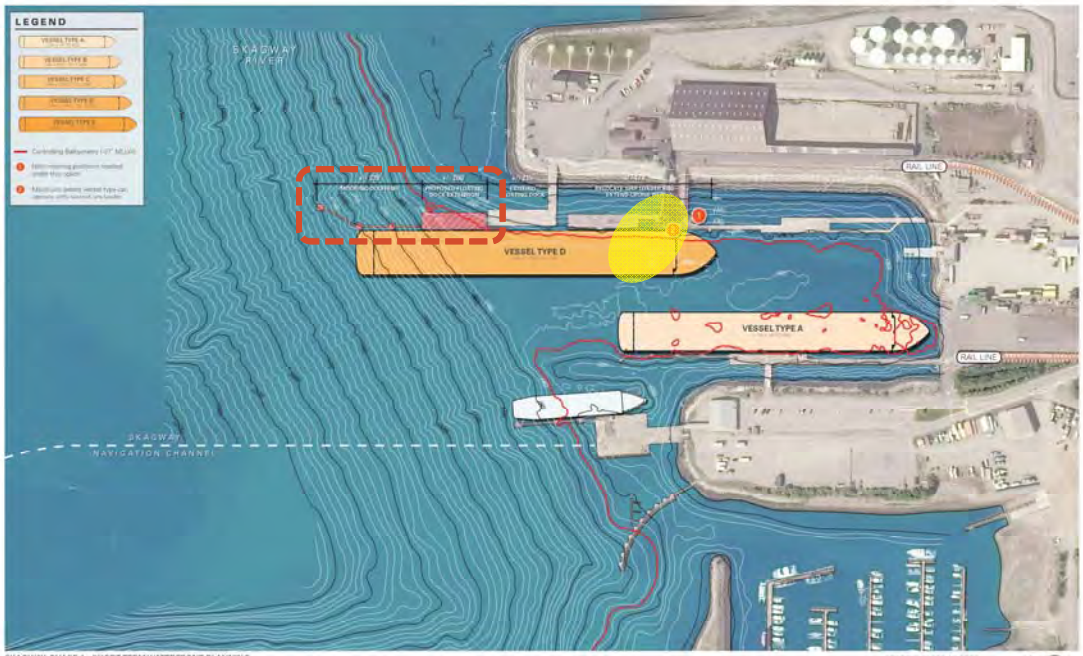
New Outer Float at the Ore Dock

- 35 -

OPTION 3a

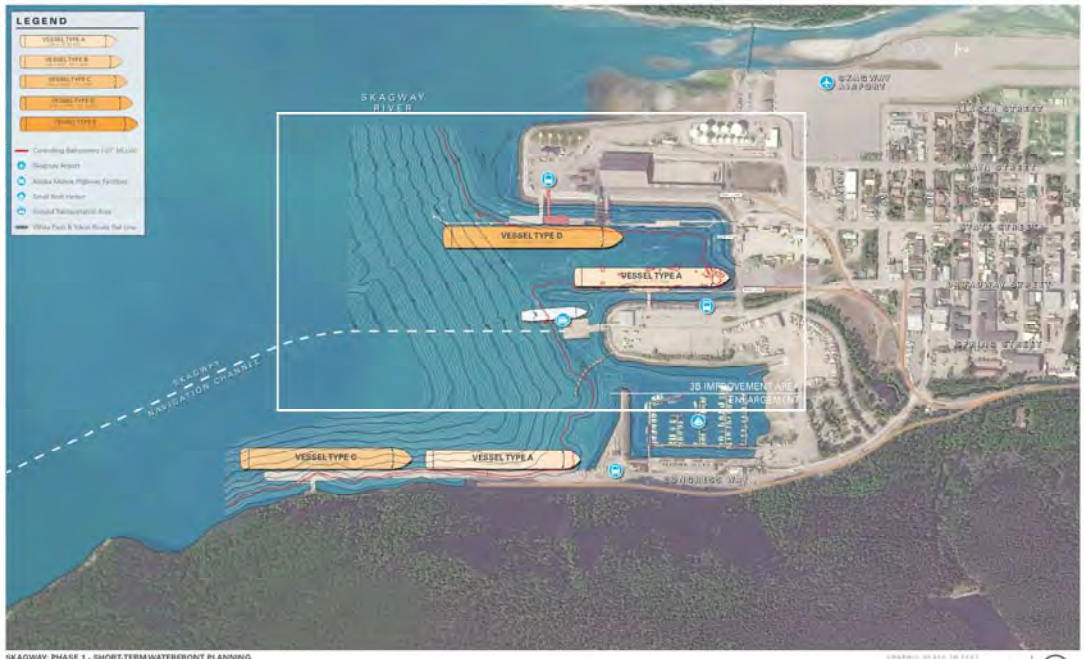
New Outer Float at the Ore Dock

- 36 -



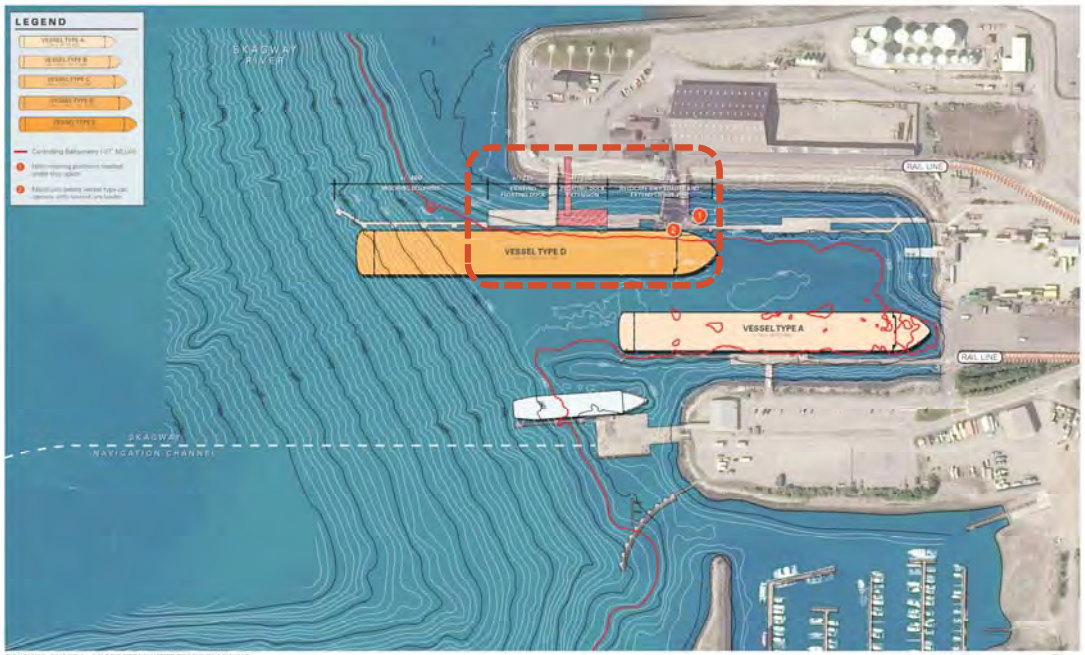
OPTION 3a

New Outer Float at the Ore Dock



OPTION 3b

New Inner Float at the Ore Dock



OPTION 3b

New Inner Float at the Ore Dock

- 39 -

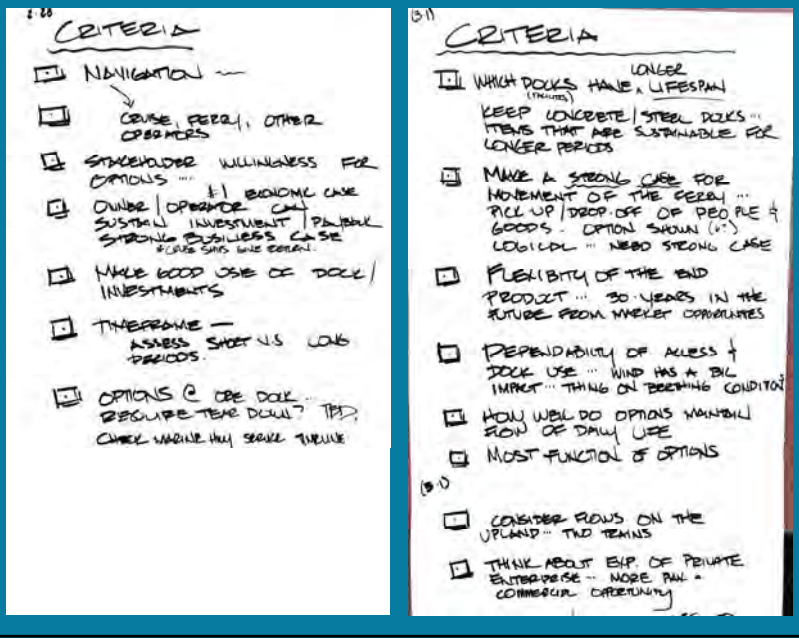
Preliminary Matrix (Work Session #2)

