## STATE OF ALASKA Department of Transportation and Public Facilities

# 2022 Alaska Marine Highway System SHORE FACILITIES CONDITION SURVEY REPORT



Prepared by
Southcoast Region
Marine Engineering Section

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#### **INTRODUCTION**

This report documents the condition of the ferry terminals and marine facilities used by the Alaska Marine Highway System (AMHS) in all of its ports of call. The primary purpose of this survey is to provide an overview of the present condition of the terminals to ensure the safety of the structures, aid planners in programming for future development, assist maintenance personnel with upkeep, and alert AMHS managers of operational constraints.

AMHS vessels currently visit thirty-seven coastal communities (43 port facilities). The ownership and configuration of the facilities vary widely; they include state and foreign owned ferry terminals, city owned freight wharves, and privately owned fish processing docks. The above water components of each facility are inspected biennially (SE on odd years, SC & SW on even years) and underwater inspections are performed on a five-year cycle. Table 1 below lists the facilities, their owners, and the dates of the most recent inspections. Facility inspections include a Shore Condition Survey (SC) for regular updates on and recommendations for marine facilities, a Routine Bridge Inspection (RB) to ensure bridge structures meet FHWA standards, an Underwater Inspection (UW) for monitoring subsurface structures, and a Fracture Critical (FC) inspection for facilities with critical structural elements lacking redundancy.

**Table 1 - Ferry Terminal Inspection Dates** 

ę		ON/OFF Dille			Inspection Date				
Route	Facility Location SYSTEM Bridge #		Owner	Condition	Routine	Underwater	FC Bridge		
æ			STSTEIN			Survey	Bridge	Inspection	Inspection
	1	Angoon	ON	181	State	28-Jul-21	28-Jul-21	14-Aug-21	_
	2	Auke Bay East	ON	1474	State			23-Aug-21	12-May-21
	3	Auke Bay West	ON	191	State			23-Aug-21	
	4	Auke Bay Stern	ON	803	State			24-Aug-21	
	5	Bellingham	-	-	Port Authority	10-May-21	- 10-10lay-21	24-Aug-21	10-May-21
	6	Clark Bay (Hollis)	ON	182	State (IFA)		27-May-21	17-Nov-20	
	7	Coffman Cove	ON	193	City of Coffman Cove (IFA)		27-May-21		15-May-19
	8	Gustavus	ON	1417	State		29-Jun-21		
	9	Haines	ON	804	State		06-May-21		
	10	Hoonah	ON	179	State			19-Aug-21	
À	11	Kake	ON	177	State		28-Jun-21	13-Aug-21	-
±	12	Ketchikan Berth 1	ON	800	State		24-May-21		
eas	13	Ketchikan Berth 2	ON	1823	State		24-May-21		
Southeast AK	14	Ketchikan Berth 3	ON	190	State		24-May-21		
So	15	Metlakatla (Port Chester)	ON	178	State		24-Jul-17		
	16	Metlakatla (Annette Bay)	ON	194	State		30-Apr-21	30-Jul-18	-
	17	Pelican	ON	1426	City of Pelican		02-Aug-21	01-Aug-18	-
	18	Petersburg	ON	802	State		17-May-21		03-May-21
		(Petersburg) South Mitkof	ON	192	State (IFA)		13-May-21		
	20	Prince Rupert	-	-	Port Authority		05-Oct-17		-
	21	Sitka	ON	806	State		21-May-21		21-May-21
	22	Skagway	ON	805	State/City of Skagway		09-Jun-21		08-May-21
	23	Tenakee	ON	1451	State		10-Dec-22	18-Aug-21	10-Dec-22
	24	Wrangell	ON	801	State		18-May-21		03-May-21
	25	Yakutat	OFF	2094	City of Yakutat	19-Aug-21	19-Aug-21	10-Jun-21	-
					-				
$\overline{}$	26	Chenega	ON	184	NPR Housing Authority	13-Aug-22	13-Aug-22	04-Aug-18	13-Aug-22
₹	27	Cordova	ON	180	State	30-Jul-21	30-Jul-21	04-Jun-21	30-Jul-21
tra	28	Homer	ON	1415	City of Homer	26-Jul-22	26-Jul-22	25-Sep-18	-
ĕ	29	Seldovia	ON	1423	City of Seldovia	26-Jul-22	26-Jul-22	26-Sep-18	-
Southcentral AK	30	Tatitlek/Ellamar	OFF	183	NPR Housing Authority	14-Aug-22	14-Aug-22	21-Aug-21	14-Aug-22
ો ડ્ર	31	Valdez	ON	1429	State	10-Aug-22	10-Aug-22	22-Aug-21	10-Aug-22
Ľ	32	Whittier	OFF	1424	State	11-Aug-22	11-Aug-22	03-Aug-18	11-Aug-22
	33	Akutan	ON	1946	City of Akutan		12-Sep-22	28-Jul-19	-
	34	Chignik	-	-	City of Chignik	23-Aug-22		09-Jul-09	-
	35	Cold Bay	ON	1755	City of Cold Bay			13-Aug-18	
¥	36	False Pass	ON	1945	City of False Pass	09-Aug-22	09-Aug-22	15-Aug-18	09-Aug-22
	37	King Cove	-	-	Aleutians East Burough			14-Jul-14	-
Southwest		Kodiak City Dock (Pier 1)	ON	1425	City of Kodiak		15-Aug-22		-
T‡	39	Kodiak Pier 2	ON	2095	City of Kodiak		15-Aug-22	25-Jul-19	-
Sot	40	Old Harbor Dock	OFF	186	City of Old Harbor		14-Aug-22	11-Aug-18	14-Aug-22
	41	Ouzinkie City Dock	-	-	City of Ouzinkie	16-Aug-22		-	-
	42	Port Lions	-	-	City of Port Lions	16-Aug-22			10-Jul-14
	43	Sand Point	ON	1756	City of Sand Point		26-Dec-22	-	-
$oxed{oxed}$	44	Unalaska (Dutch Harbor)	ON	1824	City of Unalaska	23-Aug-22	-	18-Jul-14	

#### **CONDITION RATINGS**

Inspectors rate the condition of each facility component as new, good, fair, poor or failed. The ratings reflect the component in-place condition as compared to its as-built condition.

<u>C</u>	ondition Rating	Description
9	EXCELLENT	
8	VERY GOOD	No Problems.
7	GOOD	Some minor problems.
6	SATISFACTORY	Structural elements show minor deterioration.
5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling, or corrosion.
4	POOR	Advanced corrosion, deterioration, cracking, or chipping. Also significant erosion of piers or abutments.
3	SERIOUS	Corrosion, deterioration, cracking and chipping, erosion of piers or abutments have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL	Advanced deterioration of the deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the facility until corrective action is taken.
1	IMMINENT FAILURE	Major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structural stability. Facility is closed to traffic but corrective action may put back in light service.
0	FAILED	Out of service, beyond corrective action.

#### **TERMINOLOGY**

Terminology used for the major components of a typical facility are:

**All-Tide** — A facility with floating fenders/mooring floats for home-port and/or overnight layup of vessels.

**Approach -** A structure that provides access for vehicles and passengers to the transfer bridge or dock, usually an embankment or pile supported structure with open steel grid, concrete deck or a timber deck.

**Buildings** - These are the terminal, generator, purser and warehouse structures located at facilities.

**Catwalk -** A walkway, with fixed ends, that provides access to mooring dolphins for shoreside personnel tying up the vessel.

**Dock -** A structure that provides a landing pier for vessels to moor and transfer vehicles and passengers. Usually a steel pile supported structure with a concrete deck or all timber structure.

**Fender -** Protective structure attached to the face of the dolphin, dock or mooring float. May be a row of timber piles, a steel pile supported timber structure, or a steel panel with high-density plastic facing.

**Gangway -** A catwalk in which one end moves vertically with tidal fluctuations.

**Mooring Dolphins -** Steel or timber structures used to attach mooring lines for the vessel.

**Mooring Float -** Steel framed structure with working deck, float support and fender panels used for berthing and mooring of vessels in lay-up or home port capacities as part of an all-tide facility.

**Staging Area** - Area where vehicles are assembled prior to boarding the vessel. May include short and long term vehicle parking.

**Transfer Bridge -** Transfer structure used to convey vehicles and passengers between the shore and vessel.

2022 Shore Facilities Condition Report

Introduction

**Transfer Bridge Support Structure -** A steel or concrete floating pontoon or pile supported lift structure supporting the seaward end of the transfer bridge.

**Utilities -** Electrical power, water, telephone, TV cable and sewer services for the terminal facility and in some cases the vessels.

#### **DOCUMENT ORGANIZATION**

This document is divided into four sections.

**Section I** contains the condition report for each AMHS terminal. Information collected during site visits, underwater and fracture critical inspections, and drawn from terminal project histories and maintenance records is distilled into a tabular report. Following the report is an "Action Required" list of items identified in the inspection requiring action by the facility owner or AMHS.

**Section II** lists the characteristics of the eleven AMHS vessels.

This report was prepared by reviewing historical records of the AMHS, interviewing vessel personnel, maintenance crews, and terminal operators. This report is a compilation of the findings of the bridge, underwater and above water inspection programs.

#### **COMMENTS AND FEEDBACK**

This document is updated annually using information from the most recent condition surveys. Questions and comments are appreciated and welcomed. All comments and questions should be mailed, faxed, emailed, or phoned to the following address:

State of Alaska
Department of Transportation & Public Facilities
Statewide Design & Engineering Services
6860 Glacier Highway
Juneau, Alaska 99811-2506

Attn: Misty Butler, Shore Facilities Inspection Manager

Phone: (907) 465-4414

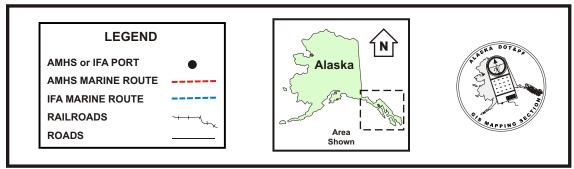
E-mail: misty.butler@alaska.gov

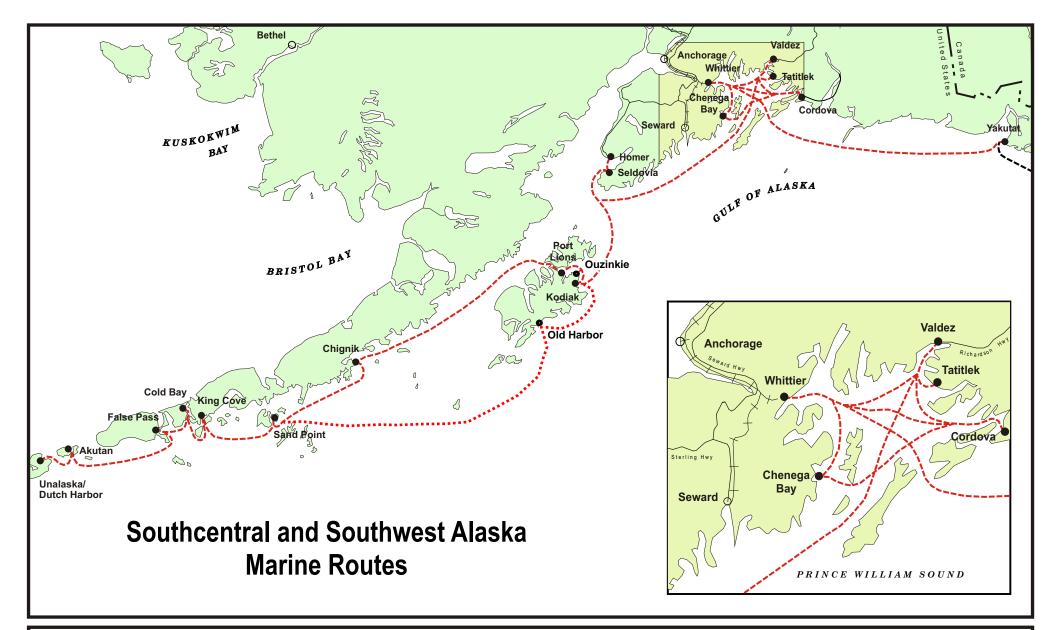
#### **REQUEST FOR COPIES**

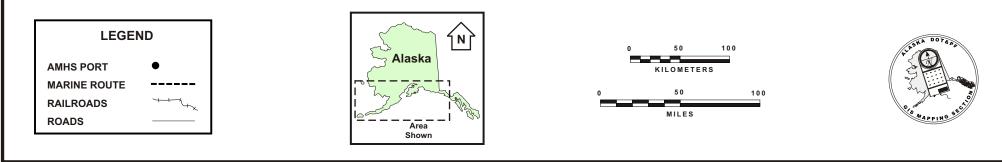
The "2022 Shore Facilities Condition Survey Report" is distributed in an electronic format and can be downloaded from the following URL: http://dot.alaska.gov/project\_info/AMHS\_Shore\_Fac\_Report.shtml .

If a hard copy of individual sections or of the entire report is desired, send your request with an address to the contact above. The materials will be mailed to you.





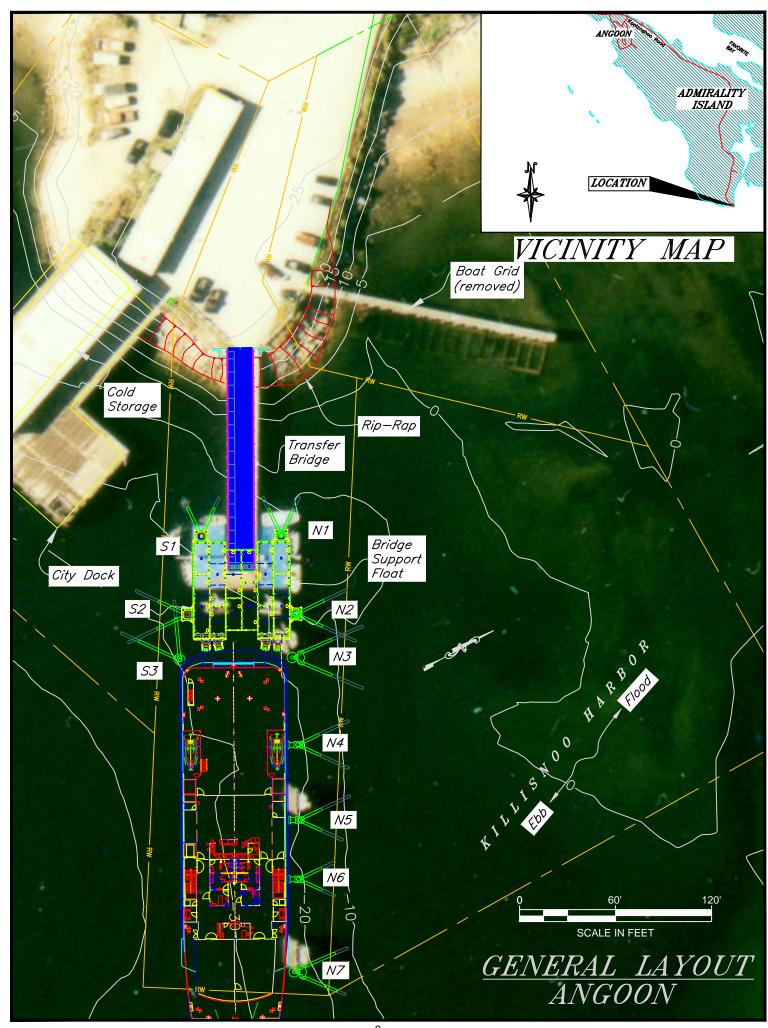




#### **SECTION I**

**FACILITIES CONDITION REPORTS** 

SOUTHEAST ALASKA MARINE ROUTE



#### **Angoon Ferry Terminal**

2.5 Mile Killisnoo Road

Owner: State of Alaska

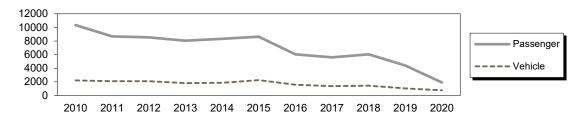
**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** Angoon Ferry Terminal is a stern-loading facility consisting of a transfer bridge, steel pontoon, intermediate ramp with apron and (6) mooring structures. There is a passenger waiting building, staging area, purser's shelter and pit toilets located in the uplands.

The marine terminal serves the 235 Class Ferries with integral stern door/ramp and the Alaska Class Ferries that require a shore-side apron. There is no terminal manager at this facility; therefore, the terminal is configured remotely from the ferry to accommodate the two vessel configurations.

Transient, small craft are permitted to moor at the steel pontoon. Stairs and a cross-over pedestrian walkway provide access between the bridge and the pontoon deck.

Summary of passenger and vehicle traffic volumes (source: https://dot.alaska.gov/amhs/reports.shtml):



The most recent above water and underwater surveys were conducted on July 28, 2021 and August 14, 2021, respectively. Copies are available upon request from the ADOT&PF – Marine Design Department.

Vessels					
Name Berthing Alignment					
235					
CLASS/ACF	Stern				
N/A	Port				
N/A	Stbd				

Tidal Data (MLLW 0.0 feet)					
EHW	19.0				
MHHW	14.1				
MHW	13.2				
ELW	-5.5				

Terminal Building					
Year Built: 2016					
Square Footage: 342 s.f.					
Heating System:	Heat Pump & Baseboard				
Fuel Storage:	N/A; Electric				
Fire Protection:	N/A				
Condition:	Good				

Generator & Building	
N/A	

Utilities				
Telephone:	No			
Electrical:	Yes			

Uplands						
Short-Term						
Parking:	10 cars					
Long-Term						
Parking:	10 cars					
Staging Area	65 lineal feet					
Driving Surface:	Asphalt					

Vehicle Transfer Bridge - #0181					
Туре:	16' x 132'; 4 Girders				
Year Built:	2011				
Shoreward support:	Concrete Abutment ('77)				
Seaward support:	Steel Support Float				
Coating:	Spray Metalizing				
Pedestrian Access:	On Bridge				
Lighting:	3 overhead light posts				
Condition:	New				
Load Posting Sign:	N/A				
Original Design					
Load:	HL93				

Bridge Support Float					
Type: 60x60x5' Flexifloat					
Year Built:	2011				
Ballasted: Yes					
	Electro-mechanical				
Ramp & Apron:	actuators				
Anodes:	Yes				
Condition:	Good				

Dolphins								
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes	
S3	2B, 1V	Floating		Yes	2011	New		
S2	2B, 1V	-	-	Yes	2011	New	Ladder ring	
S1	2B, 1V	-	-	Yes	2011	New		
N1	2B, 1V	-	-	Yes	2011	New		
N2	2B, 1V	-	-	Yes	2011	New	Ladder ring	
N3	2B, 3V	Floating		Yes	2011	New		
N4	2B, 1V	Hanging	UHMW	Yes	2011	New		
N5	2B, 1V	Hanging	UHMW	Yes	2011	New		
N6	2B, 1V	Hanging	UHMW	Yes	2011	New		
N7	2B, 3V	Floating		Yes	2011	New	Nav Light, Windsock	

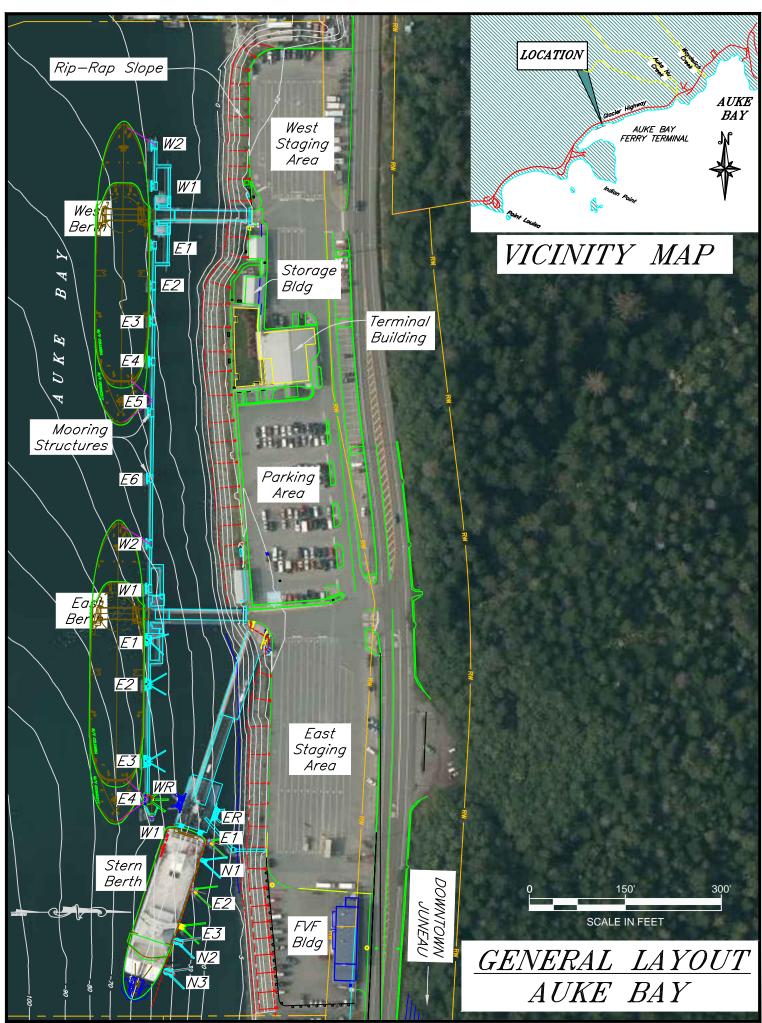
	Terminal Projects			
Year	Project #	Project Name	Description	
1977	RS-0998(1)	Ferry Terminal Facilities at Angoon	Construction of new terminal structures. Uplands fill from end of the road to the abutment.	
1984	X30006	Angoon FT Basin Dredge	The floor of the basin was excavated beneath the float and beneath the docking footprint.	
1988	RS-005(78) 74665	Southeast Secondary Upgrade	The bridge was over-coated with spray metallizing and the bridge support float was replaced with the existing barge from Clark Bay.	
1990	75122	Angoon Ferry Terminal Basin Dredge	The floor of the basin was excavated beneath the north corner of the float.	
2011	68502	Angoon Ferry Terminal Improvements	This project replaced the marine berthing and transfer structures with new all-tide mooring dolphins and transfer bridge. The new design accommodates the Fast-Vehicle Ferries (FVF) M/V Fairweather & M/V Chenega, as well as LeConte class vessels.	

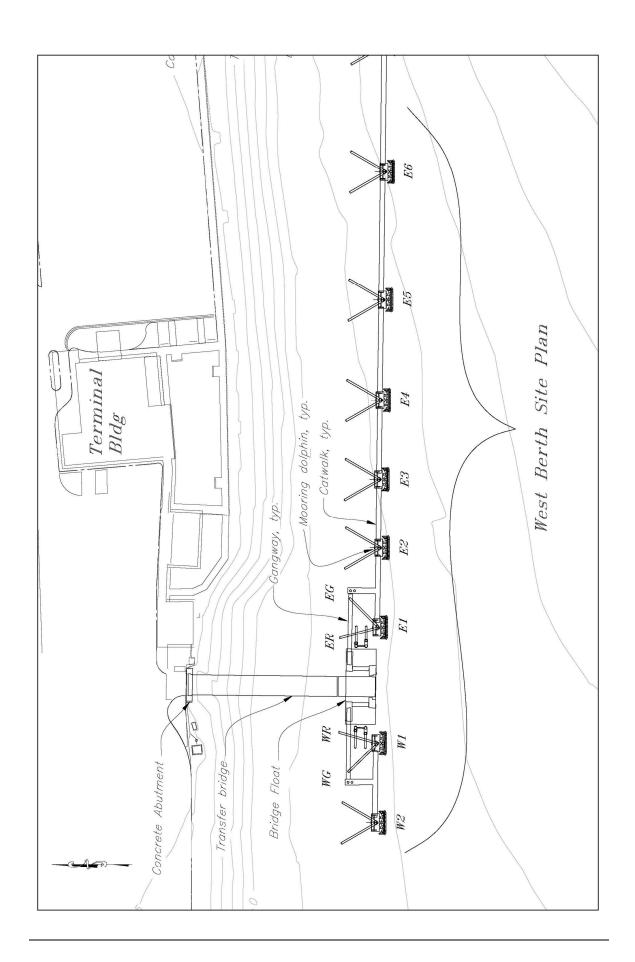
Year	Project #	Project Name	Description
2016	69440	Angoon Ferry Terminal Passenger Facility	This project expanded the uplands approximately 40' seaward along the northeast edge of the embankment, adding 16 parking spaces, staging lanes for 15 vehicles, curb and sidewalk, and area lighting. Also constructed was a new 21' x 21' Waiting Building, Pursers Shelter and Pit Toilet. The bridge abutment backwall, apron and transition plate were replaced with new structures that provide better clearance to vehicles at low tide. A platform and ladder weere built on dolphin S1 to provide access to the bridge pontoon.

#### **General Facility Evaluation**

Facility Component	Rating
Bridge	8
Float & abutment	6
Apron	5
Mooring Structures	7
Uplands Staging area	5
Uplands Waiting Building	7
Utilities	-

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable





#### **Auke Bay West Berth**

13.8 Mile Glacier Highway

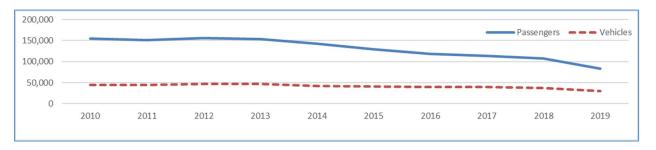
Owner: State of Alaska

**Terminal Manager:** George "Brent" Cole – 907-465-8853

**Terminal Description:** The Auke Bay Ferry Terminal Facility consists of three active ferry berths: West Berth, East Berth and Stern Berth. These berths have the highest traffic volumes of all the AMHS facilities. There are often three vessels moored in Auke Bay simultaneously.

Auke Bay West Berth is side-loading facility consisting of a transfer bridge, steel support float, eight steel pile dolphins and catwalks/gangways for line-handling access. The facility was built in 1989 to serve both mainline & feeder vessels, and is the homeport for the M/V LeConte.

Auke Bay's past 10 years of total passenger and vehicle traffic for all three berths (West, East, and Stern) is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>.



The most recent above water survey was completed on May 12, 2021. The most recent fracture critical inspection was completed on May 11, 2021 & the most recent underwater inspections occurred on August 23, 2021.

Vessels		
Name Berthing, Alignment		
Kennicott/Tustumena	Port	
All other Vessels	Port/Starboard	

Tidal Data (MLLW 0.0 feet)			
EHW	22.0		
MHHW	15.9		
MHW	15.0		
ELW	-6.0		

Uplands		
Short-Term Parking:	151 cars, 6 HCP	
Long-Term Parking:	30 cars	
Staging Area:	3770 lineal feet	
Paint Striping:	Yes	
Driving Surface:	Asphalt	

Terminal Building		
Year Built:	1982	
Square Footage:	4879 s.f.	
Heating System:	Boiler	
Fuel Storage:	UST	
Fire Protection:	Remote Alarm	
Condition:	Good	

Generator & Building		
Year Built:	1988	
Square Footage:	1118 s.f.	
Heating System:	Electric	
Fuel Storage:	N/A	
Fire Protection:	Remote Alarm	
Condition:	Good	

Vehicle Transfer Bridge - #0803		
Type:	16' x 140' twin box beam	
Year Built:	1988	
Shoreward support:	Concrete abutment	
Seaward support:	Steel Support Float	
Coating:	Wasser Paint	
Pedestrian Access:	Concrete 4' wide on bridge	
T := 1, 4:	Jelly Jars on bent posts,	
Lighting:	both girders	
Condition:	Good	
Load Posting Sign:	N/A	
Original Design Load: HS 20-44		

Bridge Support Float		
Type:	24' x 60 ' Steel Pontoon	
Year Built:	1989	
Ballasted:	Yes	
Ramp lift:	Hydraulic/Block & Cable	
Apron lift:	Hydraulic/Block & Cable	
Anodes:	Yes	
Condition:	Fair	

Utilities at Ramp		
Electrical:	Yes, city & backup power	
Water:	Yes	
Sewer:	No	
Telephone:	Yes	
Cable TV:	No	
Fuel:	Yes	
Wireless Bridge:	N/A	

#### **DOLPHIN TABLE LEGEND**

ER = East Bridge Support Float Restraint Dolphin

WG = West Gangway Support Dolphin V = Vertical Steel Pipe Piling

B = Battered Steel Pipe Piling

G1 = Gangway

EFP = East Float Platform

Dolphins								
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
W2	2B, 1V	4V	Ekki Timber	Yes	1989	Fair	No	
W1	2B, 1V	4V	Ekki Timber	Yes	1989	Fair	No	
E1	2B, 1V	4V	Ekki Timber	Yes	1989	Fair	No	
E2	2B, 1V	4V	Ekki Timber	Yes	1989	Fair	Yes	
E3	2B, 1V	4V	Ekki Timber	Yes	1989	Fair	No	Light Pole
E4	1B, 1V	4V	Ekki Timber	Yes	1989	Fair	Yes	
E5	1B, 1V	4V	Ekki Timber	Yes	1989	Fair	Yes	
E6	1B, 1V	4V	Ekki Timber	Yes	1989	Fair	Yes	Light Pole
EG	1B, 1V	-	-	Yes	1989	Fair	-	
WG	1B,1V	-	-	Yes	1989	Fair	-	
WR	2B, 2V	-	-	Yes	1989	Fair	-	Light Pole
ER	2B, 2V	-	-	Yes	1989	Fair	-	Light Pole

Cat	Catwalks / Gangways						
#	From	To	Lenth / Style / Main Members	Built	Safety	Cond	Lighting
	Struc.	Struc .			Cables ?	-	
C1	EBW 2	E6	91' / Catwalk / 12" x 12" Tube Girders	1989	Yes	Good	Jelly Jars
C2	E6	E5	91' / Catwalk / 12" x 12" Tube Girders	1989	Yes	Good	Jelly Jars
C3	E5	E4	69' / Catwalk / 12" x 12" Tube Girders	1989	Yes	Good	Jelly Jars
C4	E4	E3	53' / Catwalk / 12" x 12' Tube Girders	1989	Yes	Good	Jelly Jars
C5	E3	E2	44' / Catwalk / 12" x 12' Tube Girders	1989	Yes	Good	Jelly Jars
C6	E2	E1	53' / Catwalk / 12" x 12' Tube Girders	1989	Yes	Good	Jelly Jars
C7	C6	EG	22' / Catwalk / 5" x 7" Tube Girders	1989	No	Good	Jelly Jars
G1	EG	EFP	57' / Gangway / Tube & Pipe Thru Truss	1989	Yes	Good	Jelly Jars
G2	WFP	WG	57' / Gangway / Tube & Pipe Thru Truss	1989	Yes	Good	Jelly Jars
C8	WG	C9	22' / Catwalk / 5" x 7" Tube Girders	1989	No	Good	Jelly Jars
C9	W1	W2	53' / Catwalk / 12" x 12' Tube Girders	1989	Yes	Good	Jelly Jars

#### LEGEND

C1=Catwalk 1 G1 = Gangway 1 EG = East Gangway Support Pile EFP = East Float Platform
E4 = East Dolphin #4 W1 = West Dolphin #1 WFP = West Gangway Support Piles WFT = West Float Platform

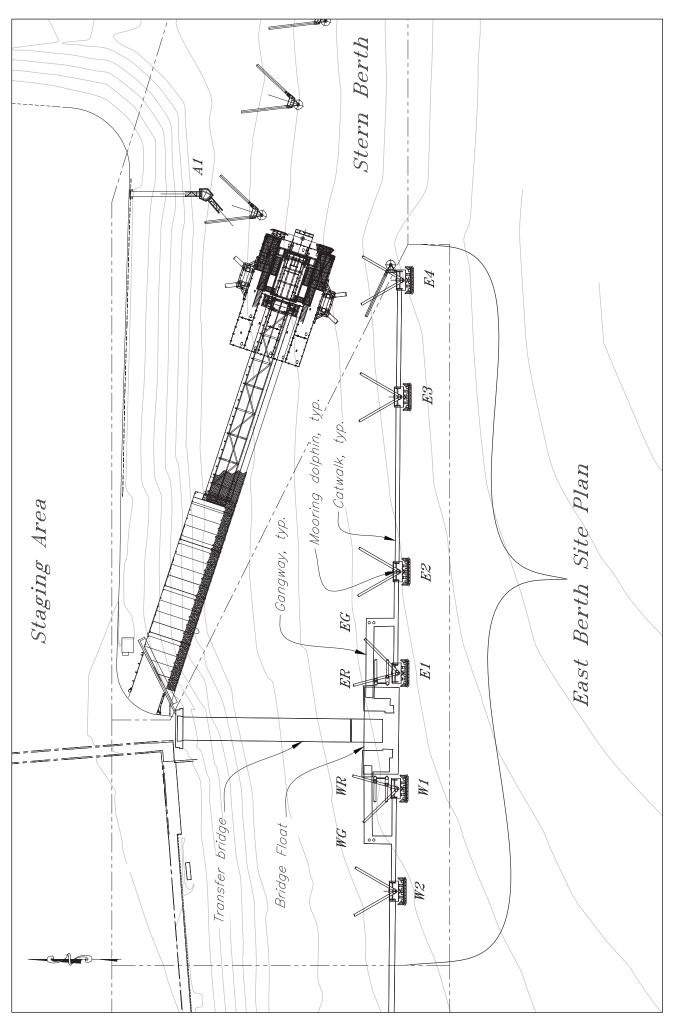
		Terminal Pro	jects
Year	Project#	Project Name	Description
1963	F-095-8(1)	Southeast Alaska Ferry System Terminal Facility at Juneau, Alaska	Original construction of timber Side Berth in Auke Bay (present site of West Berth)
1968	N/A	N/A	Original construction of timber Stern Berth
1970	N/A	Auke Bay FT Dredging	Dredging at original timber Stern Berth.
1970	IN/A	Auke Bay I'l Dieuging	
1982	F-093-2(2)	Auke Bay FT Modifications	Original East Berth construction. Work included demolition of existing timber Stern Berth.
1982	F-093-3(2) H-78002 74268 A38282	Auke Bay FT Modifications	Construction of terminal building.
1989	F-095-4(16) / 74626	Auke Bay Western Terminal Modification	Demolition of existing structures, construction of new steel terminal structures. Also includes construction of generator/storage building, purser station, atrium/covered pedestrian walkway, and miscellaneous electrical and lighting enhancements.
1989	F-095-4(16) A70041 74618	Auke Bay FT Rehabilitation / Relocation	Associated with 74626.
1989	3711-SE(2)	Auke Bay FT Passenger Shelter	Associated with 74626.
1989	74914	Auke Bay FT Water Service	Associated with 74626.
1991	75134 MT 763	Auke Bay FT Floor Covering Replacement	Modified flooring of terminal building.
1995	75265	Auke Bay FT Pontoon Upgrade	Recoated the bridge support float.
1998	75227	Auke Bay Staging Area	Uplands extension of West berth staging area.
1,,,0	HHE-093-	Truke Bay Staging Tirea	opanies exension of west betti staging area.
2006	3(29) 68975	JNU- Ferry Terminal Sight Distance Improvements	Modified main roadway vehicle entrance.
2008	N/A	Auke Bay Delta - Wye Conversion	This work replaces existing transformer at the Auke Bay Ferry Terminal with a new WYE-Configured Secondary, 480Y/277, 3-phase, 500KVA transformer.
2008	73003(4)	Auke Bay FT Carpet Replacement	Replaced carpet in the terminal building modular carpet panels.
2008	259S030	Auke Bay FT Heat Trace	This project replaced all existing heat trace and controls on West Berth, East Berth, and East Stern Berth.
2008	73003(1)	Auke Bay FT Heating Control System Upgrade	This project replaced existing pneumatic HVAC constrols with a new HVAC control system consisting of a Direct Digital Control (DDC) Building Automation System (BAS). The new system allows network capability for interface through the internet for monitoring & manipulation of the Heating System.
2008	73651	Auke Bay East & West Terminal Repairs	This project rehabilitated the fender support piles at all mooring dolphins on East Berth. Work also included repairs to the seaward bridge bearing plates on East and West Berths, installation of naoes on all East Berth pipe pile groups, and installation of UHMW line guards on dolphin El at both East and West berths.
2008	67763	Auke Bay FVF Support Facility	This project constructed tidelands fill adjacent to East berth parking lot, paved, installed underground utilities constructed the FVF Support Building and installed an underground septic holding tank for pumping out vessel wastewater.

#### **GENERAL FACILITY EVALUATION**

Facility Component	Rating
Bridge	6
Float	5
Apron	5
Dolphins	5
Catwalks/Gangways	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel of concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



#### **Auke Bay East Berth**

13.8 Mile Glacier Highway

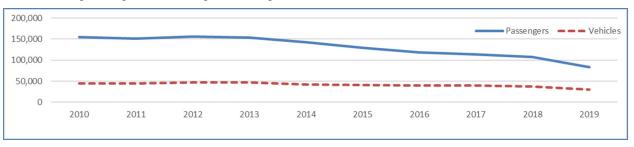
Owner: State of Alaska

**Terminal Manager:** George "Brent" Cole – 907-465-8853

**Terminal Description:** The Auke Bay Ferry Terminal Facility consists of three active ferry berths: West Berth, East Berth and Stern Berth. These berths have the highest traffic volumes of all the AMHS facilities. There are often three vessels moored in Auke Bay simultaneously.

Auke Bay East Berth is a side-loading facility consisting of a transfer bridge, steel support float, six steel pile dolphins and catwalks and gangways for line-handling access. Originally constructed in 1982 the East Berth is the oldest terminal in Auke Bay.

Auke Bay's past 10 years of total passenger and vehicle traffic for all three berths (West, East, and Stern) is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>.



The most recent above water survey was completed on May 12, 2021. The most recent fracture critical inspection was completed on May 11, 2021 & the most recent underwater inspections occurred on August 23, 2021.

Vessels				
<u>Name</u>	Berthing, Alignment			
All Vessels	Port/Starboard			

Tidal Data (MLLW 0.0 feet)				
EHW	22.0			
MHHW	15.9			
MHW	15.0			
ELW	-6.0			

Uplands				
Short-Term Parking:	151 cars, 6 HCP			
Long-Term Parking:	30 cars			
Staging Area:	3770 lineal feet			
Paint Striping:	Yes			
Driving Surface:	Asphalt			

<b>Terminal Building</b>				
Year Built:	1982			
Square Footage:	4879 s.f.			
Heating System:	Boiler			
Fuel Storage:	UST			
Fire Protection:	Remote Alarm			
Condition:	Good			

Generator & Building				
Year Built:	1988			
Square Footage:	1118 s.f.			
Heating System:	Electric			
Fuel Storage:	N/A			
Fire Protection:	Remote Alarm			
Condition:	Good			

Vehicle Tra	<b>Vehicle Transfer Bridge - #1474</b>				
Type:	16' x 140' twin box beam				
Year Built:	1982				
Shoreward support:	Concrete abutment				
Seaward support:	Steel Support Float				
Coating:	System 5 Overcoat -Wasser Paint				
Pedestrian Access:	Concrete 4' wide on bridge, two lanes				
Lighting:	Jelly jars on bent posts, both girders				
Condition:	Fair				
Load Posting Sign:	N/A				
Original Design Load:	HS 20-44				

	Utilities	
	at Terminal	at Ramp
Electrical:	Yes, city & b	ackup power
Water:	Yes	Yes
Sewer:	Yes (Septic)	No
Telephone:	Yes	Yes
Cable TV:	No	No
Fuel:	UST	Yes
Wireless Bridge:	Yes	Yes

Bridge Support Float			
Туре:	24' x 60' Steel Pontoon		
Year Built:	1993		
Ballasted:	Yes		
Ramp Lift:	Hydraulic/ Block & Cable		
Apron Lift:	Hydraulic/ Block & Cable		
Anodes:	Yes		
Condition:	Fair		

#### **DOLPHIN TABLE LEGEND**

ER = East Bridge Support Float Restraint Dolphin

WG = West Gangway Support Dolphin

V = Vertical Steel Pipe Piling

B = Battered Steel Pipe Piling

G1 = Gangway

EFP = East Float Platform

	Dolphins							
Dolphin Designation	Dolphin Piles	Fender Support	Fender Face	Anodes / Cathodically Protected	Built	Cond.	Hawse Extensions	Notes
W2	1V, 2B	4V	Timber	Y / N	1982	Poor	Yes	
W1	1V, 2B	4V	Timber	Y / N	1982	Poor	No	
E1	1V, 2B	4V	Timber	Y / N	1982	Poor	No	
E2	1V, 2B	4V	Timber	Y / N	1982	Poor	Yes	
E3	1V, 2B	4V	Timber	Y / N	1982	Poor	Yes	
E4	3V, 3B	Hanging	UHMW	Y/Y	2015	Good	Chain	Light Pole / Nav Light / Wind Sock
ER	2V, 2B	N/A	N/A	Y / -	1983	Fair	N/A	Light Pole / Camera
EG	2V	N/A	N/A	Y / -	'82/'93	Fair	N/A	
WR	2V, 2B	N/A	N/A	Y / N	1983	Fair	N/A	Light Pole / Camera
WG	2V	N/A	N/A	Y / -	'82/'93	Fair	N/A	

	Catwalks / Gangways								
#	From	To	Length / Style / Main Members	Built	Safety	Cond.	Lighting	Notes	
.,,	Struc.	Struc.	Length / Style / Wall Wellsely	Dune	Chains				
C1	E4	E3	48' / Catwalk / 10" HSS Pipe	1982	Yes	Good	Jelly Jars	Shortened 20ft in '16	
C2	E3	E2	108' / Catwalk / 10" HSS Pipe	1982	Yes	Good	Jelly Jars		
С3	E2	E1	58' / Catwalk 10" HSS Pipe	1982	Yes	Good	Jelly Jars		
C4	E1	EG	15' / Catwalk / 16"x8" HSS	1982	No	Good	Jelly Jars		
G1	EG	EFP	50' / Gangway / C 6x10.5 Bottom Chord	1982	Yes	Satisfactory	No		
G2	WFP	WG	50' / Gangway / C 6x10.5 Bottom Chord	1982	Yes	Satisfactory	No		
C5	WG	W1	15' / Catwalk / 16"x8" HSS	1982	No	Good	Jelly Jars		
C6	W1	W2	58' / Catwalk 10" HSS Pipe	1982	Yes	Good	Jelly Jars		

**LEGEND** 

C1=Catwalk 1 G1 = Gangway 1 EG = East Gangway Support Pile EFP = East Float Platform
E4 = East Dolphin #4 W1 = West Dolphin #1 WFP = West Gangway Support Piles WFT = West Float Platform

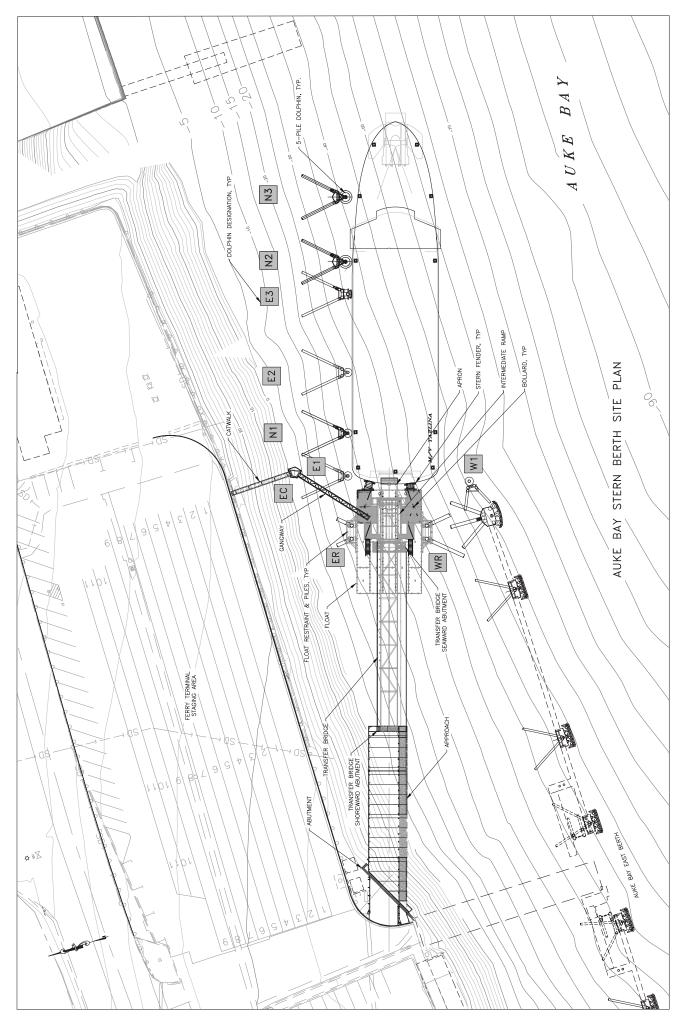
	Terminal Projects						
Year	Project #	Project Name	Description				
1982	F-093-2(2)	Auke Bay Ft Modifications	Construction of new terminal structures. Uplands consisted of existed fill between East and West berths.				
1982	H-78002	Auke Bay Marine Terminal Building	Construction of new terminal building.				
1995	75265	Auke Bay FT Pontoon Upgrade	Replaced bridge support float and restraint dolphins, recoated the transfer bridge, intermediate ramp and catwalks, relocated gangways and 15' catwalks.				
1998	75227	Auke Bay Staging Area	Uplands extension consisting of staging area for East berth, extended between berths, and West berth staging area. Also constructed: employee parking area across the street; storag building; mods to electrical building; waiting shelter; upgrades to all electrical utilities; waterline & sewer extension; East ramp waterline improvements; improvements to Glacier Highway in front of facility.				
2008	73651	Ake Bay East & West Terminal Repairs	This project rehabilitated the fender support piles at all mooring dolphins on East Berth. Work also included repairs to the seaward bridge bearing plates on East and West Berths, installation of anodes on all East Berth pipe pile groups, and installation of UHMW line guards on dolphin E1 at both East and West berths.				
2015	67463	Auke Bay Ferry Terminal Improvements	Removed dolphin E4, disconnected from dolphin W1 on Stern Berth. Built new 6-pile dolphin E4, installed new pile on dolphin W1				
2021	SAMHS00084	Auke Bay Ferry Terminal Modifications & Improvements	Replace anodes on all vertical piles on the dolphins and WR ER, WG & EG pile structures. Repaired broken hinges on apron fingers. Replaced timber fender mounting bolts on dolphins E1 &W1. Replaced hanger bolts and UHMW skids on Gangways. Modified gangway guides by elevating them and extending the guide past the platform to accommodate low tide cycles.				