	Option 1	Option 2	Option …
1. Meets Future Capacity Needs	●	●	●
2. Passenger Preference	●	●	●
3. User Preference	●	●	….
4. Local Business Preference	●	….	….
5. Separates Tourism from Port Industries	….	….	….
6. Maintains a Diverse Waterfront	….	….	….
7. Beneficial to Skagway Quality of Life	….	….	….
8. Cruise Ship Navigation	….	….	….
9. Construction Costs	….	….	….
10. Phasing	….	….	….
11. Environmental Impact	….	….	….
12. Construction Downtime	….	….	….
13. ……	….	….	….
SCORING	#	#	#

LEGEND

- ● Beneficial / Positive
- ● Neutral / Average
- ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix



Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)				
2. Guest Preference and Experience				
3. Guest Safety				
4. Cruise Line (User) Preference				
5. Separates Tourism / Port Industries				
6. ** Dependability **				
7. ** Impact to Navigation **				
8. Construction Costs				
9. Construction Period/Downtime				
10. Environmental Impact				
11. ** Useful Life of Improvements **				
12. ** Impact to Upland Flows **				

Beneficial / Positive Neutral / Average Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	2A/1C/1D			
2. Guest Preference and Experience	●			
3. Guest Safety	●			
4. Cruise Line (User) Preference	●			
5. Separates Tourism / Port Industries	●			
6. Dependability	●			
7. Impact to Navigation	●			
8. Construction Costs	$			
9. Construction Period/Downtime	●			
10. Environmental Impact	●			
11. Useful Life of Improvements	●			
12. Impact to Upland Flows	●			

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	2A/1C/1D	2A/2D		
2. Guest Preference and Experience	●	●		
3. Guest Safety	●	●		
4. Cruise Line (User) Preference	●	●		
5. Separates Tourism / Port Industries	●	●		
6. Dependability	●	●		
7. Impact to Navigation	●	●		
8. Construction Costs	$	$$$		
9. Construction Period/Downtime	●	●		
10. Environmental Impact	●	●		
11. Useful Life of Improvements	●	●		
12. Impact to Upland Flows	●	●		

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	2A/1C/1D	2A/2D	1A/1C/2D	
2. Guest Preference and Experience	●	●	●	
3. Guest Safety	●	●	●	
4. Cruise Line (User) Preference	●	●	●	
5. Separates Tourism / Port Industries	●	●	●	
6. Dependability	●	●	●	
7. Impact to Navigation	●	●	●	
8. Construction Costs	$	$$$	$$$	
9. Construction Period/Downtime	●	●	●	
10. Environmental Impact	●	●	●	
11. Useful Life of Improvements	●	●	●	
12. Impact to Upland Flows	●	●	●	

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Evaluating Short-Term Alternatives: The Matrix

	Option 2A Modify/Enhance RR Dock (South End)	Option 2B Dredge RR Dock (North End)	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
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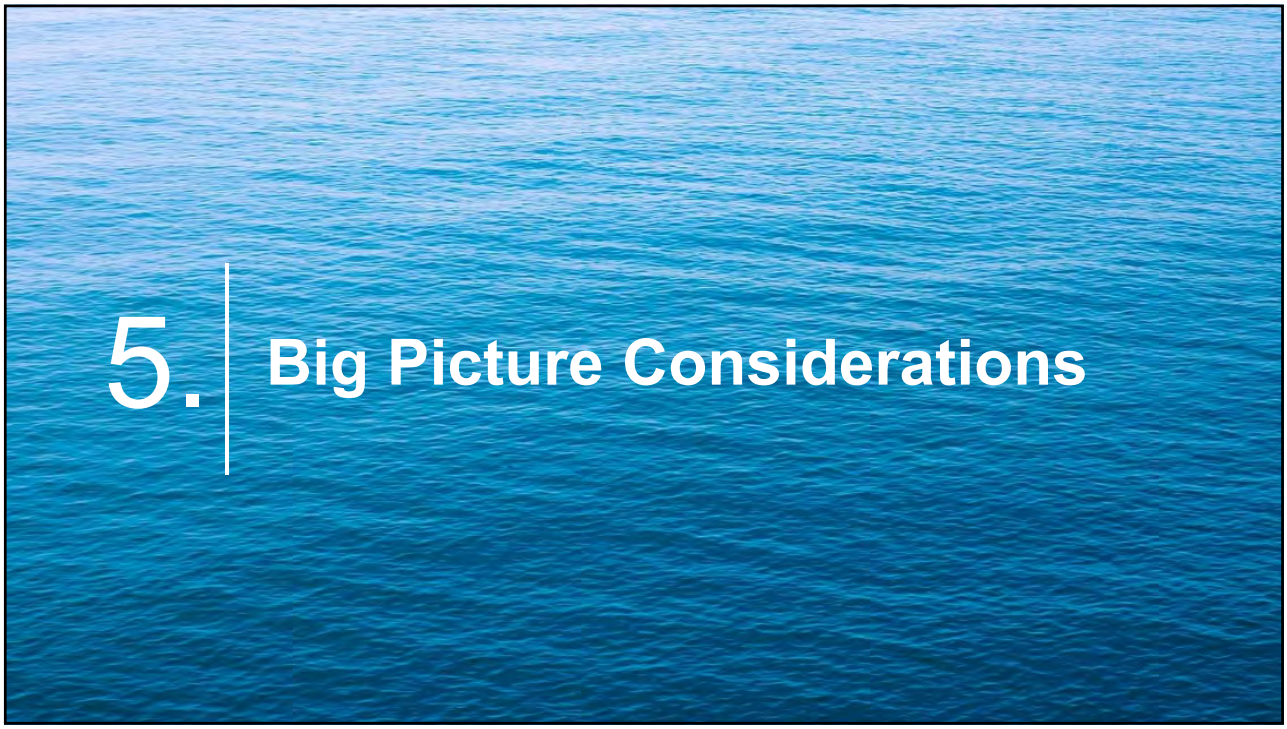
2. Guest Preference and Experience	●	●	●	●
3. Guest Safety	●	●	●	●
4. Cruise Line (User) Preference	●	●	●	●
5. Separates Tourism / Port Industries	●	●	●	●
6. Dependability	●	●	●	●
7. Impact to Navigation	●	●	●	●
8. Construction Costs	$	$$$	$$$	$$
9. Construction Period/Downtime	●	●	●	●
10. Environmental Impact	●	●	●	●
11. Useful Life of Improvements	●	●	●	●
12. Impact to Upland Flows	●	●	●	●

● Beneficial / Positive ● Neutral / Average ● Challenging / Adverse

Short-Term Alternative Synopsis

- All short-term alternatives have strengths and weaknesses
  - *Alternatives 2A and 2B advance improvements to facilities and areas the Municipality does not control at present or in the future*
  - *Conversely, Alternatives 3A and 3B may take longer to implement given environmental permitting issues and timing of Ore Basin clean-up*
- Select one of the four options presented
- Any other short-term options not previously considered?
- Shift focus of available grant monies to upland enhancements (if grants permit this approach)

Question: Which short-term alternative do you feel is most workable?

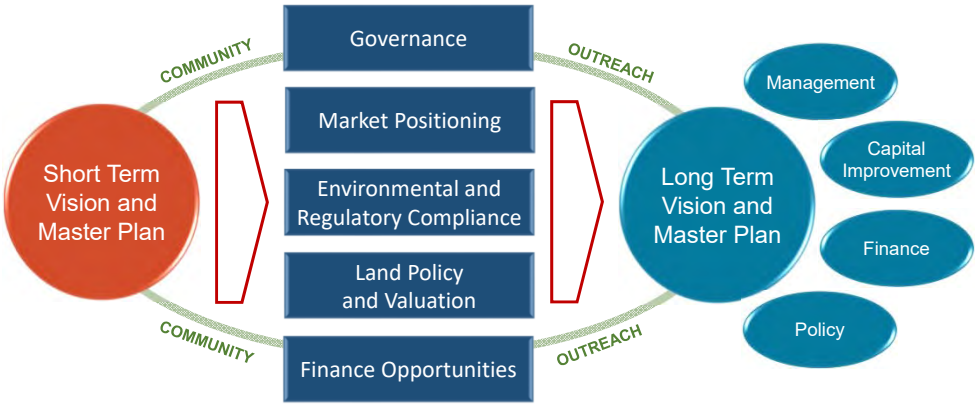


Fitting in is a Short Term Strategy. Standing out Pays Off in the Long Run.

Seth Godin
Marketing Consultant

Linking Short Term Plans to Long Term Thinking

1. **Address Short Term Opportunities and Need**
2. **Study Best Practices**
3. **Formulate Long Term Plan and Strategy Moving Forward**



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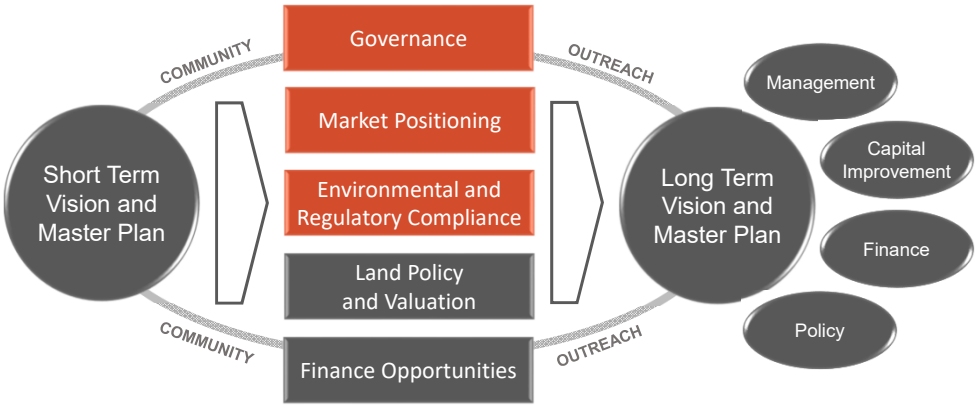


Economic Analysis and Market Positioning

- Evaluate revenue streams and operational expenses for various port related activities, focusing on key sectors of economy:
  - *Cruise ship industry*
  - *Mining industry*
  - *Small boat harbor*
  - *Fuel commodities*
  - *Barge and ferry services*
- Information gathering for revenue and expense evaluation will include stakeholder meetings (week of April 24) and data collection from previously published data as well as records from the Municipality
- Conduct scenario analysis for changes in tourism and mining industry
- Summarize findings and perform risk analysis showing how changes to underlying assumptions will affect revenues and expenses
  - *Analysis will assist the MOS in formulating strategies for decision making with the assistance of MN team*
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Port Governance

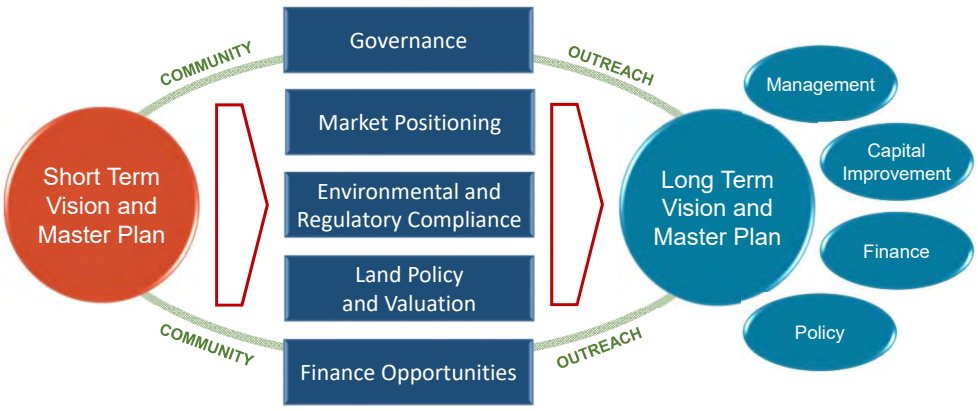
- Evaluate alternative governance and operating structures
  - *Overview of different types of governance models, focusing on ports and waterfronts with business profiles similar to Municipality*
- Benchmarking of governance and operating models at three similarly situated ports
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Environmental and Regulatory

- Identify regulatory compliance requirements and challenges for existing port waterfront operations focusing on key topics:
  - *Air, water (wastewater storm water), contaminated sediments/soils, etc.*
- Identify regulatory issues with adjacent operations:
  - *Border/customs, traffic, AMHS, airport, other*
- Identify other key topics brought up by community
  - *Week of April 24: Site visit, stakeholder meetings, data collection (local, state and federal regulations; previously published reports; existing permits)*
- Summarize findings and discuss with respect to future opportunities and development
- Draft Report incorporating stakeholder input in May; Final, late June/early July

Linking Short Term Plans to Long Term Thinking

1. **Address Short Term Opportunities and Need**
2. **Study Best Practices**
3. **Formulate Long Term Plan and Strategy Moving Forward**