#### **GENERAL FACILITY EVALUATION**

Facility Component	Rating
Bridge	5
Float	5
Apron	5
Dolphins	3
Catwalks/Gangways	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

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### Auke Bay Stern Berth

13.8 Mile Glacier Highway

Owner: State of Alaska

**Terminal Manager:** George "Brent" Cole – 907-465-8853

**Terminal Description:** Auke Bay Stern Berth is an all-tide stern-loading facility consisting of an approach, transfer bridge, steel support float, employee access gangways, six floating rubber fender dolphins and one fixed fender panel dolphin.

The facility is the homeport for the M/V Tazlina. See East Berth report for passenger and vehicle traffic counts. The most recent shore condition, routine bridge and fracture critical inspection occurred on May 12, 2021. The most recent underwater inspection occurred on August 24, 2021.

Vessels				
<u>Name</u>	Berthing, Alignment			
Tazlina	Stern			

Tidal Data (MLLW 0.0 feet)			
EHW	22.0		
MHHW	15.9		
MHW	15.0		
ELW	-6.0		

## Uplands Uplands is shared between West, East and Stern berths. See East berth report for data.

Terminal Building		
Terminal building is shared between West,		
East and Stern berths. See East berth report for		
data.		

## Generator & Building Generator & building is shared between West, East and Stern berths. See East berth report for data.

Approach Trestle				
Type:	29' x 142' Pile-Supported			
турс.	Steel Frame			
Year Built:	2004			
Shoreward support:	Steel Beam/Driven Piling			
Seaward support:	Steel beam/Driven Piling			
Pedestrian	Covered and separated			
Walkway:	from vehicles by guardrail.			
Anodes on piles:	Yes			
Condition:	Good			

Vehicle Transfer Bridge - #0191				
Type:	18' x 142' twin box beam			
Year Built:	2004			
Shoreward support:	Steel Beam/ Driven Piling			
Seaward support:	Steel Support Float			
Coating:	Wasser Paint			
Pedestrian Access:	Covered and separated from vehicles by guardrail.			
Lighting:	Light posts, left girder			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design Load:	HS 20-44			

	Bridge Support Float
Type:	50' x 80' Flexifloat Pontoon
Year Built:	2004
Ballasted:	Yes
Ramp lift:	Hydraulic tower
Apron lift:	Hydraulic
Anodes:	Yes
Condition:	Good

Utilities at Ramp			
Electrical:	Yes, city & backup power		
Water:	Yes		
Sewer:	Yes, Force Main		
Telephone:	Yes		
Cable TV:	No		
Fuel:	Yes		
Wireless Bridge:	Yes		

Dolphins								
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Mooring Crown?	Notes
W1	2B, 3V	Floating	Rubber Fender	Yes	2015	New	No	Modified in '15
E1	2B, 3V	Floating	Rubber Fender	Yes	2004	Good	Yes	
N1	2B, 3V	Floating	Rubber Fender	Yes	2021	New	Yes	
E2	2B, 3V	Floating	Rubber Fender	Yes	2004	Good	No	
E3	2B, 2V	1V	UHMW	Yes	2004	Good	No	
N2	2B, 3V	Floating	Rubber Fender	Yes	2021	New	Yes	
N3	2B, 3V	Floating	Rubber Fender	Yes	2021	New	Yes	Windsock mounted
WR	2B, 2V	N/A	N/A	Yes	2004	Good	N/A	
ER	2B, 2V	N/A	N/A	Yes	2004	Good	N/A	
A1 (EC)	4V	N/A	N/A	Yes	2004	Good	N/A	

<sup>\*</sup>Original Dolphin E4 was removed as part of the 2021 modifications to accommodate the M/V Tazlina.

#### **LEGEND**

 $\overline{\text{V}=\text{Vertical}}$  Steel Pipe Piling B = Battered Steel Pipe Piling A1 = Gangway SFP = Shoreward Float Platform ER = East Bridge Support Float Restraint Dolphin A1 = Gangway Access Dolphins

	Catwalks / Gangways						
#	From	To	Length / Style / Main Members Built Safety Cond. Notes				Notes
"	Struc.	Struc.	Length / Style / Wall Members		Chains?	Conu.	110163
G1	SFP	A1	62'8" / Gangway / 2.5"x2.5" Bottom Chord	2004	No	New	
G2	A1 Shore 49' / Gangway / W18x40 Girders 2		2004	No	New		

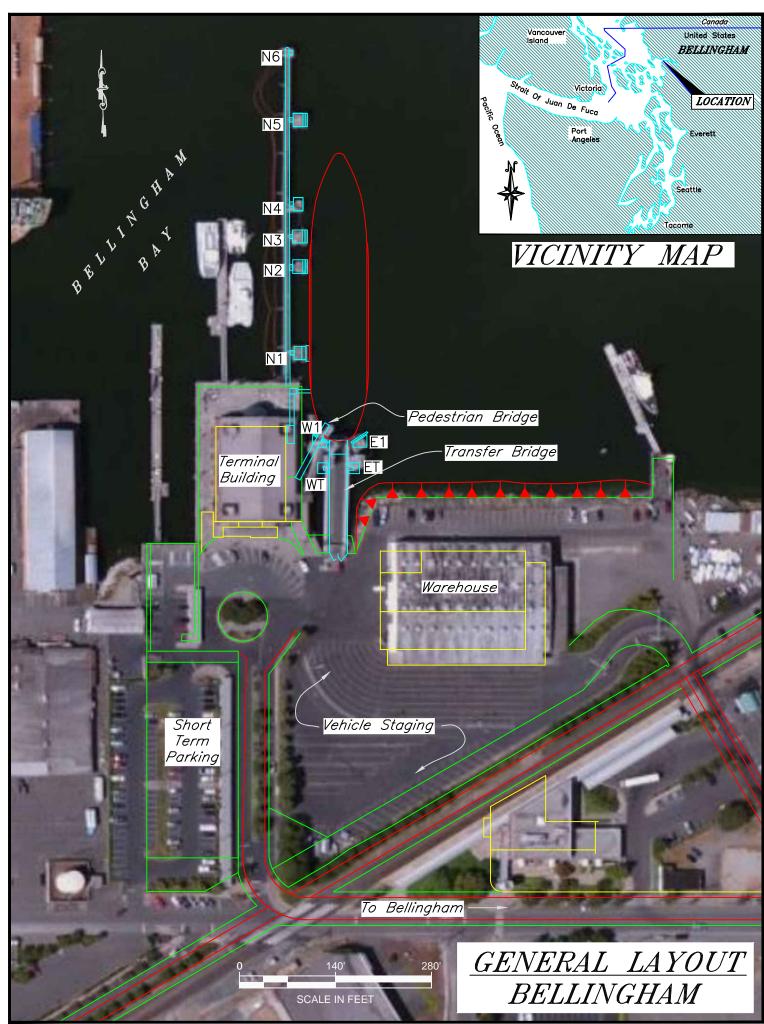
	Terminal Projects					
Year	Project #	Project Name	Description			
2004	68021	JNU Auke Bay East Stern Berth	Original construction of facility.			
2005	68318	JNU Auke Bay East Stern Berth Modifications	Modifications to floating fender dolphins.			
2009	67763	JNU AMHS - Auke Bay FVF Support Facility	New 50'x125' building construction, uplands fill and site work, sanitary sewer line from vessel to new on site holding tank.			
2015	67463	Auke Bay Ferry Terminal Improvements	Removed dolphin E4, disconnected from dolphin W1 on Stern Berth. Built new 6-pile dolphin E4 on East berth, installed new piles on dolphin W1 Stern berth.			
2020	SAMHS00084	Auke Bay Ferry Terminal Modifications & Improvements	Installed (3) new mooring dolphins and (2) new stern fenders to accommodate the M/V Tazlina. Anodes installed on all existing and new dolphin and float restraint piles.			

#### **GENERAL FACILITY EVALUATION**

Facility Component	Rating
Approach	6
Bridge	5
Float	7
Intermediate Ramp	8
Apron	7
Stern Fenders	8
Dolphins	8

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

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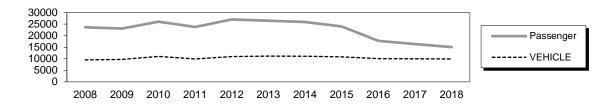
### **Bellingham Ferry Terminal**

335 Harris Ave. - Ste. 101

Owner: Port of Bellingham

**Terminal Manager:** Dave Warter – 360-676-2500

**Terminal Description:** Bellingham Ferry Terminal, built in 1989, is the southern terminus for the Alaska Marine Highway System (AMHS). Bellingham is a stern-loading facility consisting of a steel transfer bridge, supported by a steel framed lift tower and counterweight system at the seaward end, with two stern dolphins and five breasting dolphins connected by timber catwalks. The terminal building differs from AMHS owned facilities in that it is a multiple use facility. The terminal building lies on a concrete dock supported by steel pipe piles. The dock extends around the northern, eastern, and western faces of the terminal building. The staging area has separate long and short term parking areas. Bellingham's past 10 years of total passenger and vehicle traffic are shown below.



The most recent above water survey was completed on September 29, 2017.

Vessels			
<u>Name</u>	Berthing, Alignment		
Mat/Mal/Ken/Col	Stern		

Tidal Data (MLLW 0.0 feet)		
EHW	11.5	
MHHW	8.6	
MHW	7.8	
ELW	-4.5	

Terminal Building		
Year Built:	1989	
Square Footage:	22,509 s.f.	
Heating System:	Boiler	
Fuel Storage:	UST	
Fire Protection:	Yes	
Condition:	Good	

Gen	erator & Building
The vessel's gener	ator powers the vehicle ramp during
shorepower outage	es.

Uplands				
Short-Term Parking:	12 cars, 1 HCP			
Long-Term Parking:	80 cars			
Staging Area:	3200 lineal feet - cars;			
	800 lineal feet - trucks;			
Paint Striping:	Yes			
Driving Surface:	Asphalt			

Utilities				
	at Terminal	at Ramp		
Electrical:	Yes	Yes		
Water:	Yes	Yes		
Sewer:	Yes	Yes		
Telephone:	Yes	Yes		
Cable TV:	Yes	No		
Fuel:	UST	Yes		
Wireless Bridge:	Yes	-		

Pedestrian Bridge				
Type:	8' x 77' Steel Truss			
Year Built:	1989			
Shoreward support:	Hinge bearings			
Seaward support:	Cable hoist support on			
Scaward support.	steel lift towers			
Apron lift:	Hydraulic			
Coating:	Sherwin Williams Paint			
Lighting:	Overhead fixtures			
Condition:	Good			

Vehicle Transfer Bridge					
Type:	22' x 120' twin steel girder				
Year Built:	1989				
Shoreward support:	Hinge bearings				
Seaward support:	Counterweighted cable				
Coating:	Hydraulic				
Pedestrian Access:	Sherwin Williams Paint				
Lighting:	Lights on Lift Towers				
Condition:	Good				
Load Posting Sign:	10 Tons Max Axle Load				
Original Design Load:	AASHTO HS 20-44				

Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
N6	1BC, 3VC	1	-	-	1989	Good	Red Nav Light & Windsock
N5	3BC, 5VC	4V	Sitka Spruce	Yes	1989	Good	
N4	2T	1	-	-	1989	Good	
N3	3BC, 5VC	4V	Sitka Spruce	Yes	1989	Good	
N2	2BS, 2VS	Chains	UHMW	Yes	1997	Good	
N1	3BC, 5VC	4V	Sitka Spruce	Yes	1989	Good	
W1	12BH, 20VH	ı	Sitka Spruce	Yes	1989	Fair	
E1	10BC	4V	Sitka Spruce	Yes	1989	Good	
WT	7BC, 4VC	1	-	-	1989	Good	
ET	7BC, 4VC	ı	-	-	1989	Good	

WT = West Bridge Lift Tower Dolphin VC = Vertical Concrete Piling

C1 = Catwalk

BH = Battered Steel H-Piling BS = Battered Steel Pipe Piling

	Catwalks / Gangways							
#	From	То	Lenth / Style / Main Members	Built	Safety	Cond.	Lighting	Notes
#	Struc.	Struc.	Lenui / Style / Main Members	Duiit	Chaines?	Conu.		
C1	Dock	N6	380' / Catwalk / Timber stringers on piles spaced 50' (roughly) apart	1989	No	Good	Lightpoles	

#### **Observations**

Terminal Projects						
Year	Project #	Project Name	Description			
1989	N/A	Bellingham Ferry Terminal	Construction of new terminal structures. Uplands fill, vehicle parking/staging, landscaping, fencing and new terminal building.			
1997	75562	Ocean Class Vessel Dock Modifications	Constructed new breasting dolphin N2, mondified bridge apron for the Kennicott and installed new hydraulic lift for apron.			
1999	N/A	Fairhaven Terminal Passenger Ramp Apron Modifications	Replaced the existing apron with a new retractable apron.			

2018 Shore Facilities Condition Survey Report

Bellingham

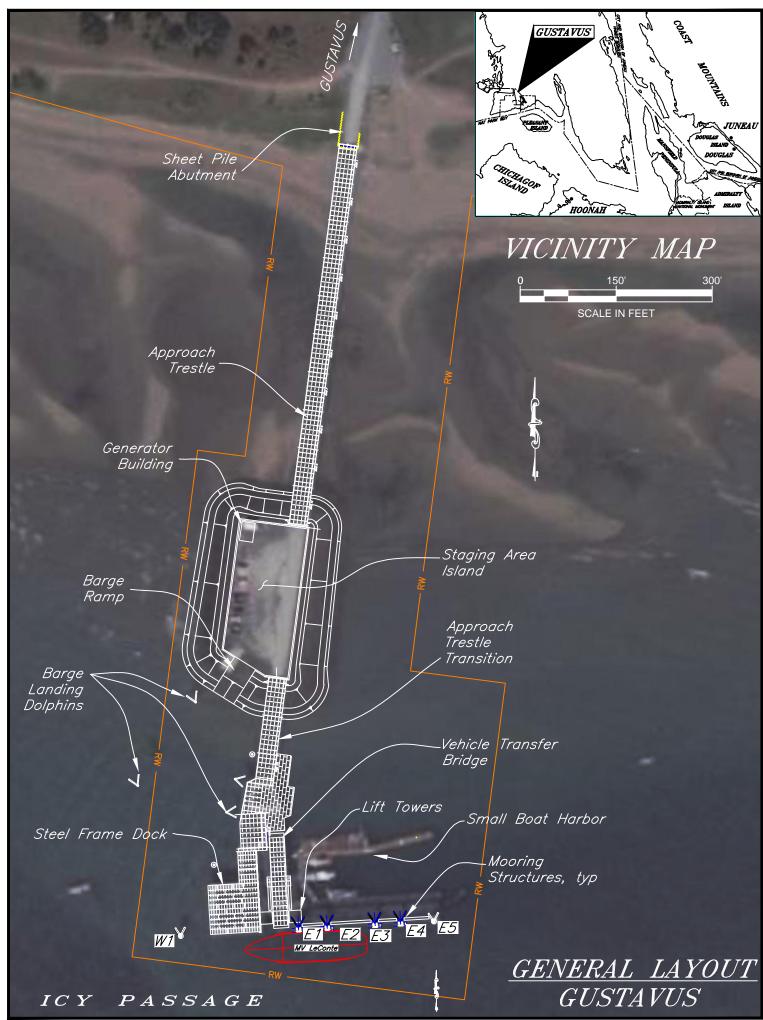
- AMHS rents part of a warehouse facility located directly adjacent to the vehicle loading bridge and Port of Bellingham terminal facility. The warehouse provides phone and fax services to the crew while the vessel is in port. The warehouse provides storage for vessel equipment, spare parts, and receiving items.
  - The paint storage area in the warehouse is out of compliance. There are many propeller blades are stored in the warehouse. Storage racks in the warehouse are unrestrained at the post bases, which is a seismic concern.
- 2. The terrazzo floor has cracked between the roof truss supports. The microcracks are small and don't present a tripping hazard.
- 3. The northern-most mooring structure (N6) and approximately sixty feet of access catwalk were damaged in 1992 by an AMHS vessel collision. The vessel was approaching the facility during high winds. The vessel stern was blown against the northwest corner of this dolphin, which has no fender protection. The Port replaced the damaged mooring structure, navigation light, windsock, and catwalk in 1994. AMHS vessel masters have requested that this structure be replaced with a wraparound turning dolphin similar to those located at the ends of the mooring structures in Ketchikan to aid vessel landing during high wind conditions. With the potential cost of this upgrade approaching one million dollars, this project has not been placed on the Port's priority list. The state will need to coordinate funding of this project with the Port of Bellingham. This dolphin has a red nav light and windsock mounted on the cap.

In 1997, AMHS added a new dolphin (N2) with a steel fender system. This dolphin was added to accommodate the M/V Kennicott. The new dolphin is a galvanized steel cap structure supporting a steel suspended fender system. The fender face is an ultra-high-molecular-weight (UHMW) black plastic. Cylindrical rubber bumpers installed between the fender system and dolphin provides vessel energy absorption. CP measurement in 2017 for dolphin N2 was below -0.8V, which indicate that the steel is unprotected from corrosion.

Several of the timbers are broken on the fender panels of dolphins N1 & N3. The energy-absorbing units of these fender dolphins are "buckling column" rubber units. These have very good energy capacity but require a large initial force to cause buckling. Most broken timbers are located in the corners of the panels where the vessel sponson contacts a single timber when berthing obliquely. It is very likely the timbers fail because the fender units are stiff and the large initial reaction causes failure of the timber prior to buckling of the rubber unit. Recommend an analysis of the fender assembly by marine engineering to ensure compatibility among the timbers, wales, rubber elements and back-up structure. If the timbers are the limiting element, a possible solution is substituting the damaged timbers with stronger members such as steel beams faced with UHMW.

- 4. Condition of all dolphins are relatively identical to the previous inspection: coal tar epoxy coating is failing on all immersed steel structures, some fender timbers are still broken, timber catwalks have no safety chain/cable installed. Overall, dolphins are in good/fair condition.
- 5. The horizontal fender chains, mounted on the sides of the caps and fenders of dolphins N1, N3 & N5 are corroding. U-bolt chain connections to the fender and caps are undersized and corroding.
- 6. The towers, bridge and pedestrian ramp coatings were replaced in 2002 and remain in good condition. The non-skid coating on the pedestrian ramp-walking surface was replaced in 2002 and appears durable. The cables of the lift system and upper sheaves are inspected annually by Port staff.
- 7. The pedestrian gangway collapsed suddenly during service in 2012, and was not used again until January of 2016. There was litigation involved, which affected the timeline for making the repairs. During the shutdown period, pedestrians would walk down the transfer bridge car deck to load on the vessel, similar to standard AMHS port facilities.
- 8. The short timber catwalks between the main catwalk and the dolphin caps are fastened rigidly to their supports and do not have safety chains installed.
- 9. Improvements to the sewer pumpout utility lines were completed in January of 2011.

Inspection Summary					
Structure	Priority	ty Recommendations			
		Category I - Safety Repairs			
		Nothing recommended.			
		Category II - Rehabilitation Work			
Dolphins	1	Replace the end dolphin N6 with a wrap-around turning dolphin. Analyze the timber fender system for capacity. Replace broken fender rubbing timbers as necessary. Replace the U-bolt chain connections on the fender and caps with properly sized pad eyes, with concrete anchor bolts for the caps. Replace the chain connecting links on the dolphin cross chains. Monitor the coating loss on the dolphin fender support piles.			
Catwalks	Install safety chains/cables at the supports of the short timber catwalks between the main catwalk and the dolphin caps.				
Terminal Building	3	Monitor the cracks in the terrazzo floor.			
Storage Building  4 Fasten the post bases of the storage racks to the Warehouse floor, to brace in the element of seismic loading. Bring paint storage area into compliance.					
		Category III - Upgrades Needed			
		Nothing recommended.			



## **Gustavus Ferry Terminal**

State Dock Road

Owner: State of Alaska

Contact: Scott Gray, M&O Superintendent, SC Region – 907-465-1784

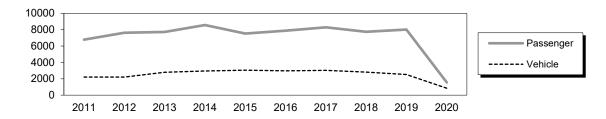
**Terminal Description:** Gustavus Dock is located on the north shore of Icy Strait, at the southern terminus of State Dock Road. It is a multiple use facility that serves the Alaska Marine Highway System (AMHS), provides freight and fuel transfer facilities for private carriers and accesses a seasonal, small boat harbor.

This is a side-loading terminal consisting of approach trestles, staging area island, freight dock, movable transfer bridge, and mooring/breasting structures. The transfer bridge is positioned using hoists located on each side of the bridge. The terminal serves primarily the MV LeConte but its mooring facilities can accommodate all side-loading ferries.

A small boat harbor is located adjacent to the terminal and is accessed via a gangway from the approach trestle. A wave barrier located on the dock provides some shelter to the boat harbor.

Operation and maintenance responsibility is shared among ADOT&PF (freight dock & trestle), AMHS (transfer bridge & mooring structures) and City of Gustavus (small boat harbor facilities). There is no terminal manager but operation of the transfer bridge and line handling is provided by a contract agent.

Summary of passenger and vehicle traffic volumes (source: https://dot.alaska.gov/amhs/reports.shtml):



The most recent above water and fracture critical bridge inspections were conducted on June 29, 2021 and under water inspection on August 20, 2021. Copies are available upon request from the ADOT&PF – Marine Design Department.

	Vessels	
Name Berthing Alignment		
LeConte, Aurora	Port/Starboard	
Others	Port/Starboard	

Tidal Data (MLLW 0.0 feet)		
EHW	20.0	
MHHW	14.8	
MHW	13.7	
ELW	-5.0	

Terminal Building
This facility does not have a terminal building.

Generator & Building		
Year Built:	2011	
Square Footage:	336 SF	
Heating System:	Oil Furnace	
Fuel Storage:	500 gal Tank	
Fire Protection:	N/A	
Condition:	New	
Generator cannot operate hoist system. Bridge and apron lift systems rely solely on the local utility.		

Uplands		
Parking:	14 cars	
Staging Area:	240 ft	
Paint Striping:	No	
Driving Surface:	Gravel	

Vehicle Transfer Bridge - #1417				
Type:	ype: 24'x142' steel multi girder			
Year Built:	2011			
Shoreward support:	RC cap/ Driven Piling			
Seaward support:	Hoists/lift towers			
Coating:	Paint			
Pedestrian Access:	On Bridge			
Lighting:	Rail mounted fixtures			
Condition:	New			
Load Posting Sign:	N/A			
Original Design Load:	HS 20-44			

Bridge Lift System		
Hoist: (2) Pearlson Shiplift Hoist		
Capacity: 200 kips ea.		
	15 HP/ bridge speed 1	
Elec Motor/Speed ft/min		

	Utilities	
	at dock	at ramp
Electrical:	Yes	Yes
Water:	No	No
Sewer:	No	No
Fuel:	Yes	No

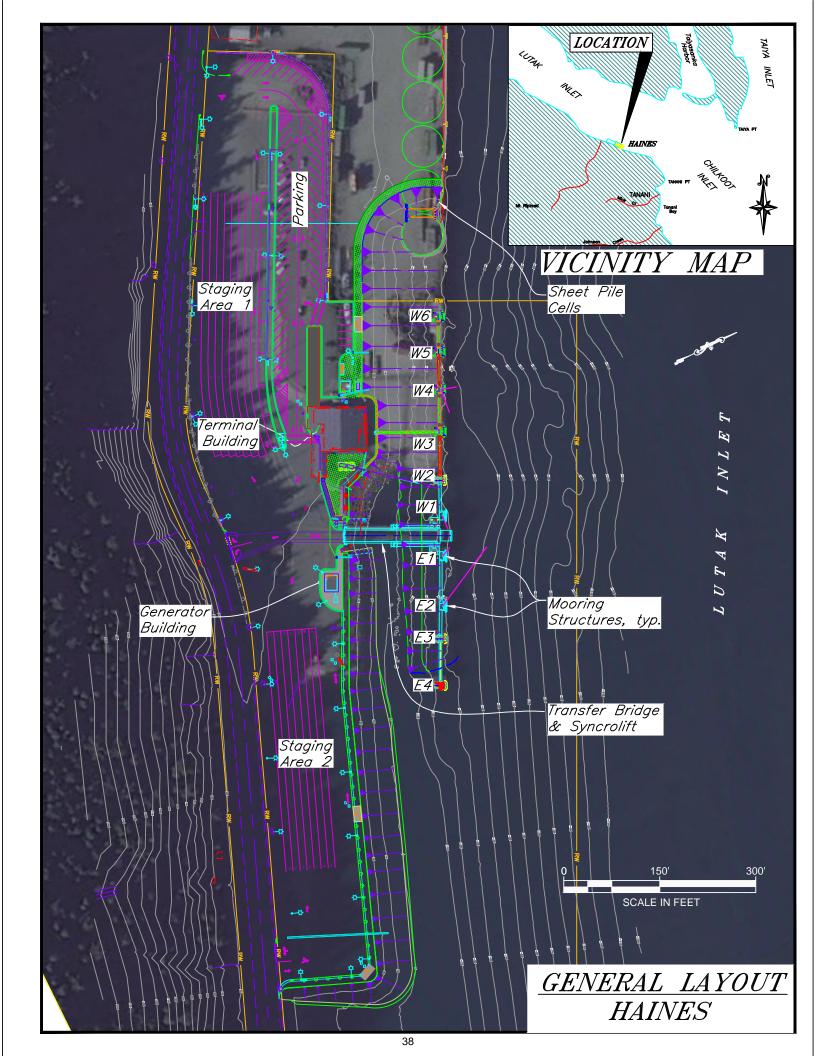
			Dolphins				
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W1	1V, 2B	-	Rubber Tires	No	2011	New	
E1	1V, 2B	Hanging	UHMW	No	2011	New	
E2	1V, 2B	Hanging	UHMW	No	2011	New	
E3	1V, 2B	Hanging	UHMW	No	2011	New	
E4	1V, 2B	Hanging	UHMW	No	2011	New	
E5	1V, 2B	=	Rubber Tires	No	2011	New	

	Terminal Projects				
Year	Project #	Project Name	Description		
2011	67599/ BR- 0003(53)	Gustavus Causeway Replacement	The replacement of the old structures with new structures, the construction of a new dock and approach, and the relocation of the existing floats.		
2013	67599	GST Emergency Bridge Repairs	Replaced horizontal and vertical alignment bridge rollers.		
2013	67599	Gustavus Causeway Replacement	A new access gangway was installed between mooring structures E4 to E5 to allow use of E5 as a mooring line attachment for the MV Kennicott. Other miscellaneous modifications were made to the bull rails on the fixed dock and the existing dolphin caps to minimize line abrasion.		
2020	68128	Gustavus Ferry Terminal Improvements	Bridge abutment and float substructure were replaced with pile supported RC abutment and Pearlson Shiplift hoists and lift towers.  Approach trestle was widened to improve hrz alignment at top of bridge. Harbor access gangway was relocated to east side of trestle. Steel pontoon harbor float re-installed with (4) 4-pile guide restraints.		

## **General Facility Evaluation**

Facility Component	Rating
Approach trestle	6
Bridge	8
Abutment & lift system	8
Apron	8
Mooring Structures	7
Uplands Staging area	7
Uplands Waiting Building	-
Utilities	8

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



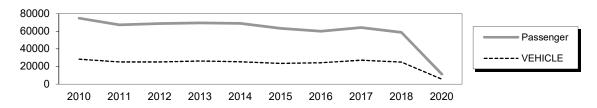
## **Haines Ferry Terminal**

4 Mile Lutak Road

Owner: State of Alaska

**Terminal Manager:** Ryan Ackerman– 907- 766-2111

**Terminal Description:** Haines is a side-loading facility consisting of a transfer bridge, twin lift tower syncrolift, three steel pile and two timber dolphins, sheet pile cell structure with timber fenders and catwalks/gangways for line-handling access. The terminal structures were originally constructed in 1984 and it is the second busiest facility in the AMHS system; only Juneau surpasses it for combined passenger and vehicle traffic. Haines past 10 years of total passenger and vehicle traffic is shown below.



The most recent inspections are as follows: Above water survey of the terminal May 6, 2021.

Routine and fracture critical bridge inspection May 6, 2021.

Underwater inspection: August 8, 2021.

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.

Vessels					
Name Berthing, Alignment					
Kennecott/Tustumena	Port				
All Other Vessels Starboard					

Tidal Data (MLLW 0.0 feet)			
EHW	22.5		
MHHW	16.8		
MHW	15.8		
ELW	-6.0		

Terminal Building				
Year Built:	1980			
Square Footage:	4352 s.f.			
Heating System:	Forced Air			
Fuel Storage:	UST			
Fire Protection:	Fire Alarm			
Condition:	Good			

Generator & Building				
Year Built:	1984			
Square Footage:	360 s.f.			
Heating System:	Electric			
Fuel Storage:	N/A			
Fire Protection:	Halon			
Condition:	Good			

Uplands			
Short-Term Parking:	12 cars, 1 HCP		
Long-Term Parking:	80 cars		
Staging Area:	3200 lineal feet - cars;		
Staging Area:	800 lineal feet - trucks;		
Paint Striping:	Yes		
Driving Surface:	Asphalt		

Utilities					
	at Terminal	at Ramp			
Electrical: Yes, city & backup power					
Water:	Yes	No			
Sewer:	Yes (Septic)	No			
Telephone:	Yes	Yes			
Cable TV:	No	No			
Fuel:	UST	Yes			
Wireless Bridge:	Yes	-			

Vehicle Transfer Bridge - #0804			
Type:	16' x 140' twin box beam		
Year Built:	1985		
Shoreward support:	Concrete abutment		
Seaward support:	Steel Lift Beam-Syncrolift		
Coating:	Wasser Paint		
Pedestrian Access:	Concrete 4' wide on bridge		
Lighting:	Tubular lights on railing		
Condition:	Good		
Load Posting Sign:	N/A		
Original Design Load:	HS 20-44		

2021 Shore Facilities Condition Survey Report

Haines

	Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
W6	2B, 2V	Hanging	UHMW	Yes	2015	New	Yes	
W5	2B, 2V	Hanging	UHMW	Yes	2015	New	Yes	
W4	2B, 2V	Hanging	UHMW	Yes	2015	New	Yes	No mooring
W3	2B, 2V	Hanging	UHMW	Yes	2015	New	Yes	
W2	4V	Hanging	UHMW	Yes	2008	Good	Yes	
W1	2B, 1V	4V	Ekki Timber	No	1984	Fair	No	
E1	2B, 1V	4V	Ekki Timber	No	1984	Fair	No	
E2	2B, 1V	4V	Ekki Timber	No	1984	Fair	No	
E3	4V	Hanging	UHMW	Yes	2008	Good	Yes	
E4	4V	Hanging	UHMW	Yes	2008	Good	Yes	Windsock
ET	4V	-	-	No	1984	Good	-	Light Pole & Nav Light
WT	4V	-	-	No	1984	Good	-	Light Pole

**LEGEND** 

 $\overline{ET} = \overline{East}$  Lift Tower V = Vertical Steel Pipe Piling <math>G1 = Gangway EBP = East Bridge Platform

B = Battered Steel Pipe Piling

	Catwalks / Gangways							
#	From Struc.	To Struc.	Lenth / Style / Main Members	Built	Safety Restraints	Cond.	Lighting	Notes
C1	E4	E3	61' / Catwalk / 10"x10" Tube Girders	1984	Yes	Fair	Jelly Jars	
C2	E3	E2	39' / Catwalk / 10"x10" Tube Girders	1984	Yes	Fair	Tubuloid	
C3	E2	E1	68' / Catwalk 10"x10" Tube Girders	1984	Yes	Fair	Tubuloid	
G1	ET	EBP	53' / Gangway / S 4x9.5 Bottom Chord	1984	Yes	Fair	Tubuloid	
G2	WT	WBP	53' / Gangway / S 4x9.5 Bottom Chord	1984	No	Fair	Tubuloid	
C4	W1	W2	44' / Catwalk / 16"x4" Tube Girders	2008	Yes	Good	Tubuloid	
C5	W2	W3	57' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jars	
C6	W3	W4	57' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jars	
C7	W4	W5	57' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jars	
C8	W5	W6	44' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jars	
С9	W3	Shore	97' / Catwalk / Under truss	2015	Yes	New	Jelly Jars	

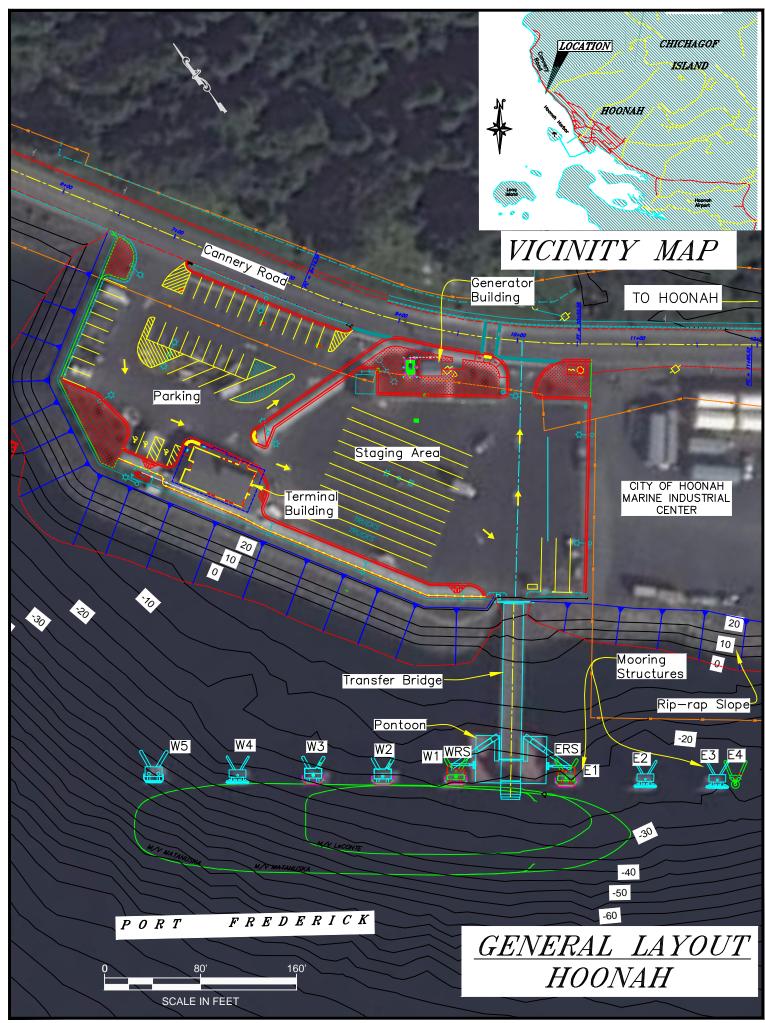
	Terminal Projects					
Year Project # Project Name		Project Name	Description			
1952	N/A	Haines Sheet Pile Dock	Construction of new sheet pile dock. Includes concrete retaining wall and timber piles bolted to concrete face.			
1962	F-095-10(1)	Southeast Alaska Ferry Terminal	Placement of fill, guardrail, septic tank, oil tank, lighting, and hypochlorinator.			
1963	N/A	Haines Ferry Terminal	Construction of timber transfer bridge, timber lift towers and counterweight system, and timber mooring dock. Also constructed new waiting shelter.			
1968	MT 95	38 Pile Dolphin Haines Ferry Terminal	Construction of timber mooring dolphins, in-line with existing mooring dock fenders.			

Haines

	Terminal Projects (continued)					
Year	Project #	Project Name	Description			
1972	DB 13-0870	Haines Ferry Terminal Building	Construct Haines waiting shelter.			
1978	75210-MT-739	Haines Ferry Terminal Upgrades	Replaced the existing timber fender piles on the sheet pile dock with new timber pile modules that include rubber energy-absorbing donuts.			
1980	N/A	Haines Ferry Terminal Building	Replaced the existing waiting shelter with new terminal and generator buildings.			
1984	A38512-F-095- 5(5)	Haines Ferry Terminal Modifications	Replaced the existing timber bridge, lift towers, and mooring dock with steel transfer bridge, lift towers and three steel mooring dolphins.			
1992	75034 / RS- 0991(3)	Haines Ferry Terminal Upland Improvements	Expand uplands parking & staging areas.			
1995	75475-NH-095- 5(7)	Haines Mooring Improvements Phase A	Adds an access gangway & platform between west side of transfer bridge and west lift tower; upgrades syncrolift winch gear & motors; miscellaneous electrical and bridge control upgrades.			
2007	75249	Haines Mooring Improvements	Replaced a Duncan Type timber dolphin (E3) and a concrete apped timber pile cluster (E4) with new steel mooring/breasting dolphins. A new dolphin, W2, was also installed west of the transfer bridge. Additional work included replacing a timber catwalk between E3 and E4 with a steel catwalk, installing a new gangway between W2 and the sheet pile dock, removing an existing timber fender module on the dock, and shoring for an existing concrete retaining wall above partially fail sheetpile cell #4.			
2008	N/A	N/A	The AMHS Maintenance crews removed a timber fender module on sheet pile cell #3 that was leaning out tude to scour undermining the base of the fender panel. Maintenance also replaced the timber fender mounting bolts for the lower two wales on each of the three existing mooring dolphins.			
2008	73003(4)	Haines FT Carpet Replacement	Replaced carpet in the terminal buliding with out standard style: Lees Carpet - Vitral Pattern, Modular 24" x 24" No. 428 Mountain Beauty.			
2008	69050 / SHAK- 0005-(575)	Haines - Ferry Dock Hoist Upgrade	Replaced the existing relay-based control panel for the transfer bridge lift system with a PLC-based control panel.			
2015	68433	Haines FT Improvements	Removed the cellular sheet pile bulkhead, installed a retaining wall seaward of the terminal building, constructed three new mooring dolphins, four catwalks, two pedestrian walkways, new generator & storage buildings, reconfigured the uplands parking and staging areas, placed excavated fill from bulkhead along tidelands to construct new staging area west of the terminal building.			
2019	00088	AMHS Fuel tank and Septic System Upgrades	Replaced wastewater treatment system. Converted marine outfall to a leach field.			

	Item	NBI Rating
Item 58	Deck	6
Item 59	Superstructure	5
Item 60	Substructure	6
Item 61	Channel Protection	8
Item 113	Scour	8
	Mooring Structures	7
Marina	Uplands Staging area	7
Marine	Uplands Waiting Building	7
	Utilities	7

9	EXCELLENT CONDITION
5	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



# **Hoonah Ferry Terminal**

1 Mile Cannery Road

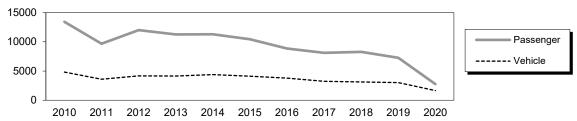
Owner: State of Alaska

**Terminal Manager:** Lyna Johanson – 907-945-3543

**Terminal Description:** Hoonah Ferry Terminal is located on the NW shore of Port Fredrick, within a mile of the city center. The terminal consists of a passenger waiting building, staging area, generator building, transfer bridge, bridge pontoon, intermediate ramp with apron and (9) breasting/mooring structures.

This is a side-loading terminal that serves primarily the MV LeConte but its mooring facilities can accommodate all ferries.

Summary of passenger and vehicle traffic volumes (source: https://dot.alaska.gov/amhs/reports.shtml):



The most recent above water and underwater surveys were completed on April 29, 2021 and August 19, 2021, respectively. Copies of these reports are available upon request from ADOT&PF – Marine Design Department.

Vessels				
<u>Name</u>	Berthing, Alignment			
Mat / Mal / Taku/ Leconte	Port			

Tidal Data (MLLW 0.0 feet)		
EHW	20.0	
MHHW	14.8	
MHW	13.9	
ELW	-5.1	

Generator & Building				
	1992 (exterior			
Year Built:	siding - 2010)			
Square Footage:	360 s.f.			
Heating System:	Electric			
Fuel Storage:	UST			
Fire Protection:	N/A			
Condition:	Good			

Vehicle Transfer Bridge - #0179				
Туре:	16' x 130' steel multi-girder			
Year Built:	2011			
Shoreward support:	Concrete abutment (1973)			
Seaward support:	Steel Support Float			
	Spray metallized			
Coating:	w/topcoat			
Pedestrian Access:	Concrete 4' wide on bridge			
Lighting:	(3) Overhead Light Posts			
Condition:	New			
Load Posting Sign:	N/A			
Original Design Load:	HL93			

Uplands				
Short-Term				
Parking:	22 cars			
Long-Term				
Parking:	0			
Staging Area:	610 lineal feet, 4 lanes			
Paint Striping:	Yes			
Driving Surface:	Asphalt			

Terminal Building				
Year Built: 2011				
Square Footage:	1472 s.f.			
Heating System:	Monitor			
Fuel Storage:	500 gal UST			
Fire Protection:	None			
Condition:	Good			

Bridge Support Float				
Type:	40' x 60' Steel Flexi-float			
Year Built:	2011 (Intermediate Ramp & Apron reused).			
Ballasted:	No			
Ramp lift:	Hydraulic/Cable (1994)			
Apron lift:	Hydraulic/Cable (1994)			
Anodes:	Yes			
Float Condition:	Good			

	Utilities	
	at Terminal	at Ramp
Electrical:	Yes, city & ba	ickup power
Water:	Yes	No
Sewer:	Yes (City)	No
Telephone:	Yes	No
Cable TV:	Yes	No
Fuel:	Yes	No
Wireless Bridge:	Yes	N/A

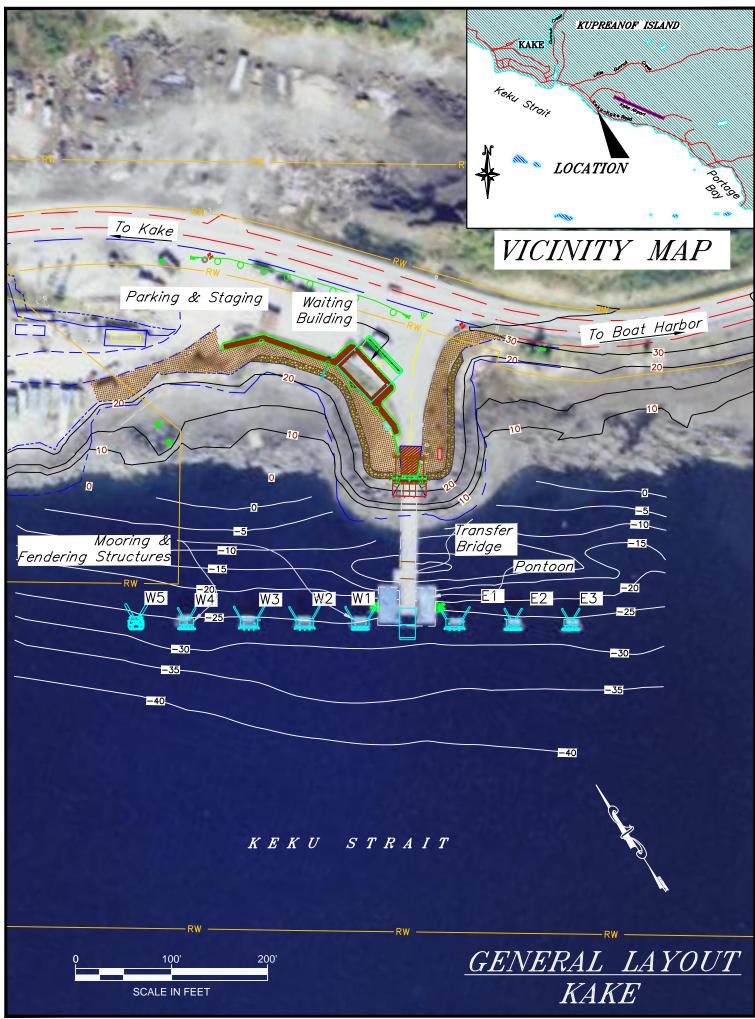
Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W5	2B, 2V	Hanging	UHMW	-	2006	Good	Windsock & Red navlight
W4	2B, 1V	4V	Ekki Timber	-	1993	Fair	
W3	2B, 2V	Hanging	UHMW	Yes	2010	New	
W2	2B, 2V	Hanging	UHMW	Yes	2010	New	
W1	2B, 2V	Hanging	UHMW	Yes	2010	New	
E1	2B, 2V	Hanging	UHMW	Yes	2010	New	
E2	2B, 1V	4V	Ekki Timber	-	1993	Fair	
E3	2B, 1V	4V	Ekki Timber	-	1993	Fair	
E4	2B, 3V	Floating	Rubber	Yes	2010	New	White nav light
ERS	1B, 1V	=	-	-	1993	Fair	
WRS	1B, 1V	-	<u>-</u>	-	1993	Fair	<u> </u>

	Terminal Projects					
Year	Project #	Project Name	Description			
1973	S-0918(1)	HNH Ferry Terminal Construction	Original fill onto tidelands, with Shelter and separate vault toilet on uplands; built transfer bridge, flexifloat seaward support (w/concrete anchors), ramp lift system and four concrete capped, steel pile mooring dolphins (E1, W1-3).			
1975	??	HNH Ferry Terminal Building	Construct the terminal building.			
1986	X-70006	HNH Ferry Terminal North Dolphin Repair	Remove existing and install new fender panel from dolphin W3; Loosen existing concrete cap from existing dolphin piles and level.			
1987	RS-0005(78)	Southeast Secondary Upgrade	Recoated and installed new zincs on flexi-floats; Recoated ramp, apron, transfer bridge; Replaced expanded metal mesh on bridge; Upgrade to dolphin fenders.			
1992	74905 -RS- 0918 (5)	HNH Ferry Terminal	Expanded the staging and parking areas, along with grading, paving, lighting and drainage improvements.			
1993	75130 - RS0989	HNH Ferry Terminal Mooring	Installed new mooring structures W4 & E2-3; Replaced fender on W1; Installed new barge fenders and restraint structures.			
1996	75455 - STP-0918 (6)	HNH Ferry Terminal Ramp & Apron Upgrade	Replace ramp and apron with newer hydraulically controlled units.			
2006	67488	Kake & Hoonah Ferry Terminal Dolphins	Install new lead-in dolphin W5.			
2010	67813	HNH Ferry Terminal Improvements	Expanded the staging & parking areas, constructed new terminal building, connected building to City sewer system.			
2011	69311	HNH FT Marine Structures	Replaced the vehicle transfer bridge, float system, mooring dolphins E1 & W1, W2 and W3, installed new gangways & platforms to access dolphins E1 & W1 for line handling. Installed new dolphin E4 for all-tide mooring of the FVF.			