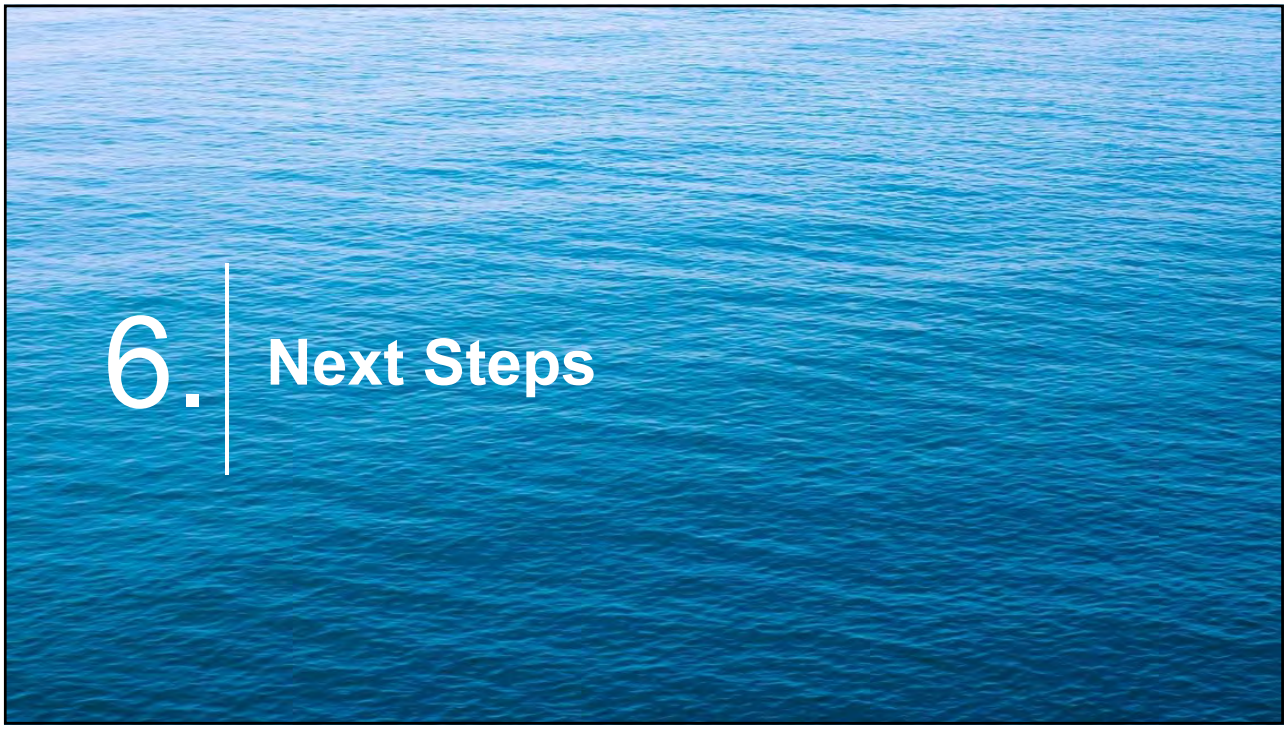


SHORT TO LONG TERM EVOLUTION

We are a Welcoming Community

ALASKAN SMALL TOWN HOSPITALITY ... WE ARE A SMALL FRIENDLY TOWN

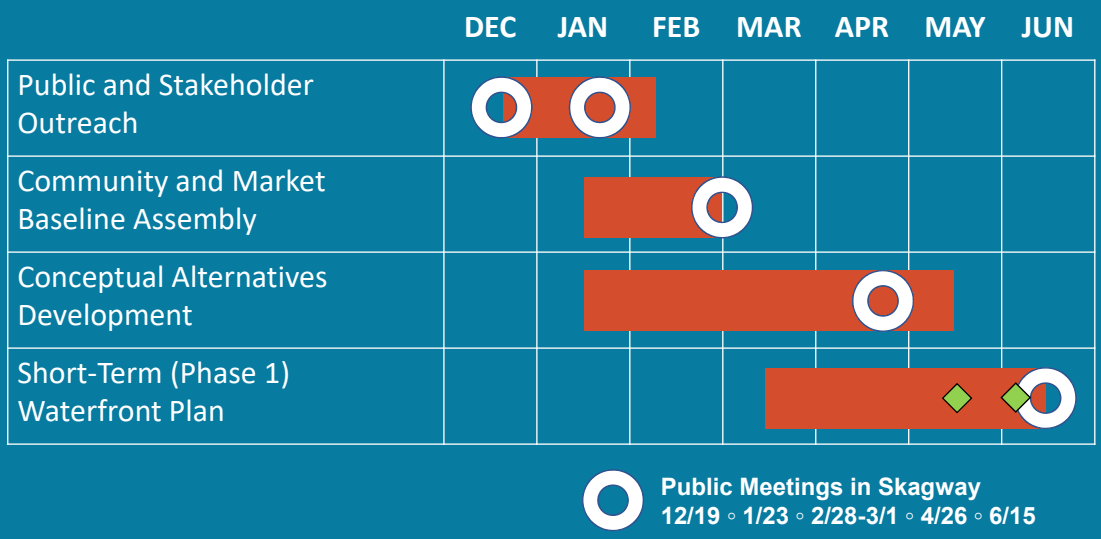
- HOW WELL DO OPTIONS MAINTAIN FLOW OF DAILY LIFE
- DON'T TELL PEOPLE WHERE ARE ... BETTER WELCOME ... BETTER "THANK YOU"
- TELL STORY OF INDUSTRY ORE | MILLING | ETC.
- * KEEP IN MIND CARRYING CAPACITY OF TOWN
- FLEXIBITY OF THE END PRODUCT ... 30 YEARS IN THE FUTURE FROM MARKET OPPORTUNITIES
- THINK ABOUT EXP. OF PRIVATE ENTERPRISE ... MORE PAY + COMMERCIAL OPPORTUNITY



NEXT STEPS

- Assemble feedback from Community Work Session Three and other ongoing stakeholder meetings and discussions
- Prepare and submit the Short-Term Waterfront Plan by end of May
- Hold our final presentation for the Phase 1 Plan on June 15th

Skagway Port Planning Schedule (Phase 1)



Question: What additional things should we be thinking of? What ideas do you have that will make Skagway's waterfront a better place for the community?


Community Meeting #3
Skagway's Short Term Waterfront Needs
Skagway Port Planning (Phase 1)
April 26, 2017
moffatt & nichol

APPENDIX A-4

Draft Final Report Presentation
Skagway's Short Term Waterfront Needs
Port Planning (Phase 1)

June 15, 2017

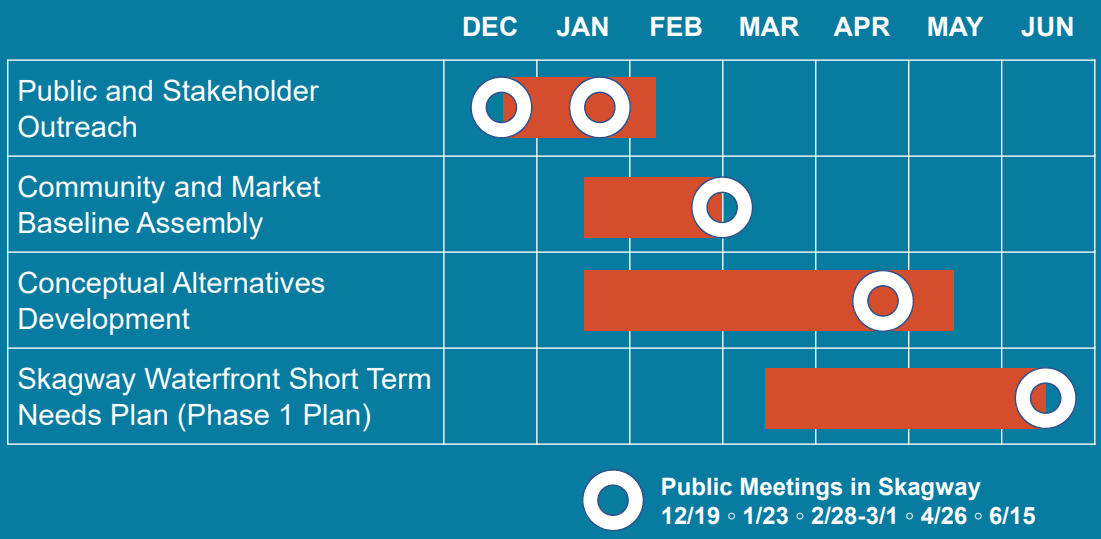
moffatt & nichol

Project Goals

- **Define a clear program of short-term improvements geared to address immediate port needs and +$8 million in grants**
- Engage the Skagway community, making sure their needs and desires are understood and translated in a meaningful way into short- and long-term waterfront project efforts
- Rebuild trust with the community through planning efforts, allowing project work to make strong inroads in dealing with long standing waterfront challenges and opportunities
- Formulate a planning framework that will help guide waterfront initiatives
  - *Should consider future growth, sustainability and the ultimate prosperity of Skagway*
- Work to identify a clear path to ensure clean-up of legacy harbor contamination

moffatt & nichol

Project Schedule



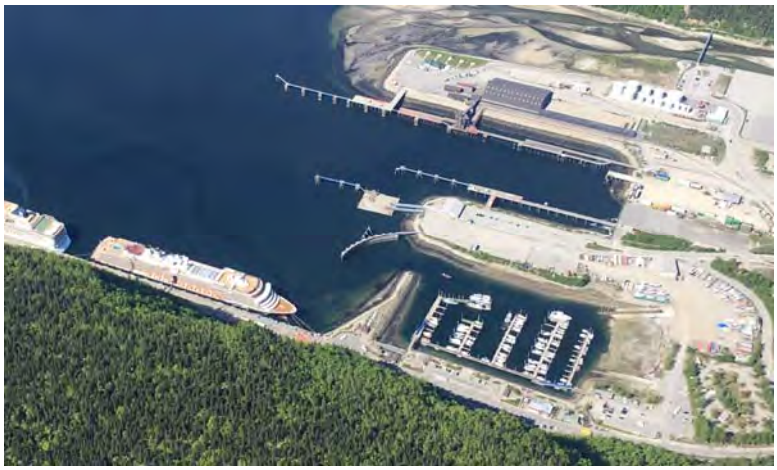
Our Commitment to Public Involvement

- Three opportunities for public participation; over 110 participants
  - ***Community Work Session #1 (Jan 23)*** *- Issues and opportunities identification.*
  - ***Community Work Session #2 (Feb 28 and Mar 1) -*** *Kickstart planning framework formulation and review early project concepts.*
  - ***Community Work Session #3 (Apr 26) -*** *Review and advance the planning framework and preferred concepts. Included an Open House at the Skagway Arctic Brotherhood Hall, Apr 25-27.*
- Over 25 meetings with project stakeholders / groups
  - *White Pass & Yukon Route Railway (WP&YR)*
  - *Cruise Lines Agencies of Alaska (CLAA) and individual lines*
  - *Mining companies and interests*
  - *Waterfront companies and users*
  - *Regulatory agencies*
- Monthly meetings with the Project Steering Committee