## **General Facility Evaluation**

<b>Facility Component</b>	Rating
Bridge	8
Abutment & float	5
Apron	6
Mooring Structures	6
Uplands Staging area	7
Uplands Waiting Building	8
Utilities	7

9	EXCELLENT CONDITION		
8	VERY GOOD CONDITION - no problems noted		
7	GOOD CONDITION - some minor problems.		
6	SATISFACTORY CONDITION - structural elements show minor deterioration		
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.		
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.		
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.		
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.		
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.		
0	FAILED CONDITION - out of service - beyond corrective action		
N	Not applicable		



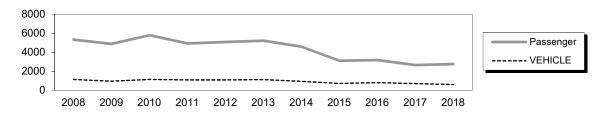
## **Kake Ferry Terminal**

264 Keku Road

Owner: State of Alaska

**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** Kake Ferry Terminal was originally constructed in 1974 to provide service to the communities of Kupreanof Island via the LeCONTE Class vessels. A new mooring dolphin (W5) was added in 2006 to allow service by the larger AMHS vessels. The M/V LeConte no longer visits Kake. Kake is a side-berth facility consisting of a transfer bridge, steel support float, and eight steel mooring dolphins. This terminal is capable of berthing all AMHS vessels. Uplands include an open waiting shelter, paved parking and overhead lighting. Kake's past 10 years of total passenger and vehicle traffic counts are shown below.



The most recent above water survey was completed June 28, 2021 . The underwater inspection occurred on August 13, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
Malaspina / Matanuska	Port	
Taku	Port	
LeConte / Aurora	Port	

Tidal Data (MLLW 0.0 feet)		
EHW	18.1	
MHHW	14.0	
MHW	13.2	
ELW	-4.6	

Vehicle Transfer Bridge - #0177		
Type	16' x 132' steel multi-girder	
Type:	open deck	
Year Built:	2015	
Shoreward support:	Spread footing with tiebacks	
Seaward support:	Steel Support Float	
Coating:	Wasser Paint	
Pedestrian Access:	Concrete 4' wide on bridge	
Lighting:	3 light poles	
Condition:	New	

Uplands		
Short-Term Parking:	8 cars	
Long-Term Parking:	0	
Staging Area:	200 lineal feet, 1 lane	
Paint Striping:	No	
Driving Surface:	Asphalt	

Terminal Building		
Year Built:	2016	
Square Footage:	933 s.f.	
Heating System:	Heat Pump & Baseboard	
Utilities:	Water, sewer, electric	
Fire Protection:	N/A	
Condition:	New	

Bridge S	Support Float
Type:	40' x 60' Steel Flexi-float
Year Built:	2015
Ballasted:	Yes
Ramp lift:	Hydraulic/Cable
Apron lift:	Hydraulic/Cable
Anodes:	Yes
Condition:	New
Load Posting Sign:	N/A
Original Design Load:	HS 20-44

2021 Shore Facilities Condition Survey Report

Kake

**Dolphins** Dolphin Fender Built **Dolphins Fender Face** Anodes Cond. Notes **Piles** Support **UHMW** Yes W5 2B, 2V 2006 New Red navlight Hanging Ekki Timber Yes W4 2B, 1V 4V 1993  $G\!ood$ Ekki Timber No W3 2B, 1V 4V 1998 Good Ekki Timber W2 4V Yes 1998 2B, 1V Good Yes Ekki Timber W12B, 1V 4V 1998  $G\!ood$ Ekki Timber Yes 2B, 1V 4V 1998 Good E1 Ekki Timber Yes 4V E2 2B, 1V 1993 Windsock Good E3 4V Ekki Timber Yes 1993 Red navlight 2B, 1V  $G\!ood$ Yes **ERS** 2B, 1V 1993 Good -Yes WRS -1993 2B, 1V Good

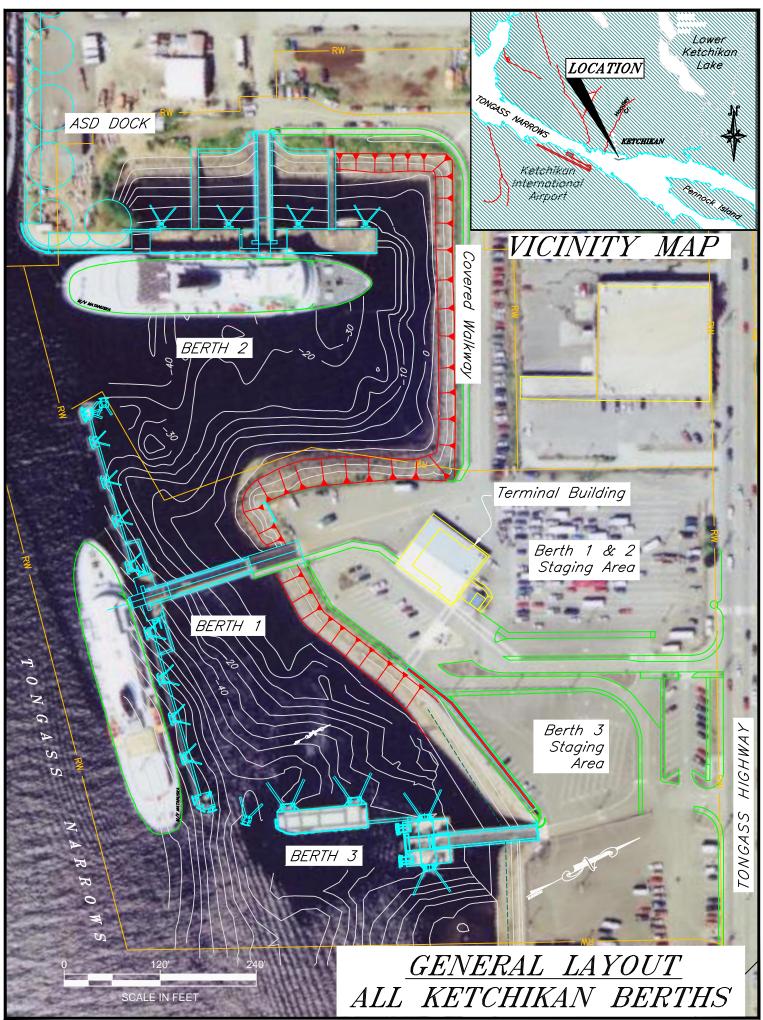
<u>LEGEND:</u> ERS = East Float Restraint Structure, B = Battered Steel Pipe Piles, V = Vertical Steel Pipe Piles

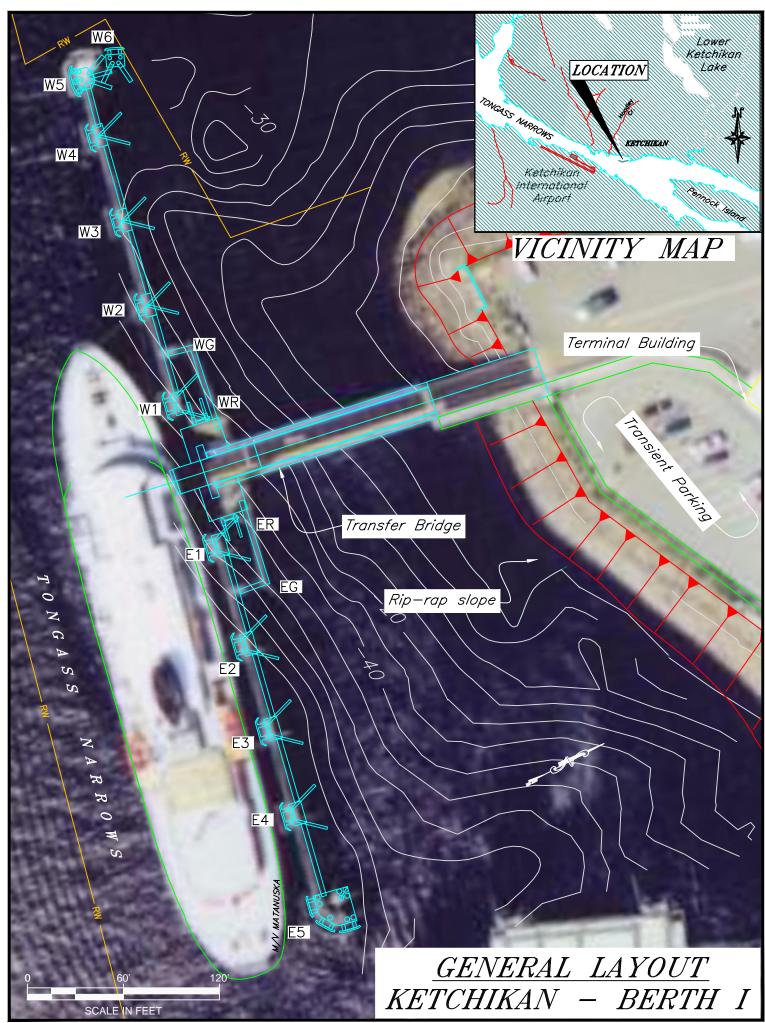
	Terminal Projects			
Year	Project #	Project Name	Description	
1973	S-0915(1)	Kake Ferry Terminal Construction	Original fill onto tidelands, with Shelter and separate vault toilet on uplands; built transfer bridge, flexifloat seaward support (w/ concrete anchors), ramp lift system and four concrete capped, steel pile mooring dolphins (E1, W1-3).	
1987	RS-0005(78)	Southeast Secondary Upgrade	Recoated and installed new zincs on flexi-floats; Recoated ramp, apron, transfer bridge; Replaced expanded metal mesh on bridge; Upgrade to dolphin fenders.	
1993	75186-RS- 0915(3)	Kake Ferry Terminal Mooring Improvements	Installed new mooring structures W4 & E2-3; replaced fender on W1; installed new barge fenders and restraint structures - released chains to concrete anchors and abandoned in place; inspected and replaced ribs on transfer bridge; installed electrical power upgrades.	
1994	75377 - STP- 0930(5)	Kake Ferry Terminal Ramp & Apron Upgrade	Replaced ramp and apron with newer hydraulically controlled units; installed electrical power upgrades.	
1998	75525-STP- 0939(6)	Kake Dolphin Replacement & Bridge Rehabilitation	Replaced mooring dolphins W1-3 & E1; re-coated bridge; replaced elastomeric bearing under shoreward swivel beam; replaced west hinge pin on swivel beam; inspected & repaired ribs in 5 seaward bays between floor beams.	
2006	67488	Kake & Hoonah Ferry Terminal Dolphins	Install new lead-in dolphin W5.	

	Terminal Projects (cont'd.)			
Year	Project #	Project Name	Description	
			Replaced the older orthotropic bridge and	
2015	68238	Kake Ferry Terminal Improvements	corroding seaward floats with new multi-girder	
2013	00230		bridge and flexifloats. Replaced the abutment with	
			new spread footing with tiebacks.	
	SAMHS0002	2 Kake Ferry Terminal Passenger Facility	Removed dilapidated shelter. Constructed new	
			20.5' x 45.5' waiting building with indoor plumbing	
2015			(mens and womens bathrooms), connections to	
			city water and sewer utiliities, curb and sidewalk,	
			safety handrail and area lighting.	

	Item	NBI Rating
Item 58	Deck	7
Item 59	Superstructure	8
Item 60	Substructure	7
Item 61	Channel Protection	8
Item 113	Scour	8
	Mooring Structures	6
	Uplands Staging area	7
Marine	Uplands Waiting Building	7
	Utilities	7

9	EXCELLENT CONDITION		
8	VERY GOOD CONDITION - no problems noted		
7	GOOD CONDITION - some minor problems.		
6	SATISFACTORY CONDITION - structural elements show minor deterioration		
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.		
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.		
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.		
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.		
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.		
0	FAILED CONDITION - out of service - beyond corrective action		
N	Not applicable		
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## Ketchikan Ferry Terminal, Berth I

3501 Tongass Avenue

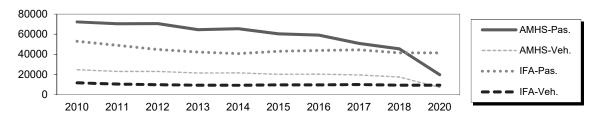
Owner: State of Alaska

**Terminal Manager:** Katie Taylor – 907-228-6886

**Terminal Description:** Ketchikan Main Berth is a side-berth facility consisting of a transfer bridge, steel support float, with steel catwalks that provide access to 10 steel mooring dolphins.

Ketchikan is one of the primary service terminals along the AMHS Route, providing northbound connections for mainline service to Wrangell, Petersburg, Sitka, Juneau, Haines and Skagway; southbound connections to Prince Rupert and Bellingham; and hub service to Prince of Wales communities, and Metlakatla. The majority of vessel services and crew changes occur at the Ketchikan terminal.

Ketchikan's past 10 years of total passenger and vehicle traffic for all three berths (1, 2, & 3) is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>



The most recent above water survey was completed on May 24, 2021. The most recent fracture critical inspection was completed on May 24, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
All vessels	Port/ Starboard	

Tidal Data (MLLW 0.0 feet)		
EHW	21.3	
MHHW	15.4	
MHW	14.5	
ELW	-5.1	

Uplands				
Short-Term Parking:	20 cars, 2 HCP			
Long-Term Parking:	0			
Staging Area	2200 lineal feet, 7 lanes			
Paint Striping:	Yes			
Driving Surface:	Asphalt			

Generator & Building			
Building / Generator:	1988		
Square Footage:	252 s.f.		
Heating System:	Elecric		
Fuel Storage:	500 gal		
Fire Protection:	Halon		
Condition:	Fair		

Vehicle Transfer Bridge - #0800				
Type:	16' x 140' twin box beam			
Year Built:	1988			
Shoreward support:	Steel Beam/ Driven Piling			
Seaward support:	Steel Support Float			
Coating:	Wasser Paint			
Pedestrian Access:	Yes, next to vehicles			
Lighting:	Jelly Jars on bent posts,			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design				
Load:	HS 20-44			

Bridge Support Float			
Type:	24'x60' Steel Pontoon		
Year Built:	1988		
Coating:	Ероху		
Ramp lift:	Hydraulic/Cable		
Apron lift:	Hydraulic/Cable		
Anodes:	Yes, but inadequate reading.		
Condition:	Fair		

Dolphins								
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
W6	2B, 2V	Hanging	UHMW	Yes	2016	Good	Yes	Retrieval mast
W5	3B, 3V	Hanging	UHMW	Yes	2016	Good	Yes	Marker Light
W4	2B, 1V	4V	Ekki Timber	Yes	1994	Fair	Yes	
W3	2B, 1V	4V	Ekki Timber	Yes	1994	Fair	Yes	Light Pole mounted
W2	2B, 1V	4V	Ekki Timber	Yes	1994	Fair	Yes	
W1	2B, 2V	Hanging	UHMW	Yes	1994	Fair	Yes	Light Pole & Windsock mounted
E1	2B, 2V	Hanging	UHMW	Yes	1994	Fair	Yes	Light Pole mounted
E2	2B, 2V	Hanging	UHMW	Yes	1994	Fair	Yes	
E3	2B, 2V	Hanging	UHMW	Yes	1994	Fair	Yes	Light Pole mounted
E4	2B, 2V	Hanging	UHMW	Yes	1988	Fair	Yes	
E5	4B, 4V	Hanging	UHMW	Yes	1994	Fair	Yes	Red Nav Light mounted
ER	2B, 2V	-	-	Yes	1988	Fair	-	
WR	2B, 2V	1	-	Yes	1988	Fair	-	
EG	1B, 1V	-	-	Yes	1988	Fair	-	
WG	1B, 1V	-	-	Yes	1988	Fair	-	

### LEGEND

ER = East Float Restraint Dolphin B = Battered Steel Pipe Piling WP1 = Upper West Float Platform WG = West Gangway Support Dolphin V = Vertical Steel Pipe Piling WP2 = Lower West Float Platform

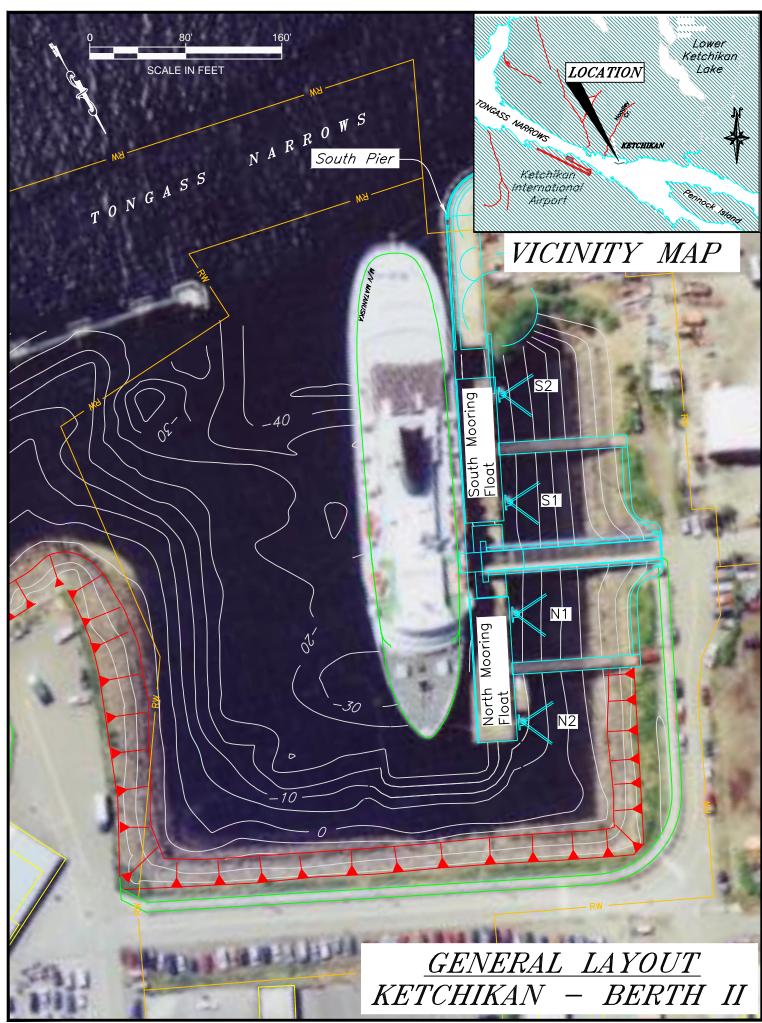
	Catwalks / Gangways							
#	From Struc.	To Struc.	Lenth / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	
C1	W5	W4	28' / Catwalk / 10" x 10" Tube Girders	1994	Yes	Fair	Jelly Jars	
C2	W4	W3	44' / Catwalk / 10" x 10" Tube Girders	1994	Yes	Fair	Jelly Jars	
C3	W3	W2	44' / Catwalk / 10" x 10" Tube Girders	1994	Yes	Fair	Jelly Jars	
C4	W2	W1	53' / Catwalk / 12" x 12" Tube Girders	1994	Yes	Fair	Jelly Jars	
C5	E1	E2	53' / Catwalk / 12" x 12" Tube Girders	1988	Yes	Fair	Jelly Jars	
C6	E2	E3	44' / Catwalk / 10" x 10" Tube Girders	1994	Yes	Fair	Jelly Jars	
C7	E3	E4	44' / Catwalk / 10" x 10" Tube Girders	1994	Yes	Fair	Jelly Jars	
C8	E4	E5	52' / Catwalk / 12" x 12" Tube Girders	1998	Yes	Fair	Jelly Jars	
С9	C4	WG	22' / Catwalk / Tube Floor Truss	1998	Yes	Fair	Jelly Jars	
Gl	WG	WP1	57' / Gangway / Tube Thru Truss	1998	Yes	Fair	-	
G2	WP1	WP2	12' / Gangway / Tube Thru Truss	1998	Yes	Fair	-	
G3	EP1	EP2	12' / Gangway / Tube Thru Truss	1998	Yes	Fair	-	
G4	EG	EP1	57' / Gangway / Tube Thru Truss	1998	Yes	Fair	-	
C10	C5	EG	22' / Catwalk / Tube Floor Truss	1998	Yes	Fair	-	

	Terminal Projects					
Year	Project #	Project Name	Description			
1969	F-095-2-5	KTN Ferry Terminal Grading, Drainage, Paving & Slope Protection	Widened existing uplands parking and staging area, paved top surface, installed guardrail and added armor rock to seaside slopes.			
1976	6-75153	KTN Ferry Terminal Reconstruction	Repaired timber dolphin, dock and catwalk elements; replaced timber lift towers with concrete capped/steel piling.			
1978	F-M-0902-8	KTN Ferry Terminal Facility	Replaced timber dolphins with concrete capped/steel piling, timber dock with concrete and steel piling.			
1988	74826	KTN Ferry Terminal	Replace existing timber bridge and lift towers with steel bridge, steel support float, hydraulically operated ramp and apron, steel access gangways and platforms, and steel approach dock.			
1991	75010	KTN Ferry Terminal Building	New terminal building.			
1991	75113	KTN Staging Area Expansion	Dredged areas adjacent to current Berths II & III and filled uplands next to terminal building. Adds 28 parking spaces and larger staing area. Also removes the berth for airport shuttle and M/V Chilkat.			
1994	75120	KTN Ferry Terminal Mooring Realignment	Removed existing concrete dock, all dolphins (but W5). Held dolphin W5 and installed new dolphins along a rotated fender face that is parallel to the north pierhead line to allow both port and strbd side mooring. New bridge approach and dolphin catwalks.			
2008	73003(2)	Ketchikan FT Carpet Replacement	Replaced carpet in the terminal building with our standard style: Lees Carpet - Vitral Pattern, Modular 24" x 24" No. 428 Mountain Beauty.			
2009	7303(3)	KTN Berth I Waterline Modifications	Replaced the bridge waterline with a new arctic pipe, heat trace and 'Hot Box' for valve connections.			
2016	SAMHS00015	KTN Ferry Terminal Improvements	Replaced wrap-around end dolphin W5 with two dolphins, W5 and W6 at Berth 1, modified the catwalk leading to that dolphin, built new dolphin S1 at Berth 3, installed new sewer and waterlines with heat trace at Berth 3 transfer bridge, built new covered walkway between Berth 3 and the terminal building.			

Facility Component	Rating
Bridge	6
Float	6
Apron	5
Dolphins	6
Catwalks/Gangways	6

	EVALUE OF THE CONDITION
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



## Ketchikan Ferry Terminal, Berth II

3501 Tongass Avenue

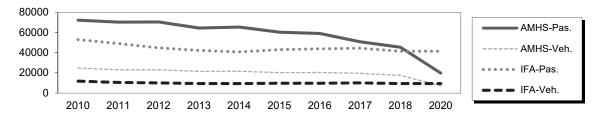
Owner: State of Alaska

**Terminal Manager:** Katie Taylor – 907-228-6886

**Terminal Description:** Ketchikan Berth II is an all-tide side-berth facility consisting of a transfer bridge, steel support float, with two mooring floats and access bridges. A sheet pile wharf south of the bridge provides fixed moorage, in-line with the mooring float fenders. This berth is often used as a layup berth for off-system AMHS vessels.

Ketchikan is one of the primary service terminals along the AMHS Route, providing northbound connections for mainline service to Wrangell, Petersburg, Sitka, Juneau, Haines and Skagway; southbound connections to Prince Rupert and Bellingham; and hub service to Prince of Wales communities, and Metlakatla. The majority of vessel services and crew changes occur at the Ketchikan terminal.

Ketchikan's past 10 years of total passenger and vehicle traffic for all three berths (1, 2, & 3) is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>



The most recent above water survey was completed on May 24, 2021. The most recent fracture critical inspection was completed on May 24, 2021.

Vessels			
<u>Name</u>	Berthing, Alignment		
All Vessels	Port/ Starboard		

Tidal Data (MLLW 0.0 feet)		
EHW	21.3	
MHHW	15.4	
MHW	14.5	
ELW	-5.1	

Uplands	
Short-Term Parking:	20 cars, 2 HCP
Long-Term Parking:	0
Staging Area	2200 lineal feet, 7 lanes
Paint Striping:	Yes
Driving Surface:	Asphalt

Terminal Building	
Year Built:	1993
Square Footage:	4848 s.f.
Heating System:	Boiler
Fuel Storage:	2,500 gal. Ust
Fire Protection:	Simplex Alarm
Condition:	Fair

Generator & F	Building
Building / Generator:	1988
Square Footage:	252 s.f.
Heating System:	Elecric
Fuel Storage:	500 gal
Fire Protection:	Halon
Condition:	Fair

Vehicle Trans	fer Bridge - #1823
Type:	16' x 140' twin box beam
Year Built:	1986
Shoreward support:	Steel Beam/ Driven Piling
Seaward support:	Steel Support Float
Coating:	Wasser Paint
Pedestrian Access:	Yes, next to vehicles
Lighting:	Jelly Jars on bent posts,
	both girders
Condition:	Good/Fair
Load Posting Sign:	N/A
Original Design Load:	HS 20-44/200 psf

Br	ridge Support Float
Type:	24'x60' Steel Pontoon
Year Built:	1986
Coating:	Ероху
Ramp lift:	Hydraulic/block & Cable
Apron lift:	Hydraulic/block & Cable
Anodes:	Yes
Condition:	Fair

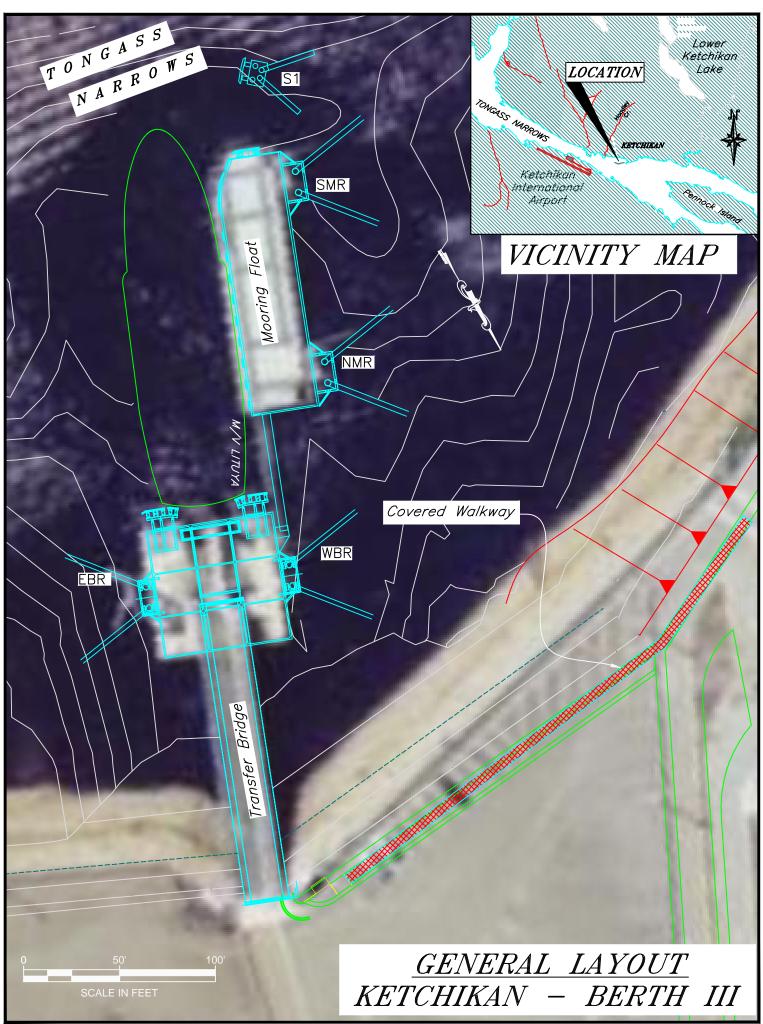
		Mooring l	Float Resti	raint Dolphins
Dolphins	Dolphin Piles	Built	Cond.	Notes
N1	2B, 1V	1986	Fair	30% of the galvanized coating remains
N2	2B, 1V	1986	Fair	intact: Precipitation ponds along the top
S1	2B, 1V	1986	Fair	of the pile collars; Light poles mounted
S2	2B, 1V	1986	Fair	on dolphins N1 and S1.

		Termina	l Projects
Year	Project#	Project Name	Description
1980	K61216	KTN Vessel Maintenance Facility	Beginning of ASD facility, including cells for South Pier of Berth II.
1986	X70010	KTN Vessel Maintennace Facility South Berth	Dredged basin, built all structural elements of the existing facility, installed cap and fenders on 2 corner sheet pile cells of exisitng wharf.
1991	F-091-1(4) / 75113	KTN Staging Area Expansion	Constructed new access road to Berth II.
1994	F-095-2(16) / 75120/75285	KTN Ferry Terminal Mooring	Built access gangway between the South mooring float and South Pier.

Facility Component	Rating
Bridge	6
Float	6
Apron	6
Mooring Structures	5

	EVALUE OF THE CONDITION
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



## Ketchikan Ferry Terminal, Berth III

3501 Tongass Avenue

Owner: State of Alaska

**Terminal Manager:** Katie Taylor – 907-228-6886

**Terminal Description:** Ketchikan Terminal, Berth III is one of three berths that make up the Alaska Marine Highway System's homeport. Berth III is the southernmost of the terminals located on Tongass Narrows.

This is an all-tide, stern-loading facility consisting of a transfer bridge, concrete pontoon, intermediate ramp and apron, breasting/mooring float and a single dolphin. Passenger waiting and ticketing services are located in the Ketchikan Ferry Terminal building.

The terminal is used primarily by:

- The STIKINE and PRINCE OF WALES operated by the Inter-Island Authority (IFA) for daily service to Hollis, AK.
- The LITUYA operated by AMHS providing dedicated shuttle service to Metlakatla, AK.

For a summary of passenger and vehicle traffic volumes refer to Ketchikan Ferry Terminal, Berth I.

The most recent fracture critical bridge and above water inspections were conducted on May 24, 2021 and under water inspection on August 6, 2021. Copies are available upon request from ADOT&PF – Marine Design Department.

Vess	sels
<u>Name</u>	Berthing, Alignment
Lituya / Prince of Wales (IFA)	Port/ Starboard

Terminal Building
Main terminal building data is in Berth I report

Generator & Building
Main generator data is in Berth I report.

Vehicle Transfer Bridge - #0190			
Tymai	13'-6" x 142' twin box		
Type:	beam		
Year Built:	2001		
	RC Abutment /		
Shoreward support:	Driven Piling		
	Concrete Float / Stl		
Seaward support:	Frame		
Bridge Coating:	Paint		
	Covered and separated		
Pedestrian Access:	from vehicles by		
	guardrail.		
Lighting:	Light posts, along		
Lighting.	girder 1		
Condition:	Good		
Load Posting Sign:	N/A		
Original Design Load:	HS 20-44		

Uplands		
Short-Term Parking:	11	
Long-Term Parking:	24	
Staging Area:	790 ft	
Paint Striping:	Yes	
Driving Surface:	Asphalt	

Bridge Support Float			
	60' x 60' Concrete		
Type:	Pontoon		
Year Built:	2001		
Ballasted:	Yes		
Ramp lift:	hydraulic tower		
Apron lift:	Hydraulic		
Condition:	Fair		

<b>Utilities at Mooring Float</b>			
Electrical:	Yes, city & backup power		
Water:	Yes		
Sewer:	Yes		
Telephone:	Yes		
Cable TV:	No		
Fuel:	No		
Wireless Bridge:	No		

Dolphins						
Dolphins	Dolphin Piles	Anodes	Built	Cond.	Notes	
EBR				Good		
WBR	2B, 2V	2D 2W	Yes	2001	Good	
NMR		ies	2001	Good		
SMR				Good		
S1	2B, 2V	Yes	2016	New		

	Fender Float						
Platform	Size	Fender Face	Float	Built	Decking	Cond.	Notes
MF	30' x 120'	UHMW / Stl tube panel	Concrete	2001	Glulam	Fair	Structural damage to frame behind fender panels.

	Catwalks / Gangways						
#	# From To Struc. Struc. Lenth/Style/Main Members Built Safety Cond. Notes						
	57'-4" / Gangway / 2.5"x2.5" Bottom						
G1	SF	MF	Chord	2001	No	Fair	

#### **LEGEND**

EBR = East Bridge Support Float Restraint Dolphin
V = Vertical Steel Pipe Piling

G1 = Gangway

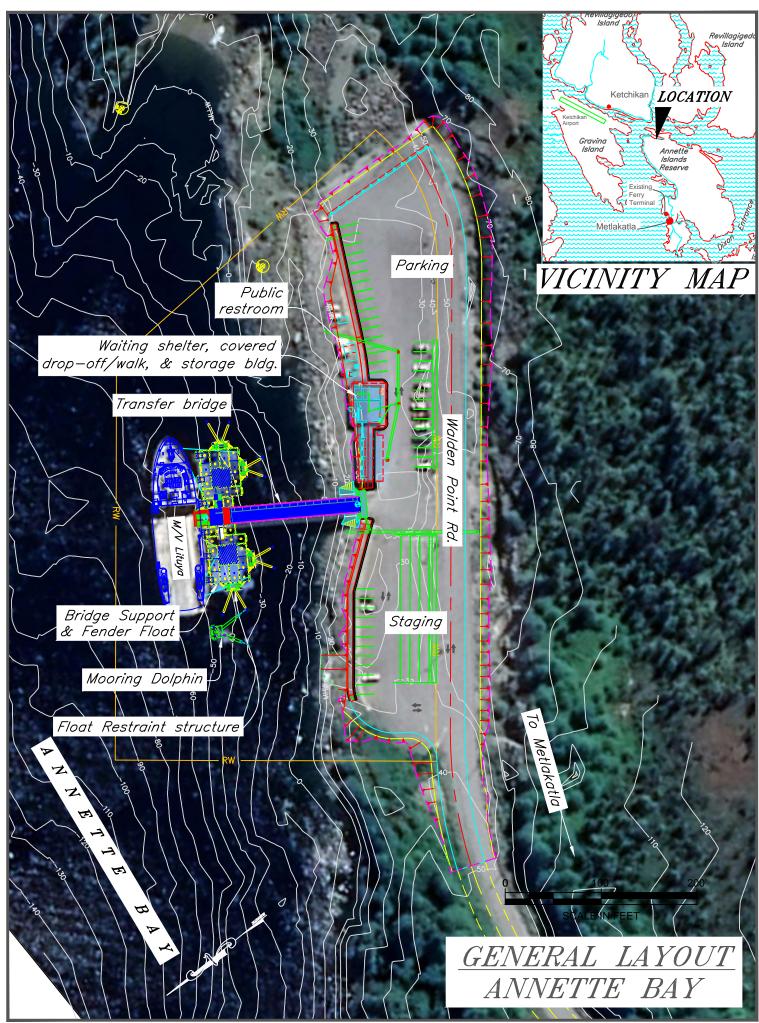
NMR = North Mooring Float Restraint Dolphin B = Battered Steel Pipe Piling

	Terminal Projects					
Year	Project #	Project Name	Description			
2001	67857	KTN Transfer Facility - Phase I	Construction of uplands & all structures.			
2006	67607	KTN Shore Power Modifications	Installed access ladder and upgraded shore power.			
2016	SAMHS00015	KTN Ferry Terminal Improvements	Replaced wrap-around end dolphin W5 with two dolphins, W5 and W6 at Berth 1, modified the catwalk leading to that dolphin, built new dolphin S1 at Berth 3, installed new sewer and waterlines with heat trace at Berth 3 transfer bridge, built new covered walkway between Berth 3 and the terminal building.			

## **General Facility Evaluation**

Facility Component	Rating
Bridge	7
Abutment & float	6
Apron	6
Mooring Float	4
Mooring Dolphin	8
Uplands Staging area	7
Pedestrian Walkway (bridge)	6
Utilities	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



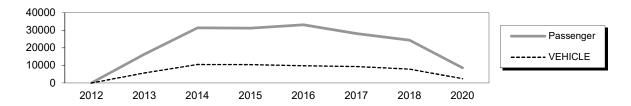
## Annette Bay Ferry Terminal (Metlakatla)

Owner: State of Alaska

Contact: Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** The Annette Bay Ferry Terminal, built in 2013, is the primary port of call for the M/V Lituya. Annette Bay is a side-berth loading facility. The vehicle transfer bridge and breasting fender panels are supported on a series of Flexifloats. Uplands are paved & striped for parking & staging areas with overhead lighting. There is an open-air waiting shelter, public pit toilets and generator building. There is no terminal building, nor terminal staff.

Annette Bay's past 10 years of total passenger and vehicle traffic is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: https://dot.alaska.gov/amhs/reports.shtml



The most recent above water survey was completed on April 30, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
Lituya/LeConte/IFA	Starboard	

Tidal Data (MLLW 0.0 feet)		
EHW	19.5	
MHHW	15.4	
MHW	14.4	
ELW	-4.5	

Waiting Shelter		
Year Built:	2013	
Square Footage:	483 s.f.	
Heating System:	Electric	
Condition:	New	

Vehicle Transfer Bridge - #0194		
Type:	16' x 138' Multi-girder	
Year Built:	2013	
Shoreward support:	Aburtment / Bearing Beam	
Seaward support:	Flexifloat / Roller Bearings	
Coating:	Epoxy/Polyurethane	
Pedestrian Access:	Concrete 4' wide on bridge	
Lighting:	(4) Light poles, left side	
Condition:	New	
Load Posting Sign:	No	
Original Design		
Load:	HS 20-44	

τ	J <b>plands</b>
Short-Term	
Parking:	15
Long-Term	
Parking:	24
Staging Area:	450 ft
Paint Striping:	Yes
Driving Surface:	Asphalt Concrete

Standby Generator		
Year Built:	2013	
Fuel Storage:	Daytank & 250 Gal AST	
Other:	Surrounded by security fence	

#### Utilities

The waiting shelter, apron hydraulics and lighting are powered by Metlakatla Power & Light. There is no potable water or sanitary sewer service.

Bridge Support Float		
Type:	Steel Flexi-float units (5,000 s.f.)	
Year Built:	2013	
Ballasted:	Yes	
Ramp lift:	None	
Apron lift:	Hydraulic	
Condition:	New	

Dolphins						
Dolphins	Dolphin Piles	Fender Type	Anodes	Built	Cond.	Notes
ER1	2B, 2V	n/a	Yes	2013	Good	
ER2	2B, 2V	n/a	Yes	2013	Good	
WR1	2B, 2V	n/a	Yes	2013	Good	
WR2	2B, 2V	n/a	Yes	2013	Good	
W1	2B, 2V	UHMW	Yes	2015	Good	

LEGEND V = Vertical Steel Pipe Piling

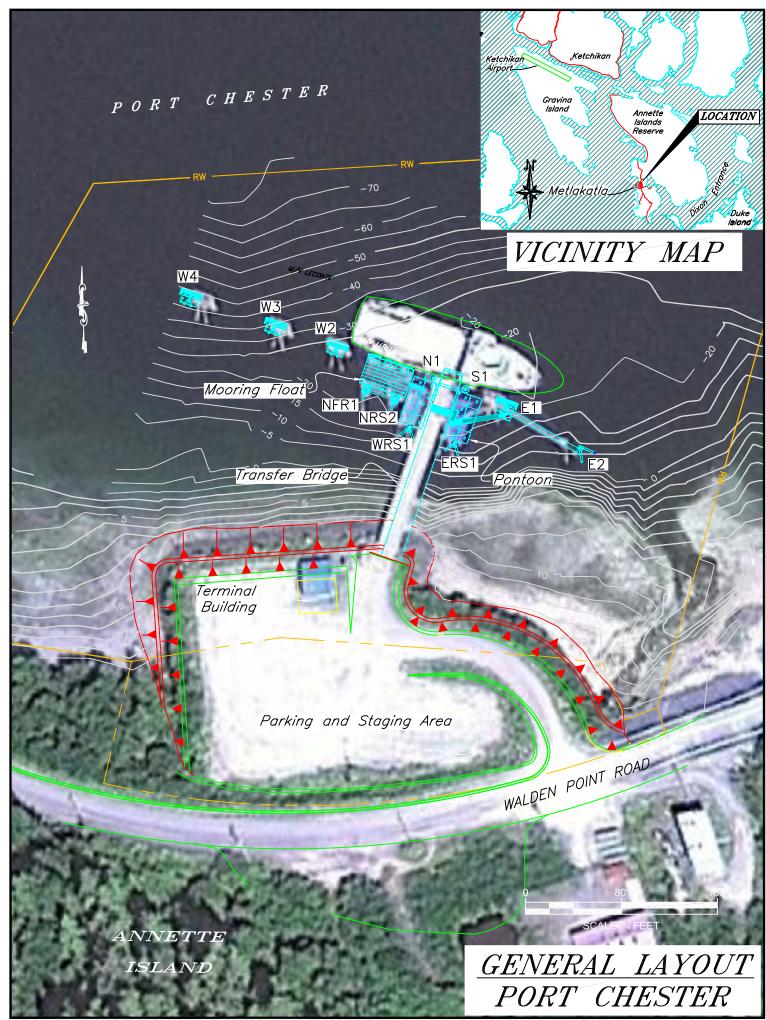
B = Battered Steel Pipe Piling

Terminal Projects			
Year	Project #	Project Name	Description
2013	69200 / AK-	Annette Bay Ferry Terminal	Construction of new marine & uplands facilities at
2013	03-0075-01	Annette Bay Ferry Teminal	the end of Walden Point Road.
			Installation of a 4-pile mooring dolphin to the east of
2015	(0125	Annette Bay FT	the existing marine structures, boarding ladder
2015 68135	68135 Improvements	mounted on steel bridge float, envelope	
		_	improvements to the existing storage room.

Facility Component	Rating
Bridge	7
Float	7
Apron	7
Mooring Structures	7

	EVALUE OF THE CONDITION
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



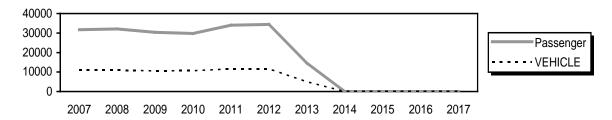
# Port Chester Ferry Terminal (Metlakatla)

Mile 3 Walden Point Road

Owner: State of Alaska

**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** The Port Chester terminal was constructed in 1987 and is approximately two miles from town. The facility is a side berth designed for LeConte class vessels, and consists of an orthotropic steel deck bridge, seven steel pipe pile dolphins (six breasting and one mooring), an HDPE mooring float, and a steel bridge pontoon. In 2003, the terminal was modified to serve as a homeport for the M/V Lituya, a shuttle ferry operating between Metlakatla and Ketchikan. The past 10 years of total passenger and vehicle traffic for Port Chester is shown below.



A new ferry terminal in Annette Bay has been completed, and ferry operations have moved there; however, the Port Chester facility remains in active operation status. The most recent topside inspection was conducted July 24, 2017. The most recent fracture critical & underwater inspections occurred on August 4, 2016.

Vessels					
<u>Name</u>	Berthing, Alignment				
Lituya / LeConte	Starboard				

Tidal Data (MLLW 0.0 feet)					
EHW	19.5				
MHHW	15.4				
MHW	14.4				
ELW	-4.5				

Terminal Building							
Year Built:	1987						
Square Footage:	576 s.f.						
Heating System:	Electric						
Condition:	Poor, out of service						

Vehicle Transfer Bridge - #0178					
Tuna	16' x 132' steel orthotropic				
Type:	deck				
Year Built:	1973				
Shoreward support:	Steel Beam/Driven Piling				
Seaward support:	Steel Support Float				
Coating:	Spray Metallizing				
Pedestrian Access:	Concrete 4' wide on bridge				
Lighting:	Jelly Jars, left guardrail				
Condition:	Poor				
Load Posting Sign:	N/A				
Original Design Load:	HS 20-44				

Uplands						
Short-Term Parking:	8					
Long-Term Parking:	30					
Staging Area:	150 ft					
Paint Striping:	No					
Driving Surface:	Chip seal					

Generator & Building
This facility does not have a generator.

Utilities
The terminal building and bridge ramp have city
Electric.

	Bridge Support Float
Type:	40' x 60' Steel Flexi-float
Year Built:	1996
Ballasted:	Yes
Ramp lift:	Hydraulic/Cable
Apron lift:	Hydraulic/Cable
Condition:	Fair

	Dolphins						
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W4	2B, 1V	4V	Ekki Timber	No	1987	Fair	Red Navlight
W3	2B, 1V	4V	Ekki Timber	No	1987	Fair	
W2	2B, 1V	4V	Ekki Timber	No	1987	Fair	
MFR2	1B, 1V	See Mooring Float		No	2003	Good	
MRF1	1B, 1V			No	2003	Good	
WRS1	2B, 1V	See Bridge S	Support Float	No	2003	Good	
N1	1V	Floating	g Fender	No	2003	Good	
<b>S</b> 1	1V	Floating Fender		No	2003	Good	
ERS1	2B, 1V	See Bridge Support Float		No	2003	Good	
E1	2B, 1V	4V	Ekki Timber	No	1987	Fair	
E2	2B, 1V	-	_	No	2003	Good	Windsock & Red Navlight

<u>LEGEND</u> ERS1 = East Bridge Support Float Restraint Dolphin V = Vertical Steel Pipe Piling

MFR1 = Mooring Float Restraint Dolphin B = Battered Steel Pipe Piling

Mooring Float							
Platform	Size	Fender Face	Float	Built	Decking	Cond.	Notes
MF	40' x 25'	UHMW	Steel Pontoon	2003	Fiberglass	Good	

	Catwalks / Gangways / Platforms						
#	# From To Length / Style / Main Members Built Safety Cond. Notes				Notes		
P1 Bridge Float 22' / Platf		22' / Platform	2003	ı	Good		
Gl	P1 E1 57'4" / Gangway / 2.5" x2.5" Bottom Chord		2003	No	Good		
C1	E1	E2 40' / Catwalk / 10" x10" Tube Girders		2003	Yes	Good	

	Terminal Projects						
Year	Year   Project #   Project Name		Description				
1974	S-0927(1)	Ferry Terminal Facilities at Metlakatla	Original construction of terminal uplands, vehicle transfer and mooring structures.				
1987	A70002	Metlakala Ferry Terminal	Relocated the terminal roughly 1/2 mile to the east. Removed existing timber dolphins; reinstalled steel transfer bridge and support float. Constructed new float platform, apron & lift system, and five steel mooring dolphins. Installed new electrical & lighting systems.				
1996	75269 / STP-0927 (4)	Metlakatla Ferry Terminal Pontoon Upgrade	Removed and replaced the original bridge support float.  Installed a re-designed bridge-barge connection weldment and new hinge to seaward end of the bridge.				
2004	68208 / STP-0927 (6)	Metlakatla Ferry Termial Modifications	Removed dolphin W1 and the bridge support float restraint dolphins. Installed new restraint dolphins for the bridge float on south ends. Constructed new mooring float east of the bridge and two floating fender dolphins on either side of the bridge for all-tide mooring. Installing access gangway & catwalk to east dolphins. Upgraded the electrical power utilities on the bridge.				