1. Opportunities and Issues Synopsis

Opportunities and Issues Synopsis

- Skagway is an iconic Alaskan Town and waterfront
  - *History, natural environment, built environmental, the railway, its people*
- Legacy contamination at the Ore Basin needs to be addressed
- Underutilized waterfront uplands



Opportunities and Issues Synopsis

- The stage is set for steady expansion of the Alaskan cruise region
  - *Healthy sales and cruise lines margins*
  - *Larger ships replacing smaller ships*
  - *Panama Canal not longer an impediment for ship repositioning*
  - *The homeports of Seattle and Vancouver expanding*
  - *Core destinations of Juneau and Ketchikan implementing larger berths*
- Mining and export holds long term promise for continued waterfront diversity; Skagway should maintain flexibility
- AML, Petro Marine and AMHS need a continued waterfront presence
- WP&YR Railway is a unique part of Skagway's heritage

A planning framework provides a means to organize ideas, community values, and spatial features such that they inform all follow-on design effort and policy formulation. They serve as the defensible "why's" underpinning the plan.

The Planning Framework

Collaboratively developed, the public has validated the following 15 elements to guide preparation and evaluation of design alternatives under short- and long-term planning efforts. Planning options should strive to meet each of these aims.

Community Desire

- Clean up the Ore Basin
- Offer a great guest experience
- Create separation between tourism and industrial waterfront areas
- Balance our heritage and future economic opportunities
- Promote opportunities for life long learning
- Expand public recreation and natural features along the water's edge

Economic Opportunity

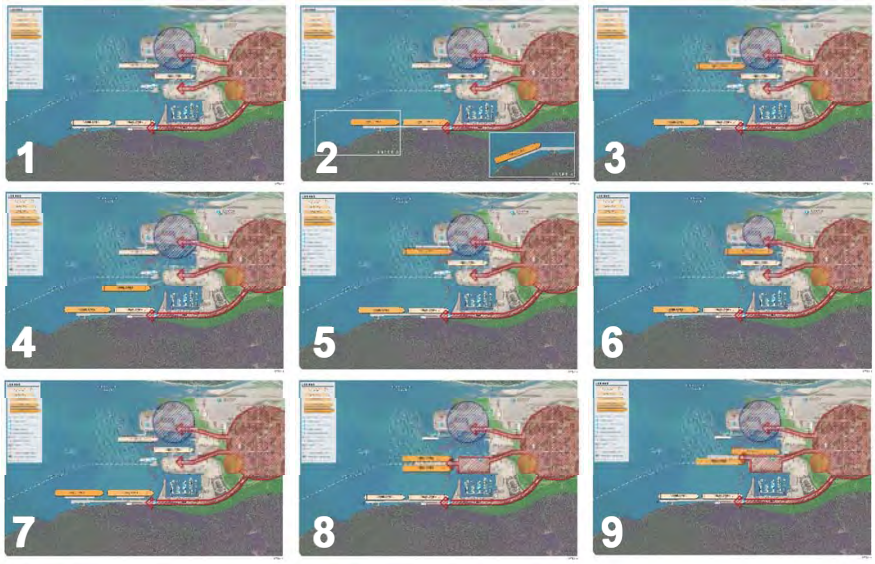
- Capitalize on Skagway's strategic location and economic uniqueness
- Maintain the economic diversity of the port
- Grow cruise operations, including more small vessel activities
- Foster year round economic activity
- Leverage the brand and economic benefit of WPYR

Best Practices

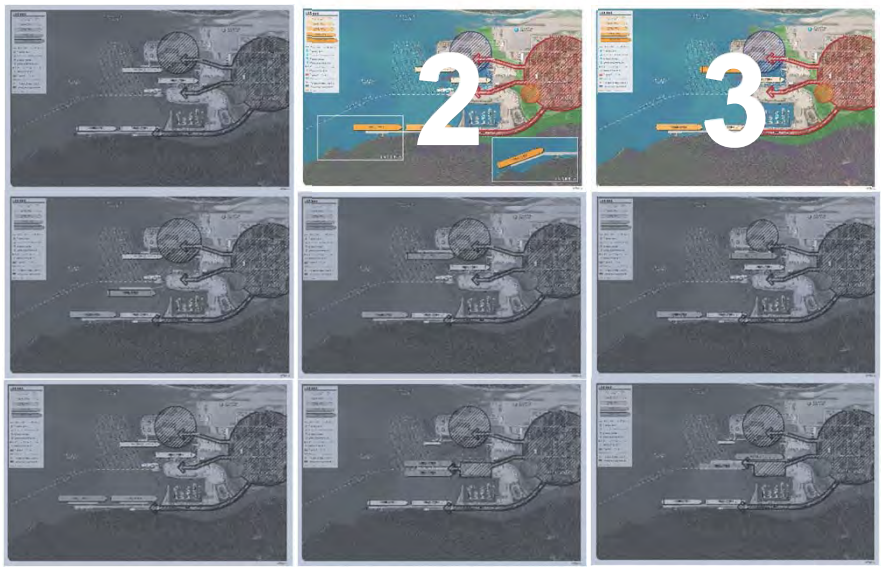
- Expand quality connections between the Town and waterfront
- Promote diversity of uses along with waterfront / town interface
- Expand the methods and venues communicating Skagway's history and distinctive stories
- Explore innovative solutions to long term challenges

3. Preferred Short Term Plan Opportunities

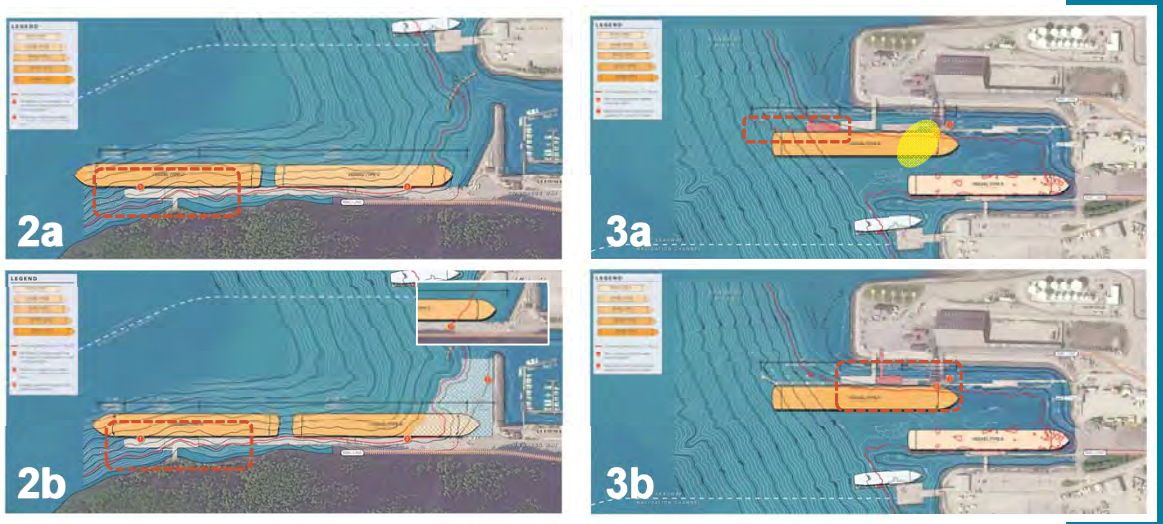
Initial Planning Options (Feb 28-Mar 1)



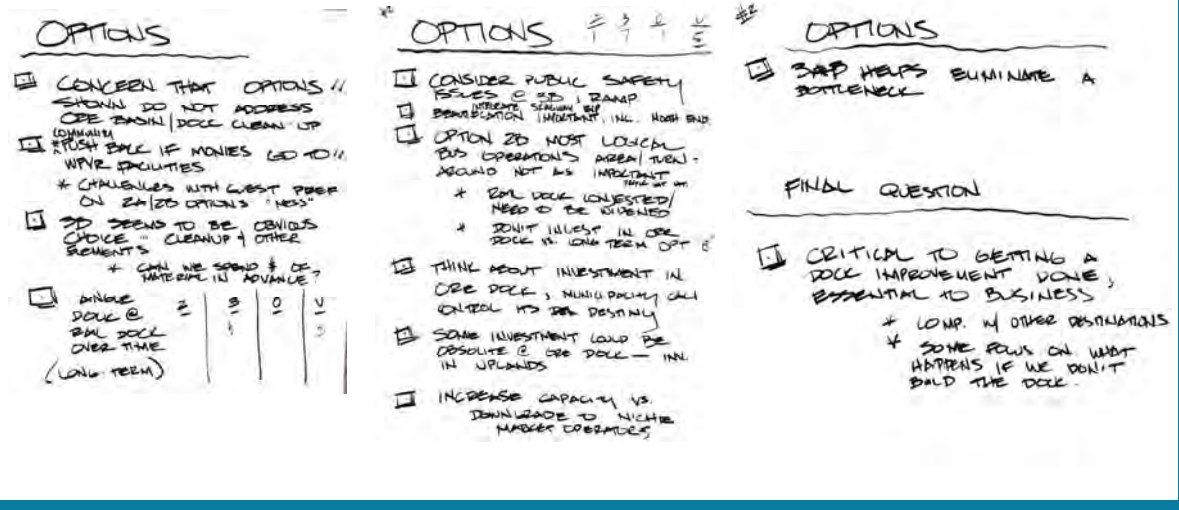
Initial Planning Options (Feb 28-Mar 1)



Refined, Short Term Planning Options (Apr 26)



Evaluating Short-Term Alternatives



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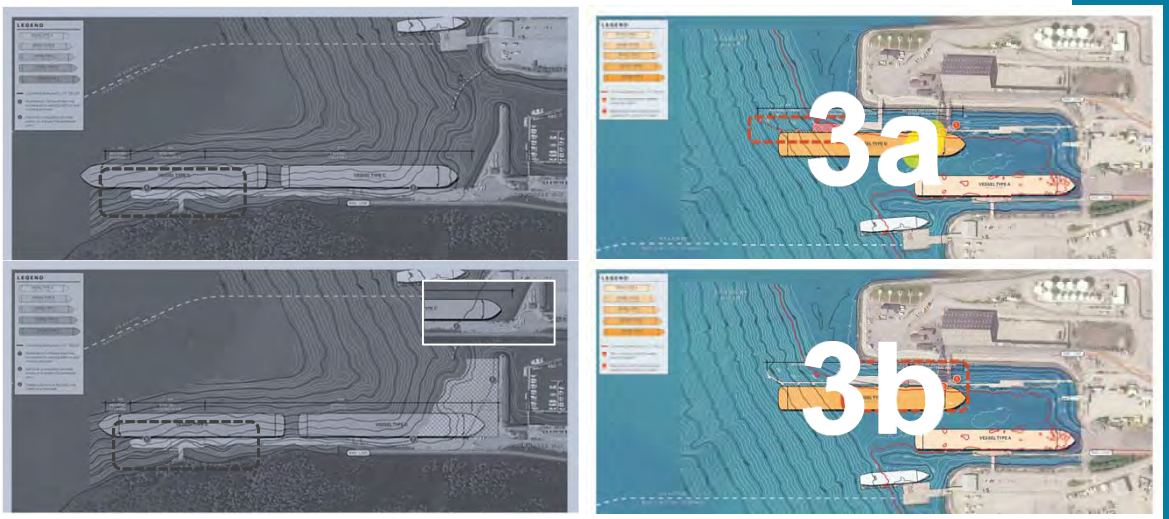
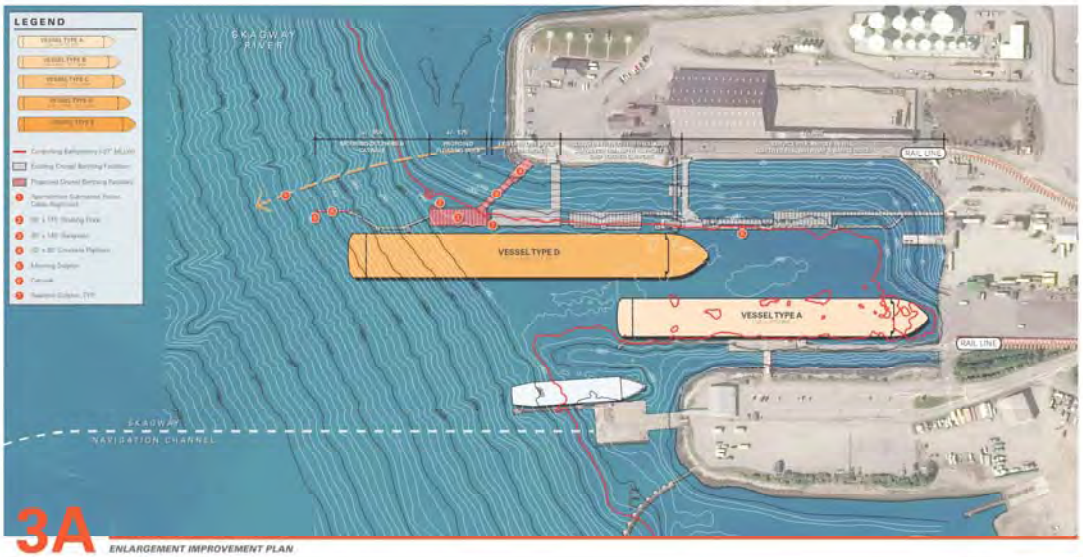
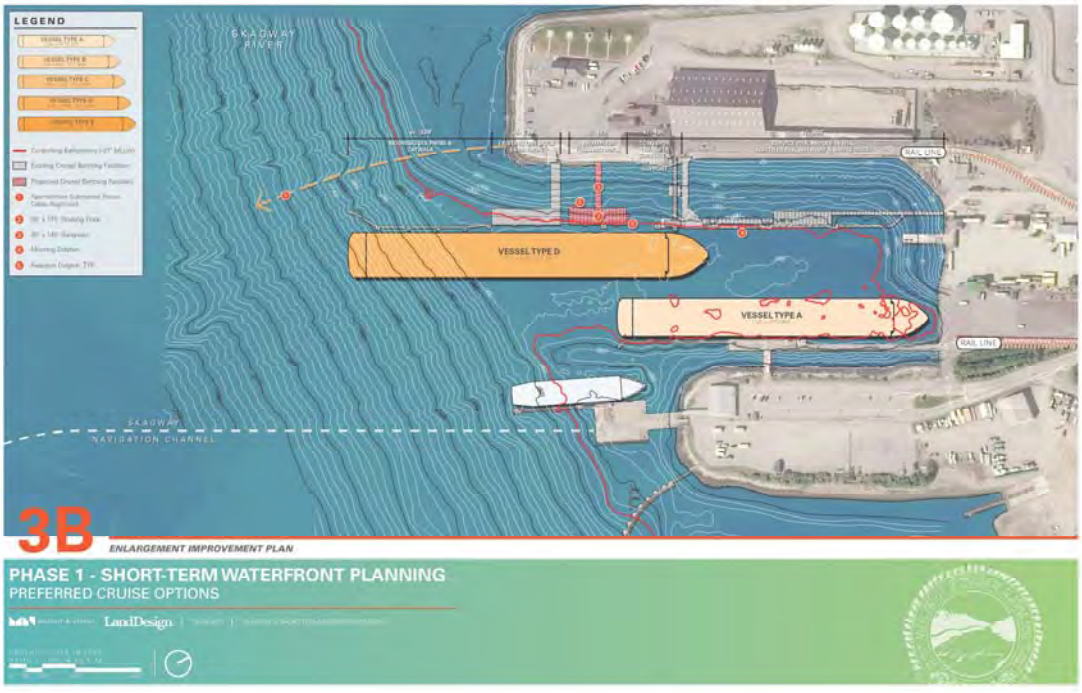