### **Observations**

- 1. The chip seal surface on the staging area placed in 1994 has failed and has numerous large potholes. The roadway requires additional aggregate surface course and should be graded to drain.
- 2. A modular terminal building was installed in 1985 but the facility sits unused. The building has been vandalized and is in need of maintenance. There are many deficiencies such as, rotting siding and door framing, broken windows, no stairs and ramp at the entrance, and failed exterior finish. Water and sewer services are needed and the building should be modified to comply with ADA requirements, if the terminal building is to be used in the future. No operating agreement exists between AMHS and the community covering operation, maintenance, or security, so the building remains unused.
- 3. The transfer bridge was built in 1974 and used in an earlier terminal located closer to town. The bridge was salvaged, re-coated with spray metalizing in 1996, and relocated to the present site. The bridge appears to have reverse camber along its length. Currently, 85% of the coating is covered in white rust and 25% bare corroded patches, while the remaining surface is freely corroding. The bridge abutment is a tied-back spread footing that supports the approach bearings. The shoreward bridge bearing beam swivels around a pin, which has corroded and worn a jagged and elongated hole on the top flange of the beam. Looking shoreward, the right box girder bearing at the abutment has 1/4-inch wear into the bearing pin with minor surface corrosion. There are sections of expanded metal on the deck that are loose, while some sections are torn. The bridge alignment cables are slack.
- 4. The seaward bridge bearings, intermediate ramp, and apron are supported by a Flexifloat pontoon system. The pontoon is guided by two 3-pile restraint dolphins and the bridge bears on rollers mounted to the float. The bearings and restraints are in good condition. Touch-up paint coatings have failed on the topside of the Flexifloats, and rust covers 25% of the surface area. Rubbing from the UHMW skids of the mooring float gangway have worn away the coating of the float in this area.
- 5. The deck of the mooring float appears to be in good condition. The hawse mast on deck is bent, may have been too high & impacted the ship while berthing. The 2011 underwater report found that bolts for hanger strops are loose on mooring float pontoons, and the most recent above water inspection found the majority of the hanger strap bolts covered in a light surface rust.
- 6. All mooring structures are in good condition. Previous inspections noted the dolphin caps were spray metallized in the past and they now show signs of light surface rust. All the piling are brown in color due to bleed-through corrosion and failure of the galvanized coating. There are extra/old mooring cables that are lying on the caps of dolphin E1. There is no hawse mast on dolphin W2. Masts are bent on dolphin W3.
  - Cathodic potential (CP) readings for the mooring & restraint structures average -0.68V. The cutoff for adequate protection is -0.8V, so the steel piles are freely corroding. Depth to mudline elevations, taken with leadline readings at locations along the fender line in 2015, range from -22' to -29' MLLW.
- 7. Gangway lights were turned on during daylight hours during our inspection.
- 8. The M/V Lituya broke loose from her moorings while tied up overnight at this terminal on January 30, 2009 and went aground on Scrub Island nearby. She was safely re-floated and taken to ASD shipyard for repairs later on that day.

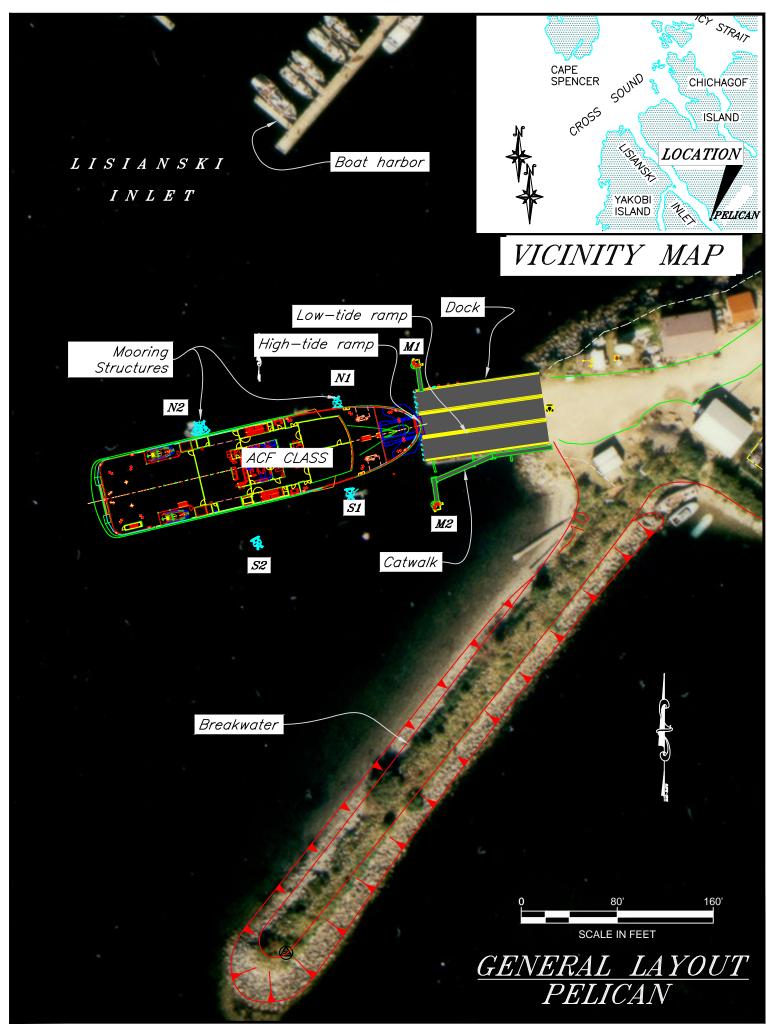
Inspection Summary				
Structure	tructure Priority Recommendations			
		Category I - Safety Repairs		
Mooring Float	1	Tighten the bolts to the hanger strops on the mooring float pontoons.		
	•	Category II - Rehabilitation Work		
Dolphins	2	Install and maintain anodes on all submerged steel.		
Transfer Bridge	3	Re-paint bridge, repair shoreside bearing beam, and replace the shoreward hinge pins and plates. Tighten the bridge alignment cables at the seaward bridge bearing. Rehab the non-skid coating on the transition plate between the bridge and apron. Replace damaged sections of expanded metal on the apron. Repair broken conduit leading from the apron to the ramp. Discourage recreational skiffs from tying up to the float and tapping in to the catwalk lighting circuit.		
Waiting Shelter 4 Refurbish/replace or remove existing waiting shelter. Existing but		Refurbish/replace or remove existing waiting shelter. Existing building structure is not being utilized.		

2018 Shore Facilities Condition Survey Report

**Port Chester** 

Inspection Summary (continued)					
Structure	Priority Recommendations				
		Category II - Rehabilitation Work			
Bridge Pontoon	5	Replace the surface paint coating on all Flexifloat units. Install channel skids beneath the mooring float gangway.			
Dolphin E1	6	Remove the extra/old mooring cables.			
Mooring Float	7	Straighten/replace bent & damaged hawse masts.			
		Category III - Upgrades Needed			
All Facilities  8 currently berthing at Port Chester, until modifications at the IFA vessels. Eventually the Port Chester facility will a Existing structures could be removed/relocated or facility.		The new Annette Bay facility is the home-port location for the M/V Lituya. IFA is currently berthing at Port Chester, until modifications at Annette Bay are made for the IFA vessels. Eventually the Port Chester facility will no longer be needed. Existing structures could be removed/relocated or facility may be abandoned in near future. Deficiencies noted will be obsolete if this terminal is removed.			

**NOTE:** This facility has not been in operation since the Annette Bay terminal came online in 2013, and is not being maintained for operational readiness by AMHS. The Department has removed from our inspection program, but is including past data in the report as 'informational only'.



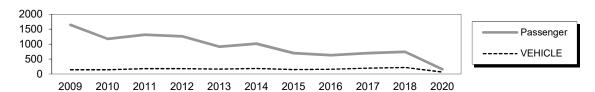
# **Pelican Ferry Terminal**

Owner: City of Pelican

**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** This ferry terminal facility is a multi-use tidal ramp and fixed dock facility that accommodates LeConte class vessels, barges, and landing crafts. The original facility was built in 1976, expanded in 1980 and completely removed and replaced in 2012. The ferry terminal is located at the southeast end of the Pelican boat harbor and consists of a fixed platform dock, two tidal ramps, and four mooring structures. The facility is a stern-berth for use by ferries with a stern apron. A rubble mound breakwater to the south provides protection for the berth and adjacent harbor. This facility has neither a terminal building nor a staging area. The City of Pelican owns this facility and the adjacent uplands; however, ADOT has provided primary construction funding and other maintenance related upgrades over the years. AMHS does not have exclusive use of the terminal or control of maintenance at this facility. The terminal is not staffed. City personnel meet the vessel and assist with vessel tie-up.

Pelican's past 10 years of total passenger and vehicle traffic is shown below. This data is reported each year in the Alaska Marine Highway System's Annual Traffic Volume Report: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>



The most recent above water survey was completed on August 2, 2021.

	Vessels
<u>Name</u>	Berthing, Alignment
LeConte	Stern

Tidal Data (MLLW 0.0 feet)					
EHW	14.5				
MHHW	10.4				
MHW	9.5				
ELW	-4.0				

Terminal Building	
NA	

Generator & Building	
NA	

Utilities @ Dock
NA

Uplands					
Short-Term Parking:	N/A				
Long-Term Parking:	N/A				
Staging Area:	N/A				

Dock & Tidal Ramps - #1426				
Type:	3200 s.f. Concrete & Open-grate Steel Panel Dock; 20' x 42' high tide ramp; 20' x 100' low tide ramp			
Year Built:	2012			
Support:	Vertical & Battered Steel Piles			
Steel Coating:	Galvanizing			
Fender System:	Timber Pin Piles bolted to steel wale			
Anodes:	Yes			
Lighting:	None			
Condition:	New			
Notes:	No navlights			
Load Posting Sign:	N/A			
Original Design Load:	HL93			

Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
M1	2B, 1V	-	Rubber Tires	Yes	2012	Good	
M2	2B, 1V	-	<b>Rubber Tires</b>	Yes	2012	Good	
N2	2B, 1V	4V	Timber	No	1980	Fair	Replace Fender Panel
N1	2B, 1V	Hanging	UHMW	No	2008	Good	
S1	2B, 1V	Hanging	UHMW	No	2008	Good	
S2	2B, 1V	Hanging	UHMW	No	2008	Good	

LEGEND V = Vertical Steel Pipe Piling

B = Battered Steel Pipe Piling

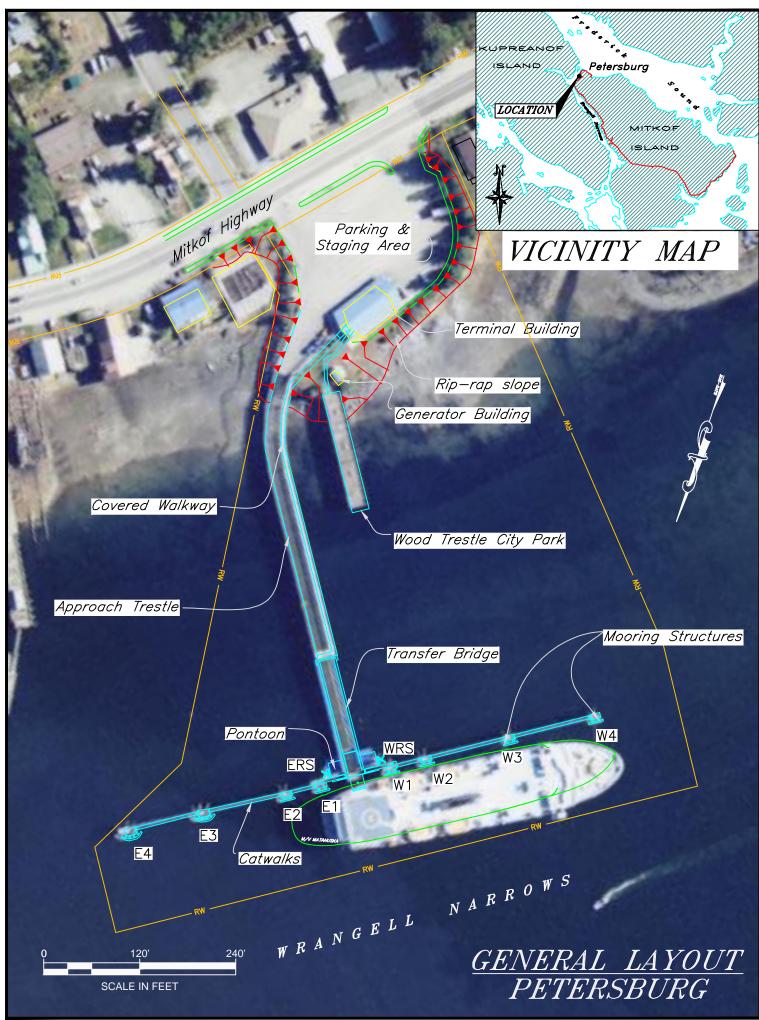
	Terminal Projects					
Year	Year Project # Project Name		Description			
1975	533002	City of Pelican - Pelican Dock	Placed in-water fill for uplands extension from shore; constructed original high and low tide ramps (concrete panels supported by steel piles and caps); installed timber breasting and mooring dolphins; installed mooring deadman south of low-tide ramp.			
1980	X30097	Pelican Dock Facilities	Extended the length of hihg & low tide ramps seaward; constructed main dock (north of the original high tide ramp); installed fendering system along dock face; relocated mooring deadman; relocated stern breasting dolphins; constructed new steel pipe pile turning dolphin N2.			
1993	75287	Pelican Ferry Terminal	Repaired the existing timber breasting dolphins N1 & S1.			
2005	73741-06	Pelican City Dock Rehab. Project	Installed a timber overlay structure on the lower tidal ramp to permit vehicles to transit across the ramp's failing concrete panels.			
2008	68731	Pelican Ferry Terminal	Removed the existing timber breasting dolphins and installed two steel pipe pile mooring dolphins and one safety dolphin.			
2012	69433	Pelican Ferry Terminal Renovation	Removed and replaced the dock. Also installed two new stern mooring dolphins with access catwalks.			

## GENERAL FACILITY EVALUATION

Facility Component	Rating
Dock	7
Mooring Structures	7

9	EXCELLENT CONDITION						
8	VERY GOOD CONDITION - no problems noted						
7	GOOD CONDITION - some minor problems.						
6	SATISFACTORY CONDITION - structural elements show minor deterioration						
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.						
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.						
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.						
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.						
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.						
0	FAILED CONDITION - out of service - beyond corrective action						
N	Not applicable						

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



# **Petersburg Ferry Terminal**

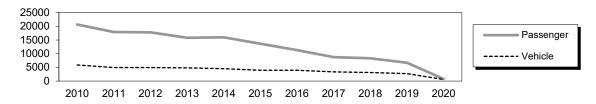
1100 South Nordic Road

Owner: State of Alaska

**Terminal Manager:** David Schulz – 907-772-3855

**Terminal Description:** The Petersburg Ferry Terminal is a side-berth facility and consists of staging and parking areas, terminal building, emergency generator facilities, approach span, transfer bridge, covered walkways, and (8) steel mooring structures. The Petersburg facility is located in the Wrangell Narrows, about ½ mile south of town.

Summary of passenger and vehicle traffic volumes (source: https://dot.alaska.gov/amhs/reports.shtml):



The most recent underwater inspection was completed on August 12, 2021, above water inspection on May 17, 2021 and fracture critical bridge inspection on May 1, 2021. Copies are available upon request from the ADOT&PF – Marine Design Department.

Vessels					
<u>Name</u>	Berthing, Alignment				
Taku / LeConte / Mat / Mal / Columbia	Port/ Starboard				
Kennicott	Port				

Tidal Data (MLLW 0.0 feet)					
EHW	20.5				
MHHW	16.4				
MHW	14.8				
ELW	-4.5				

Terminal Building				
Year Built:	1982 (rebuilt and expanded in 2000)			
Square Footage:	2078 s.f.			
Heating System:	Furnace			
Fuel Storage:	UST			
Fire Protection:	Sprinkler / Alarm			
Condition:	Good			

Generator & Building					
Building / Generator:	1986				
Square Footage:	120 s.f.				
Heating System:	Electric				
Fuel Storage:	UST				
Fire Protection:	Halon				
Condition:	Good				

Uplands					
Short-Term Parking:	15 cars				
Long-Term Parking:	N/A				
Staging Area:	1375 lineal feet, 10 lanes				
Paint Striping:	Yes				
Driving Surface:	Asphalt				

Vehicle Transfer Bridge - #0802					
Type:	16' x 140' twin box beam				
Year Built:	1985				
Shoreward support:	Steel approach bent				
Seaward support:	Steel Support Float				
Coating:	Paint				
Pedestrian Access:	Concrete 4' wide on bridge				
Lighting:	None				
Condition:	Good				
Load Posting Sign:	N/A				
Original Design Load:	HS 20-44				

Bridge Approach Trestle					
Type:	25' x 360' Pile-supported,				
	Open grate deck				
Year Built:	1986				
Shoreward support:	Steel Beam/Driven Piling				
Seaward support:	Steel Beam/Driven Piling				
Pedestrian Access:	Covered walkway, guardrail separation				
Anodes on piles:	No				
Condition	Good				

Bridge Support Float				
Type:	24' x 50' Steel Pontoon			
Year Built:	1986			
Ballasted:	Yes			
Ramp lift:	Hydraulic/Block & Cable			
Apron lift:	Hydraulic/Block & Cable			
Anodes:	Yes			
Condition:	Good			

	Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes	
W4	3B, 3V	Hanging	UHMW	Yes	2013	New		
W3	2B, 2V	Hanging	UHMW	Yes	2013	New	Light Pole	
W2	2B, 1V	4V	Ekki Timber	Yes	1986	Fair		
W1	2B, 1V	4V	Ekki Timber	Yes	1986	Fair	Windsock & light pole	
WRS	2B, 2V	-	-	Yes	1986	Fair		
ERS	2B, 2V	-	-	Yes	1986	Fair		
E1	2B, 1V	4V	Ekki Timber	Yes	1986	Fair	Light pole	
E2	2B, 1V	4V	Ekki Timber	Yes	1986	Fair		
E3	2B, 2V	Hanging	UHMW	Yes	2013	New	Light pole	
E4	3B, 3V	Hanging	UHMW	Yes	2013	New	Red navlight	

	Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	
C1	W4	W3	100' / Catwalk / 10"x10" Tube Girders	1986	Yes	Good	Jelly Jars	
C2	W3	W2	79' / Catwalk / 10"x10" Tube Girders	1986/ 2013	Yes	Good	Jelly Jars	
СЗ	W2	W1	33' / Catwalk / 10"x10" Tube Girders	1986	Yes	Good	Jelly Jars	
G1	W1	WFP	35' / Gangway / Pony truss	1986	Yes	Good	Jelly Jars	
G2	EFP	E1	35' / Gangway / Pony truss	1986	Yes	Good	Jelly Jars	
C4	E1	E2	33' / Catwalk / 10"x10" Tube Girders	1986	Yes	Good	Jelly Jars	
C5	E2	Е3	79' / catwalk / 10'x10" Tube Girders	1986/ 2013	Yes	Good	Jelly Jars	
С6	Е3	E4	83' / Catwalk / 10"x10" Tube Girders	1986	Yes	Good	Jelly Jars	

LEGEND V = Vertical Steel Pipe Piling ERS = East Bridge Float Support Restraint Structure

H = Vertical Steel H-Piling EFP = East Float Platform

2021 Shore Facilities Condition Survey Report

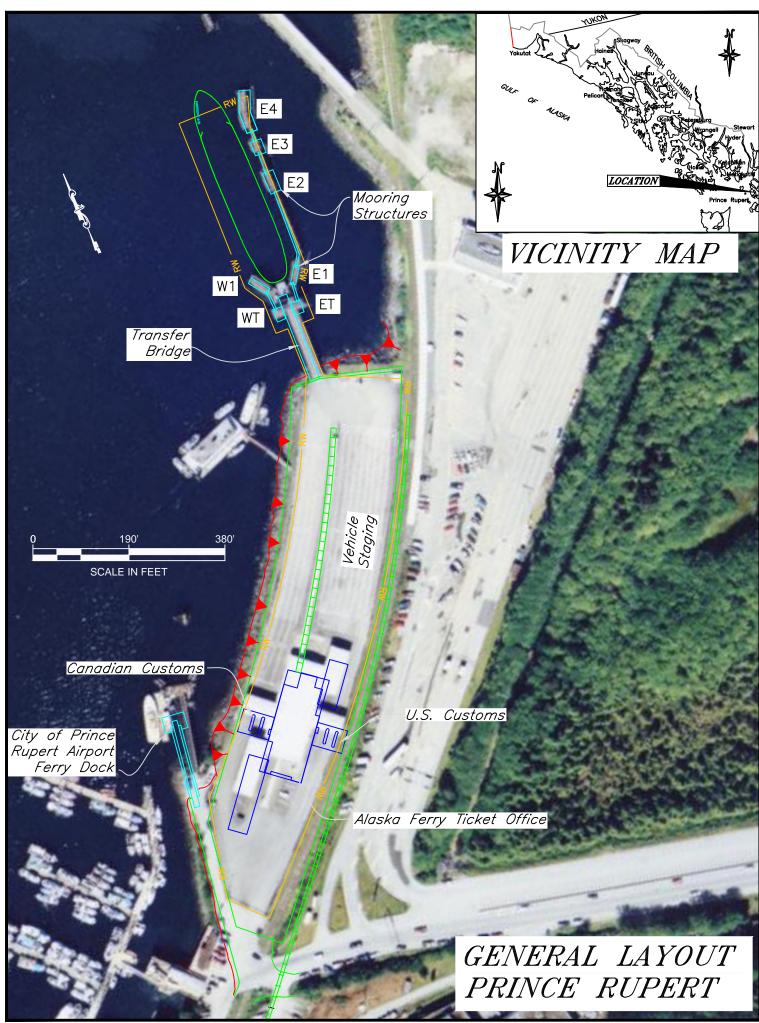
Petersburg

	Terminal Projects						
Year	Project #	Project Name	Description				
1963	F-095-6(1)	Petersburg Ferry Terminal	Original ferry terminal construction consisting of uplands fill for parking & staging area; waiting shelter; electrical and lighting; timber trestle approach span.				
1963	N/A	Petersburg Ferry Terminal	Constructed timber transfer bridge, mooring dolphins and dock.				
1976	6-75157	Petersburg Ferry Terminal Dolphins	Constructed two steel pile mooring dolphins and two steel catwalks.				
1986	F-095-4(15)	Petersburg Ferry Terminal	This project re-aligned the mooring and vehicle transfer marine structures, including the replacement of all timber structures and the existing dock with a new steel approach trestle, steel transfer bridge & steel pontoon, steel mooring structures and steel catwalks.				
2000	75382 & 75273	Petersburg Terminal Building Expansion & Uplands Improvements	Replaced the roof, expanded the footprint by 45% and made several other upgrades to the terminal building. Re-paved the uplands and installed new concrete curb & gutter and sidewalk.				
2013	69422	Petersburg Ferry Terminal Improvements	Replaced the end dolphins, W3-4 & E3-4, modified catwalks, replaced catwalk lighting, and installed anodes on all pile-supported structures.				

## **General Facility Evaluation**

Facility Component	Rating
Bridge	6
Float & pier abutment	7
Apron	6
Mooring Structures	7
Uplands Staging area	7
Terminal Building	7
Utilities (elec/hydraulic)	6/7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



# **Prince Rupert Ferry Terminal**

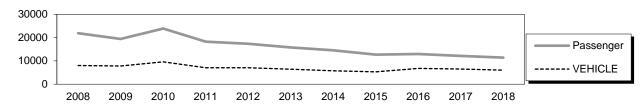
2100 Park Avenue

Owner: City of Prince Rupert / Prince Rupert Port Authority

**Terminal Manager:** Cathy Basdeo – 250-627-6523

**Terminal Description:** Prince Rupert Ferry Terminal is a stern-loading facility consisting of a timber transfer bridge, supported by a timber framed lift tower and counterweight system at the seaward end, with two timber stern dolphins, and three timber breasting dolphins connected by timber catwalks. Uplands include a terminal building built in 1992, with US & Canadian customs stations, paved parking and overhead lighting. The facility was originally constructed in 1963 to service AMHS vessels. Terminal is owned by the Prince Rupert Port Authority (PRPA). The City of Prince Rupert also had interest in the terminal building. As of April, 2013, AMHS now leases the entire facility under a fifty-year term for exclusive AMHS operations. AMHS is now responsible for all operation and maintenance of the marine and upland structures.

The past 10 years of total passenger and vehicle traffic counts for Prince Rupert are shown below.



The most recent above water survey was completed on October 5, 2017.

Vessels					
<u>Name</u>	Berthing, Alignment				
All AMHS Vessels	Stern				

Tidal Data
No data available at time of printing.

	Utilities	
	at terminal	at ramp
Electrical:	Yes	Yes
Water:	Yes	Yes
Sewer:	Septic	No
Telephone:	Yes	No
Cable TV:	No	No
Fuel:	Yes	No
Wireless Bridge:	No	No

Generator & building	
This facility does not have a generator.	

	Bridge Lift System
Trumos	Timber framed lift tower and
Type:	counterweight system.
Year Built:	1963
Lift Towers:	15 timber piles with cross bracing (each
	side)
Lift Beams:	(2)-20.5'x44" glulams
D.: 1 1:6.	Cable supported counterweights (2:1)
Bridge lift:	w/ electric motor hoist (6:1)
Apron lift:	Hydraulic
Condition:	Poor

	Uplands
Short-Term Parking:	5 cars
Long-Term Parking:	0
G. · A	1000 lineal feet, 3 lanes; 10,000
Staging Area:	lineal feet of pre-staging
Paint Striping:	Yes
Driving Surface:	Asphalt

Terminal Building				
Year Built:	1992			
Square Footage:	8500 s.f.			
Heating System:	Furnace (Natural Gas)			
Fuel Storage	City Supply (Natural Gas)			
Fire Protection:	Alarm			
Condition:	Good			

Vehicle	Transfer Bridge
Tymo	18' x 140' Glue-Laminated Twin
Type:	I-beam
Year Built:	1963
Shoreward Support:	Rocker bearing on piles
Seaward Support:	Counterweighted cable support
Pedestrian Access:	Separate 4' wide on bridge
Lighting:	Light on overhead beam
Condition:	Poor
Load Posting Sign:	N/A
Omiginal Dagign Loads	H20 - Rated in 2008 to 70,000
Original Design Load:	lb max vehicle load.

2018 Shore Facilities Condition Survey Report

**Prince Rupert** 

	Dolphins								
DolphinsRubbing PilesFender PilesDolphin PilesAnchor PilesBuiltCond		Cond.	Notes						
W1	24V	31V	18B, 28V	18V	1963	Poor	Green navlight (Rubbing 7 Fender piles replaced - 2007)		
E1	22V	29V	18B, 28V	18V	1963	Poor	Crushed.		
E2	18V	24V	18B, 28V	18V	1963	Poor			
E3	9V	12V	10B, 12V	12V	1963	Poor	Three anchor piles share with E4.		
E4	30V	40V	28B, 45V	18V	1963	Poor	Red navlight		

 $\frac{\underline{LEGEND}}{B = Battered \ Timber \ Piles}$ 

V = Vertical Timber Piles

	Catwalks / Gangways								
#	From Struct.	To Struct.	Lenth / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes	
C1	Bridge	E4	200' / Catwalk / Timber stringers on piles	1963	No	Good	Jelly Jars	Sringers, metal	
	C1 Blidge	D.	spaced 10' (roughly) apart	1703	110	300 <b>u</b>		grating and	
C2	Prigo	W1	200' / Catwalk / Timber stringers on piles	1963 No	No Good	Т 11 Т	handrails were		
C2 Blige	brige	Brige	VV 1	spaced 10' (roughly) apart	1903	110	Good	Jeny Jais	replaced in 2007

Terminal Projects							
Year	Project #	Project Name	Description				
1963	N/A	Prince Rupert Ferry Terminal Construction	Original fill onto tidelands; built transfer bridge and lift system and six timber mooring dolphins (W1, E1-5).				
1998	N/A	Prince Rupert Ferry Terminal Apron Replacement & Miscellaneous Repairs	Replaced original 15; timber apron with steel 15; apron and 10; articulating extension to fit Kennicott. Steel was added to counterweight boxes due to increased weight of new apron. Replaced old apron cable, lift gears and motors; replaced shoreward bridge bearings; replaced rotten bridge decking; relocated electrical bridge controls.				
2002	N/A	Prince Rupert FT Repairs	Catwalk repairs: new stringers, expanded metal decking and aluminum railings.				
2003	N/A	Prince Rupert FT Maintenance	Replaced bridge hoist cables, shackles and blocks after the existing shackle broke.				
2008	N/A	Prince Rupert Ferry Terminal Rehabilitation	Replaced main lifting beams, replaced main lifting cables and connection lugs, equalizer plates, etc., removed asphalt from transfer bridge (approx 58,000 lb) and replaced it with a lighter timber wear deck, removed 3 ft sidewalk on east side of transfer bridge between lifting beams and shore, reinforced counterweight boxes, removed approx 11,000 lb from counterweights, drove 2 new steel piles on west headframe tower, replaced hanging bar assemblies both sides of ramp, replaced sections of laminated deck over top of lifting beam and at abutment, replaced deteriorated bracing on headframe towers, replaced timber bearing surfaces at abutment with steel bearing plates				

### **Observations**

 A combined terminal and customs building was completed in 1992. This facility is approximately 8,500 square feet and houses passenger waiting areas, restrooms, ticket offices, terminal operator offices, customs agent offices, and a customs clearance room. In 2002, AMHS helped fund a secure room for Canada Immigrations to house the computer used by Canadian Police Information Center (CPIC).

Cracks in the concrete sidewalk surrounding the building reveal likely foundation settlement. Settlement of the main support beam on the arched roof has caused the steel beam to bear on the window wall and deflect the header above the double doors. The weather seal between the double pane windows have failed in several locations. Carpets are stained and smell of mold.

Paint coatings are failing on the steel roof over the Canadian Customs vehicle inspection area and there is minor surface rust along the gable edges and on structural members exposed to the elements beneath. The paint coating has only 30% remaining on the steel frame for the covered walkway between the terminal building and the bridge, with corrosion on exposed steel.

Several sheet-metal sheds in the uplands are in need of replacement, with large corrosion holes in the roofs requiring equipment within to be covered by tarps. There is a light pole missing off its concrete base at the edge of the covered walkway, which is a hazard to vehicles and pedestrians. There are numerous potholes in the asphalt surface of the staging area.

- 2. The transfer bridge was built in 1964 and consists of twin glue laminated I-shaped girders, and a nailed laminated deck. The 5-foot wide cantilevered pedestrian walkway was cutoff the RT side of the transfer bridge in 2008 to reduce dead load. The bridge is supported at the shore abutment on pin & rocker bearings and at the seaward end by a steel cross girder. The original glue laminated cross girder was replaced in 2008 with a welded steel girder. The cross girder is attached to a cable on counterweight lift system. New bearing pads and rockers were installed on the bridge abutment in 2008. In 1997 the timber deck was overlaid with an asphalt topping lift, 2-1/2" thick in the driving lane and 1" thick in the walkway. The asphalt was removed in 2008 to decrease weight on the aging bridge. Timber deck boards show signs of deterioration & decay.
- 3. A new steel, hydraulically operated apron was installed in 1998 to accommodate the Kennicott. The primary apron is 15 ft. long, with an articulating 10 ft. secondary apron extension for the Kennicott mounted below. The new structure weighs considerably more than the original 15 ft. timber apron. All of the UHMW wear strips on the underside of the extension have come off and the tube girders have been bearing and rubbing against the vessel sponson. The wear has removed the galvanized coating and the steel is freely corroding. The east hinge pin cover plate is missing a bolt and has rotated out of position.
  - A 2016 structural inspection notes that the secondary apron should be removed to reduce the cantilevered dead load on the aging timber transfer bridge, since the Kennicott does not dock at Prince Rupert anymore.
- 4. The lift towers consist of 15 timber piles with cross bracing, with two steel support piles installed in 2008 on the outboard end of the towers. The original structural timber support piles from 43 years ago are covered in barnacles up to the mean high water line. The through-bolts that connect the diagonal braces to the timber piles should be checked for corrosion throughout both towers, and the bolt holes checked for marine borer infestation.
- 5. The overhead beams are 7-1/4" x 30" creosote-treated glue-laminated (glulam) timber and support the cable sheaves for the counterweight-lift system. Two of the beams span the distance between the two towers, while the short middle beam spans between the pile caps on each tower. Combined, the three beams on each tower support the weight of a counterweight box and a quarter of the weight of the vehicle transfer bridge. Work on the 2008 project removed the lichen/moss buildup and added a new coat of paint to the overhead beams.
- The only light source along the bridge is a high-pressure sodium fixture bolted midspan beneath the overhead beams.
- 7. Two steel lifting beams support the seaward end of the bridge. The beams support half the bridge weight & up to 100% of the vehicle loads. Cables tied to the counterweight system support the bridge lift beams at each end. We were not able to inspect the underside of the lift beams as access requires a skiff. Lift cables were replaced by a Contractor under an AMHS contract in 2017.

### **Observations (continued)**

- 8. The counterweight boxes are made of 3/8" steel plate with a bulkhead/stiffener that divides the box into quarters. The boxes were filled with steel ingots and topped with concrete. 2 tons of steel were added in 1998 after the installation of the new apron. Loose chain was piled on top, most likely due to the increase in weight of the asphalt topping lift, higher moisture content of structural timber, etc. All that remains is loose rebar after they reduced the bridge weight in 2008. The block and wire ropes to the counterweight boxes were replaced in 2008.
  - Critical welds between the hangar plate and the box, as well as the cable attachment to the hangar plate, could not be checked by visual inspection due to the items within the box. The hangar plate was re-painted in 2008, but we're not sure if the welds to the counterweight box were inspected during the project.
- 9. The stern dolphins W1 and E1 center the vessel on the bridge, to allow transfer of vehicles and crew. They are skewed at roughly a 45° angle to the centerline of the bridge to fit the rounded sterns of AMHS vessels. The stern dolphins are built of creosote-treated timber piles and consist of 24 fender piles, 28 vertical piles, and 18 anchor piles. Two smaller 7 & 9-pile dolphins were built on either end of each stern dolphin, although the 7-pile dolphin is missing on the seaward side of dolphin W1. In summer of 2007 a project was completed that included replacing fender piles for dolphin W1 and capping the tops of vertical piles with aluminum flashing. The same work was performed on dolphin E1 in 2008.
- 10. There are four breasting dolphins on the East side of the berth. Their construction is similar to the stern dolphins. Several front fender piles are missing; dolphin E2: 10 of 18 remain; dolphin E3: 7 of 9 remain; dolphin E4: 5 of 12 remain. This facility was originally designed to handle 79-foot wide vessels (MALASPINA, MATANUSKA, and TAKU) which fit the three eastern dolphin groups. This properly aligns the stern with the transfer bridge. The facility is too narrow for the 85-foot wide Kennicott to use all of the breasting dolphins and allow proper alignment of the stern opening and the transfer bridge. When moored, the Kennicott is skewed so that the stern is centered correctly against the stern dolphins and then made snug against the first eastern starboard breasting dolphin. All lateral loading is applied to the first group of breasting dolphins E1. During gusty or high wind conditions it is possible for the vessel to damage this dolphin group.
- 11. On March 28, 2007, the terminal was closed for structural repairs to dolphin W1 and elsewhere noted. During shutdown, the M/V Taku was able to dock in the BC Ferries' Prince Rupert Ferry Terminal, next door to the AMHS terminal. In order to keep the apron centered on the Taku car deck, the ship was tied off skew from the fender line, and only rested on the two stern fenders and the nearest dolphin on the west side of the bridge.

**Summary:** Elements of the mooring structures, transfer bridge, and lift system have remained in service since 1963 and are showing signs of years of use and degradation from the marine environment. Several inspection reports from AMHS and consulting engineering firms in recent years have recommended that elements of these timber structures be replaced or repaired. The repair work performed in 2008 was to stabilize the major structural elements. Complete replacement of all marine structures is needed (and currently under design by AMHS with construction funding established for FY15).

The following list of recommendations include those provided by consulting engineers reports and are focused on repair/replacement of existing structural elements. They are numbered starting with the highest priority. These issues will no longer be of concern once the facility is replaced.

	Inspection Summary					
Structure	Priority	Recommendations				
Category I - Safety Repairs						
Apron	Remove the fold-down apron from the end of the bridge, as this is a significant dead load on the aging timber structure that is not necessary since the Kennicott is the only vessel that uses the apron, and doesn't stop at Prince Rupert.					
Counterweight lift tower	2	Replace the timber headframe structure and overhead beams that show significant deterioration. Coast Isle Engineering recommends these be replaced by 2018 at the latest.				
Timber Transfer Bridge	3	Horizontal cracks in the top flange of the glulam bridge girders should be treated, sealed and monitored. Horizontal tie-rods between bridge girders should be replaced where they are not long enough to be fully threaded onto the nuts. Replace tie-rods where corrosion is severe. Repair the galvanized coating of the wear area on the underside of the apron and reinstall the UHMW wear strips with larger diameter mounting studs.				
Annual greasing cables, blocks and fi inspections of primary structu		Institute a routine detailed inspection cycle and more frequent maintenance schedule for greasing cables, blocks and fittings on lift system parts. Perform annual/biennial inspections of primary structural elements of the facility and provide a report/loading limitations (if any) to the owner and AMHS.				
	•	Category II - Rehabilitation Work				
Timber Mooring Dolphins	5	Replace damaged and deteriorated front fender piles and mounting hardware as necessary. These structures have been in use for 43 years.				
Terminal Building & Uplands	6	Hire engineer/architecture firm to analyze foundation settlement and associated damage to the windows & doors, including associated moisture in floor system. Re-paint the gas edges and underneath the rood over the Canadian Customs vehicle inspection area. Repaint the vertical and horizontal tube supports for the covered walkway between the terminal building and the bridge. Other miscellenous items also on file with terminal manager.				
Category III - Upgrades Needed						
Marine  Replace all marine facilities with new, modern structures to service current and future  AMHS service. This project is under active planning and design (Project 68531) with construction obligation scheduled for August, 2015.						

### **REFERENCES:**

Coast Isle Engineering Ltd. (November, 2003). *Prince Rupert Port Authority, Alaska Ferry Terminal 2003 Condition Review*. Prince Rupert, B.C., Canada.

Coast Isle Engineering Ltd. (February, 2004). Alaska Ferry Terminal, Prince Rupert; Interim report II: follow-up of Marine Structures Inspection. Prince Rupert, B.C., Canada

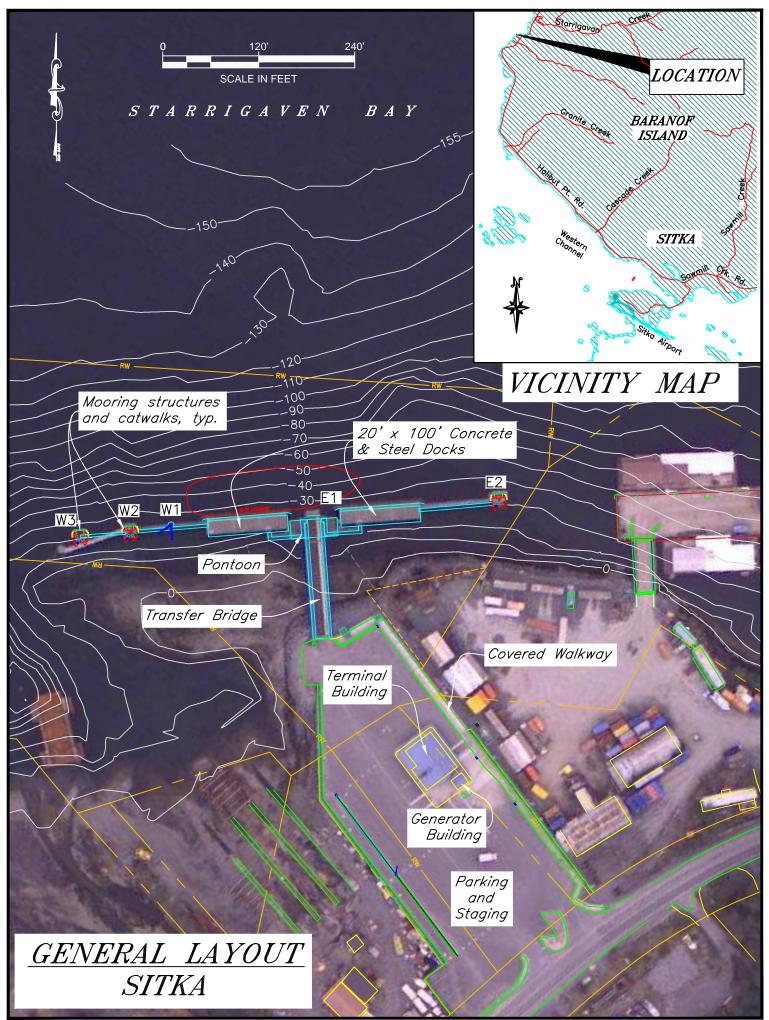
Coast Isle Engineering Ltd. (June, 2004). *Alaska Ferry Terminal, Prince Rupert; Further Investigation into condition of components.* Prince Rupert, B.C., Canada

<u>Appendix A:</u> Foreshore Technologies Inc. (June 2004) *Alaska Ferry Terminal, Headframe Towers Pile Inspection Report.* North Vancouver, B.C., Canada

<u>Appendix B:</u> Equilibrium Consulting Inc. (May 2004) *Alaska Ferry Terminal, Prince Rupert, B.C.; Superstructure Assessment.* Vancouver, B.C., Canada

## **Project #68531 – Prince Rupert Ferry Terminal Replacement:**

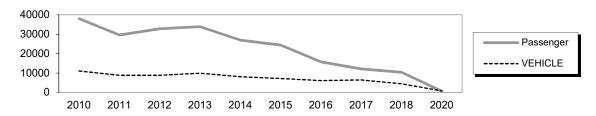
The final design is complete for a project to remove and replace the entire marine facilities with new structures to provide a new stern berth. Project was advertised once, and bid documents were pulled due to Buy America issues. The project is on hold until a resolution is found.



Owner: State of Alaska

**Terminal Manager:** Melissas Mossburg – 907-747-8737

**Terminal Description:** The Sitka Terminal is located on Starrigavan Bay, approximately seven miles from the city center on Halibut Point Road. The inside waters of Southeast Alaska are reached via Olga/Neva Straits and Sergius Narrows. The mainline ferries must traverse the narrows at slack water. The Sitka Ferry Terminal is a side-berth facility consisting of staging and parking areas, terminal building, emergency generator facilities, transfer bridge, covered walkways, and five steel mooring structures connected by catwalks. The past 10 years of total passenger and vehicle traffic at Sitka is shown below.



The most recent above water survey and fracture critical inspection was on May 21, 2021. The underwater inspection occurred on August 17, 2021.

Vessels				
Name Berthing, Alignment				
Taku / LeConte / Mat / Mal / Columbia	Port / Starboard			
Kennicott	Port			
FVF	Starboard			

Tidal Data (MLLW 0.0 feet)				
EHW	14.7			
MHHW	9.9			
MHW	9.1			
ELW	-3.8			

Terminal Building					
Year Built:	1983				
Square Footage:	2361 s.f.				
Heating System:	furnace				
Fuel Storage:	UST				
Fire Protection:	Alarm				
Condition:	Good				

Bridge Support Float				
Type: 24' x 60' Steel Pontoon				
Year Built:	1989			
Ballasted:	Yes			
Ramp lift:	Hydraulic/Block & Cable			
Apron lift:	Hydraulic/Block & Cable			
Anodes:	Yes			
Condition:	Good			

Uplands				
Short-Term Parking: 33 cars; 2 HCP				
Long-Term Parking:	6 cars			
Staging Area:	1875 lineal feet; 360 lineal feet- buses/trucks			
Driving Surface:	Asphalt			

Generator & Building				
Building / Generator:	1989			
Square Footage:	224 s.f.			
Heating System:	Electric			
Fuel Storage:	_			
Fire Protection:	N/A			
Condition:	Good			

Vehicle Transfer Bridge - #0806				
Type:	16' x 140' twin box beam			
Year Built:	1989			
Shoreward support:	Concrete abutment			
Seaward support:	Steel Support Float			
Coating:	Wasser Paint			
Pedestrian Access:	Concrete 4' wide on bridge			
Lighting:	Jelly Jars on bent posts, both girders			
Condition:	Fair			
Load Posting Sign:	N/A			
Original Design Load:	HS 20-44			

2021 Shore Facilities Condition Survey Report

Sitka

Docks (2)				
Туре:	20' x 100' Concrete Dy-Core Panel Dock			
Year Built:	1981			
Support:	(4) Piers, consisting of cap & two steel piles, with batters at seaward corners.			
Steel Coating:	Galvanizing			
Fender System:	Timber Piles with W 12x65 wales (3), donut fenders to dock with restraint chains			
Anodes:	115# bar lower wale; bonding strap to upper 2 wales			
Lighting:	(2) light poles			
Condition:	Fair			
Notes:	Raised fender panels added in 2004 for FVF.			