REVISED OPTION 3A

moffatt & nichol



REVISED OPTION 3B

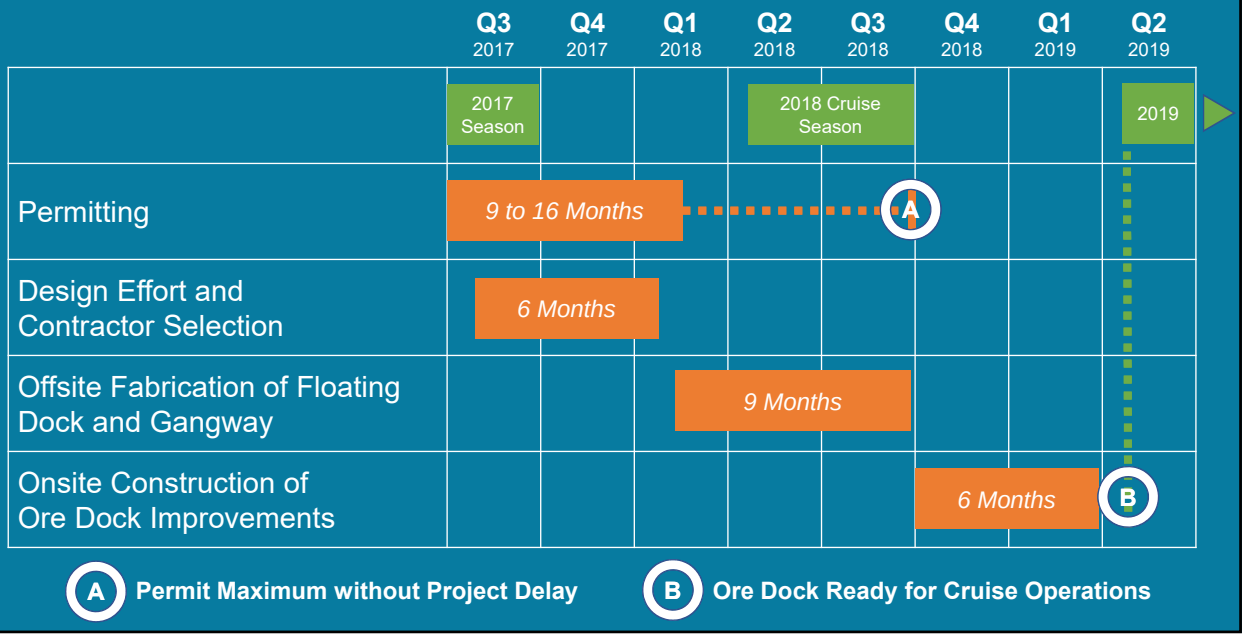
moffatt & nichol

Final Short-Term Planning Alternatives Evaluation Matrix

	Option 3A Float Extension Ore Dock (South End)	Option 3B Float Extension Ore Dock Near Shiploader
1. Meets Future Needs (Today 3A/1D)	1A/1C/2D	1A/1C/2D
2. Guest Preference and Experience	🔴	🔴
3. Guest Safety	🔴	🟠
4. Cruise Line (User) Preference	🟠	🟠
5. Separates Tourism / Port Industries	🟠	🟠
6. Dependability	🟢	🟢
7. Impact to Navigation	🟢	🟢
8. Opinion of Probable Construction Costs (OPCC)	+/- $17.4 million	+/- $14.5 million
9. Construction Period/Downtime	🟠	🟠
10. Environmental Impact	🟠	🟠
11. Useful Life of Improvements	🟠	🟠
12. Impact to Upland Flows	🟠	🟠

🟢 Beneficial / Positive 🟠 Neutral / Average 🔴 Challenging / Adverse

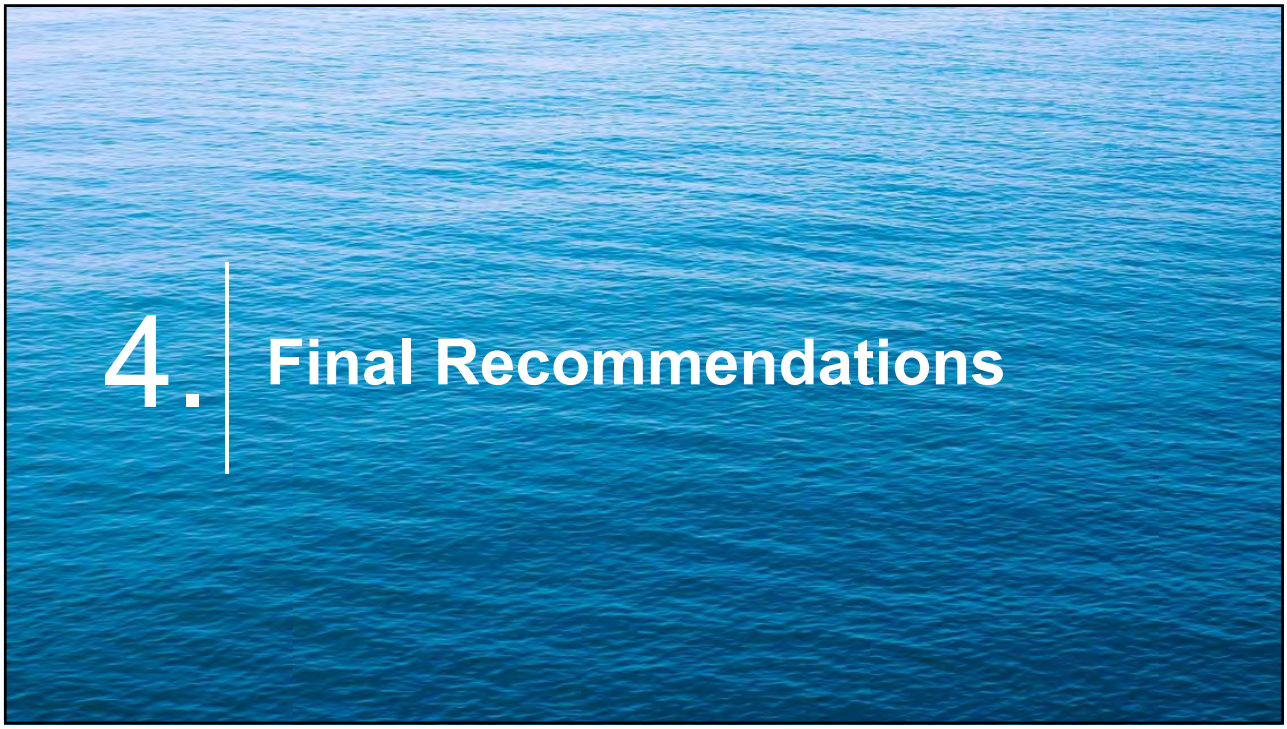
Estimated Duration of Ore Dock Improvements (Option 3b)