	Utilities			
	at terminal	at ramp		
Electrical: Yes, city & backup power				
Water:	Yes	Yes		
Sewer:	Yes (Septic)	No		
Telephone:	Yes	Yes		
Cable TV:	No	No		
Fuel:	No	No		
Wireless Bridge:	Yes	-		

Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W3	2B, 2V	Hanging	UHMW	Yes	2008	Good	Red navlight
W2	2B, 2V	Hanging	UHMW	Yes	2008	Good	Light pole
W1	2B, 1V	-	Floating Fender	Yes	2004	Good	
E1	2B, 1V	-	Floating Fender	Yes	2004	Good	
E2	2B, 2V	Hanging	UHMW	Yes	2008	Good	Red navlight & light pole
WG	1V	-	-	No	1989	Good	
ERS	2B, 2V	-	-	No	1989	Good	
WRS	2B, 2V	-	-	No	1989	Good	
EG	1V	-	-	No	1989	Good	

	Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	W3	W2	80' / Catwalk / Aluminum pony-truss	2001	No	Fair	Jelly Jars	
C2	W2	Dock	93' / Catwalk / 10"x10" Tube Girders	1982	No	Good	Jelly Jars	
С3	Dock	WG	10' / Catwalk / 4"x10" Bottom Chord	1989	No	Good	None	
G1	WG	WFP	37' / Gangway 2.5" x2.5" Bottom Chord	1989	Yes	Good	None	
G2	WFP	WIRP	12' / Gangway 2.5" x2.5" Bottom Chord	1989	No	Good	None	
G3	EIRP	EFP	12' / Gangway 2.5" x2.5" Bottom Chord	1989	No	Good	None	
G4	EFP	EG	37' / Gangway 2.5" x2.5" Bottom Chord	1989	Yes	Good	None	
C4	EG	Dock	10' / Catwalk / 4"x10" Bottom Chord	1989	No	Good	None	•
C5	Dock	E2	93' / Catwalk / 10"x10" Tube Girders	1983	No	Good	Jelly Jars	•

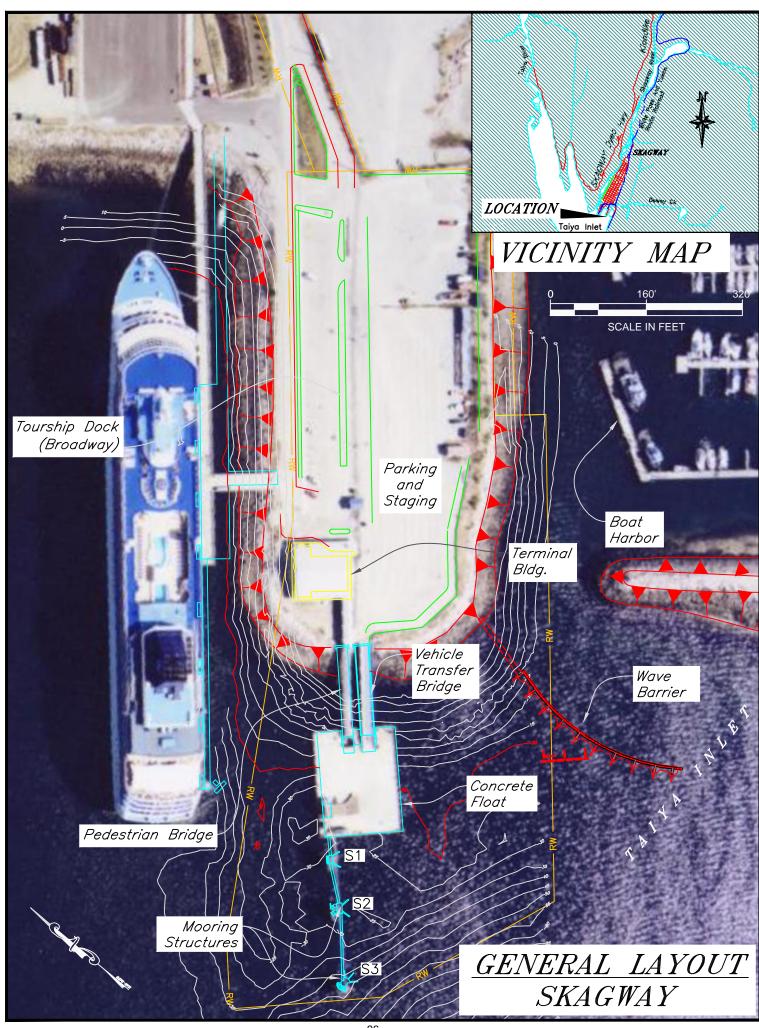
Terminal Projects					
Year	Project #	Project Name	Description		
1963	F-099-3(1)	Sitka Ferry Terminal	Original ferry terminal construction, consisting of uplands fill for small staging area, waiting shelter, approach road, timber transfer and mooring structures.		
1969	MT 105	Safety Ferry Terminal Dolphin Addition	Constructed new concrete-capped duncan mooring dolphin off fender line.		
1982	B59992	Sitka Ferry Terminal Modifications	Replaced existing timber docks with new concrete dock structures each side of the transfer bridge; replaced two existing timber dolphin and timber catwalks with steel dolphin E2 and steel catwalk.		
1983	R-91013	Sitka Dolphin	Replaced timber dolphin W2 and catwalk with steel structures.		
1983	N/A	Sitka Ferry Terminal Building	Constructed new terminal building.		
1989	RS-BR-M- 0935 (9)	Sitka Ferry Terminal Improvements	Replaced the original timber bridge and lift system with new steel bridge and steel support float with hydraulic/cable lift system. Also installed new steel dock access catwalks, new generator building, replaced bridge and catwalk lights/wiring, replaced telephone wiring to bridge.		
1996	75050 / FM- 0935	Sitka Ferry Terminal Staging Area	Widened existing staging and parking areas involving earthwork, paving and retaining wall (on south side); constructed a newe covered pedestrian walkway north of terminal building; installed a sewer treatment system.		
2004	68792 / ACSTP-099- 3(15)	Sitka All-Tide Mooring Improvements	Constructed two floating fender dolphins and installed raised fender panels on the dock for all-tide mooring of the FVF.		

2008	67931 / NHS- MGE-099-1(1)	Sitka Ferry Terminal Mooring Improvements	Replaced steel mooring/breasting dolphins W2-3 &E2, as well as catwalk C1; re-painted catwalk C5; installed steel deck extensions to assist line-handlers at outside corners of the dock, and replaced the catwalk lights, cable and conduit.
2008	73003(3)	Sitka FT Carpet Replacement	Replaced carpet in the terminal building.
2020	70161	AMHS Wastewater Upgrades	Installed an on-site waste water system replacing the marine oufall
2020	SAMHS0008	AMHS Storage Tank Replacement	Replaced underground 1000 gal tank and 300 gal abg gen fuel tank with single 1000 gal above ground tank

## **GENERAL FACILITY EVALUATION**

	Item	NBI Rating
Item 58	Deck	6
Item 59	Superstructure	6
Item 60	Substructure	7
Item 61	Channel Protection	8
Item		
113	Scour	8
	Mooring Structures	7
Marine	Uplands Staging area	7
	Uplands Waiting Building	7
	Utilities	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel o concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



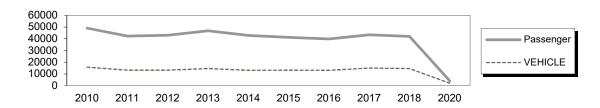
# **Skagway Ferry Terminal**

Mile 0 Klondike Highway

Owner: State of Alaska

**Terminal Manager:** Tiffanie Potter – 907-983-2944

**Terminal Description:** The Skagway facility consists of a floating side berth, terminal building, staging and parking areas, three mooring dolphins, concrete mooring float, and separate vehicle and passenger transfer bridges. The Skagway facility is the northernmost terminal on the Southeast Alaska Marine Highway Route. The past 10 years of total passenger and vehicle traffic at Skagway is shown below.



The most recent above water survey was completed June 9, 2021, Fracture critical inspection 5/8/2021, Underwater Inspection August 21, 2021, In-depth Anchor Chain Inspection Nov. 11, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
Mal / Columbia / FVF	Starboard	
Kennicott	Port	

Tidal Data (MLLW 0.0 feet)		
EHW	25.7	
MHHW	16.7	
MHW	15.7	
ELW	-6	

Terminal Building		
Year Built:	1982	
Square Footage:	5344 s.f.	
Heating System:	Boiler	
Fuel Storage:	UST	
Fire Protection:	Alarm	
Condition:	Good	

Generator & Building			
Building / Generator:	2002		
Square Footage:	224 s.f.		
Heating System:	Electric		
Fuel Storage:	_		
Fire Protection:	Halon		
Condition:	Good		

Uplands			
Short-Term Parking:	40 cars; 1 HCP		
Long-Term Parking:			
Staging Area:	2400 lineal feet, 8 lanes		
Paint Striping:	Yes		
Driving Surface:	Asphalt		

Vehicle Transfer Bridge - #0805			
Т	17' x 140' Orthotropic deck,		
Type:	twin box girder		
Year Built:	1980?		
Shoreward support:	Concrete abutment		
Seaward support:	Concrete Support Float		
Coating:	Wasser Paint		
Lighting:	Parking-lot light poles and		
Lighting.	Float light poles		
Condition:	Fair		
Load Posting Sign:	N/A		
Onicio al Deciso I de de	Original Design Drawings not		
Original Design Load:	on file		

	Utilities		
	at terminal	at ramp	
Electrical:	Electrical: Yes, city & backup power		
Water:	Yes	Yes	
Sewer:	Yes (City)	No	
Telephone:	Yes	Yes	
Cable TV:	No	No	
Fuel:	Yes	Yes	
Wireless Bridge:	Yes	-	

	Bridge Support Float
Type:	120' x 160' Concrete Mooring Float
Year Built:	1980
Ballasted:	No, but has flooding compartments
Ramp lift:	Hydraulic/Block & Cable
Apron lift:	Hydraulic/Block & Cable
Anodes:	-
Condition:	Poor

Pedestrian Bridge - #1626		
Type:	8' x 138' Through Truss	
Year Built:	1995	
Shoreward support:	Concrete abutment	
Seaward support:	Concrete Support Float	
Coating:	Wasser Paint	
Lighting:	Roof mounted fixtures	
Condition:	Fair	

	Dolphins						
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
S3	6B, 1V	Hanging	UHMW	No	74-'98	Fair	Red navlight
S2	2B, 1V	4V	Ekki Timber	No	1980	Fair	
S1	2B, 2V	4V	Ekki Timber	No	1996	Fair	

LEGEND V = Vertical Steel Pipe Piling

## B = Battered Steel Pipe Piling

	Catwalks / Gangways							
#	From Struct. To Struct.		Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	S3	S2	60' / Catwalk / 10'x10" Tube Girders	1982	No	Good	Jelly Jars	
C2	S2	S1	108' / Catwalk / 10"x10" Tube Girders	1982	No	Good	Jelly Jars	
G1	S1	Dock	50' / Gangway / Thru Truss	1965	No			

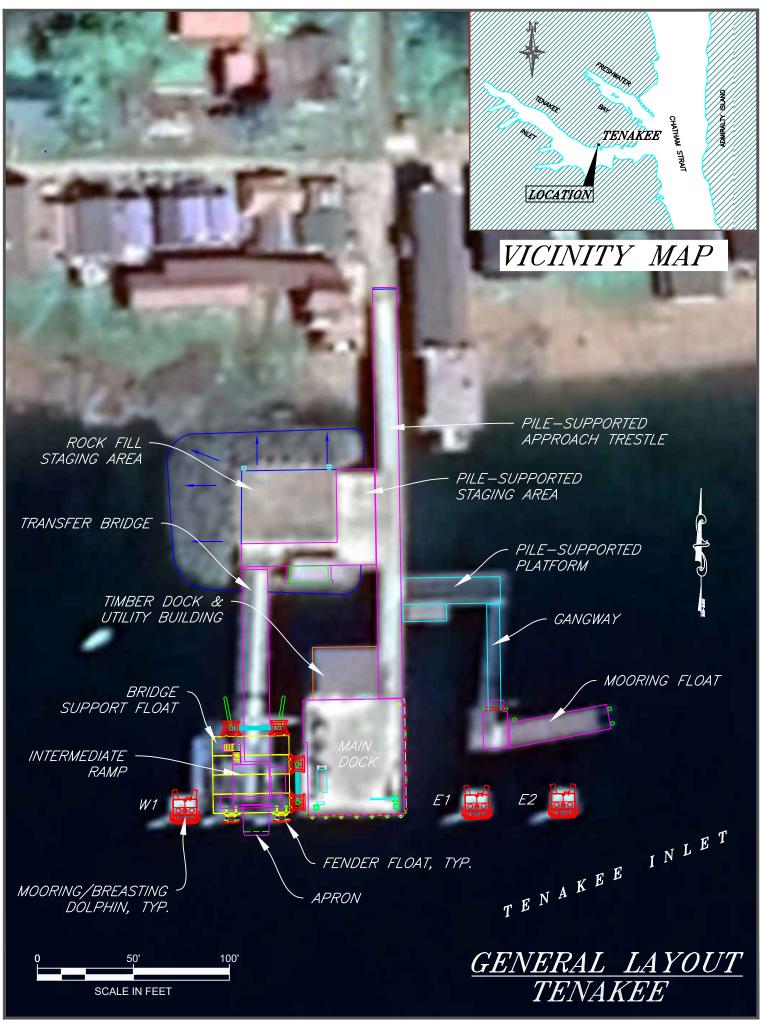
	Terminal Projects				
Year	Project #	Project Name	Description		
1963	S-0999(4)	Skagway Ferry Terminal	Original construction of terminal facility, consists of uplands fill and timber transfer & mooring/fendering structures.		
1980	F-097-2(2)	Skagway FT Facility	Removed original timber structures and replaced with steel transfer and mooring/fendering structures. Extended uplands fill for future staging and terminal building.		
1981	R10263	Skagway FT Pedestrian Transfer Bridge	Constructed the steel pedestrian bridge.		
1982	N/A	Skagway Ferry Terminal Building	Constructed the current ferry terminal building.		
1992	75092	Barge Tendon Rehabilitation	Tendon repair/overlay and tendon anchor head repair.		
1993	75277 / F- 097-1 (2)	Skagway FT Slope Stabilization	Added riprap armory rock to the seaward slopes beneath the terminal building.		
1995	75468 / ER- 0069 (1)	Skagway FT Reconstruction	Repaired and corrosion proofed existing transfer and mooring structures that were damaged from a slope failure across the Inlet.		
1999	67543 / NH- 097-1 (4)	Skagway FT Improvements	Installed new fender panels and hawse rails on dolphin S3.		

	Terminal Projects (continued)			
Year	Project #	Project Name	Description	
2007	N/A	N/A	Maintenance hired a Contractor to construct shoreward bearing improvements to the Pedestrian Bridge.	
2008	73003(5)	Skagway FT Building Interior Renovations & Door Replacement	The work consists of replacement of all exterior doors, frames, and hardware: construction of new ticket counters and staff work stations; and new finishes and toilet partitions at existing restrooms; and replaces all carpet in the facility.	
2014	70196	AMHS Skagway Dock Emergency Repairs	The work consists of salvaging the sunken concrete float off the ocean bottom, structural analysis of the float's condition, raising and placement of the vehicle & pedestrian bridges, salvaging/repairing the timber vehicle ramp, repairing the intermediate ramp hydraulic system, replacing utility (fuel/water) services to the dock face.	
2020	SAMHS00088	Backflow preventer re-location	DEC required project to re-locate the backflow preventer from the concrete float to shore.	
2020	SAMHS00088	New Fuel storage tank 1,000	Replaced b.g. 1,100 gal fuel tank with a.g.1,000	
2020	SAMHS00088	New On-site waste water treatment system	Replaced a marine discharge septic system with new tanks and a 630 sq. ft leach field	

## GENERAL FACILITY EVALUATION

	Item	NBI Rating
Item 58	Deck	5
Item 59	Superstructure	5
Item 60	Substructure	4
Item 61	Channel Protection	8
Item		
113	Scour	8
	Mooring Structures	5
	Uplands Staging area	7
Marine	Uplands Waiting Building	7
	Utilities	7

9 EXCELLENT CONDITION  8 VERY GOOD CONDITION - no problems noted  7 GOOD CONDITION - some minor problems.  6 SATISFACTORY CONDITION - structural elements show minor deterioration  5 FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipp May include minor erosion on bridge piers.  4 POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concepting piers.  3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers in seriously affected deck, superstructure, or substructure. Local failures are possible.	
7 GOOD CONDITION - some minor problems.  8 SATISFACTORY CONDITION - structural elements show minor deterioration  5 FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipp May include minor erosion on bridge piers.  4 POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of conditional bridge piers.  3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have been considered as a serior conditional control of concrete bridge piers.	
SATISFACTORY CONDITION - structural elements show minor deterioration  FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipp May include minor erosion on bridge piers.  POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of conditional bridge piers.  SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have a supplier or control or concrete bridge piers.	
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May include minor erosion on bridge piers.  4 POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of conditing piers.  3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers h	
bridge piers.  3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers h	ing.
	ete
	ive
2 CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in structure, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.	eel or
1 "IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective a may put back in light service.	
0 FAILED CONDITION - out of service - beyond corrective action	
N Not applicable	



# **Tenakee Ferry Terminal**

Owner: State of Alaska & City of Tenakee
Contact: City of Tenakee - 907-736-2207

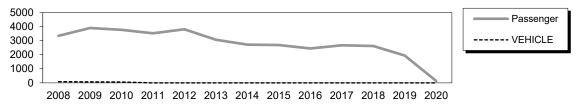
Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** The Tenakee Springs city dock was constructed in 1978 to provide passenger and light freight service to Tenakee Springs. The latest improvements to the facility, completed in 2021, included the construction of a new city dock with utility building, new mooring/breasting dolphins, a new vehicle staging area, a transfer bridge, and a support float with a hydraulic apron allowing access to LeConte class AMHS vessels. Per Tenakee Springs Municipal Code Chapter 13: *motor vehicles exceeding* 50 inches total width, 10 feet in length, or 1000 lbs are prohibited unless exemption is granted by the city.

The current facility consists of a 46x54 ft main dock section lined with steel fenders on the south side and timber fenders on the east side. All marine facilities are accessed from a 12x212 ft concrete paneled approach dock supported by steel pipe piles extending from the main dock to the shore. The main dock supports a fueling station, a utility building, and a dock crane fixed at the southeast corner. An open steel grate approach extends to the east, perpendicular to the approach dock, with a steel gangway extending southward from the eastern end of the grate to a floating platform supported by a steel pontoon.

A concrete paneled steel pile-supported dock extends west perpendicular to the approach dock and connects a gravel pad to the steel grate transfer bridge to the south. This area also supports the waiting shelter. The transfer bridge extends southward from the gravel pad to a steel pile-supported float equipped with two UHMW fenders, supporting an intermediate ramp leading to a hydraulic-powered apron, providing vehicle and passenger access to the AMHS terminal. AMHS vessels are supported by three steel pile mooring/breasting dolphins, one west of the support float and two east of the main dock, each equipped with UHMW fenders.

The past 12 years of total passenger and vehicle traffic at Tenakee is shown below. The global pandemic caused the decline in 2020.



The most recent above water inspection was completed on December 10, 2022. The most recent fracture critical inspection occurred on December 10, 2022. The most recent underwater inspection occurred on August 18, 2021.

Vessels			
<u>Name</u>	Berthing, Alignment		
LeConte	Port/Starboard		
Tazlina	Port		
Tida	al Data		
HTL	18.8		
MHW	13.7		
MLLW	0		
ELW	-5		

Terminal Building			
This facility does not have a terminal building.			
Generator & Building			
This facility does not have a generator on-site.			
Utilities @ Dock			
Water:	No		
Electric:	Yes		
Fuel:	Yes		
Sewer:	No		

2022 Shore Facilities Condition Survey Report

	Uplands
Short-Term Parking:	0
Long-Term Parking:	0
Staging Area:	50'x80' Dock

Approach			
Year Built:	1978		
	12'x240' concrete deck panels support		
Approach Structure:	on steel beam framing and steel pipe		
	piling.		
Steel Coating:	Galvanized		
Anodes	Bents 7, 8, 9, & 10 only		
Lighting:	Jelly Jar		
Condition:	Good		
Design Load:	H15 Truck or 250 psf LL		
	Staging Dock		
Year Built:	2020		
	52'x73' Combination of a rock fill pad		
Dock Structure:	and concrete deck panels supported by		
	steel framing and steel pipe piles.		
Steel Coating:	Galvanized & Ungalvanized		
Anodes	Yes		
Lighting:	Overhead fixtures		
Condition:	New		
Design Load:	H15 Truck or 250 psf LL		

Vehicle Transfer Bridge #1451		
Type:	13'-6"x100' Steel multi-girder	
Year Built:	2020	
Shoreward Support:	Steel pile cap/Steel pipe piles	
Seaward Support:	Steel support float	
Coating:	Galvanized	
Pedestrian Access:	On Bridge	
Lighting:	Overhead fixtures	
Condition:	New	
Load Posting:	N/A	
Design Load:	H15 Truck	

Bridge Support Float		
Type:	40'x40'x7' Flexifloat	
Year Built:	2011	
Ballasted:	Yes	
Ramp & Apron:	Hydraulic	
Anodes:	Yes	
Condition:	Good	

No sounding or cathodic projection readings were taken during this inspection. For the latest structure-to-seawater potential (CP) readings reference the underwater inspection report prepared by Collins Engineers, Inc. August 18, 2021.

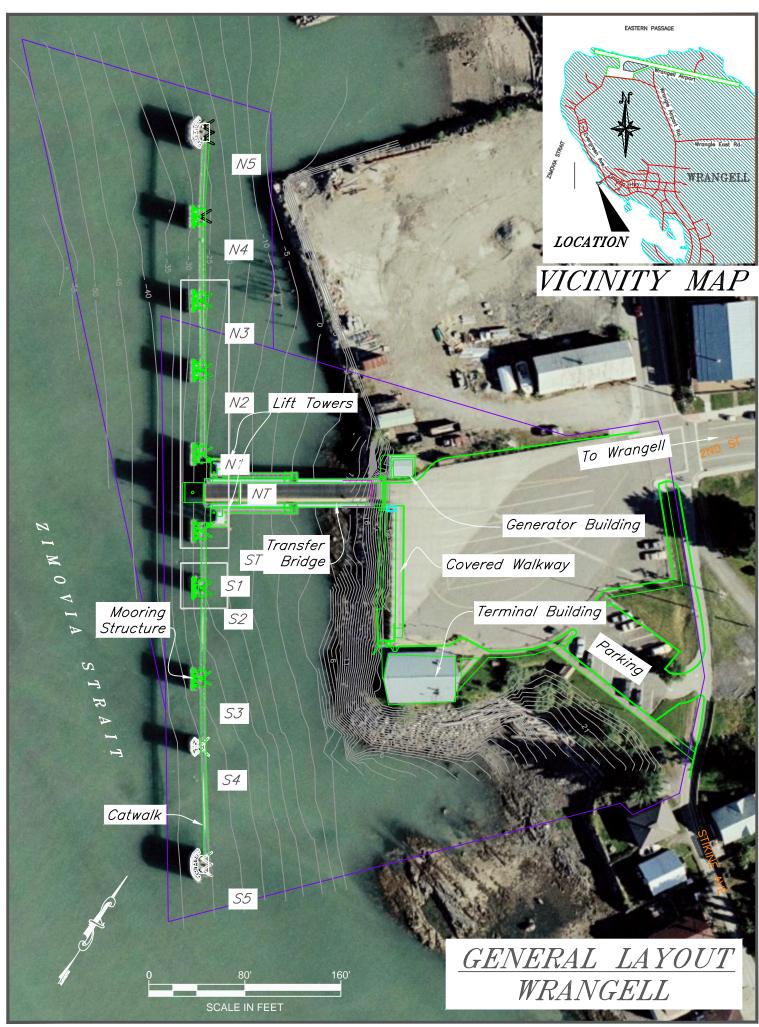
Terminal Projects			
Year	Project #	ect # Project Name Description	
1977	6-77126	Tenakee Dock	Constructed approach and main dock, fender system and mooring structures.
1984	K-83207	Tenakee Ferry Passenger Facility	Constructed steel catwalk, gangways, and barge with steel platform to provide access between vessel and fixed dock for transferring passengers.
1994	N/A	Tenakee Dock Structural Reinforcement (City Funded)	Installed new steel beams between the pile caps along both lines of exterior support piles of the approach and dock. However, these beams are not effective in strengthening vertical load capacity of dock.
2011	69444 / DC01321-00	Tenakee Springs FT Improvements	New 6'x52' steel approach expansion at upper pedestrian access platform, replaced the gangway support wheel, and replaced all float pile guides with removeable style.
2020	Z681450000	Tenakee Springs FT Improvements	Constructed new ferry terminal facility with a vehicle transfer bridge and rubble-mound staging area. Constructed a new City Dock with a utility building. Refurbished existing approach structure. Installed new mooring float.

## GENERAL FACILITY EVALUATION

Facility	
Component	Rating
Uplands	8
Dock	6
Fendering System	7
Dolphins	7

9	EXCELLENT CONDITION	
8	VERY GOOD CONDITION - no problems noted	
7	GOOD CONDITION - some minor problems.	
6	SATISFACTORY CONDITION - structural elements show minor deterioration	
5	5 FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.	
4	4 POOR CONDITION - advanced corrosion, deterioration, αacking or chipping. Also significant erosion of conαeter bridge piers.	
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.	
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.	
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.	
0	FAILED CONDITION - out of service - beyond corrective action	
N	Not applicable	

For a copy of the latest facility inspection reports contact the AK DOT&PF Marine Design Department. Contact information is located in the Comments and Feedback section.



# **Wrangell Ferry Terminal**

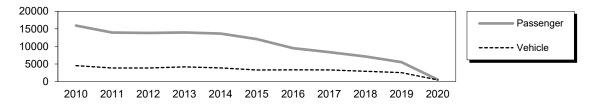
1/4 mile Stikine Ave.

Owner: State of Alaska

**Terminal Manager:** John Archambeau – 907-874-2021

**Terminal Description:** The Wrangell Ferry Terminal is located at the north end of town, along Stikine Avenue. Wrangell is a side-loading facility consisting of a transfer bridge, cable supported bridge lift (Syncrolift), (10) steel pile dolphins and associated catwalks/gangways for line-handling access

Summary of passenger and vehicle traffic volumes (source: <a href="https://dot.alaska.gov/amhs/reports.shtml">https://dot.alaska.gov/amhs/reports.shtml</a>):



The most recent fracture critical bridge inspection occurred May 3, 2021, under water inspection on August 11, 2021 and above water inspection on May 17, 2021. Copies are available upon request from ADOT&PF – Marine Design Department.

Vessels		
<u>Name</u>	Berthing, Alignment	
All AMHS/IFA Vessels	Port/Starboard	
FVF	Starboard	

Tidal Data (MLLW 0.0 feet)		
EHW	22.0	
MHHW	15.7	
MHW	14.8	
ELW	-5.5	

Terminal Building		
Year Built:	1984	
Square Footage:	1408 s.f.	
Heating System:	Furnace	
Fuel Storage:	UST	
Fire Protection:	Alarm Pyrotronics	
Condition:	Good	

Generator & Building		
Building / Generator:	1987	
Square Footage:	224 s.f.	
Heating System:	Electric	
Fuel Storage:	UST	
Fire Protection:	Halon	
Condition:	Fair	

Uplands		
Short-Term Parking:	5	
Long-Term Parking:	15	
Staging Area:	640 lineal feet; 60 lineal	
	feet-buses/trucks	
Paint Striping:	Yes	
Driving Surface:	Asphalt	

Vehicle Transfer Bridge - #0801		
Type:	16'x140' twin box beam	
Year Built:	1987	
Shoreward support:	Concrete abutment	
Seaward support:	Steel Lift Beam-Syncrolift	
Coating:	Wasser Paint	
Pedestrian Access:	Concrete 4' wide on bridge	
Lighting:	None	
Condition:	Good	
Load Posting Sign: N/A		
Original Design Load: HS 20-44		

Utilities			
	at Terminal	at Ramp	
Electrical:	Yes, city & backup power		
Water:	Yes	Yes	
Sewer:	Yes (Septic)	Yes	
Telephone:	Yes	Yes	
Cable TV:	No	No	
Fuel:	Yes, UST	No	
Wireless Bridge:	Yes	-	

2021 Shore Facilities Condition Survey Report

Wrangell

	Dolphins						
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
N5	4B, 2V	5V	Ekki Timber	Yes	1994	Fair	Nav Light
N4	2B, 1V	4V	Ekki Timber	Yes	1994	Fair	
N3	2B, 1V	2V	Ekki Timber	Yes	1994/2013	Fair	
N2	2B, 1V	2V	Ekki Timber	Yes	1994/2013	Fair	
N1	2B, 1V	2V	Ekki Timber	Yes	1987/2013	Poor	
S1	2B, 1V	2V	Ekki Timber	Yes	1987/2013	Fair	
S2	2B, 1V	2V	Ekki Timber	Yes	2013	New	
S3	2B, 1V	4V	Ekki Timber	Yes	1987	Fair	Bent Ladder
S4	2B, 1V	4V	Ekki Timber	Yes	1978	Fair	
S5	4B, 2V	5V	Ekki Timber	Yes	1987	Fair	Nav Light
ST	4V	-	-	Yes	1987	Fair	Light Pole & Windsock
NT	4V	-	-	Yes	1987	Fair	Light Pole

## **LEGEND**

ET = East Lift Tower G1 = Gangway

V = Vertical Steel Pipe Piling EBP = East Bridge Platform B = Battered Steel Pipe Piling

Catwalks / Gangways								
#	From Struc.	To Struc.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	N5	N4	59' / Catwalk / 12"x12" Tube Girders	1994	Yes	Good	Jelly Jars	
C2	N4	N3	59' / Catwalk / 12"x12" Tube Girders	1994	Yes	Good	Jelly Jars	
C3	N3	N2	47' / Catwalk / 12"x12" Tube Girders	1994	Yes	Good	Jelly Jars	
C4	N2	N1	59' / Catwalk / 12"x12" Tube Girders	1994	Yes	Good	Jelly Jars	
G1	ET	EBP	53' / Gangway / S 4x9.5 Bottom Chord	1984	Yes	Good	Jelly Jars	
G2	WT	WBP	53' / Gangway / S 4x9.5 Bottom Chord	1984	Yes	Good	Jelly Jars	
C5	S2	S1	36' / Catwalk / 10"x10" Tube Girders	1987	Yes	Good	Jelly Jars	
C3	S3	S2	65' / Catwalk / 10"x10" Tube Girders	1987/2013	Yes	Good	Jelly Jars	•
C2	S4	S3	48' / Catwalk / 10"x10" Tube Girders	1987	Yes	Good	Jelly Jars	•
C1	S5	S4	91' / Catwalk / 10"x10" Tube Girders	1987	Yes	Good	Jelly Jars	

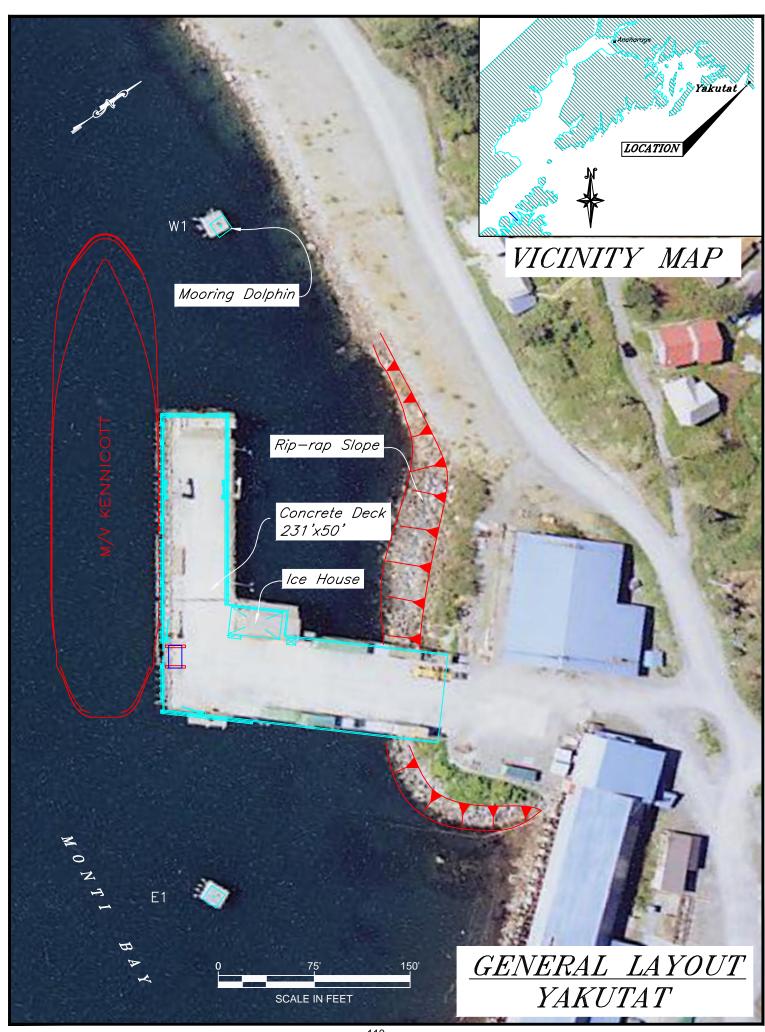
	Terminal Projects					
Year	Project#	Project Name	Description			
1963	N/A	WRG Ferry Terminal	Original construction of the terminal structures: timber vehicle bridge, timber lift towers & counterweight system, timber dock & timber mooring dolphins.			
1978	RS-0943(14)	Ferry Terminal Facilities at Wrangell	Replace two timber dolphins with steel dolphins, retrofit the dock, install new catwalk.			
1984	H78017	WRG Marine Terminal Building	Extension of uplands, construction of the current terminal building.			
1987	A70022/F-095-3 (1)	WRG Ferry Terminal	Removed all timber structures and replaced with steel: new vehicle bridge, new lift towers and syncrolift system, new dolphins and catwalks.			

	Terminal Projects (continued)					
Year	Project #	Project Name	Description			
1994	75279 / STP- 095-3 (2)	WRG Ferry Terminal Fendering & Mooring Improvements	Installed steel dolphins, and catwalks, extending the north fender line and providing port/starboard mooring. Retrofit and upgraded southern mooring dolphin fender panels and batter piles. Improved the rock armor shore protection.			
2006	67927 / CA- 0003 (69)	WRG Ferry Terminal Modifications	Connected the transfer bridge to City sewer and water and installed hawse masts for the IFA vessel use. Installed fender panel extensions to dolphins S1-S3 for FVF vessels.			
2008	73003(3)	Wrangell FT Carpet Replacement	Replaced carpet in the terminal building.			
2008	69050 / SHAK - 0005 (575)	Wrangell - Ferry Dock Hoist Upgrade	Replaced the existing relay-based control panel for the transfer bridge lift system with a PLC-based control panel.			
2008	73741(4)	WRG Ferry Terminal Transfer Bridge Repairs	Repaired failed welds between the first floor beam and girders of the Transfer Bridge. Work completed under a maintenance contract in October, '08.			
2013	69432 / SHAK- MGE-STP- 0943(25)	WRG Ferry Terminal Transfer Bridge Repairs	Replaced fender panels on dolphins N1-3, S1; replaced dolphin S2; refurbished transfer bridge lift beam; replaced the pursers shelter; installed a security gate at the head of bridge; installed anodes on all dolphins, shortened the catwalk to dolphin S3; reconstructed the catwalk lighting system.			

## **General Facility Evaluation**

<b>Facility Component</b>	Rating
Bridge	5
Abutment & lift system	7
Apron	6
Mooring Structures	5
Uplands Staging area	7
Uplands Terminal Building	7
Utilities	6

9 E	EVACULENT COMPITION
-	EXCELLENT CONDITION
8 V	VERY GOOD CONDITION - no problems noted
7 0	GOOD CONDITION - some minor problems.
6 5	SATISFACTORY CONDITION - structural elements show minor deterioration
1 1	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
1 1	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
1 1	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
c	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
0	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0 1	FAILED CONDITION - out of service - beyond corrective action
N N	Not applicable

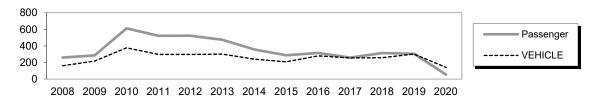


# Yakutat City Dock

Owner: City of Yakutat

**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** The M/V KENNICOTT calls in Yakutat during its cross-gulf trips. The dock is L-shape in plan with a face 237 feet long by 50 feet wide and an approach 70 feet wide by 169 feet long. The dock is constructed of precast concrete deck panels atop cast-in-place concrete caps and steel support piles. Two mooring dolphins are located at each end of the dock and lie off-line from the dock face. The facility is a multi-purpose dock and could be in use by other vessels when the ferry arrives. AMHS is not in control of the operation or maintenance of this facility. The past 12 years of total passenger and vehicle traffic at Yakutat is shown below. The KENNICOTT began its service in 1998.



The most recent above water survey was completed on August 19, 2021. The most recent underwater inspection occurred on July 23, 2021. The facility is not categorized as a fracture critical structure.

	Vessels
Name	Berthing, Alignment
Kennicott	Starboard

Tidal Data (MLLW 0.0 feet)				
EHW	17.3			
MHHW	10.1			
MHW	9.2			
ELW	-4.2			

Terminal Building
This facility does not have a terminal building.

Generator & Building
This facility does not have a generator on-site.

Utilities @ Dock		
Water:	Yes	
Electric:	Yes	

Uplands			
Short-Term			
Parking:	N/A		
Long-Term			
Parking:	N/A		
Staging Area:	N/A		

L-Si	naped Dock - #2094
Type:	L-Shaped 237'x50' concrete panel dock & 169'x70' concrete panel approach
Year Built:	1984
Dock Support:	Steel piles & concrete pile caps
Pile Coating:	Epoxy paint
Fender:	Timber creosote piling bolted to steel wale with 'V' style energy absorbing unit.
Anodes:	Cables hanging from end of angle (welded to pile near low-water line)
Lighting:	Light poles mounted at dock corners
Condition:	Good
Load Posting Sign:	N/A
Original Design Load:	HS 20-44/60 Ton Mobile Crane/25 Ton Forklift/600 psf

	Dolphins						
Dolphins	Dolphin Piles	Piles Fender Support Fender Face Anodes Built Cond. Notes		Notes			
E1	8B, 5V	Mooring	Only	No	1984	Satisfactory	
W1	8B, 5V	Mooring	Only	No	1984	Satisfactory	

LEGEND V = Vertical Steel Pipe Piling

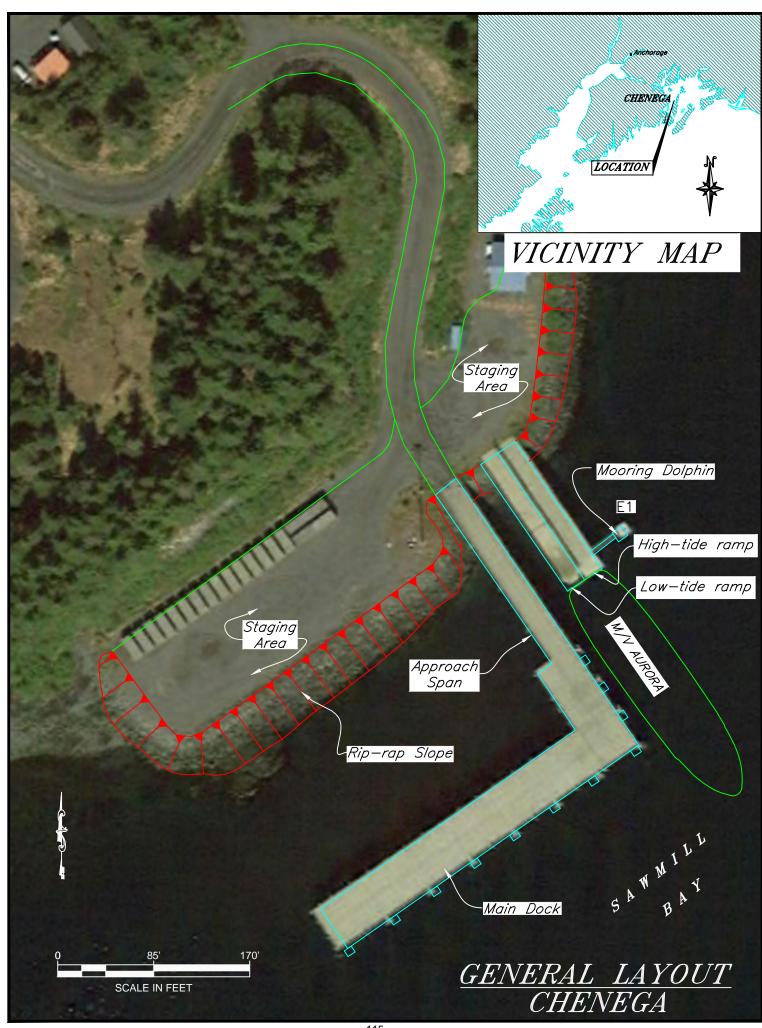
B = Battered Steel Pipe Piling

	Terminal Projects				
Year	Project #	Project Name	Description		
1983	-	Ocean Cape Dock Phase II	Constructed 70' x 169' approach dock and a 50' x 154' moorage dock.		
1984	-	Ocean Cape Dock Phase III	83' x 50' Extension of the moorage dock on the western side of the existing dock.		
2016	-	Ocean Cape Dock Fender Repairs	Repaired Timber Pile Fender System in areas where there was damage.		

Facility Component	Rating
Uplands	n/a
Approach	6
Moorage Dock	6
Fendering System	7
Dolphins	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

SOUTHCENTRAL ALASKA MARINE ROUTE

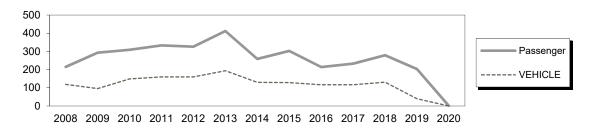


## Chenega Dock

Owner: North Pacific Rim Housing Authority

**Contact Person:** Pete Kompkoff, 907-573-5132

Terminal Description: The Chenega dock and tidal ramps were originally constructed in 1995 to provide a terminal for the BARTLETT. The State of Alaska transferred ownership to the North Pacific Rim Housing Authority (NPRHA) in October, 1998. The Chenega facility consists of an approach, dock and two tidal ramps constructed of prestressed concrete panels welded to bridge beams supported by steel pipe piles socketed to the underlying bedrock. The M/V Tustumena has used the east face of this dock for moorage, while the M/V AURORA uses the tidal ramps located along the north face of the dock for stern loading. The past 12 years of total passenger and vehicle traffic at Chenega is shown below. The global pandemic caused the drop in 2020.



The most recent above water survey and fracture critical inspection occurred on August 13, 2022. The most recent underwater inspection occurred on August 4, 2018.

Vessels		
<u>Name</u>	Berthing, Alignment	
Kennicott	Port/Starboard	
Aurora	Stern	

	Tidal Data (MLLW 0.0 feet)
EHW	15.1
MHHW	12.6
MHW	11.8
ELW	-4.0

Tidal Ra	mps - Bridge # 185
Dimensions:	(2) 18' wide x' 131' long
Type:	Concrete Panels/ Steel Box Girders
Year Built:	1995
Shoreward support:	Concrete abutment
Seaward support:	Steel pipe piling
Pile Coating:	Galvanized
Anodes:	No
Lighting:	N/A
Condition:	Satisfactory
Original Design Load:	AASHTO HS-25

Generator & Building
This facility does not have a generator.

Utilities @ Dock	_
This facility does not have utilites at the dock.	

	Uplands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A
Paint Striping:	No
Driving Surface:	Gravel

Terminal Building
This facility does not have a terminal building.

Dock - Bridge #184				
Dimensions:	(1) 22' x 270' & (1) 41' x 265'			
Type:	Concrete Panels/ Steel Box Girders			
Year Built:	1995			
Support:	Vertical & Battered Steel Pipe Piles			
Steel Coating:	Galvanized			
Fender Support:	Steel Pin Piles			
Fender Face:	12" x 12" Douglas Fir			
Anodes:	No			
Lighting:	Tall Mast Light in parking lot			
Condition:	Satisfactory			
Notes:	Red navlight, southeast corner			
	AASHTO HS-25/30 Ton Forklift			
Original Design Load:	Axle load/250 psf Uniform Load/40			
Ongmai Design Load:	Ton Mobile Crane w/ Crane Mats			
	Centered on Girders			

This facility	does not have utilites at the dock.

2022 Shore Facilities Condition Survey Report

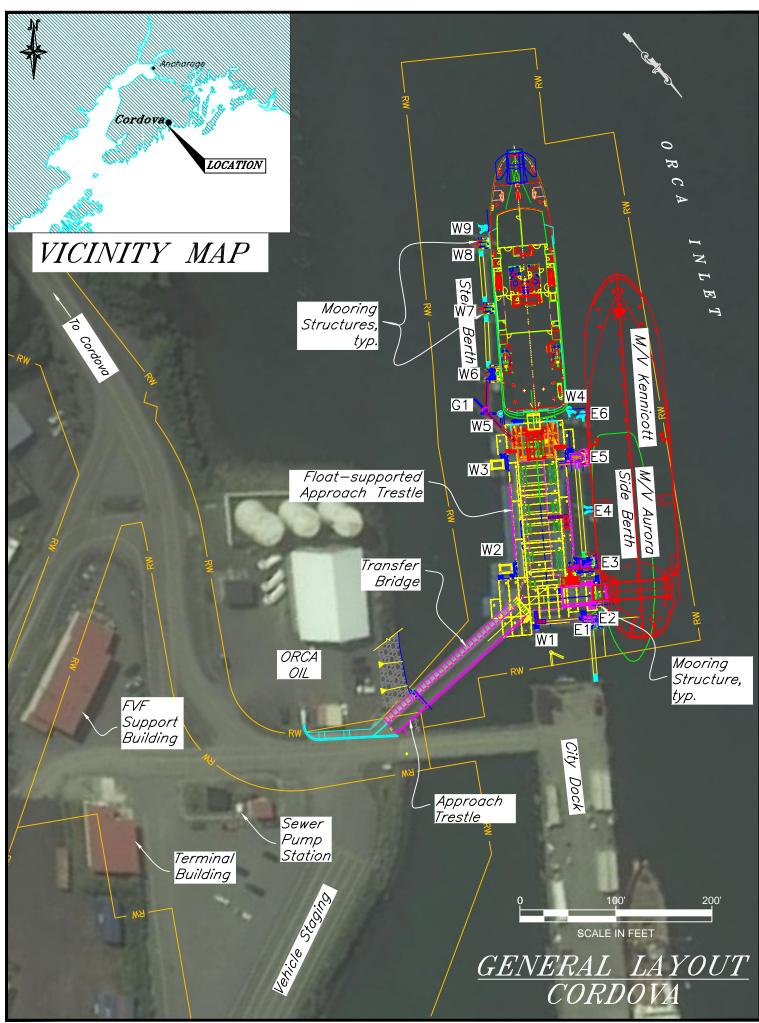
Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
E1	2B, 1V	-	-	No	1995	Fair	

	Catwalks / Gangways							
#	# From Struct. To Struct. Length / Style / Main Members Built Safety Chains Cond. Lighting Notes				Notes			
C1	TR	E1	25' / Catwalk / Pony Truss	1995	No	Good	None	

	Terminal Projects				
Year Project # Project Name Description					
1995	N/A	Chenega Dock & Tidal Ramps	Original construction of the dock and tidal ramps, uplands,		
1773	11/11	Chenega Bock & Tidai Ramps	lighting and electrical installations		

Facility Component	Rating
Uplands	7
Approach Dock	6
Main Dock	6
Tidal Ramps	6
Fendering System	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



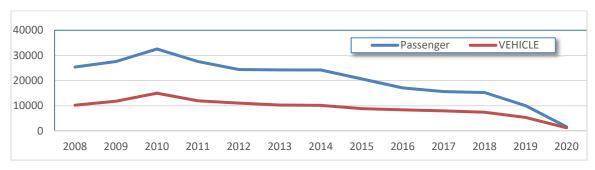
# **Cordova Ferry Terminal**

201 Orca Avenue

Owner: State of Alaska

**Terminal Manager:** Tammy Johnson – 907-424-7333

**Terminal Description:** This terminal provides both side and stern berths for AMHS vessels M/V Aurora and the Alaska Class Ferry (ACF). The marine facilities consist of a 40'-long approach span (pile supported), transfer bridge, intermediate ramp with articulating apron and (6) berthing/mooring structures for the side berth, and a 150-ft long approach span (float supported) to an intermediate ramp with articulating apron and (6) berthing/mooring structures for the stern berth. The stern-berth was originally built as a homeport the Fast Vehicle Ferry (FVF) M/V Chenega, which is no longer in service. The past 10 years of total passenger and vehicle traffic at Cordova is shown below.



The most recent shore condition survey was completed on July 30, 2021. The most recent fracture critical and routine bridge inspections occurred on July 30, 2021. The most recent underwater inspection occurred on June 4, 2021.

Vessels		
<u>Name</u>	Berthing, Alignment	
Tustumena/Kennicott	Port/Starboard/Stern	
Aurora	Starboard/Stern	

Tidal Data	(MLLW 0.0 feet)
EHW	17.5
MHHW	12.6
MHW	11.7
ELW	-4.9

Uplands			
Short-Term Parking:	18 cars, 4 bus, 4hcp		
Long-Term Parking:	15		
Staging Area:	1150 lineal feet; 230 lineal feet-buses/trucks		
Paint Striping:	Yes		
Driving Surface:	Asphalt		

Terminal Building			
Year Built:	1998		
Square Footage:	2670 s.f.		
Heating System:	Furnace		
Fuel Storage:	AST		
Fire Protection:	Alarm Pyrotronics		
Condition:	Good		

Generator & Building			
Year Built:	1998		
Square Footage:	252 s.f.		
Heating System:	electric		
Fuel Storage:	Daytank		
Fire Protection:	Halon		
Condition:	Good		

Utilities				
	at Terminal			
Electrical:	Yes, city & backup generator			
Water:	Yes			
Sewer:	Yes (City)			
Telephone:	Yes			
Fuel:	Yes, AST			
Wireless Bridge:	Yes			

Approach Trestle				
Type:	13'-6" x 40' Pile-Supported			
Турс.	Steel Frame			
Year Built:	2006			
Shoreward support:	Steel Beam/Driven Piling			
Seaward support:	Steel beam/Driven Piling			
Pedestrian	Covered and separated			
Walkway:	from vehicles by guardrail.			
Anodes on piles:	Yes			
Condition:	Good			

Bridge Support Float				
Type:	12,400 sqft Flexifloat Pontoon			
Year Built:	2006			
Ballasted:	Yes			
Ramp lift:	Hydraulic tower			
Apron lift:	Hydraulic			
Anodes:	Yes			
Condition:	Fair			

Vehicle Transfer Bridge - #0180				
Type:	13'-6"x143' twin box beam			
Year Built:	2006			
Shoreward support:	Steel approach			
Seaward support:	Flexifloat pontoon			
Coating:	Wasser Paint			
Pedestrian Access:	5'-11"W Covered walkway, concrete deck, separated by guardrail			
Lighting:	Cylindrical fixtures on rail			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design Load:	HS 20-44			

	Dolphins							
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
E1	4V	Hanging	UHMW	Yes	2005	Good	Yes	
E2	1V	Floating	Rubber Fender	Yes	2005	Good	-	
E3	4V	Hanging	UHMW	Yes	2005	Good	Yes	
E4	2B, 1V	Floating	Rubber Fender	Yes	2005	Good	-	
E5	4V	Hanging	UHMW	Yes	2005	Good	Yes	
E6	2B, 1V	Floating	Rubber Fender	Yes	2005	Good	-	
W9	2B, 1V	Floating	Rubber Fender	Yes	2005	Good	-	
W8	2B, 1V	Hanging	UHMW	Yes	2005	Good	Yes	
W7	2B, 1V	Hanging	UHMW	Yes	2005	Good	Yes	
W6	2B, 2V	Hanging	UHMW	Yes	2005	Good	Yes	
W5	2B, 1V	Floating	Rubber Fender	Yes	2005	Good	-	
W4	2B,1V	Floating	Rubber Fender	Yes	2005	Good	-	
W3	4V	-	-	Yes	2005	Good	-	
W2	4V	-	-	Yes	2005	Good	-	
W1	2B, 1V	-	-	Yes	2005	Good	-	
G1	1B, 1V	-	-	Yes	2005	Good	-	

#### **DOLPHINS TABLE LEGEND**

V = Vertical Steel Pipe Piling B = Battered Steel Pipe Piling E1 = East Mooring Dolphin, Typ. W1 = West Mooring Dolphin, typ. G1 = Gangway Support Pipe Piling

#### CATWALKS/ GANGWAYS TABLE LEGEND

G1 = Gangway, typ. C1 = Catwalk, typ.EGP = East Gangway Platform WGP = West Gangway Platform W1 = West Mooring Dolphin, typ E1 = East Mooring Dolphin, Typ.

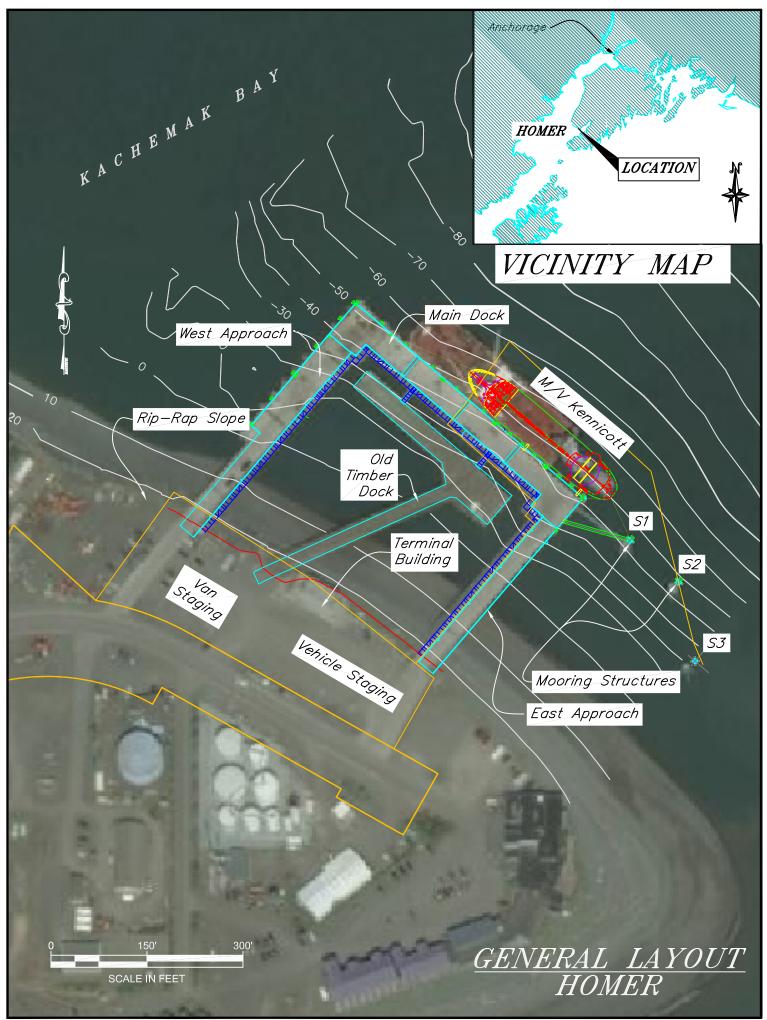
Cordova

	Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style / Main Members		Safety Chains?	Cond.	Lighting	Notes
G1	W1	E1	46' / Gangway / 2.5"x2.5' Bottom Chord	2005	Yes	Good	Cylindrical	
C1	E1	CD	61' / Catwalk / 10"x10" Tube Girders	2005	Yes	Good	None	
G2	EGP1	-	15' / Gangway / 2.5"x2.5" Bottom Chord 2005 Yes Good None					
G3	EGP2	E3	46' / Gangway / 2.5"x2.5' Bottom Chord 2005 Yes Good Cylindrical					
G4	EGP2	E5	46' / Gangway / 2.5"x2.5' Bottom Chord 2005 Yes Good Cylindrical					
C2	E3	E5	102' / Catwalk / 12"x12" Tube Girders 2005 Yes Good Cylindrical					
G5	WGP1	G1	46' / Gangway / 2.5"x2.5' Bottom Chord 2005 Yes Good Cylindrical					
C3	G1	W6	31' / Catwalk / 2.5"x2.5" Bottom Chord 2005 Yes Good Cylindrical					
C4	W6	W7	57' / Catwalk / 10"x10" Tube Girders	2005	Yes	Good	Cylindrical	
C5	W7	W8	57' / Catwalk / 10"x10" Tube Girders	2005	Yes	Good	Cylindrical	

	Terminal Projects					
Year	Project #	Project Name	Description			
1968	MT 107	Cordova Ferry Terminal	Original stern-loading terminal construction consisted of orthotropic steel transfer bridge, (2) counterweight lift towers, (4) mooring dolphins, (2) stern dolphins, (5) steel catwalks, passenger waiting room building, and utilities. The shoreward bearing was built on the edge of the Cordova City Dock.			
1988	RS- 0851(42)	FT Fender Modifications	Replaced the stern dolphins, replaced the mooring dolphin fendering systems.			
1988	RS- 0851(44)	FT Recoating Project	Work included re-painting the steel transfer bridge, lift tower enclosures, and other miscellaneous coatings.			
1993	RS- 0851(46) 75128	FT Bridge Replacement	Replaced the solid plate deck bridge with an open-grate deck multi-girder structure. Modified existing steel lift towers for new lift system.			
1993	STP-0851 (53) / 75339	Cordova Staging Area Phase "A"	Placed uplands fill adjacent to the dock approach road to expand the staging area.			
1997	RS- 0851(45) 75336	Cordova Staging Area Phase "B"	Work included paving, striping, curb & gutter, utilities, etc.			
1998	N/A	Cordova Terminal Building	Construction of the terminal building.			
2005	AK-03-0040 / 68447	Prince William Sound FVF Support Facility	Construction of the support facility for FVF Chenega			
2006	MGS- 0851(63)- 68263	Cordova FT Modifications	Removed existing marine structures with new side and stern berths.			
2010	73741(5)	AMHS Cordova FT Heat Trace Modifications	Replaced the faulty heat trace originally installed on Proj 68263 for water & sewer lines on dock.			
2011	69617	Cordova FT Float Repairs	Emergency project to repair the cracks @ the locks within several Flexifloat units & install new structural steel frames to strengthen the floats.			

Facility Component	Rating
Uplands	7
Approach	7
Bridge	6
Float	5
Intermediate Ramp	7
Apron	7
Dolphins	7
Electrical	6
Hydraulic System	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

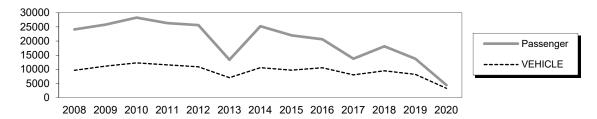


**Owner:** City of Homer

**Terminal Manager:** Ron Van Sickle – 907-235-8449

**Terminal Description:** Homer is a modern U-shaped concrete dock, built around the original timber city dock in 2001. It is owned and maintained by the City of Homer. The facility consists of terminal building and uplands staging area, east and west approach trestles connected to the main dock, two breasting dolphins and one mooring dolphin with one access catwalk. Vehicle and passenger transfer takes place on the city dock. The Coast Guard (USCG) uses the north end of the dock as a berth for their buoy tender. The State provided a portion of construction funding, has priority use and does not pay a docking fee per the MOA with the City.

The past 12 years of total passenger and vehicle traffic at Homer is shown below. The global pandemic caused the drop in 2020.



The most recent above water survey was completed on July 26, 2022. The most recent underwater inspection occurred on September 25, 2018.

	Vessels
<u>Name</u>	Berthing, Alignment
Aurora / Kennicot / Tustumena	Stern/Starboard

Tidal Data (MLLW 0.0 feet)		
EHW	26.1	
MHHW	18.3	
MHW	17.5	
ELW	-5.2	

Terminal Building		
Year Built:	1999	
Square Footage:	2335 s.f.	
Heating System:	Furnace	
Fuel Storage:	AST	
Fire Protection:	Alarm Pyrotronics	
Condition:	Fair	

Generator & Building	
This facility does not have a generator.	

	Utilities	
	at Terminal	at Ramp
Electrical:	Yes, city & backup	power
Water:	Yes	Yes
Sewer:	Yes (City)	Yes
Telephone:	Yes	Yes
Cable TV:	No	No
Fuel:	Yes, AST	No
Wireless Bridge:	Yes	-

Uplands			
Short-Term Parking:	5 cars, 2 hcp		
Long-Term Parking:	N/A		
Staging Area:	2000 lineal feet; 250 lineal feet- buses/trucks		
Paint Striping:	Yes		
Driving Surface:	Asphalt		

Approach Trestle (East Side)- Bridge # 1415				
Dimensions:	(1) 30' wide x 296' long Approach (1) 29' wide x 310' long main dock			
Type:	Precast Deck/ CIP Pile Caps			
Year Built:	1999			
Shoreward support:	Concrete abutment			
Seaward support:	30" diameter steel pipe piling			
Pile Coating:	Epoxy-based paint			
Cathodic Protection:	Anodes hang from cables			
Lighting:	Overhead tall-mast lights			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design Load:	Uniform Load 500 psf/AASHTO HS25-44/45 Ton Forklift/140 Ton Truck Crane			

	Dolphins						
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
S1	4B, 1V	2V	UHMW	No	2002	Good	Red navlight & weather station
S2	4B, 1V	2V	UHMW	No	2002	Good	Red navlight
S3	4B, 1V	-	-	No	2002	Good	Red navlight

	Catwalks / Gangways							
#	From Struc.	To Struc.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	N5	N4	98' / Catwalk / 12"x12" Tube Girders	2007	Yes	New	None	

	Terminal Projects						
Year	Project #	Project Name	Description				
1961	W6215	Homer Approach & Dock	Dismantled and re-assembled the existing timber city dock with new superstructure.				
1993	N/A	Homer Ferry Terminal Staging Area	Constructed paved parking and staging area large enough to provide adequate service for the M/V Tustumena's sailings to Seldovia, Kodiak, and ports on the Southwest AMHS Route.,				
1999	753 / STP- 021 (43)	Homer Ferry Terminal	Constructed the new terminal building.				
2002	N/A	Homer City Dock	Constructed the new concrete U-shaped dock around the existing timber structure. Also built two breasting dolphins and a mooring dolphin.				
2007	69062 / SHAK - 021-1 (53)	Homer FT Dock Modifications	Removed existing aluminum catwalk, replaced with new steel catwalk. Installed new swinging bullrails to provide opening for the M/V Tustumena side and aft brow gangways.  Installed new pipe bollard for forward spring line.				
2011	69054 / SHAK 0003(119)	AMHS Southwest Warehouse	Improved uplands (paving, drainage, utilities, site work) & built a pre-engineering metal warehouse building on Gravel Access Road, within 1/4 mile of the Homer City Dock & AMHS terminal building. Work also included installation of security camera system, fire alarm controls, & new wireless bridge system.				
2015	68223	Homer Ferry Terminal Improvements	Replaced 4 fender panels along the dock face, built 5 new fender panels between the existing units, built a wrap-around fender at the east corner, relocated the existing 98' catwalk, refurbished the fender panels on dolphins S1 & S2, built a covered walkway between the parking lot and the main dock.				

Facility Component	Rating
Uplands	5
Approach Dock	7
Main Dock	7
Fenders	7

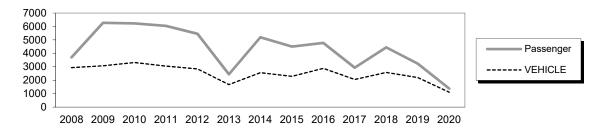
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



Owner: City of Seldovia

**Terminal Manager:** Layla Pedersen, Harbormaster, 907-234-7886 Tod Larson, City Manager 907-234-7643

**Terminal Description:** Seldovia City Dock is a multi-purpose dock owned and operated by the City of Seldovia. The City & AMHS have an agreement for docking use. The dock is supported on steel pipe piling and has a steel and concrete superstructure with a steel wale, timber faced fender system. Vehicle access is via Dock Street and across a steel approach structure. There is a designated AMHS vehicle staging area (on City owned property), but no terminal building or other upland ferry terminal related facilities. This staging area does not appear to be utilized by ferry traffic. The dock and approach area has a fueling station, fuel storage facilities and serves as a freight wharf. The past 10 years of total passenger and vehicle traffic at Seldovia is shown below. The M/V Tustumena was out of service most of 2013, causing a steep dropoff in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on July 26, 2022. The underwater inspection occurred on September 26, 2018.

	Vessels
<u>Name</u>	Berthing, Alignment
Tustumena/Kennicott	Starboard

Tidal Data (MLLW 0.0 feet)			
EHW	25.6		
MHHW	18		
MHW	17.2		
MLLW	0		
ELW	-6.6		

	Utilities @ Dock
Electrical:	Yes
Water:	Yes, 1-1/2" PVC within insulated 5" PVC
Fuel:	Yes, three 4 1'2" diameter

Approach Span - Bridge #1423		
Dimensions: 26' wide x 113' long		
Type:	Approach: CIP deck/steel girders	
Year Built:	1967	
Shoreward support:	Concrete Abutment	
Seaward support:	Concrete capped, steel pile	
Coating:	Spray metallizing	
Lighting:	Light pole on shore side	
Condition:	Fair	

Terminal Building		
N/A		

Uplands		
Short-Term Parking:	10 cars (in lot next to the City office building).	
Long-Term Parking:	10 cars	
Staging Area:	420 lineal feet	
Paint Striping:	No	
Driving Surface:	Asphalt/Gravel	

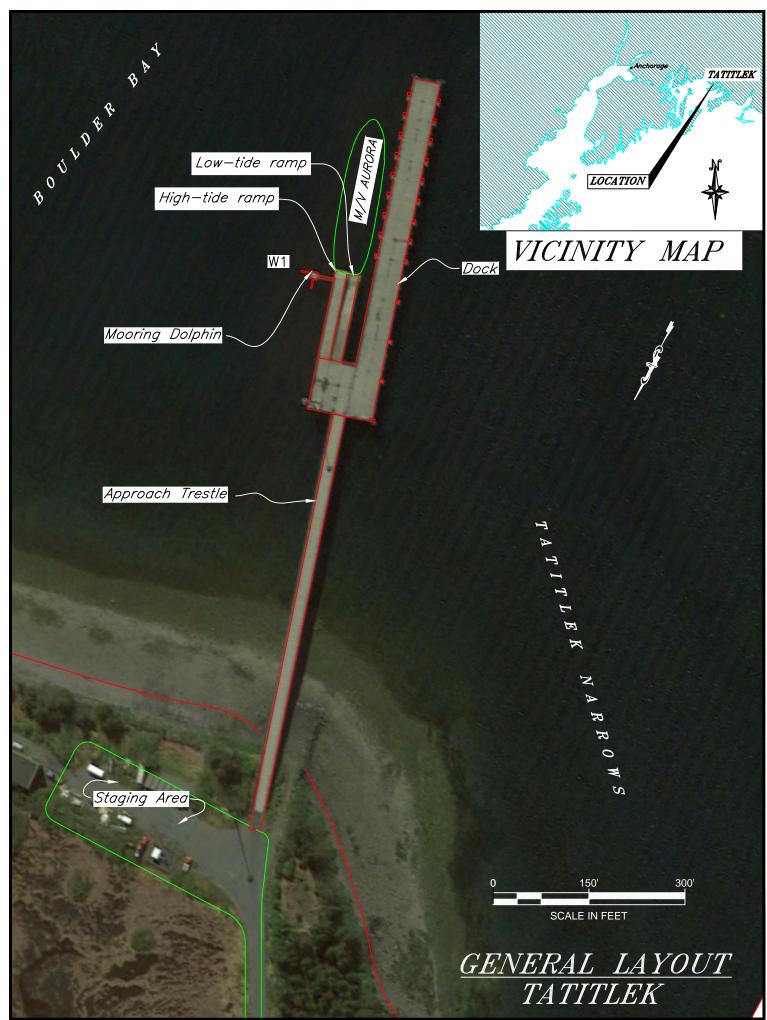
Generator & Building
N/A

City Dock- Bridge #1423		
Dimensions:	40' wide x 200' long dock	
Type:	Precast deck/ concrete pier caps	
Year Built:	1967	
Support:	14" & 16" dia Steel Pipe Piles	
Coating:	Covered with dielectric grease and plastic sheathing in 1991.	
Fender Support:	HP 14x73, 10' apart	
Fender Face:	12"x12" Douglas Fir	
Anodes:	Yes- last checked 2004	
Lighting:	Light poles, east and west ends of dock.	
Condition:	Fair	
Notes:	Red navlights - east light pole.	
Load Posting Sign:	N/A	
Original Design Load:	HS20-44	

	Terminal Projects		
Year	Project#	Project Name	Description
1967	E.D.A Proj# 07-1- 00030	City of Seldovia City Dock	Original construction of the City Dock, Dock Approach and Utilities.
1991	74610 / F-013-1(2)	Seldovia Ferry Terminal	Installed the fender system along the north face of the dock. Also rehabilitated the existing dock support piles by filling batter piles with concrete, installing pile sockets, and coating & wrapping all existing steel pipe piles with dielectic grease and plastic sheating. Installed fence, signs, light poles and wiring to the uplands parking area.

Facility Component	Rating
Uplands	4
Approach Span	5
Main Dock	5
Fendering System	5

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



### **Tatitlek Dock**

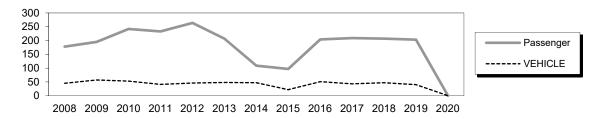
Owner: North Pacific Rim Housing Authority (NPRHA)

Contact: None

**Tatitlek Tribal Administration:** Rami Paulsen – 907-325-2311 rpaulsen@tatitlek.com

**Terminal Description:** The Tatitlek facility is a multipurpose dock structure that was originally constructed in 1995 to accommodate the M/V BARTLETT. The Tatitlek facility consists of a staging area, an approach, a dock and two tidal ramps constructed of concrete panels welded supported by steel beams and piles. AMHS has an MOA for use of the dock for ferry operations. Ownership of the facility was transferred to the North Pacific Rim Housing Authority (NPRHA) in 1999.

The past 12 years of total passenger and vehicle traffic at Tatitlek is shown below. Pedestrian and vehicle traffic in 2020 dropped to zero during the global pandemic.



The most recent above water & fracture critical inspections occurred on August 14, 2022. The most recent underwater inspection occurred on August 21, 2021.

Vessels	
Name	Berthing, Alignment
Aurora	Stern

Tidal Data (MLLW 0.0 feet)	
EHW	15.3
MHHW	12.6
MHW	11.8
ELW	-3.9

Generator & Building	
This facility does not have a generator on-site.	

Approach Trestle	
Dimensions:	21' wide x 600' long
Year Built:	1995
Shoreward support:	Concrete abutment
Seaward support:	Steel pipe piling
Pile Coating:	Galvanizing
Anodes:	No
Lighting:	N/A
Condition:	Good
	30 Ton Axle/45 Ton
Load Posting Sign:	Max
Original Design	
Load:	AASHTO HS-25

	Uplands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A
Paint Striping:	No
Driving Surface:	Gravel

Dock & Tidal Ramps - #0183						
Туре:	40' x 515' Concrete Panel Dock; (2) - 18' x 130' tidal ramps					
Year Built:	1995					
Support:	Vertical & Battered Steel Pipe Piles					
Steel Coating:	Galvanizing					
Fender Support:	Steel Pin Piles					
Fender Face:	12"x12" Douglas Fir					
Anodes:	No					
Lighting:	Tall Mast Light in parking lot					
Condition:	Good					
Notes:	Red nav. light, southeast corner					
Load Posting Sign:	30 Ton Axle/45 Ton Max					
Original Design Load:	AASHTO HS-25/30 Ton Forklift/250 psf Uniform Load/ 40 Ton Mobile Crane w/ Crane Mats Centered on Girders					

2022 Shore Facilities Condition Survey Report

**Tatitlek** 

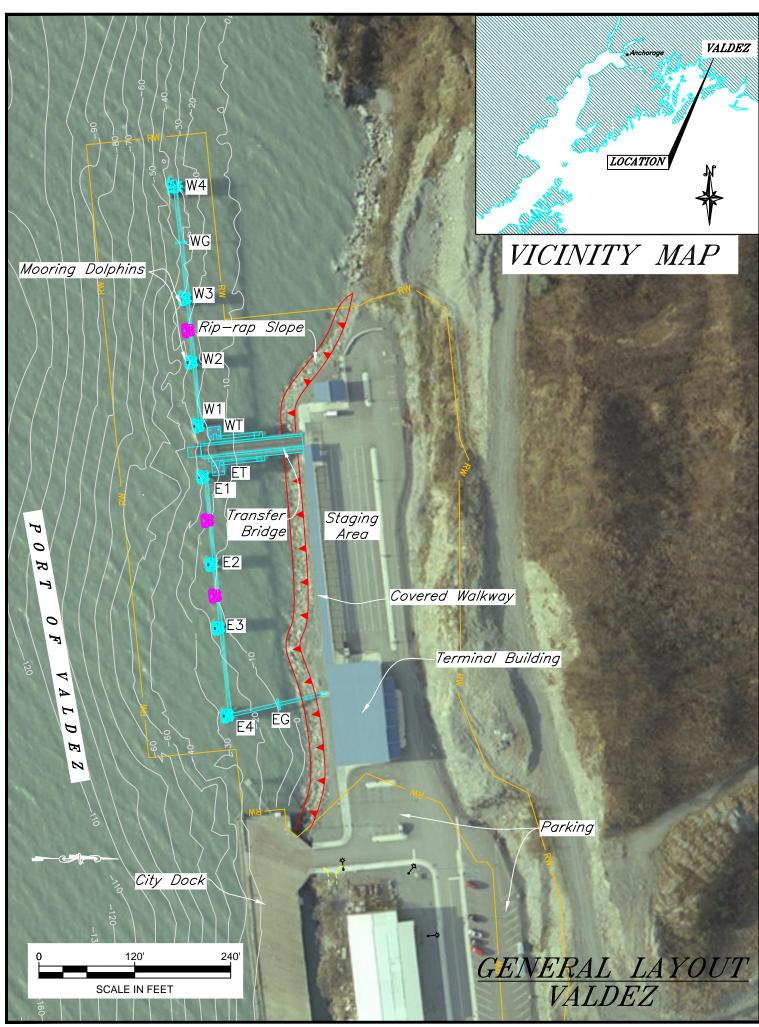
Utilities @ Dock
This facility does not have utilities at the dock.

Terminal Building	
This facility does not have a terminal building.	

	Terminal Projects						
Voor	Duainat #	Duoingt Nama	Description				
Year	Project #	Project Name	Description				
1995	N/A	Tatitilek Dock & Tidal Ramps	Original construction of the dock and tidal ramps, uplands, lighting, and electrical installations.				

Facility Component	Rating
Approach Roadway	5
Approach	6
Main Dock	6
Tidal Ramps	6
Mooring Dolphin	6

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
8	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable
-	



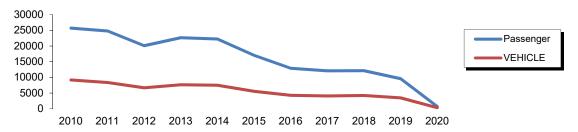
# Valdez Ferry Terminal

520 Ferry Way

Owner: State of Alaska

**Terminal Manager:** Todd Aldrich 907-835-4503

**Terminal Description:** Valdez is a side-loading facility consisting of a dedicated staging and parking areas, terminal building, covered pedestrian walkways, steel transfer bridge with a cable supported bridge lift (Syncrolift) system, eight steel pile dolphins and catwalks/gangways for line-handling access. The past 10 years of total passenger and vehicle traffic at Valdez is shown below.



The most recent above water survey & fracture critical inspection was completed on August 10, 2022. The underwater inspection occurred on August 22, 2021.

Ve	ssels		Uplands	
Name	Berthing, Alignment	Short-Term Parking:	6 c	ars, 2 hcp
Aurora/Kennicott	Port/Starboard	Long-Term Parking:		38
ACF	Port/Starboard	Staging Area:	bus	es/trucks
		Paint Striping:		Yes
Tidal Data (	MLLW 0.0 feet)	Driving Surface:	I	Asphalt
EHW	16.5			
MHHW	11.8		Utilities	
MHW	10.9		at Terminal	at Ramp
ELW	-6.0	Electrical:	Yes, city	& backup power
		Water:	Yes	Yes
Termina	l Building	Sewer:	Yes (City)	Yes
Year Built:	2006	Telephone:	Yes	Yes
Square Footage:	4500 s.f.	Fuel:	Yes, UST	No
Heating System:	Furnace	Wireless Bridge:	Yes	-
Fuel Storage:	UST			
Fire Protection:	Alarm Pyrotronics	Vehicle Tr	ansfer Bridg	ge - #1429
Condition:	New	Type:	21' x 125' s	steel plate girder
		Year Built:		2004
Generator	r & Building	Shoreward support:	Concr	ete abutment
Year Built:	2006	Seaward support:	Steel Lift	Beam-Syncrolift
Square Footage:	300 s.f.	Coating:		sser Paint
Heating System:	Electric	Pedestrian Access:		aikway, guardraii
Fuel Storage:	AST	Lighting:	Overl	nead fixtures
Fire Protection:	Halon	Condition:		New
Condition:	New	Load Posting Sign:		N/A
·		Original Design Load	ł:	HS 25

	Dolphins							
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
EG	1V	-	-	Yes	2004	Good	Yes	
E4	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	Red navlight
E3	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
E2	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
E1	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
ET	4V	-	-	Yes	2004	Good	-	
WT	4V	-	-	Yes	2004	Good	-	
W1	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
W2	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
W3	2B, 2V	Hanging	UHMW	Yes	2004	Good	Yes	
WG	1V	-	-	Yes	2004	Good	-	
W4	3B, 3V	Hanging	UHMW	Yes	2004	Good	Yes	Red navlight

	Catwalks / Gangways									
#	From Struct.	To Struct.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes		
C1	Shore	EG	50' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C2	EG	E4	64' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C3	E4	E3	99' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C4	E3	E2	69' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C5	E2	E1	99' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C6	E1	ET	9' / Catwalk / 2.5" x2.5" Bottom Chord	2004	No	Good	None			
Gl	ET	EBP	44' / Gangway / 2.5"x2.5" Bottom Chord	2004	No	Good	Tubuloid			
G2	WT	WBP	44' / Gangway / 2.5"x2.5" Bottom Chord	2004	No	Good	Tubuloid			
C7	WT	W1	9' / Catwalk / 2.5" x2.5" Bottom Chord	2004	No	Good	None			
C8	W1	W2	69' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C9	W2	W3	69' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C10	W3	WG	64' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			
C11	WG	W4	64' / Catwalk / 10"x10" Tube Girders	2004	Yes	Good	Tubuloid			

#### LEGEND

 $\overline{ET = East}$  Lift Tower

V = Vertical Steel Pipe Piling EG = East Gangway Dolphin B = Battered Steel Pipe Piling WBP = West Bridge Platform

G1 = Gangway $EG = East G$		EG = East Gangway D	olphin WBP = West Bridge Platform				
Terminal Projects							
Year	Project#	Project Name	Description				
1963	WM 63419	Valdez Ferry Terminal Facilities	Original stern-loading terminal constuction consisted of uplands fill, three timber tidal ramps, and seven timber Duncan dolphins. Built next to the Valdez Boat Harbor pre-Good Friday Earthquake.				
1968	3-68419	Valdez Ferry Temrinal	New terminal consturction, adjacent to the City Dock, consisting of new terminal building, two timber tidal ramps, four steel pipe pile and concrete capped breasting dolphins and two steel pipe pile and concrete capped mooring dolphins, with four timber access catwalks.				
1987	RS-0400(2)	Valdez FT Rehabilitation	Replace timber tidal ramps and timber support piles with steel tidal ramps and steel support piles. Installed water, shorepower and illumination upgrades.				
2004	75098 & 73652	Valdez FT Replacement	Demolished the existing stern-berth. Constructed new side- loading terminal facility consisting of terminal building, new uplands parking and staging areas, steel transfer bridge with Syncrolift system, and 8 breasting dolphins with catwalk access.				
2009	69050 / SHAK - 0005(575)	Valdez - Ferry Dock Hoist Upgrade	Replaced the existing relay-based control panel for the transfer bridge lift system with a PLC-based control panel.				
2009	73076	Valdez FT Security Upgrades	Installed security cameras on exterior of temrinal building, in the staging area and at dolphins on either side of the transfer bridge. Cameras are tied in to the AMHS security network.				
2020	SAMHS00088	Valdez Fuel Storage Tank	Removed underground tank and installed new 1,000 gal above ground tank				

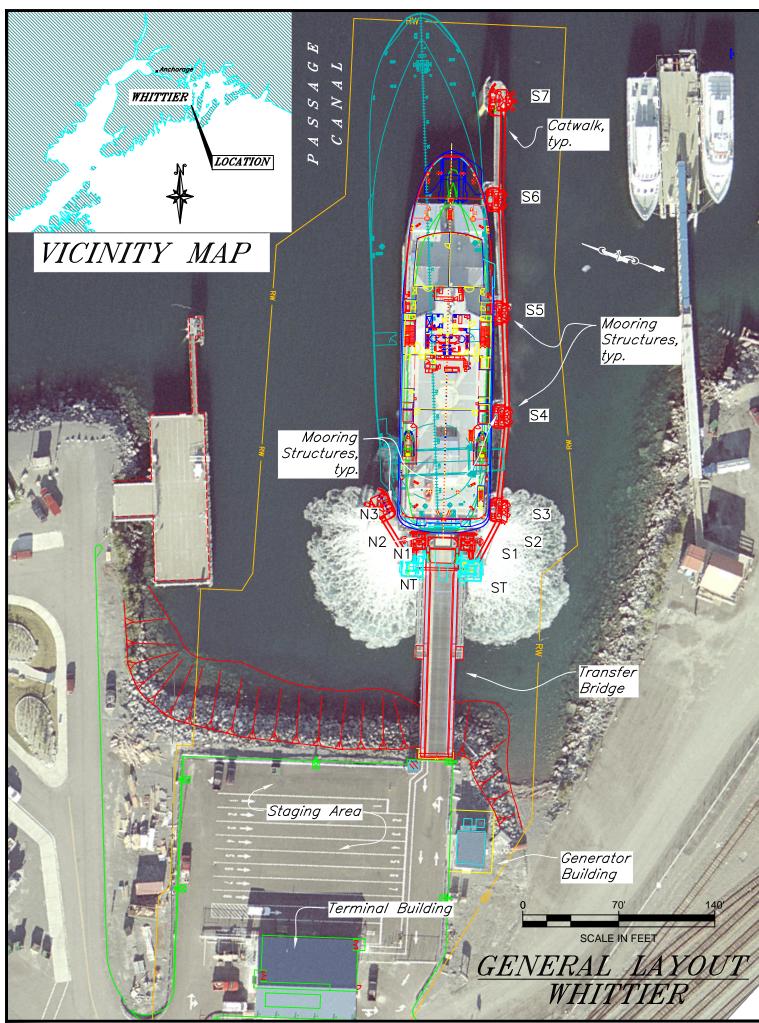
## 2022 Shore Facilities Condition Survey Report

Valdez

	Rating	
	Mooring Structures	6
N 4 a wisa a	Uplands Staging area	7
Marine	Uplands Waiting Building	7
	Utilities	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable
N	Not applicable

For a copy of the latest facility inspection reports contact the AKDOT&PF Marine Design Department.



## Whittier Ferry Terminal

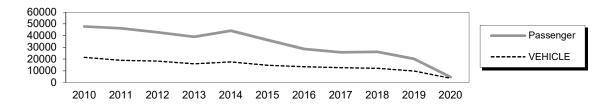
1/4 Mile Depot Road

Owner: State of Alaska

**Terminal Manager:** Costa Altin, 907-472-2378

**Terminal Description:** Whittier is a stern-loading facility consisting of a transfer bridge, twin lift tower syncrolift, 10 steel pile dolphins and associated catwalks/gangways for line-handling access. The facility was upgraded from a timber tidal ramp to a lift and transfer bridge with steel mooring structures in 1988. Modifications were made in 2005 to accommodate the M/V AURORA, M/V KENNICOTT and the Fast Vehicle Ferry, MV CHENEGA. Modifications made in 2020 to accommodate the ACF.

A single-lane highway tunnel and the Alaska Railroad provide access to Whittier from Anchorage and Portage. Like Valdez, this is a key connection point between Cordova and Anchorage. Tourism accounts for much of the summer traffic volume through this port. The facility went to year round service starting in 2005 with the reopening of the new modification project. The past 10 years of total passenger and vehicle traffic at Whittier is shown below.



The most recent above water survey & fracture critical inspections were completed on August 11, 2022. The underwater survey occurred on August 3, 2018.

Ves	sels	U	plands
<u>Name</u>	Berthing, Alignment	Short-Term Parking:	3 cars
Aurora/Kennicott/ACF	Stern	Long-Term Parking:	N/A
		Staging Area:	1200 lineal feet; 125
Tidal Data (N	MLLW 0.0 feet)		lineal feet-buses/trucks
EHW	18.7	Paint Striping:	Yes
MHHW	12.3	Driving Surface:	Asphalt
MHW	11.3	· <u>-</u>	-
ELW	-6.0	Vehicle Trans	sfer Bridge - #1424
		Type:	16' x 140' twin box beam
Termina	l Building	Year Built:	1986
Year Built:	2005	Shoreward support:	Concrete abutment
Square Footage:	2200 s.f.	Seaward support:	Steel Lift Beam-Syncrolift
Heating System:	Furnace (Natural Gas)	Coating:	Wasser Paint
Fuel Storage:	City Supply (Natural Gas)	Pedestrian Access:	Concrete 4' wide on bridge
Fire Protection:	Alarm Pyrotronics	Lighting:	None
Condition:	New	Condition:	Good (see findings)
		Load Posting Sign:	N/A
Generator	& Building	Original Design Load:	HS 20-44
Building/Generator:	2005		
Cayana Eastaga	260 a f		

Square Footage: 260 s.f.

Heating System: Electric

City Supply (Natural Fuel Storage: Gas)

Fire Protection: Halon

2022 Shore Facilities Condition Survey Report

Whittier

	Dolphins							
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Hawse Extensions	Notes
N3	3B, 3V	Hanging	UHMW	Yes	2005	Good	Yes	Red navlight
N2	1B, 1V	Floating	Rubber Fender	Yes	2005	Good	Yes	
N1	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	
ST	4V	-	-	Yes	1988	Good	-	
NT	4V	-	-	Yes	1988	Good	-	Light Pole
S1	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	
S2	1B,1V	Floating	Rubber Fender	Yes	2005	Good	Yes	
S3	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	
S4	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	
S5	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	Light Pole
S6	2B,2V	Hanging	UHMW	Yes	2005	Good	Yes	
S7	3B, 3V	Hanging	UHMW	Yes	2005	Good	Yes	Red navlight & windsock

			Catwalks / Gangwa	ıys				
#	From Struc.	To Struc.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	N3	NT	34' / Catwalk / W 12x26 Custom Girders	2005	No	Good	Tubuloid	
C2	NT	N1	9' / Catwalk / W 4x13 Bottom Chord	1988	No	Good	Tubuloid	
G1	ET	EBP	52' / Gangway / S 4x9.5 Bottom Chord	1988	Yes	Good	Tubuloid	
G2	WT	WBP	52' / Gangway / S 4x9.5 Bottom Chord	1988	Yes	Good	Tubuloid	
C3	ST	S1	9' / Catwalk / W 4x13 Bottom Chord	1988	No	Good	Tubuloid	
C4	S3	ST	33' / Catwalk / W 12x26 Custom Girders	2005	No	Good	Tubuloid	
C5	S4	S3	57' / Catwalk / W 18x40 Custom Girders	1988	Yes	Good	Tubuloid	
C6	S5	S4	65' / Catwalk / W 18x40 Custom Girders	2005	Yes	Good	Tubuloid	
C7	S6	S5	72' / Catwalk / W 18x40 Custom Girders	2005	Yes	Good	Tubuloid	
C8	S7	S6	61' / Catwalk / W 18x40 Custom Girders	1988	Yes	Good	Tubuloid	

	Terminal Projects						
Year	Project #	Project Name	Description				
2008	73741	WIT Ferry Terminal Transfer Bridge Repairs	Harbor Welding repaired the FB-Girder weld cracks Dec 4th - 18th, 2008.				
2008	69050 / SHAK - 0005(575)	Whittier - Ferry Dock Hoist Upgrade	Replaced the existing relay-based control panel for the transfer bridge lift system with a PLC-based control panel.				
2011	N/A	WIT FT Building Repairs	Remove clerestory window & water-damaged wall frame.				
2013	73125 (1)	WIT Staging Area Lighting Replacement	Remove & replace all exterior light fixtures in the staging area; replace conduit/wiring below the bridge, relocate to above the girder; other miscellaneous electrical improvements				
2013	N/A	Emergency Hoist Repairs	Repairs consisted of the complete replacement of all lift system components.				

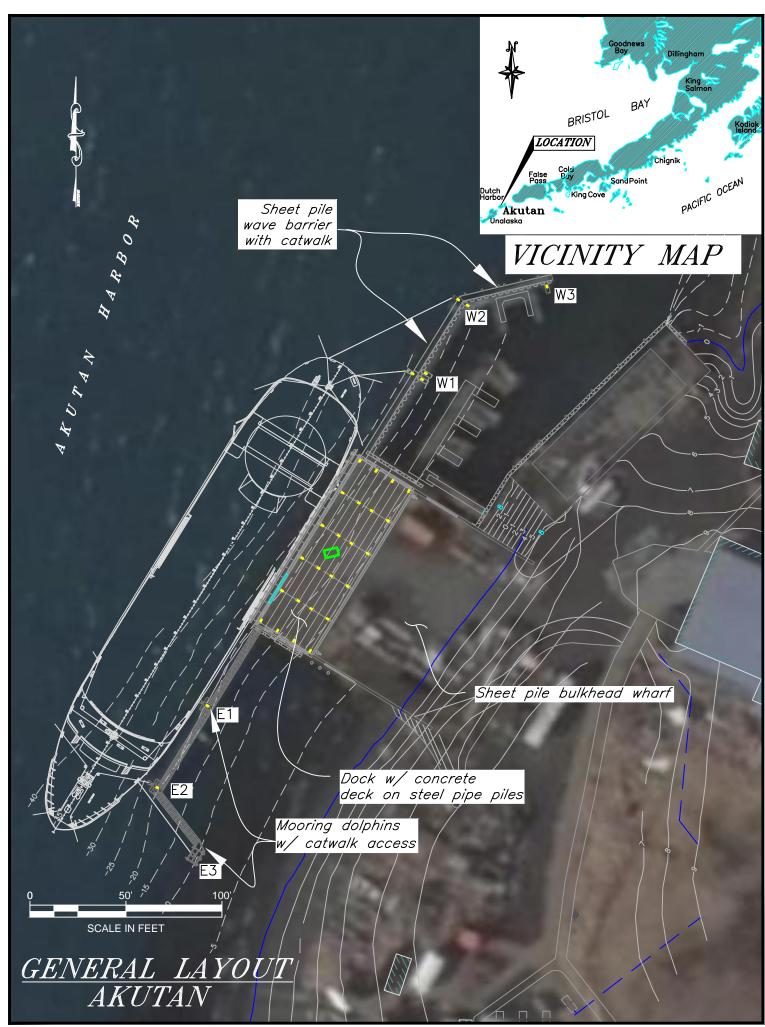
		Terminal Projec	ets (cont.)
2016	N/A	WIT FT Bridge Strengthening	Installed a structural retrofit to the seaward end of the bridge to bring the load rating within standards for highway vehicles.
2020	SAMHS00228	WIT FT ACF MODS	Relocated Dolphin S3 for ACF, Repair and strengthen Floor Beam 0 to Girder connection both girders. Anodes replaced on all offshore structures.

	Mooring Structures	7
Marina	Uplands Staging area	7
Marine	Uplands Waiting Building	7
	Utilities	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
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1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

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SOUTHWEST ALASKA MARINE ROUTE

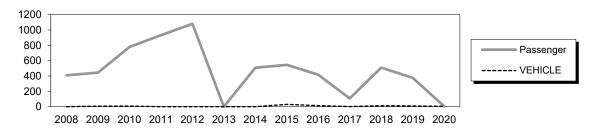


# **Akutan City Dock**

Owner: Aleutians East Borough

**Terminal Manager:** 907-381-1366 – Brett Willis, Harbormaster

**Terminal Description:** The M/V TUSTUMENA docks in Akutan during its May through September Aleutian Chain trips. AMHS has previously discharged only passengers at this facility; however, sailings now include some vehicles. The Akutan City Dock is a platform dock constructed of concrete panels, steel pile caps and steel support piling. Abutting the back of the dock is an earth filled sheet pile bulkhead for the full length of the dock. There are two mooring dolphins with fender units on each side of the dock. In line with the western dolphins is a sheet pile wall that acts as a wave barrier for a small boat harbor, with a 50-foot extension installed in 2005. The past 12 years of total passenger and vehicle traffic at Akutan is shown below. Akutan had no/low ferry service in summers 2013 & 2017 while the M/V Tustumena was in the shipyard for repairs. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on September 12, 2022. The underwater inspection occurred on July 28, 2019.

Vessels					
<u>Name</u>	Berthing, Alignment				
Tustumena	Port / Starboard				

Tidal	Data
Highest Observed	6.7
MHHW	3.7
MHW	3.4
MLLW	0
Lowest Observed	-2.8

Terminal Building	
This facility does not have a terminal building.	

Generator & Building
This facility does not have a generator on-site.

Utilities @ Dock
There are no utilities at the City Dock.