A Permit Maximum without Project Delay B Ore Dock Ready for Cruise Operations

Other Project Initiatives and Opportunities

- Incorporate a roll-on/roll-off (ro-ro) ramp and/or similar facility as part of Ore Dock modifications
  - *Broaden the spectrum of users and activities*
- Improve corridors and walkways linking the Town and waterfront
- Develop a comprehensive wayfinding program designed to better define pathways and destinations to/from the waterfront
  - *Improve overall guest experience*
  - *Communicate Skagway's heritage*
  - *Can be incorporated into new gateway / monumentation initiatives*
- Create improved buffers between tourism and industrial uses through use of landscape materials and other design approaches



A. Advance Ore Dock Improvements (Option 3b)

A1. Obligate available grant monies for development of Ore Dock improvements and identify means to fund financial gap

a. Commit available grant monies

b. Bridge funding gap with Cruiseline Passenger Vessel (CPV) Excise Tax funds, MOS monies or other grant sources (as available)

A2. Pursue a means to implement Ore Dock improvements with WP&YR Railway

A3. Advance permitting and design required for implementation of Ore Dock Improvements

a. Study the potential for a ro-ro facility as part of design effort

b. Work to expedite permitting (needs to be less than 16 months)

c. Prequalify contractors

B. Address Legacy Contamination at the Ore Basin

B1. Enter into a Memorandum of Understanding (MOU) with WP&YR that establishes a final path forward for Ore Basin clean-up

a. Skagway and WP&YR should enter into a MOU before the end of 2017

b. Should specify the responsibilities of all parties and overall project thresholds for implementation

B2. Coordinate basin clean-up with Ore Dock improvements

C. Pursue the Addition of a Community Desired Upland Improvement with Ore Dock Expansion

Improve corridors and walkways linking the Town and waterfront.

Develop a comprehensive wayfinding program designed to better define pathways and destinations to/from the waterfront and improve the overall guest experience.

Create improved buffers between tourism and industrial uses through use of landscape materials and other design approaches.

It's a marathon. Not a sprint.

D. Advance Development of the Long Range Vision and Master Plan for the Waterfront

Ongoing Planning Modules and Deliverables

- Module 1 - Economic Positioning and Market Analysis
  - *Evaluate revenue streams and operational expenses for port related activities; conduct scenario analysis for changes in tourism and mining industry; summarize findings and perform risk analysis showing how changes to underlying assumptions will affect revenues and expenses.*
- Module 2 - Port Governance
  - *Evaluate alternative governance and operating structures; prepare benchmarking derived from review of 3 case study ports; summarize findings.*
- Module 3 – Environmental and Regulatory Analysis
  - *Identify regulatory compliance requirements and challenges for existing port operations; identify regulatory issues with adjacent operations and other community topics; summarize findings and discuss with respect to future operations.*
- Drafts of all three reports to the Municipality by June 26; Final reports on July 13 with a presentation on July 18

Draft Final Report Presentation
Skagway's Short Term Waterfront Needs
Port Planning (Phase 1)

June 15, 2017

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Appendix A

Opinion of Probable Construction Costs (OPCC)

Revised Option 3A

Item	Description			Qty	UM	UP	Sub Total	Total
1	Floating Dock System:			1	EA			$6,195,000
		50' x 175' Dock		8,750	sf	$350	$3,062,500	
		Pnuematic Fenders		3	ea	$40,000	$120,000	
		Piles:						
			Furnish	10	ea	$61,250	$612,500	
			Install	10	ea	$30,000	$300,000	
			Rock Socket	10	ea	$150,000	$1,500,000	
		Reaction Cap		2	ea	$300,000	$600,000	
2	30' x 80' Concrete Platform			2,400	SF	$400	$960,000	$960,000
3	Dock Lighting			1	LS	$150,000	$150,000	$150,000
4	Dock Water			1	LS	$100,000	$100,000	$100,000
5	Catwalks			2	ea	$75,000	$150,000	$150,000
6	Mooring Dolphin (in ~135 ft water):			1	EA			$1,970,000
		Piles:						
			Furnish	6	ea	$75,000	$450,000	
			Install	6	ea	$40,000	$240,000	
			Rock Socket	6	ea	$180,000	$1,080,000	
		Platform & Framing		1	ea	$200,000	$200,000	
7	20' x 160' Gangway			1	EA	$1,400,000	$1,400,000	$1,400,000
8	Demolition			1	LS	$200,000	$200,000	$200,000
9	Mobilization			1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total							**$15,125,000**
	Soft Costs:							
		Survey & Permit		4	%	$605,000	$605,000	$605,000
		Design & Const. Docs.		6	%	$907,500	$907,500	$907,500
		Contract Admin		5	%	$756,250	$756,250	$756,250
	Total							**$17,393,750**

Revised Option 3B

Item	Description			Qty	UM	UP	Sub Total	Total
1	Floating Dock System:			1	EA			$6,195,000
		50' x 175' Dock		8,750	sf	$350	$3,062,500	
		Pnuematic Fenders		3	ea	$40,000	$120,000	
		Piles:						
			Furnish	10	ea	$61,250	$612,500	
			Install	10	ea	$30,000	$300,000	
			Rock Socket	10	ea	$150,000	$1,500,000	
		Reaction Cap		2	ea	$300,000	$600,000	
2	Concrete Abutment for Gangway			1	LS	$100,000	$100,000	$100,000
3	Dock Lighting			1	LS	$150,000	$150,000	$150,000
4	Dock Water			1	LS	$100,000	$100,000	$100,000
5	20' x 160' Gangway			1	EA	$1,400,000	$1,400,000	$1,400,000
6	Demolition			1	LS	$650,000	$650,000	$650,000
7	Mobilization			1	LS	$4,000,000	$4,000,000	$4,000,000
	Construction Total							**$12,595,000**
	Soft Costs:							
		Survey & Permit		4	%	$503,800	$503,800	$503,800
		Design & Const. Docs.		6	%	$755,700	$755,700	$755,700
		Contract Admin		5	%	$629,750	$629,750	$629,750
	Total							**$14,484,250**

Notes: Costs represented in May 2017 USD; Class 4 Estimate Accuracy defined by AACE.

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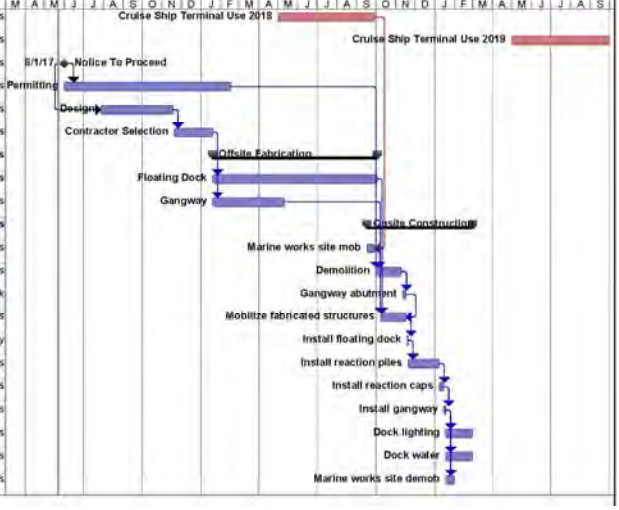
Appendix B

Estimated Duration of Ore Dock Improvements

Concept Schedule
Option 3B

Port Planning Project
Skagway, Alaska

ID	Task Name	Duration
1	Cruise Ship Terminal Use 2018	106 days
2	Cruise Ship Terminal Use 2019	106 days
3	Notice To Proceed	0 days
4	Permitting	9 mons
5	Design	4 mons
6	Contractor Selection	2 mons
7	**Offsite Fabrication**	**180 days**
8	Floating Dock	9 mons
9	Gangway	4 mons
10	**Onsite Construction**	**114 days**
11	Marine works site mob	2 wks
12	Demolition	6 wks
13	Gangway abutment	1 wk
14	Mobilize fabricated structures	6 wks
15	Install floating dock	1 day
16	Install reaction piles	30 days
17	Install reaction caps	5 days
18	Install gangway	3 days
19	Dock lighting	30 days
20	Dock water	30 days
21	Marine works site demob	2 wks



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