	Uplands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A
Paint Striping:	No
Driving Surface:	Asphalt/Gravel

City Dock - #1946					
Dimension:	38' wide x 103' long				
Type:	Dycore Concrete Panels Deck				
Year Built:	1992				
Support:	(6) Steel HP Pile Caps & (24) 16" dia Steel Pipe Piles				
Coating:	Coal Tar Epoxy				
Fenders:	(21) - 16" dia Steel Pipe Piles				
Fender Face:	UHMW wear strips				
Anodes:	Yes				
Lighting	Light poles, east and west				
Lighting:	ends of dock				
Condition:	Fair				
Load Posting Sign:	Single Axle 7 Tons; Tandem 12 Tons				

Sheet Pile Walls							
Section Length Type Coating Anodes Built Cond. Notes						Notes	
1	90'	Z-Section	None	No	2002	Fair	
2	100'	Z-Section	None	No	2005	Fair	

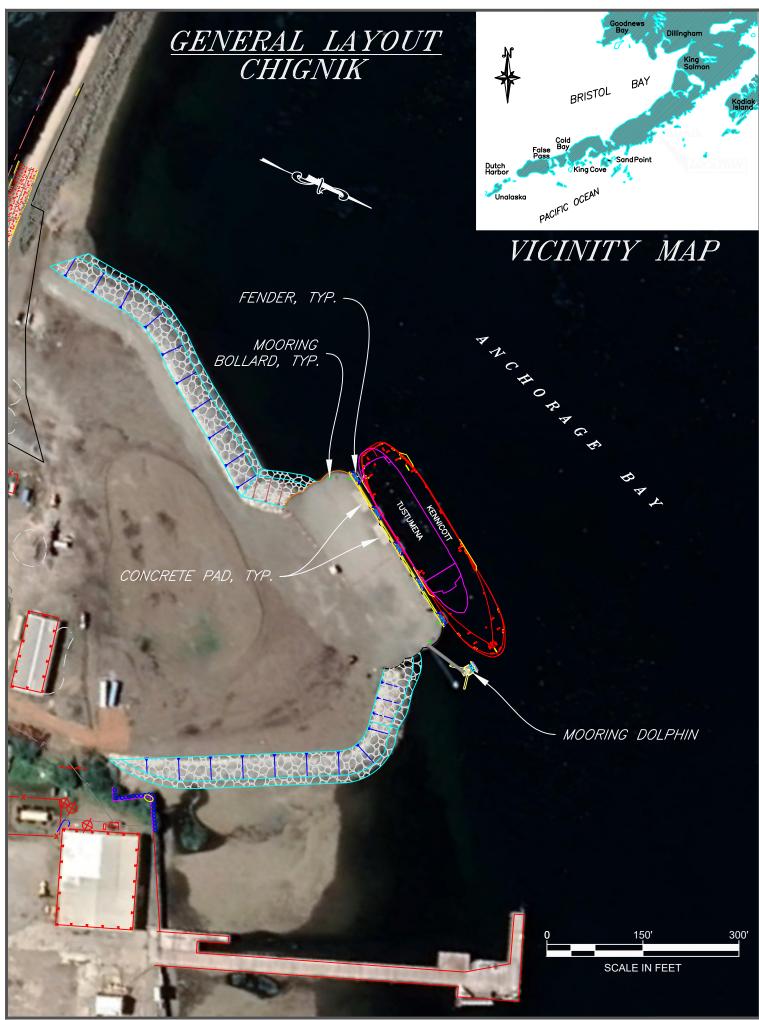
				Dolph	ins		
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W3	1B, 1V	-	-	No	2005	Good	
W2	1B, 1V	2V	Plastic Rub Strip	No	2002	Good	
W1	2B, 2V	2V	Plastic Rub Strip	No	2002	Good	Rubber Fenders & steel wale are severely damaged.
E1	3B	1H	Rubber donut, vertically mounted	Yes	1993/2015	Fair	Fender re-built in '15
E2	3B	1H	Rubber donut, vertically mounted	Yes	1993/2015	Fair	Fender re-built in '15; Red Navlight
E3	5B	-	-	Yes	2015	New	

	Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style	Built	Safety Chains	Cond.	Lighting	Notes
C1	W3	W2	45' / Catwalk	2005	Yes	Good	None	Catwalk is integral with sheet pile wave barrier
C2	W2	W1	90' / Catwalk	2002	Yes	Good	None	Catwalk is integral with sheet pile wave barrier
СЗ	W1	Dock	90' / Catwalk	2002	Yes	Good	None	Catwalk is integral with sheet pile wave barrier
C4	Dock	E1	50' / Catwalk	1993	Yes	Fair	None	
C5	E1	E2	50' / Catwalk	1993	Yes	Fair	None	
C6	E2	E3	30' / Catwalk	2015	Yes	Good	None	

	Projects						
Year	Year Project # Project Name		Description				
1982	N/A	Akutan Public Dock	Original construction of the City dock and sheet pile retaining structure. Plans not on file.				
1993	N/A	Akutan City Dock Modifications	Install the west dolphins E1 & E2 and catwalks.				
2002	N/A	Akutan City Dock Modifications	Installed section 1 of the west sheet pile wall around the harbor, dolphins W1 & W2, and catwalk.				
2005	N/A	Akutan City Dock Modifications	Installed section 2 of the west sheet pile wall around the harbor, dolphin W3 and catwalk.				
2015	67745	Akutan City Dock Improvements	Raised the height of the existing fender system, installed a new mooring dolphin on the east side and made other miscellaneous repairs				

Facility Component	Rating
Uplands	6
Sheet Pile Bulkhead	5
Dock	5
Dophins	5
Fendering System	5

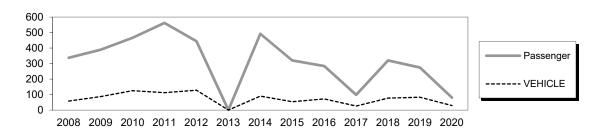
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



# Chignik Dock

Owner: Lake and Peninsula Borough
Terminal Manager: City of Chignik 907-749-2280

**Terminal Description:** The M/V TUSTUMENA docks at the newly built City Dock in Chignik during its May through September Aleutian Chain trips. The City Dock is an open-cell sheet pile bulkhead structure with steel pin-pile fender units and a mooring dolphin. The dock was built in 2017 and is connected to a 5-acre approach lot. The dock face is 282-ft long with five (5) fender units along its seaward face. The past 12 years of total passenger and vehicle traffic at Chignik is shown below. Chignik had no ferry service in summer 2013 while the M/V Tustumena was in the shipyard for repairs. The global pandemic caused the decline in 2020.



The most recent above water inspection occurred on July 27, 2020. No underwater inspections have been performed at this facility.

Vessels					
<u>Name</u>	Berthing, Alignment				
Tustumena	Starboard				

Tidal	Data	
Highest Observed	10.2	
MHHW	8.9	
MHW	8.1	
MLLW	0.0	
Lowest Observed	-3.4	

Terminal Building	
This facility does not have a terminal building.	

Generator & Building
This facility does not have a generator on-site.

Utilities @ Dock	
There are no utilities at the City Dock.	

	Uplands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A
Paint Striping:	No
Driving Surface:	Gravel

Chignik City Dock					
Туре:	Open-cell sheet pile bulkhead, 282' seaward dock face				
Year Built:	2017				
Dock Support:	N/A				
Sheetpile Coating:	Galvanized				
Fenders:	Five (5) pin-pile fender units				
Lighting:	None				
Condition:	New				
Design Live Load:	1000 psf uniform surcharge				

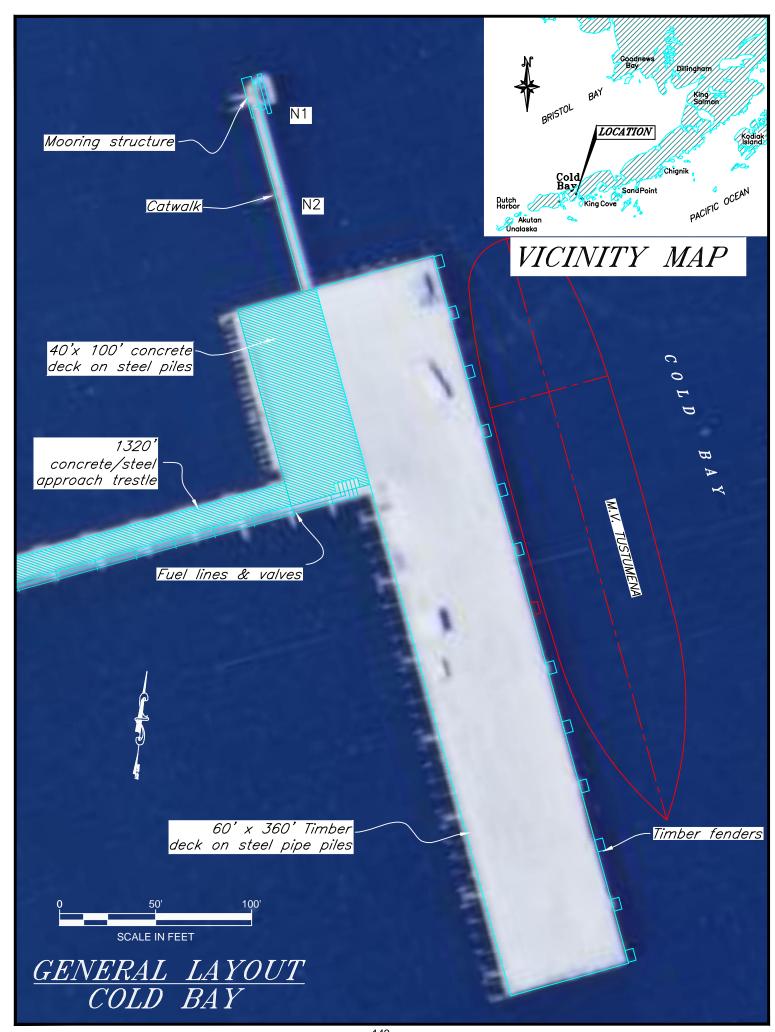
Dolphins							
Dolphin	Dolphin Piles	Fender Face	Anodes	Built	Cond.	Notes	
N1	2B, 1V	None, mooring only	Yes	2017	New		

Catwalks / Gangways							
#	From	То	Length / Style	Built	Safety	Cond.	Lighting
#	Struc.	Struc.	Length / Style	Dunt	Chains	Conu.	Lighting
C1	Dock	N1	70' / Catwalk / Galvanized pony-truss	2017	Yes	New	None

Terminal Projects							
Year	Project#	Project Name	Description				
			Constructed new sheet pile bulkhead dock with five berthing				
2017	Z674740000	Z674740000 Chignik Public Dock	fenders along the front face and one mooring dolphin north of				
			the dock.				

Facility Component	Rating
Uplands	7
Sheet pile Dock	9
Dolphin	9
Fendering System	9

_	
9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

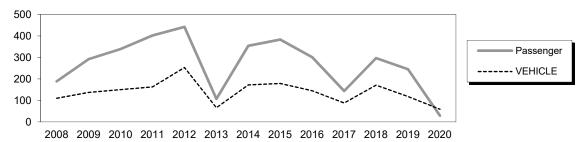


# **Cold Bay Dock**

Owner: Aleutians East Borough

Contact: Kurt Uttecht, Public Works Director, City of Cold Bay 907-532-2684

**Terminal Description:** The M/V TUSTUMENA docks at the Cold Bay Dock during its passage through the Aleutian Chain. The Cold Bay facility is made up of two dock sections that were constructed at different times. The original structure, designed and built by the State in 1978 consisted of a 100' x 40' concrete panel dock and a 1,320' long concrete panel approach. There is a mooring dolphin and catwalk northwest of the original dock. In 1993, a 360' x 60' addition was constructed to the northeast of the original dock; the newer dock abuts the face of the original structure. The facility is owned by the Aleutian East Borough and managed by the City of Cold Bay. The past 12 years of total passenger and vehicle traffic at Cold Bay is shown below. The M/V Tustumena was out of service most of 2013, causing a steep dropoff in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey & fracture critical inspection were completed on August 08-10, 2022. The most recent underwater inspection occurred on August 13, 2018.

Vessels				
<u>Name</u>	Berthing, Alignment			
Tustumena	Starboard			

Tidal Data (MLLW=0.0 feet)					
Highest Observed	11.6				
MHHW	7.2				
MHW	6.5				
Lowest Observed	-3.7				

Terminal Building
This facility does not have a terminal building.

Generator & Building			
This facility does not have a generator on-site.			

Utilities @ Dock				
Water:	Yes (lines replaced in 1998)			
Fuel:	Yes (lines replaced in 2006)			

Uplands					
Short-Term Parking:	N/A				
Long-Term Parking:	N/A				
Staging Area:	N/A				

Original L-Shaped Dock - #1755					
Dimensions:	12' x 1824' approach 40' x 100' main dock				
Туре:	Approach: concrete panel/steel framing, Main Dock: concrete dy-core panels/ steel framing				
Year Built:	1978				
Dock Support:	16" dia. Steel piles with steel WF-beam pile caps				
Pile Coating:	Epoxy/Galvanizing				
Anodes:	Yes, welded directly to piling with bond cables to pile caps. Cables replaced in 1998.				
Lighting:	None				
Condition:	Fair				
Notes:	The approach has two vehicle turnouts, located on the northwest side of the trestle.				
Load Posting Sign:	N/A				
Design Load:	HS 20-44 / 400 ps f				

	Dock Addition
Type:	360' x 60' steel beam and timber decking
Year Built:	1993
Dock Support:	Steel pile bents spaced ~30' o.c. Each bent has (4)-26"dia. Vertical steel piles & (1) batter pile connected to steel H-pile caps. Salvaged W36x182 bridge beams span the length, with pressure-treated 12x12 timber stringers and 4x12 timber decking above.
Pile Coating:	All steel is uncoated.
Fenders:	13 timber-faced pin pile fender units, spaced roughly 30' o.c. along northeast face of dock. The ends and southwest face of the dock are protected with treated timber pile fenders.
Anodes:	(39) 200# aluminum anodes suspended from the superstructures by galvanized wire rope. The City replaced the cables in 1998.
Lighting:	None
Condition:	Poor
Load Posting Sign:	N/A
Design Load:	HS 20-44 / 350 psf

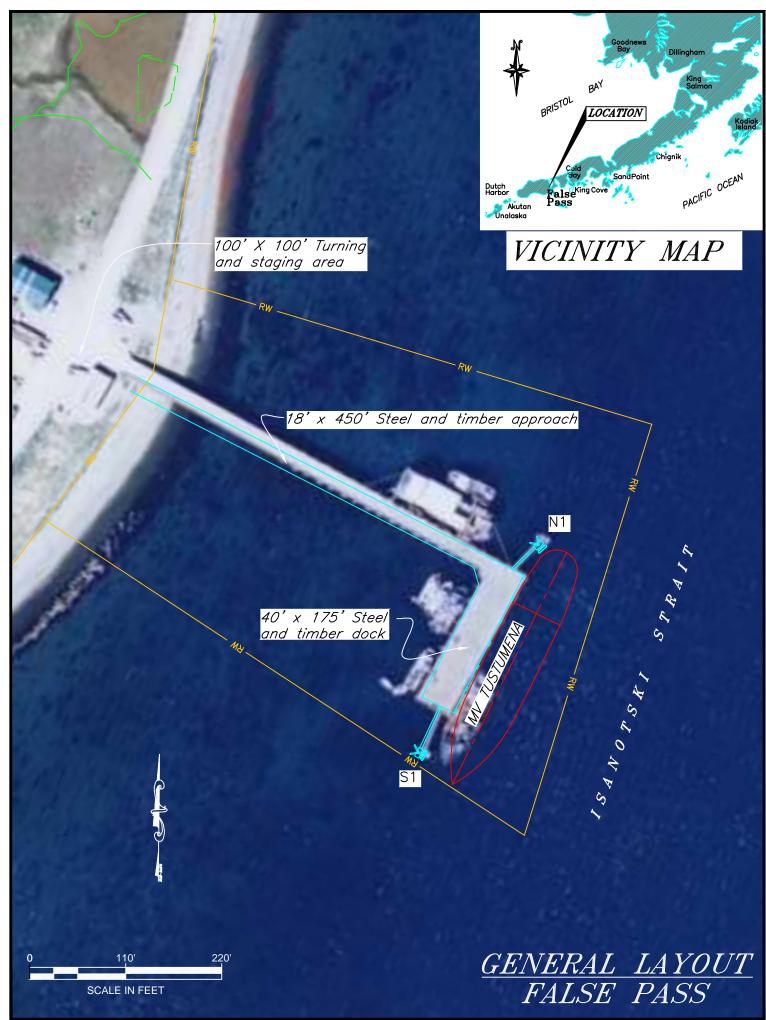
Dolphins							
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
N1	1B, 2V	4V	Sitka Spruce	Yes	1978	Good	Red Navlight
N2	1V	-	-	Yes	1978	Good	

Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style	Built	Safety Chains?	Cond.	Lighting
C1	Dock	N2	54' / Catwalk / W21x55 Girders	1978	Yes	Good	None
C2	N2	N1	54' / Catwalk / W21x55 Girders	1978	Yes	Good	None

	Terminal Projects					
Year	Project #	Project Name	Description			
1978	6-77428	Cold Bay Dock	Removed existing timber dock and constructed a new 12 foot x 1824 foot approach span and new 40' x 100' main dock. The decking was precast/prestressed concrete panels and the superstructure consisted of steel pile caps and steel pipe piles. Two new mooring dolphins were placed north and south of the main dock,			
1993	91097.03	Cold Bay Dock	Constructed new 60 foot x 360 foot dock off shore of existing dock. Deck consisted of 4x12 timber supported by 12x12 timber stringers. The stingers were supported by steel W-girders, HP-pile caps, and pipe piles. 13 pin-pile berthing fenders were placed on the offshore face of the dock.			
2015	67714	Cold Bay Dock Rehabilitation	Refurbishment of 13 fender panels, Replacement of six precast/pretension deck panels, Renovation or replacement of 11 ladders, Replacement of 80 feet of timber bullrail, and other miscellaneous repairs.			

Facility Component	Rating
Uplands	4
Approach Dock	5
Main Dock	4
Fendering System	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

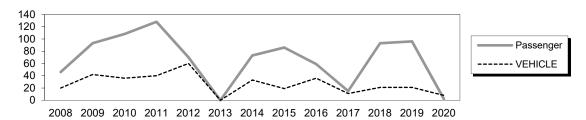


## **False Pass Dock**

Owner: Village of False Pass

**Contact Person:** City of False Pass, Carleen Hoblet, 907-548-2319

**Terminal Description:** The M/V Tustumena docks at the False Pass Dock during its passage through the Aleutian Chain. Service to False Pass was initiated in 1993. The False Pass facility consists of an L-shaped 175' x 40' dock, 450' long approach trestle, with a mooring dolphin located on each end of the dock and connected via a steel catwalk. There is a 100' x 100' staging area upland of the dock. The facility is a multipurpose facility and could be in use by other vessels when the ferry arrives. AMHS is not in control of the operation or maintenance of this facility. The past 12 years of total passenger and vehicle traffic at False Pass is shown below. False Pass had no ferry service in summer 2013 while the M/V Tustumena was in the shipyard for repairs. The global pandemic caused the decline in 2020.



The most recent above water survey & fracture critical inspection were completed on August 9, 2022, respectively. The underwater inspection occurred on August 15, 2018.

Vessels				
<u>Name</u>	Berthing, Alignment			
Tustumena	Starboard			

Tidal Dat					
Highest Observed	7.0				
MHHW	4.4				
MHW	3.5				
MLLW	0				
Lowest Observed	-3.0				

Terminal Building	
This facility does not have a terminal building.	ling.

Generator & Building
This facility does not have a generator on-site.

	Utilities @ Dock				
Water:	Yes				
Fuel:	No				

Uplands						
Short-Term Parking:	N/A					
Long-Term Parking:	N/A					
Staging Area:	900 lineal feet					

L-Shaped Dock - #1945				
Year Built:	1992			
Dock Stucture:	Galvanized steel pipe piles with steel WF pile caps, treated glulam stringers and heavy timber decking.			
Pile Coating:	Galvanized			
Fenders:	7 fenders along face of dock, each with 16" dia. Pipe pile and vertically oriented rubber cylinder.			
Anodes:	No			
Lighting:	Yes, jelly jar fixtures along the bullrails.			
Condition:	Fair			
Notes:	Red navlights on either end of dock.			
Design Load:	HS 20-44 / 350 psf / Cat 980 Loader (reference plans for other loads)			

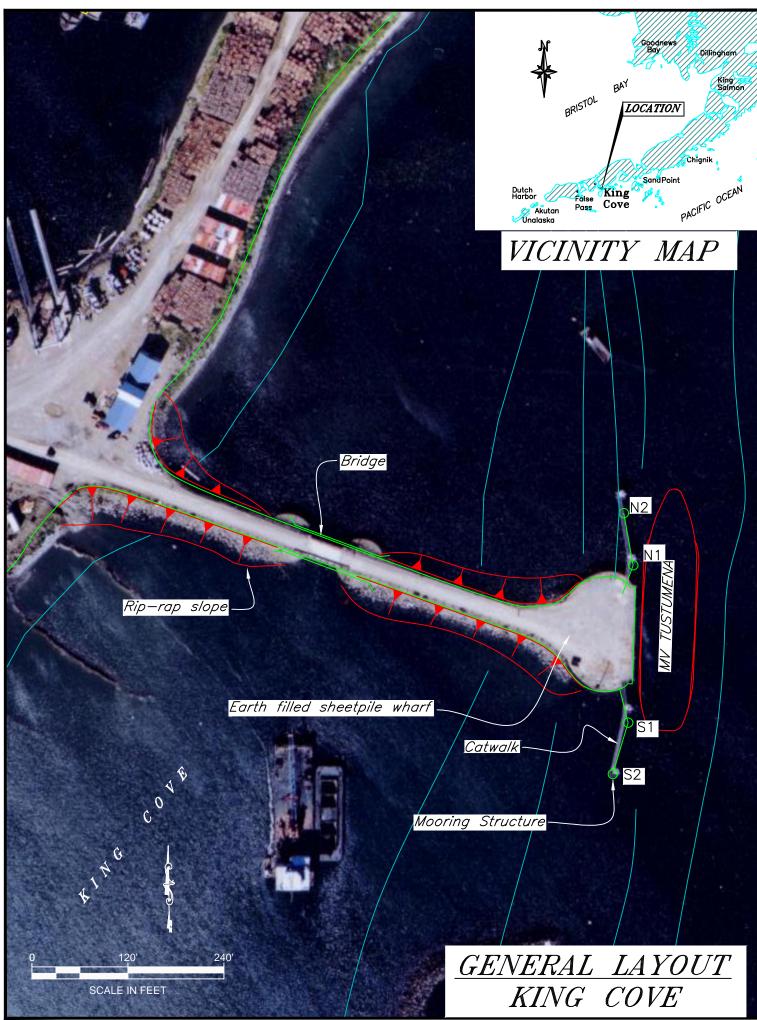
	Dolphins						
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
N1	4B, 1V	2V	Timber	Yes	1997	Satis factory	Does not have tire fenders on the upper sections
S1	4B, 1V	2V	Timber	No	1997	Satis factory	
B1	2B, 2V		Rubber Tires	N/A	1999	N/A	Barge Dolphins
B2	2B, 2V		Rubber Tires	N/A	1999	N/A	Barge Dolphins

	Catwalks / Gangways							
#	From	То	Longth / Style	Built	Safety	Cond.	Liabtina	
#	Struc.	Struc.	Length / Style	Dunt	Chains	Conu.	Lighting	
C1	Dock	N1	54' / Catwalk / W21x55 Girders	1997	No	Good	None	
C2	Dock	S1	54' / Catwalk / W21x55 Girders 1997 No Good No		None			

	Terminal Projects					
Year	Project #	Project Name	Description			
1992	07-01-03110	False Pass Port Facility	Constructed 18' wide x 450' long trestle & 40' wide x 85' long main dock. Both the trestle and the dock have timber decking supported by glulam stringers and steel pile caps, with a steel pipe pile foundations.			
1997	5628.0	False Pass Mooring Dolphins	Installed two mooring dolphins on the north and south side of the main dock. The dolphins were connected to the main dock via two 54' catwalks.			
1999	990102.0	Fish Processing Barge Mooring Dolphins	Installed two barge mooring dolphins on the north side of the trestle for the "dipper barge". The dolphins were constructed of steel pipe piling and rubber tires.			

Facility Component	Rating		
Uplands	7		
Approach	5		
Main Dock	5		
Dolphins	6		
Fendering System	5		

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

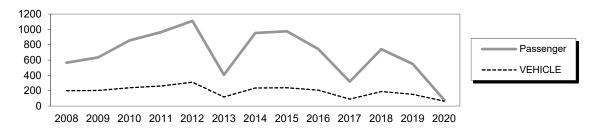


# **King Cove Dock**

Owner: Aleutians East Borough

Contact: City of King Cove, Charles Mack, Port Director 907-497-2340

**Terminal Description:** The M/V Tustumena docks at the Aleutians East Borough facility in King Cove on its passage through the Aleutian Chain. The King Cove facility consists of a sheet pile bulkhead structure with a face approximately 125' long. There are 4 steel pile mooring dolphins (two on each side of the dock) connected to the dock by steel catwalks. Access to the dock is via an embankment and paved roadway. There is a breach in the embankment at about its midpoint to permit juvenile fish migration. A steel girder/concrete deck bridge spans the breach; sheet pile cells protect the abutments. The facility is a multi-purpose facility and could be in use by other vessels when the ferry arrives. AMHS is not in control of operation or maintenance of this facility. The past 12 years of total passenger and vehicle traffic at King Cove is shown below. The M/V Tustumena was out of service most of 2013, causing a steep drop-off in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on August 13, 2022. The most recent underwater inspection was completed on July 14, 2014.

Vessels				
Name Berthing, Alignment				
Tustumena	Port / Starboard			

Tidal Data				
Highest Observed	10.97			
MHHW	6.82			
MHW	6.13			
MLLW	0.00			
Lowest Observed	-3.82			

Terminal Building	
This facility does not have a terminal building.	

Generator & Building
This facility does not have a generator on-site.

Utilities @ Dock
There are no utilities at the City Dock.

Uplands				
Short-Term Parking:	N/A			
Long-Term Parking:	N/A			
Staging Area:	900 lineal feet			

Sheet Pile Dock				
Year Built:	1993			
Dock Structure:	Structure: Sheet Pile Bulkhead			
Coating:	None			
Fenders:	Nine (9) heavy-duty fenders w/ steel piles & rubber fenders, Six (6) light-duty timber fenders.			
Anodes:	Yes			
Lighting:	Light posts on either side of the dock			
Condition:	Fair			
Design Load:	HS 20-44 / 400 psf / Cat 980C Loader / 40 Ton Crane			

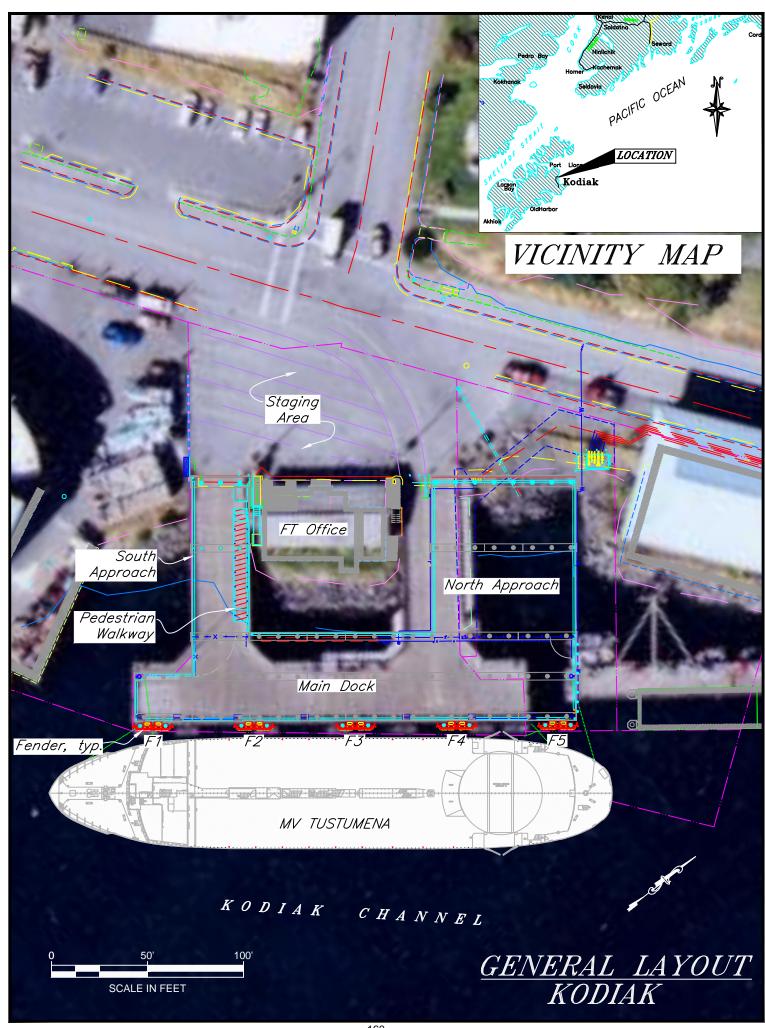
Terminal Projects				
Year Project # Project Name Description				
1992	90096	King Cove Deep-Water Port	Constructed a new sheet pile bulkhead dock with five heavy duty fenders along the front face and four mooring dolphins: two on the north end of the dock and two on the south end of the dock.	

Dolphins						
Dolphin	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.
N2	2B, 1V	1V	Rubber Cylinder	Yes	1993	Fair
N1	2B, 1V	1V	Rubber Cylinder	Yes	1993	Fair
S1	2B, 1V	1V	Rubber Cylinder	Yes	1993	Fair
S2	2B, 1V	1V	Rubber Cylinder	Yes	1993	Fair

Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style	Built	Safety Chains	Cond.	Lighting
C1	N2	N1	76' / Catwalk / Steel pony-truss	1993	No	Fair	None
C2	N1	Dock	28' / Catwalk / Steel pony-truss	1993	No	Fair	None
C3	Dock	S1	28' / Catwalk / Steel pony-truss	1993	No	Fair	None
C4	S1	S2	76' / Catwalk / Steel pony-truss	1993	Yes	Fair	None

Facility Component	Rating
Uplands	5
Sheet Pile Dock	5
Dolphin	5
Fendering System	5

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



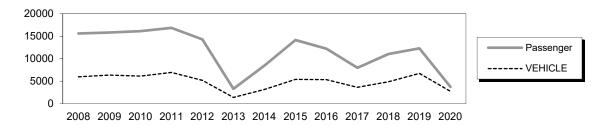
# Kodiak City Dock (Pier 1)

100 Marine Way

Owner: City of Kodiak

**Terminal Manager:** Amanda Becker, AMHS Terminal Manager, 907-486-3800 David Johnson, Harbormaster, City of Kodiak, 907-486-8080

**Terminal Description:** The M/V Tustumena docks at the Kodiak City Dock (also called Pier 1) on its east/west passage between Homer and the Aleutian Chain. The Kodiak City Dock structure is supported by steel pipe piles, with concrete pier caps, p/c concrete channel beams (approach), & p/c concrete haunched deck panels (main dock). The fender system consists of five pin-pile supported fender panels. The facility is a U-shaped concrete structure with a main dock section approximately 230'x 25', and two 103' approach trestles, one at each end of the dock. The dock is currently used for transfer of general cargo and fuel, in addition to ferry operations. The paved area between the street and the terminal building has a shared use for parking and vehicle staging. Embarking vehicles line up on the adjacent city street, in the paved area and along the 75'-wide north approach trestle. The contractor operated ticket office is located in a city owned building, on shore, between the two approach trestles. The wharf is crowded between a marine fuel service depot to the north and a shore based seafood processor to the south. Vessels moored at the adjacent facilities encroach on berthing the dock. The past 12 years of total passenger and vehicle traffic at Kodiak City Dock is shown below. The M/V Tustumena was out of service most of 2013, causing a steep drop in traffic at the terminal. The global pandemic caused the drop in 2020.



The most recent above water survey was completed on August 15th, 2022. The underwater inspection occurred on August 30, 2021.

Vessels	
<u>Name</u>	Berthing, Alignment
Tustumena	Port / Starboard

Tidal Data (MLLW=0.0 feet)	
EHW	13.1
MHHW	8.7
MHW	7.8
ELW	-3.5

Uplands	
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	150 lineal feet

Generator & Building
NA

# **Terminal Building**

The ticket office is located in a cityowned building, on shore, between the approach structures.

U-Shaped Dock - #1425		
Year Built:	2016	
Dock Structure:	Steel pile supports, concrete pile caps, prestressed concrete channel beams (both approaches), & prestressed concrete haunched deck panels (main dock)	
Fenders:	Five (5) pin pile supported fender panels	
Mooring Bollards/Cleats	Bollard mounted at both ends of dock; several cleats mounted to bullrail along the dock face.	
Lighting:	Yes	
Condition:	Good	

2022 Shore Facilities Condition Survey Report

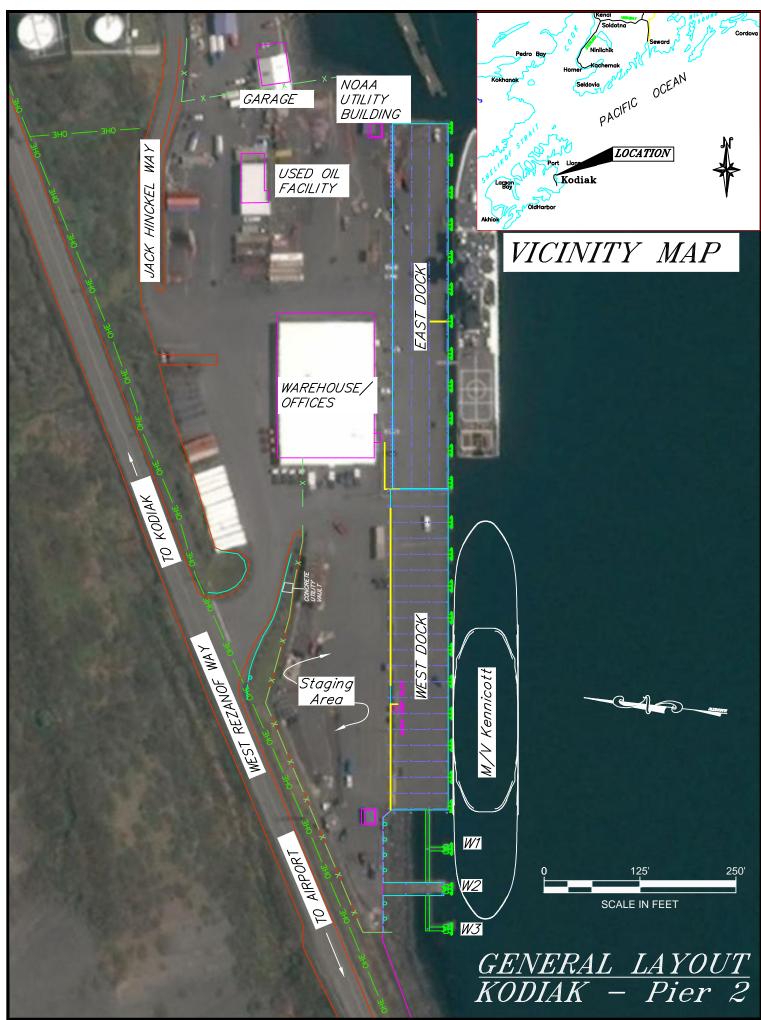
Kodiak

Utilities @ Dock	
Water:	Yes
Fuel:	Yes

Terminal Projects			
Year	Project #	Project Name	Description
1964	P- Alaska- 3107	City of Kodiak Ferry Terminal	Construct new timber dock.
2014	68938	Kodiak Ferry Terminal & Dock Improvements	Replace aging timber dock with new concrete dock.

Facility Component	Rating
Uplands	6
Approach/Bridge	8
Main Dock	8
Fenders	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



# **Kodiak Pier 2**

Jack Hinckel Way

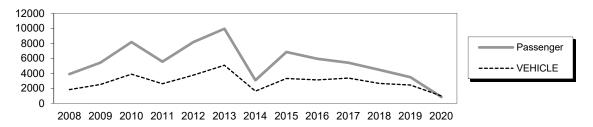
Owner: City of Kodiak

**Terminal Manager:** Amanda Becker, AMHS Terminal Manager 907-486-3800

David Johnson, Harbormaster, City of Kodiak, 907-486-8080

**Terminal Description:** The M/V Kennicott docks at Pier 2 on its turnaround between Homer and Kodiak. The facility is a rectangular dock comprised of two adjacent dock sections: AMHS uses the West dock which was constructed in 1988 and measures 72 feet-wide by 400 feet-long. The East dock was constructed in 2006 and measures 72 feet-wide by 475 feet-long.

The past 12 years of total passenger and vehicle traffic at Kodiak Pier 2 is shown below. The M/V Kennicott was only in service for 7 months in 2014, resulting in a steep drop-off in traffic at the terminal. The global pandemic caused the drop in 2020.



The most recent above water survey was completed on August 15, 2022. The most recent underwater inspection occurred on July 25, 2019.

Vessels		
<u>Name</u>	Berthing, Alignment	
Kennicott	Port / Starboard	

Tidal Dat	a (MLLW=0.0 feet)
EHW	13.1
MHHW	8.7
MHW	7.8
ELW	-3.5

Terminal Building
There is no terminal building at this dock.
Tickets are taken from an 8'x8' purser's
shack.

Generator & Building
This facility does not have a generator on-
site.

1	Utilities @ Dock
Water:	Yes
Electric:	N/A
Fuel:	Yes (Truck Fill)
Telephone:	N/A
Sewer:	No

	Uplands
Short-Term	0
Parking:	U
Long-Term	0
Parking:	
Staging Area:	4 lanes, ∼ 1600 ft

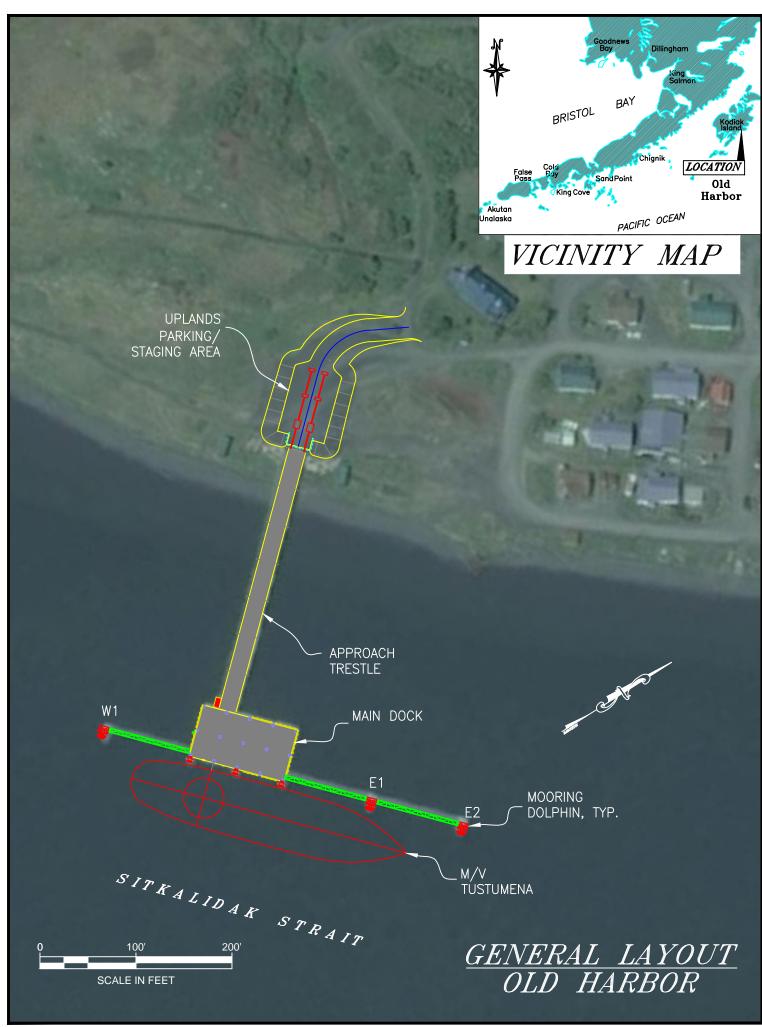
	Pier 2 Dock
Year Built:	1988/2006
Dock Structure:	Concrete deck panels support on steel beam framing and steel pipe piling.
Steel Coating:	Galvanized
Fenders:	22 total spaced ~ 42' apart; Each fender unit consists of two steel pin piles, two steel sleeve piles, steel framework, a timber wearing surface and two rubber energy absorbers.
Mooring Bollards/Cleats:	20 bollards/cleats mounted between breaks in the bullrail along the dock face.
Lighting:	6 light poles spaced 150'-200' apart, mounted ~87' back from the dock face
Condition:	Good
Load Posting Sign:	N/A
Original Design Load:	400 psf / 988 Wheel Loader / 150 Ton Track Crane

#### 2022 Shore Facilities Condition Survey Report

	Terminal Projects			
Year	Year Project # Project Name Description			
1988	88061	Pier No. 2 Extension	Constructed a 72 'x 400' dock extension on the western side of the Port of Kodiak Cargo Terminal. The dock consisted of concrete deck panels on steel beam framing supported by 16" diameter steel pipe piles, 3 mooring dolphins, and 13 fenders along the dock face.	
2005	34046.01	Pier II Reconstruction Reconstruction  Constructed a 72' x 475' dock to replace the east side of Pier The dock consisted of prestressed concrete deck panels on a pile caps supported by steel pipe piles. 12 berthing fenders placed along the dock face.		
2010	101086	Pier 2 Cleat Repair	Repaired broken cleat. (Cleat designation unknown)	
2012	121022	Pier 2 Cleat 10 Repair	Repaired cleat #10.	
2016	151136	Pier 2 Cleat Repairs	Repaired cleats #5 & #9.	

Facility Component	Rating
Uplands	5
Dock	7
Fendering System	6
Dolphins	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



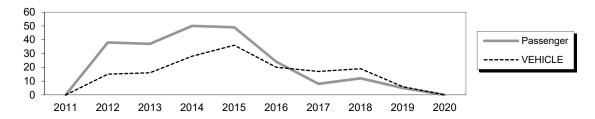
# **Old Harbor City Dock**

Owner: City of Old Harbor

**Contact:** Allen Christiansen, Harbormaster – 907-575-6614

Glen Clough, Mayor - 907-539-1001

**Terminal Description:** Old Harbor City dock is a multi-use dock facility on Kodiak Island (50 miles southwest of City of Kodiak). The dock was built in 2012 to replace the aging timber freight dock. The M/V Tustumena provides ferry service to the dock. The facility consists of a 55'x102' pile-supported dock with 3 fender panels, 3 mooring dolphins with access to the dock by steel catwalks, and an 18'x 280' pile-supported approach trestle connected to shore. AMHS is not in control of operation or maintenance of this facility. The most recent annual passenger and vehicle traffic at Old Harbor is shown below.



The most recent above water survey and fracture critical inspection were completed on August 14, 2022. The underwater survey occurred on August 11, 2018.

	Vessels
<u>Name</u>	Berthing, Alignment
Tustumena	Port

r		
	Tidal Data	
EHW	13.1	
MHHW	8.3	
MHW	7.7	
MLLW	0.0	
ELW	-4.0	

Terminal Building
This facility does not have a terminal building.

Generator & Building
This facility does not have a generator on-site.

Utilities @ Dock			
Water:	N/A		
Fuel:	Yes		

Uplands				
Description:	50' x 70' gravel pad			
Short-Term Parking:	N/A			
Long-Term Parking:	N/A			
Staging Area:	N/A			

Dock - #186				
Dimensions:	(1) 18' x 280' approach span (1) 55' x 102' dock			
Type:	Prestressed Deck/ Steel framing			
Year Built:	2012			
Dock Support:	30" & 36" dia. steel pipe piles w/ steel w-beam pile caps			
Pile Coating:	Galvanizing			
Anodes:	Yes, welded directly to piling			
Lighting:	Light poles on dock & trestle			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design Load:	30-Ton forklift with 70-Ton front axle / HS25-44 Truck / 250 PSF			

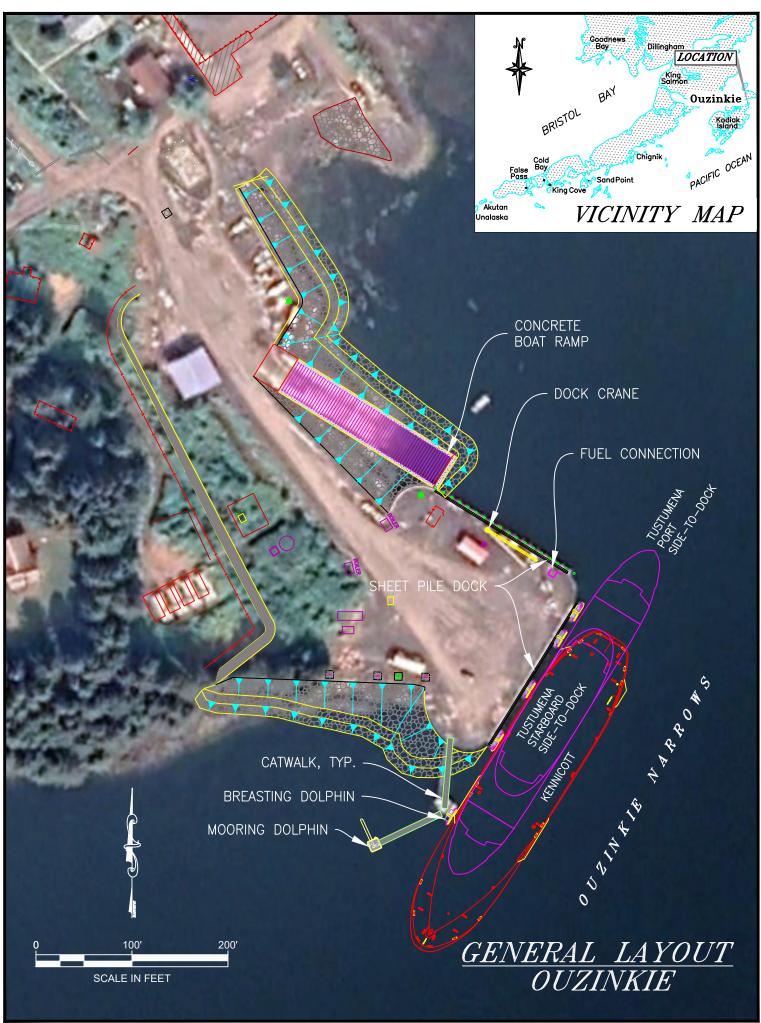
Terminal Projects				
Year	Project #	Project Name	Description	
2012	07046	New City Dock	Constructed new pile supported trestle and dock structure and associated fenders and mooring dolphins.	

Dolphins							
DolphinDolphinFenderFenderPilesSupportFace			Anodes	Built	Cond.	Notes	
W1	4B	2V	Sitka Spruce	Yes	2012	Good	
E1	4B	2V	Sitka Spruce	Yes	2012	Good	
E2	4B	2V	Sitka Spruce	Yes	2012	Good	

Catwalks / Gangways							
#	From	To	Length / Style		Safety	Cond.	Lighting
π	Struc.	Struc.	Length / Style	Built	Chains?	Cond. Ligh	Lighting
C1	Dock	W1	4'x87' Catwalk / Tube Deck Truss	2012	Yes	Good	None
C2	Dock	E1	4'x87' Catwalk / Tube Deck Truss	2012	Yes	Good	None
C3	E1	E2	4'x87' Catwalk / Tube Deck Truss	2012	Yes	Good	None

Facility Component	Rating
Uplands	6
Approach Dock	7
Main Dock	7
Fendering System	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
8	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

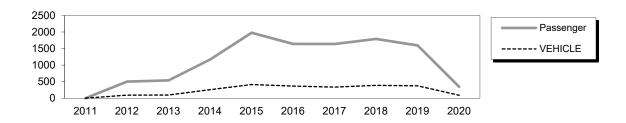


# **Ouzinkie City Dock**

Owner: City of Ouzinkie

Contact: City of Ouzinkie – 907-680-2209

**Terminal Description:** The M/V Tustumena stops in Ouzinkie, on Spruce Island (15 miles northwest of Kodiak) as part of its scheduled voyage between Kodiak and Homer. This is a new port of call for AMHS as of 2012. The open-cell sheet pile wharf was built in 2012 to replace an aging timber dock. The ship breasts against four (4) fender panels on the 175-foot long southeast dock face. This is a multi-purpose facility utilized by other vessels. AMHS is not in control of operation or maintenance. The most recent annual passenger and vehicle traffic at Ouzinkie is shown below. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on August 14, 2018.

Vessels			
<u>Name</u>	Berthing, Alignment		
Tustumena	Port (opening for apron)		

Tidal Data (MLLW=0.0 feet)			
Highest Observed	13.30		
MHHW	8.77		
MHW	7.87		
MLLW	1.00		
Lowest Observed	-3.18		

Terminal Building	
This facility does not have a terminal building.	

Generator & Building
This facility does not have a generator on-site.

	Utilities @ Dock	
Fuel:	No	
Electric:	No	
Water:	No	

Upl	ands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A

Bulkhead Dock				
Year Built:	2012			
	Uncoated steel sheets - Plans			
Submerged steel coating:	show 260# anodes welded to			
	sheets			
Fenders:	Heavy-duty steel pin piles with			
renders.	timber & UHMW facing			
Mooring bollards/cleats:	Pipe Pile Bollards			
Lighting:	High Mast Light			
Condition:	Good			
	500 psf / Taylor 950 Forklift / 150			
Design Load:	Ton Crawler Crane picking 75 Ton			
	load			

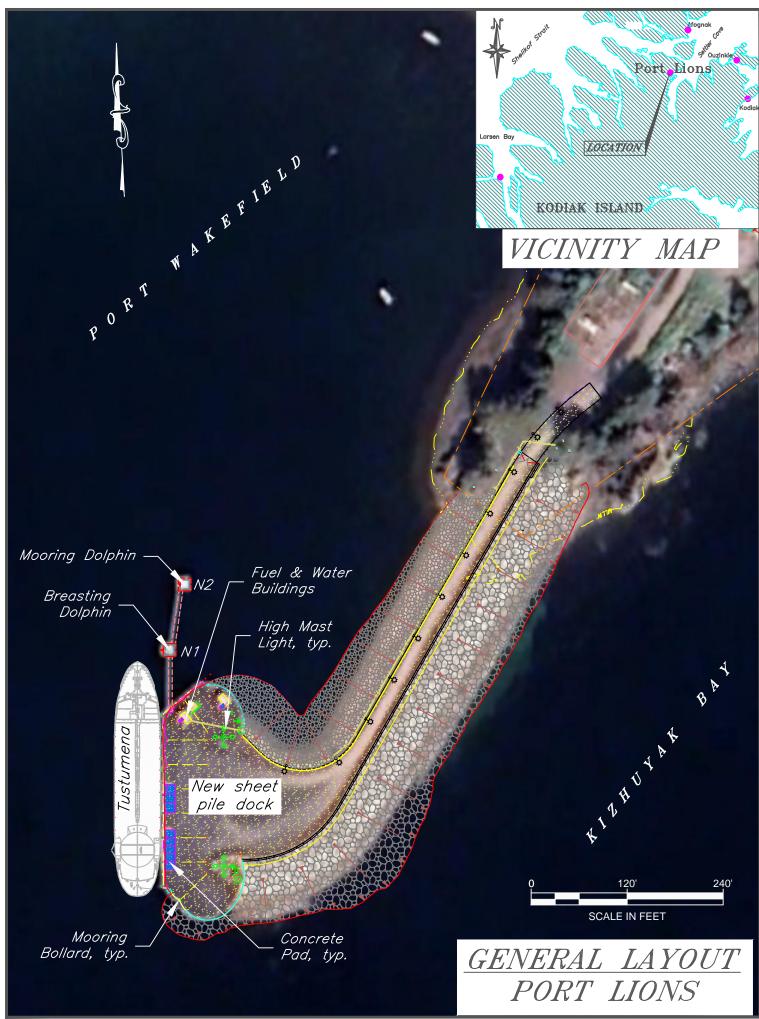
Dolphins						
Dolphin	Dolphin Piles	Fender Face	Anodes	Built	Cond.	Notes
S1	2B, 1V	UHMW	Yes	2015	New	

Catwalks / Gangways							
#			Built	Safety	Cond.	Lighting	
	Struc.	Struc.			Chains		
C1	Dock	S1	Catwalk / Galvanized pony-truss	2015	Yes	New	Yes

	Terminal Projects					
Year	Project #	Project Name	Description			
2012	91120	Ouzinkie Bulkhead	Constructed new sheet pile bulkhead dock.			
~2015	Unknown	Unknown	Installed four heavy-duty berthing fenders along west face of bulkhead, one berthing dolphin installed south of the dock with pedestrian access via a steel catwalk. High mast light installed. Additional pipe pile bollards installed.			

Facility Component	Rating
Uplands	7
Sheet pile Dock	7
Dolphin	8
Fendering System	8

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

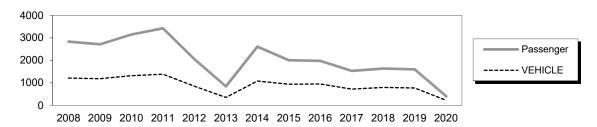


## **Port Lions Dock**

**Owner:** City of Port Lions

**Contact:** Russell Gunderson, Harbormaster 907-454-2477

**Terminal Description:** The M/V Tustumena docks at Port Lions on its passage between Kodiak and Homer. Port Lions is the second busiest port of call along the southwest route after Kodiak. The Port Lions facility is an earth-filled sheet pile bulkhead constructed in 2014. The dock has a 214' berthing face with two mooring dolphins along the north end. Access to the dock is via a rubble-mound breakwater. The facility is a multi-purpose dock and could be in use by other vessels when the ferry arrives. AMHS is not in control of the operation or maintenance of this facility. The past 12 years of total passenger and vehicle traffic at Port Lions is shown below. The M/V Tustumena was out of service most of 2013, causing a steep drop-off in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on August 13, 2018.

Vessels			
<u>Name</u>	Berthing, Alignment		
Tustumena	Starboard		

Tidal	Data	
Highest Observed	13.1	
MHHW	8.7	
MHW	7.8	
MLLW	0	
Lowest Observed	-3.5	

Terminal Building	
This facility does not have a terminal building.	

Generator & Building	
This facility does not have a generator on-site.	

	Utilities @ Dock	
Fuel:	Yes	
Electric:	Yes	
Water:	Yes	

Upla	ands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	N/A

Dock Structure:				
Year Built:	2014			
Dock Structure:	Steel sheet pile bulkhead			
Coating:	Uncoated steel			
Fenders:	Pin pile fenders along the face of			
renders.	the dock.			
Mooring bollards/cleats:	Bollards along edge of dock; 2			
widoning bollards/cicats.	dolphins north of dock			
Lighting:	Two High-mast lights			
Condition:	Good			
Design Load:	Unknown			

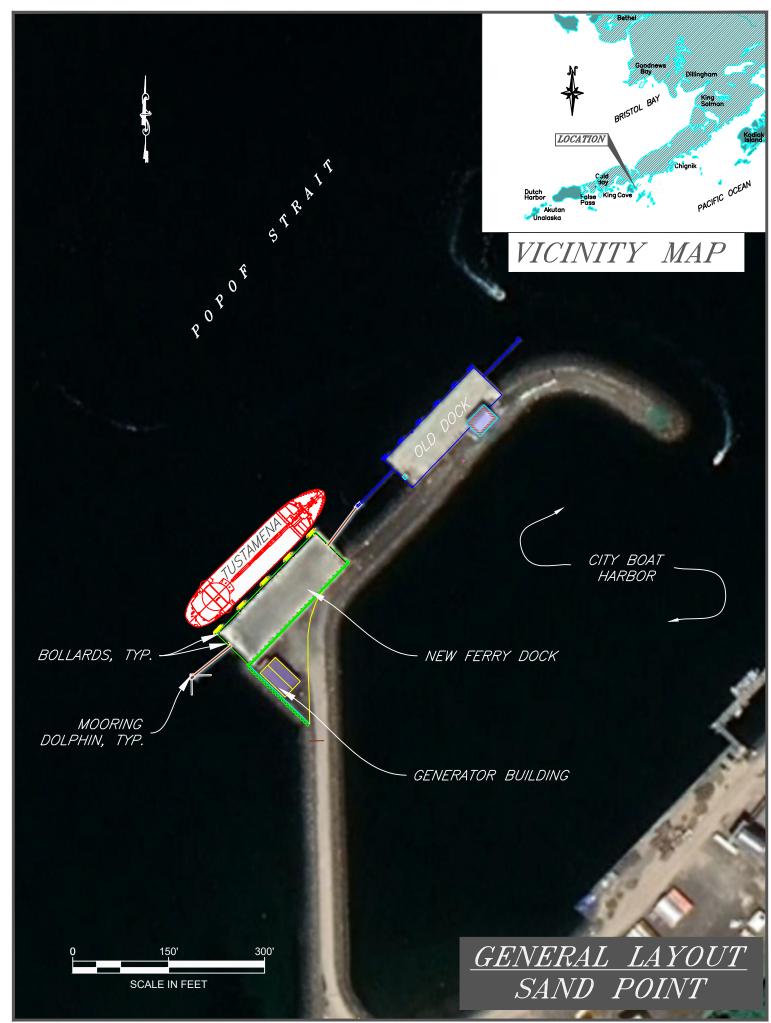
Dolphins							
Dolphin         Dolphin Piles         Fender Face         Anodes         Built		Cond.	Lighitng				
N1	4V	Rubber Fender	Yes	2014	New	Yes	
N2	4V	None	Yes	2014	New	Yes	

	Catwalks / Gangways						
#	From	To	Length / Style F		Safety	Cond.	Lighting
#	Struc.	Struc.			Chains	Conu.	Lighting
C1	Dock	N1	70' Catwalk / Galvanized pony-truss	2014	No	New	No
C2	N1	N2	70' Catwalk / Galvanized pony-truss	2014	No	New	No

		Termina	ıl Projects
Year	Project #	Project Name	Description
1960's	N/A	Port Lions Dock (original timber)	Construct new timber approach trestle and triangular main dock with crab pot holding pens and ice house.
2014	N/A	Port Lions Dock	Construct new sheet pile bulkhead dock, berthing fender structures, and dolphins.

Facility Component	Rating
Uplands	7
Sheet pile Dock	7
Dolphin	7
Fendering System	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable
_	

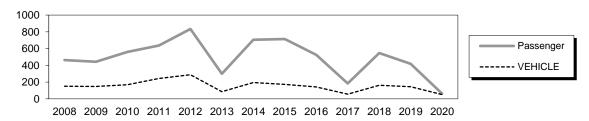


# Sand Point City Dock II

Owner: City of Sand Point

Contact: Richard Kochuten, Harbormaster 907-383-2331

Terminal Description: The M/V TUSTUMENA docks in Sand Point on its passage through the Aleutian Chain. The Sand Point City Dock II is a multi-use freight wharf, constructed in 2019 by the City of Sand Point. It is located at the northeast end of the small boat harbor breakwater. The dock is approximately 222' long and 69' wide and consists of pre-stressed haunched concrete deck panels supported by CIP concrete pile caps, and steel pipe piling filled with concrete. There are five fenders along the dock face. Each fender has two steel pin piles, a steel framework with UHMW facing and is attached to the dock with rubber cylinders. Steel mooring dolphins are located at each end of the dock and accessed by catwalks. The US Army Corps of Engineers extended the riprap breakwater around to the East to protect the City's small boat harbor in 2006. The breakwater serves as a new single-lane access road. The facility is a multi-purpose facility and is utilized by other vessels. AMHS is not in control of the operation or maintenance of this facility. The past 12 years of total passenger and vehicle traffic at Sand Point is shown below. The M/V Tustumena was out of service most of 2013, causing a steep drop-off in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on December 26, 2022. An underwater inspection is scheduled for 2025.

	Vessels
<u>Name</u>	Berthing, Alignment
Tustumena	Starboard

Tida	l Data	
Highest Observed	11.6	
MHHW	7.23	
MHW	6.52	
MLLW	0	
Lowest Observed	-3.8	

Terminal Building
This facility does not have a terminal building.

Generator & Building
Yes

	Utilities @ Dock	
Fuel:	No	
Electric:	No	
Water:	No	

Uŗ	olands
Short-Term Parking:	N/A
Long-Term Parking:	N/A
Staging Area:	250 lineal feet

City Dock II - #2362				
Year Built:	2019			
Dimensions:	69' wide x 222' long			
	Haunched precast prestressed			
Tuna	deck panels, CIP concrete pile			
Type:	caps, steel pipe piles filled w/			
	concrete			
Submerged steel coating:	Galvanized			
Fenders:	Double steel pin piles with			
renders.	UHMW face			
Mooring bollards/cleats:	Single and double bit bollards			
Widomig bonards/cleats.	along the perimeter of the dock.			
Lighting:	(4) 50' tilt-down poles			
Condition:	New			
	AASHTO HL-93 /400 psf. See			
Design Load:	design drawings for additional			
	load allowances.			

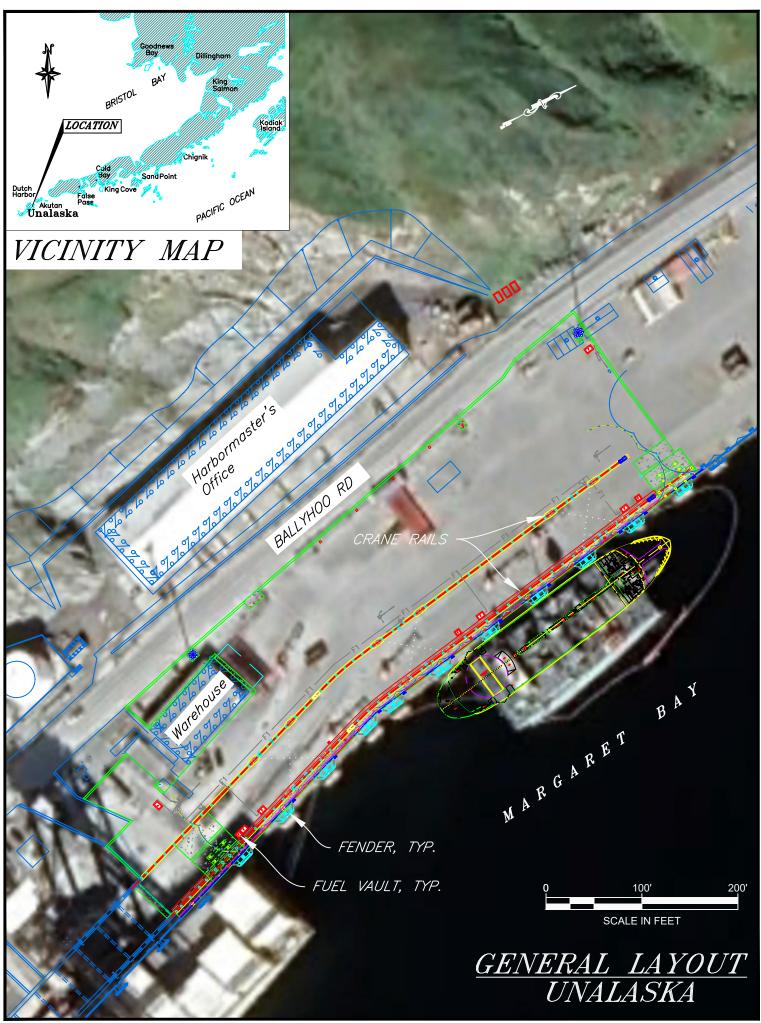
	Dolphins						
Dolphins	Dolphin Piles	Fender Support	Fender Face	Anodes	Built	Cond.	Notes
W1	2B, 1V	Moor	ing Only	Yes	2019	New	
E1	1B, 1V	Mooring Only		No	1983/2019	Good	Red navlight & reflector. Dophin Cap Replaced in 2019.

			Catwalks / Gan	gways				
#	From Struct.	To Struct.	Length / Style / Main Members	Built	Safety Chains	Cond.	Lighting	Notes
C1	W1	Dock	75' / Catwalk / Pony Truss	2019	Yes	New	None	
C2	Dock	E1	75' / Catwalk / Pony Truss	2019	Yes	New	None	Railing panel dislodged.

Terminal Projects					
Year Project # Project Name Description					
2019	SFHWY00006	Sand Point Dock Replacement	Constructed new 69' x 222' dock adjacent to existing dock. The dock consists of concrete haunched deck panels, concrete pile caps, and steel pipe piling filled with concrete. One new mooring dolphin was places on the west side of the dock.		

<b>Facility Component</b>	Rating
Uplands	4
Main Dock	7
Dolphins	8
Fendering System	9

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



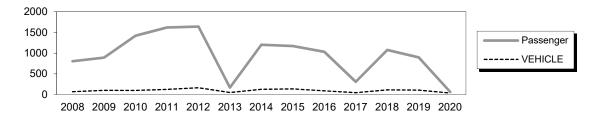
## Unalaska/Dutch Harbor Dock

Owner: City of Unalaska

Contact: Trevor Schliebe, Harbormaster, City of Unalaska 907-581-1254

**Terminal Description:** The M/V Tustumena's last stop on its westward route is at Dutch Harbor where it serves the City of Unalaska. The ferry berth once occupied portions of two City owned docks; the entire face of a timber dock and a portion of an adjoining concrete platform dock. Recently the timber dock was torn out and replaced with a continuous sheet-pile cell, earth filled wharf. The City of Unalaska designates these dock areas as Positions 3 and Position 4 respectively.

This is a multi-purpose facility utilized by other vessels. AMHS is not in control of operation or maintenance. The past 12 years of total passenger and vehicle traffic is shown below. The M/V Tustumena was out of service most of 2013 & 2017, causing steep drop-offs in traffic at the terminal. The global pandemic caused the decline in 2020.



The most recent above water survey was completed on September 23, 2018.

Tidal Data		
Highest Observed	6.70	
MHHW	3.60	
MHW	3.32	
MLLW	0.00	
Lowest Observed	-2.78	

Terminal Building
This facility does not have a terminal building.

Generator & Building	
This facility does not have a generator on-site.	

Utilities @ Dock		
Water:	Yes	
Fuel:	Yes	
Sewer:	Yes	

Uplands		
Short-Term Parking:	N/A	
Long-Term Parking:	N/A	
Staging Area:	N/A	

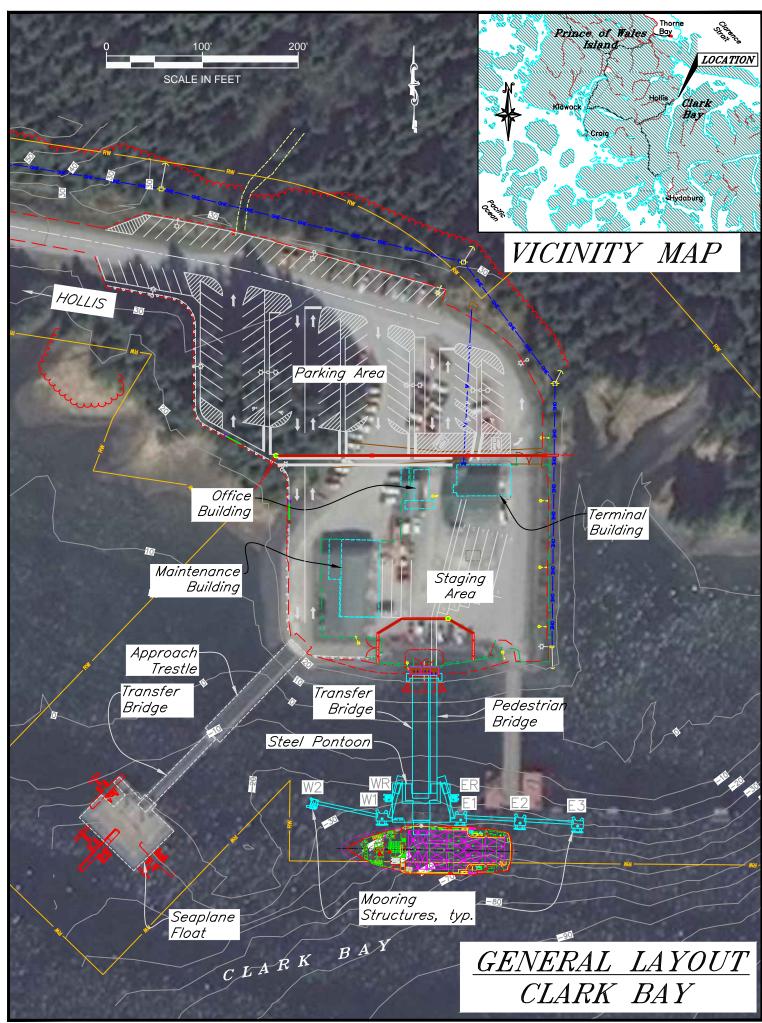
City Dock		
Year Built:	2018	
Construction:	Steel sheet pile bulkhead	
Fenders:	(11) Heavy-duty steel pin-pile	
	fenders	
Mooring bollards/cleats:	Bollards & Cleats mounted along	
widoning bollards/cleats.	dock edge	
Lighting:	High mast lights	
Condition:	New	
Design Load:	750 psf surcharge / HL93/ CAT	
	988 Loader	

	Terminal Projects		
Year	Project #	Project Name	Description
2018	111135	City of Unalaska UMC Dock	Constructed new sheet pile bulkhead dock, with heavy-duty
2018	111133	Position III & IV/Replacement	berthing fenders

Facility Component	Rating
Uplands	8
Sheet pile Dock	8
Fendering System	8

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

IFA ROUTE



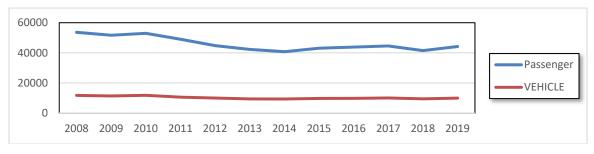
## **Clark Bay Ferry Terminal**

Mile 31 Hollis-Klawock Hwy.

Owner: Inter Island Ferry Authority (IFA)

Terminal Manager: Donna Halvorsen – 907-826-4848

**Terminal Description:** Clark Bay Ferry Terminal is a side-berth facility consisting of a transfer bridge, steel support float, and five steel mooring dolphins. Uplands include a terminal building, maintenance warehouse, secure (fenced) staging area, paved parking and overhead lighting. The Clark Bay facility links Prince of Wales Island to Ketchikan with ferry service via the InterIsland Ferry Authority (IFA). The IFA has had operation and maintenance responsibility of this ferry terminal since 2002. AMHS provided ferry service prior to 2002. IFA operates one of two vessels to this port, the MV Prince of Wales and the MV Stikine. Total passenger and vehicle traffic counts for the past 10 years at Clark Bay are shown below.



The most recent above water survey was completed on May 27, 2021. The most recent underwater inspection occurred on Nov. 17, 2020. There are no fracture critical members at this facility.

Vessels	
Name Berthing, Alignment	
Prince of Wales /	Starboard
Stikine / FVF	Starouaru

Tidal Data (MLLW 0.0 feet)		
EHW	19.8	
MHHW	15.5	
MHW	14.6	
ELW	-4.6	

Terminal Building		
Year Built:	2007	
Square Footage:	1,800 s.f.	
Heating System:	Toyo Furnace	
Fuel Storage:	AST	
Fire Protection:	N/A	
Condition:	Good	

<b>Maintenance Building</b>				
Year Built: 2006				
Square Footage:	3500 s.f.			
Heating System:	N/A			
Fuel Storage:	N/A			
Fire Protection:	N/A			
Condition:	Good			

Uplands			
47 cars, 5 HCP			
45 cars			
700 lineal feet; 180			
lineal feet-buses/trucks			
Yes			
Asphalt			

Generator Compartment
This facility does not have a generator on site.

Vehicle Transfer Bridge - #0182				
Type:	16' x 130' steel multi-girder			
Year Built:	2015			
Shoreward support:	Concrete abutment			
Seaward support:	Steel Support Float			
Coating:	Spray metallized w/topcoat			
Pedestrian Access:	Pedestrian Bridge Parallel to Transfer Bridge			
Lighting:	(3) Overhead Light Posts			
Condition:	Very Good			
Load Posting Sign:	N/A			
Original Design Load:	HL93			

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Clark Bay

Pede	strian Bridge
Type:	16' x 130' steel multi-girder
Year Built:	2015
Shoreward	
support:	Concrete abutment
Seaward support:	Steel Support Float
Coating:	Spray metallized w/topcoat
Condition:	Very Good

	Utilities			
	at Terminal	at Ramp		
Electrical:	Yes, city & backup power			
Water:	Yes	No		
Sewer:	Yes (Septic)	No		
Telephone:	Yes	No		
Cable TV:	No	No		
Fuel:	Yes	No		
Wireless Bridge:	No	No		

Bridge Support Float			
Type:	40' x 60' Steel Flexi-float		
Year Built:	2015		
Ballasted:	Yes		
Ramp lift:	Hydraulic		
Apron lift:	Hydraulic/Block & Cable		
Anodes:	Yes		
Float Condition:	Very Good		
Apron Condition:	Good		
Ramp Condition:	Good		

	Dolphins					
Dolphins	Dolphin Piles	Fender Type	Anodes	Built	Cond.	Notes
W2	2B, 1V	n/a	Yes	2015	New	Red Nav Light
W1	2B, 2V	UHMW panels & Rubber cylindrical fenders	Yes	2015	New	
E1	2B, 2V	UHMW panels & Rubber cylindrical fenders	Yes	2015	New	
E2	2B, 2V	UHMW panels & Rubber cylindrical fenders	Yes	2015	New	
E3	2B, 2V	UHMW panels & Rubber cylindrical fenders	Yes	2015	New	Red Nav Light
RW	2B, 1V	n\a	Yes	2015	New	
RE	2B, 1V	n\a	Yes	2015	New	

## <u>LEGEND</u>

B = Battered Steel Pipe Piles

V = Vertical Steel Pipe Piles

C1 = Catwalk

G1 = Gangway

E1= Dolphin Designation, typ.

RW = West Float Restraint Structure

RE = East Float Restraint Structure

WF = West side of Float, typ.

			Catwalks / G	angway	S			
#	From	To	Length / Style / Main Members	ain Members Built Safety Cond. Lighti		Lighting	Notes	
#	Struct.	Struct.	Length / Style / Wall Wellbers		Restraints	Conu.	Lighting	Notes
G1	W1	WF	38' / Gangway / Pipe Truss	1988	No	Good	Jelly Jar	
G2	E1	EF	38' / Gangway / Pipe Truss	2015	No	New	Jelly Jar	
C1	W1	W2	66' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jar	
C2	E1	E2	53' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jar	
С3	E2	E3	51' / Catwalk / 16"x4" Tube Girders	2015	Yes	New	Jelly Jar	

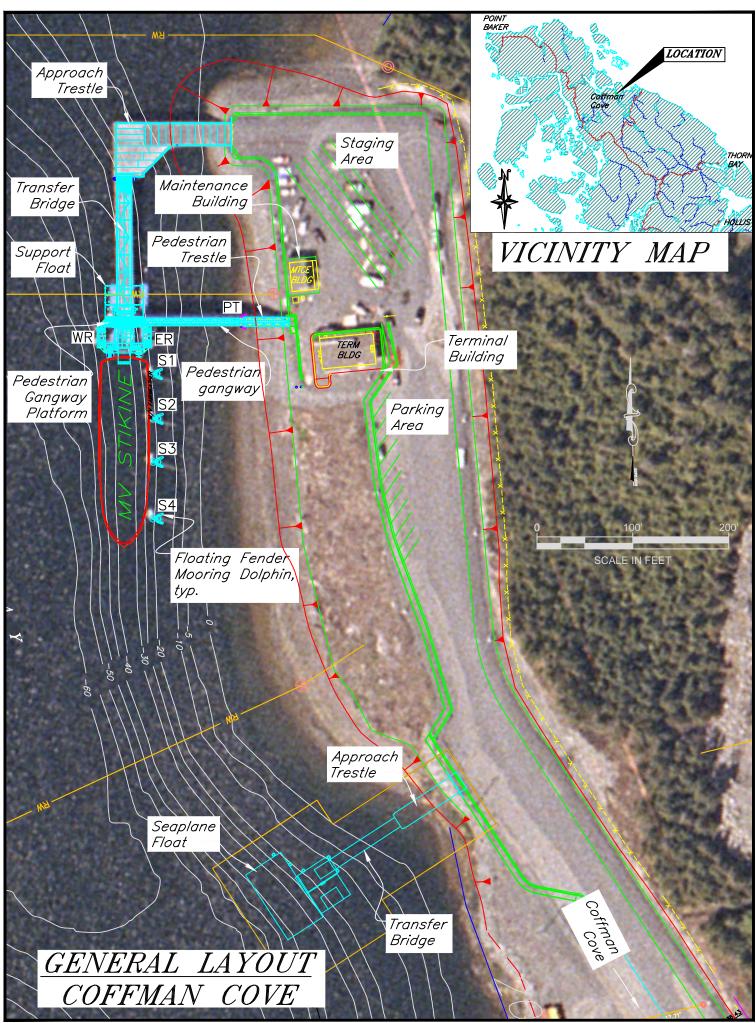
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**Clark Bay** 

	Terminal Projects				
Year	Project #	Project Name	Description		
1975	S-0926(1)	Hollis Ferry Terminal Facility	Constructed new stern-loading facility with uplands fill, timber dock and timber duncan dolphins.		
1977	TQS-RS-0926 (2)	Clark Bay Ferry Terminal	Uplands fill for new terminal parking and staging areas. Constructed new steel transfer bridge & cable/hydraulic lift system, and four new steel mooring/fendering structures.		
1988	N/A	Clark Bay FT Dolphin Modifications	Installed new steel dolphin, E4.		
1993	N/A	Clark Bay FT Mooring Improvements	Installed new steel dolphin, E5		
2004	N/A	IFA - Clark Bay FT Improvements	Re-painted transfer bridge, repaired bridge abutment upgraded utilities to bridge and lighting on uplands.		
2006	N/A	IFA - Clark Bay Terminal Building and Maintenance Shop	Constructed new terminal building and maintenance shop, including secure staging and security upgrades.		
2015	67449	Clark Bay Ferry Terminal Improvements	Constructed new transfer bridge & float, 4 new mooring structures in a new re-aligned location, away from the accreting riverbed.		
2018	SFHWY00005	Clark Bay Ferry Terminal & Seaplane Float Expanded Parking	Expanded uplands parking area with tidelands fill, riprap, guardrail, paving & drainage systems. Grading improvements at bridge abutment approach.		

Facility Component	Rating
Uplands	8
Bridge	8
Float & Restraints	7
Intermediate Ramp	7
Apron	7
Dolphins	7
Gangways	7
Electrical System	5
Hydraulic System	5

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
4	POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.
3	SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.
2	CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.
1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable



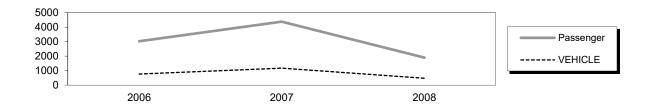
## **Coffman Cove Ferry Terminal**

110 Stikine Way

**Owner:** City of Coffman Cove – 907-329-2233

Terminal Manager: Bill Fitzpatrick – 907-329-2233

**Terminal Description:** Coffman Cove is a stern-loading facility consisting of a terminal building, maintenance shop, paved parking area, secure (fenced) staging area, steel approach trestle, transfer bridge, steel support float and four steel pile all-tide mooring dolphins. The Coffman Cove facility, constructed in 2006, serves the Prince of Wales Island communities by linking them via the IFA's M/V Prince of Wales to AMHS mainline service in Petersburg. The IFA northern route has not been operational since 2008. Coffman Cove's total passenger and vehicle traffic from 2006 through 2008 is shown below.



The most recent above water survey was completed on May 27, 2021. The most recent fracture critical and underwater inspections occurred on May 15, 2019 and August 2, 2016, respectively.

Vessels					
Name Berthing, Alignment					
Prince of Wales / Stikine / FVF	Stern				

Tidal Data (MLLW 0.0 feet)					
EHW 20.0					
MHHW	15.5				
MHW	14.3				
ELW	-4.5				

Terminal Building				
Year Built:	2006			
Square Footage:	1800 s.f.			
Heating System:	Oil Furnace			
Fuel Storage:	300 gal. AST			
Fire Protection:	Alarm			
Condition:	Good			

Maintenance Building				
Building / Generator: 2006				
Square Footage:	720			
Heating System:	Electric			
Fuel Storage:	150 gal AST			
Fire Protection: N/A				
Condition:	Good			

Uplands				
Short-Term Parking:	24 cars, 2 HCP			
Long-Term Parking: 27 cars, 2 HCP				
Staging Area:	1000 lineal feet, 8 lanes			
Paint Striping:	Yes			
Driving Surface:	Asphalt			

Maintenance Building				
Year Built: 2006				
Square Footage: 720 s.f.				
Heating System: Oil Furnace				
Fuel Storage: 275 gal. AST				
Fire Protection: Alarm				
Condition:	Good			

Bridge Approach						
Type: 4000 s.f. pile-supported						
	steel frame					
Year Built:	2006					
Shoreward support:	Steel Beam/Driven Piling					
Seaward support:	Steel Beam/Driven Piling					
Anodes on piles:	Yes					
Condition:	Good					

Vehicle Transfer Bridge #193				
Type:	14' x 143' twin box girder			
Year Built:	2006			
Shoreward support:	Steel Beam/Driven Piling			
Seaward support:	Steel Support Float			
Coating:	Wasser Paint			
Pedestrian Access:	Gangway & Catwalk separate from bridge			
Lighting:	Cylindrical Fixtures			
Condition:	Good			
Load Posting Sign:	N/A			
Original Design Load:	HS-20			

Pedestrian Trestle & Gangway				
Туре:	50' Steel Trestle & 105' Aluminum Gangway			
Year Built:	2006			
Shoreward support:	Concrete Abutment			
Intermediate support:	PT			
Seaward support:	Float			
Condition:	Fair			

Bridge Support Float				
Type:	40' x 70' Steel Pontoon			
Year Built:	2006			
Ballasted:	Yes			
Ramp lift:	Hydraulic			
Apron lift:	Hydraulic			
Anodes:	Yes			
Condition:	Satisfactory			

Utilities						
at Terminal at Ramp						
Electrical:	Yes	Yes				
Water:	Yes	Yes				
Sewer:	Yes (City)	No				
Telephone:	Yes	Yes				
Cable TV:	No	No				
Fuel:	Yes (AST)	No				
Wireless Bridge:	No	No				

	Dolphins					
Dolphins	Dolphin Piles	Fender Type	Anodes	Built	Cond.	Notes
S4	2B, 3V	Floating Rubber	Yes	2006	Good	
S3	2B, 3V	Floating Rubber	Yes	2006	Good	
S2	2B, 3V	Floating Rubber	Yes	2006	Good	
S1	2B, 3V	Floating Rubber	Yes	2006	Good	
ER	2B, 2V	n/a	Yes	2006	Good	
WR	2B, 2V	n/a	Yes	2006	Good	
PT	2B, 2V	n/a	Yes	2006	Good	

### **LEGEND**

V = Vertical Steel Pipe Piling ER = East Bridge Support Float Restraint Dolphin

PP = Pedestrian Platform

B = Battered Steel Pipe Piling

PT = Pedestrian Trestle Support Pier

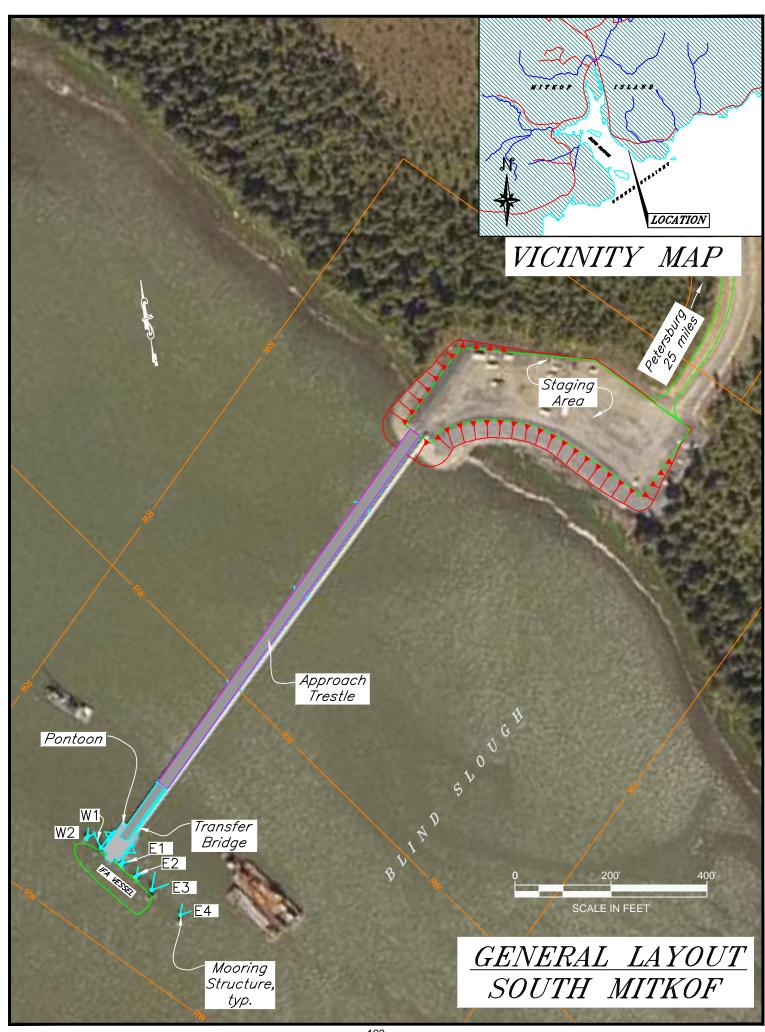
G1 = GangwayC1 =Pedestrian Trestle

	Catwalks / Gangways							
#	From Struct.	To Struct.	Length / Style / Main Members	Built	Safety Chains?	Cond.	Lighting	Notes
C1	Shore	PT	50' / Steel Trestle / TS 6x4 Bottom Chord	2006	No	Good	Overhead Fixtures	
G1	PT	PP	105' / Aluminum Gangway / TS 6x10 Bottom Chord	2006	No	Fair	Overhead Fixtures	Cracks in offshore bearing supports

	Terminal Projects				
Year	Project #	Project Name	Description		
2006	67844 7 67667 / STP - 003 (66)	Coffman Cove Ferry Terminal	New ferry terminal construction. Uplands consisted of blasting and filling earthwork; parking lot/staging area paving; security fencing. Built new terminal building & maintenance shop; all mooring and vehicle transfer structures.		

Facility Component	Rating
Uplands	7
Approach	7
Bridge	7
Float & Restraints	6
Intermediate Ramp	7
Apron	7
Dolphins	7
Gangway	5
Potable Waterline	4
Electrical System	7
Hydraulic System	6

9 EXCELLENT CONDITION 8 VERY GOOD CONDITION - no problems noted 7 GOOD CONDITION - some minor problems. 6 SATISFACTORY CONDITION - structural elements show minor deterioration 5 FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping. May include minor erosion on bridge piers. 4 POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers. 3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible. 2 CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken. 1 "IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.  0 FAILED CONDITION - out of service - beyond corrective action N Not applicable		
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5 FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.  4 POOR CONDITION - advanced corrosion, deterioration, cracking or chipping. Also significant erosion of concrete bridge piers.  3 SERIOUS CONDITION - corrosion, deterioration, cracking and chipping, or erosion of concrete bridge piers have seriously affected deck, superstructure, or substructure. Local failures are possible.  2 CRITICAL CONDITION - advanced deterioration of deck, superstructure, or substructure. May have cracks in steel or concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until corrective action is taken.  1 "IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.  0 FAILED CONDITION - out of service - beyond corrective action	7	GOOD CONDITION - some minor problems.
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obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.  O FAILED CONDITION - out of service - beyond corrective action	2	concrete, or erosion may have removed substructure support. It may be necessary to close the bridge until
	1	obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action
N Not applicable	0	FAILED CONDITION - out of service - beyond corrective action
	N	Not applicable



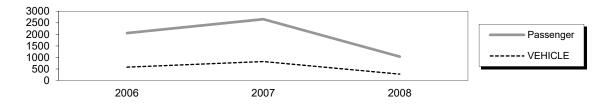
## South Mitkof Ferry Terminal

Mile 25 South Mitkof Hwy.

Owner: Inter Island Ferry Authority (IFA)

**Terminal Manager:** N/A

**Terminal Description:** South Mitkof is a side-loading facility constructed in 2006 consisting of a modular ticketing office, secure (fenced) staging area, 900-foot long steel approach, steel transfer bridge, steel support float and six steel pile mooring dolphins. The IFA northern route has not been operational since 2008. South Mitkof's total passenger and vehicle traffic between 2006 and 2008 is shown below.



The above water inspection was completed May 18, 2021. The most recent fracture critical & underwater inspections occurred on August 6, 2016.

Vessels		
<u>Name</u>	Berthing, Alignment	
Prince of Wales / Stikine / FVF	Starboard	

Tidal Data (MLLW 0.0 feet)		
EHW	20.0	
MHHW	15.5	
MHW	14.3	
ELW	-5.0	

Uplands		
Short-Term Parking:	60 cars	
Long-Term Parking:	N/A (gates locked between vessels)	
Staging Area:	1200 lineal feet, 8 lanes	
Paint Striping:	No	
Driving Surface:	Asphalt	

Modular Ticketing Office		
Year Built:	2006	
Square Footage:	N/A	
Heating System:	N/A	
Fuel Storage:	N/A	
Fire Protection:	N/A	
Condition:	Fair	

Generator Compartment		
Year Built:	2006	
Square Footage:	200 s.f.	
Heating System:	Oil Furnace	
Fuel Storage:	550 gal. AST & Day tank	
Fire Protection:	N/A	
Condition:	Good	

Bridge Approach		
Туре:	900' x 24' pile-supported steel frame	
Year Built:	2006	
Shoreward support:	Steel Beam/Driven Piling	
Seaward support:	Steel Beam/Driven Piling	
Pedestrian Access:	Covered walkway, guardrail separation	
Lighting:	Light Posts 20' o.c.	
Anodes on piles:	Yes	
Condition:	Good	

Bridge Support Float		
Type:	40'x70' Flexifloat	
Year Built:	2006	
Ballasted:	Yes	
Ramp lift:	Hydraulic	
Apron lift:	Hydraulic	
Anodes:	Yes	
Condition:	Good	

2021 Shore Facilities Condition Survey Report

**South Mitkof** 

Vehicle Transfer Bridge		
Туре:	16'x143' twin box beam	
Year Built:	2006	
Shoreward support:	Steel Beam/Driven Pile	
Seaward support:	Steel Support Float	
Coating	Wasser Paint	
Pedestrian Access:	Covered walkway, guardrail separation	
Lighting:	Cylindrical fixtures on guardrail; overhead fixtures along ped. Walkway	
Condition:	Good	
Load Posting Sign:	N/A	
Original Design Load:	AASHTO HS20	

	Utilities	
	at terminal	at ramp
Electrical (Generator):	Yes	Yes
Water:	Yes (Uplands Holding Tank)	No
Sewer:	No	No
Telephone:	No	No
Cable TV:	No	No
Fuel:	No	No

	Dolphins												
Dolphins	Dolphin Piles	Fender Type	*Anodes	Built	Cond.	Notes							
E4	2B, 1V	Floating Rubber	Yes	2006	Good								
E3	2B, 1V	Floating Rubber	Yes	2006	Good								
E2	2B, 1V	UHMW panels & Rubber cylindrical fenders	Yes	2006	Good								
E1	2B, 1V	UHMW panels & Rubber cylindrical fenders	Yes	2006	Good								
W1	2B, 1V	Floating Rubber	Yes	2006	Good								
W2	2B, 1V	UHMW panels & Rubber cylindrical fenders	Yes	2006	Good								
ER	3V	-	Yes	2006	Good								
WR	3V	-	Yes	2006	Good								

<sup>\*</sup>Electrical resistance readings on the piles indicate the anodes are depleted and need to be replaced.

#### LEGEND

V = Vertical Steel Pipe Piling B = Battered Steel Pipe Piling E4 = Dolphin Designation, typ. ER = East Bridge Support Float Restraint Dolphin WR = West Bridge Support Float Restraint Dolphin

This terminal does not have dolphins or catwalks.

	Terminal Projects											
Year	Project #	Project Name	Description									
2006	67833 / MGS- MGE-STP- 0003(65)	South Mitkof Ferry Terminal	New ferry terminal construction. Uplands consisted of blasting and filling earthwork; parking lot-staging area grading; security fencing. Built new ticket office & generator shed; all mooring and vehicle transfer structures.									

Facility Component	Rating
Uplands	6
Approach	7
Bridge	7
Float	7
Intermediate Ramp	7
Apron	7
Dolphins	7
Electrical	5
Hydraulic System	7

9	EXCELLENT CONDITION
8	VERY GOOD CONDITION - no problems noted
7	GOOD CONDITION - some minor problems.
6	SATISFACTORY CONDITION - structural elements show minor deterioration
5	FAIR CONDITION - all primary structural elements are sound but may have minor corrosion, cracking or chipping.  May include minor erosion on bridge piers.
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1	"IMMINENT" FAILURE CONDITION - major deterioration or corrosion in deck, superstructure, or substructure, or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	FAILED CONDITION - out of service - beyond corrective action
N	Not applicable

## **SECTION II**

**VESSEL INFORMATION** 



**MV MATANUSKA** 

408 feet **Built 1963** 

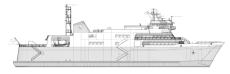


418 feet **Built 1974** 



**MV TUSTUMENA** 

296 feet Built 1964



**MV TAZLINA** 

280 feet Built 2019



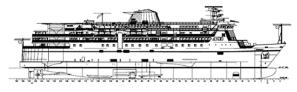
**MV LECONTE** 

235 feet **Built 1974** 



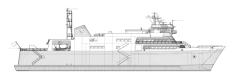
**MV LITUYA** 

181 feet Built 2004



**MV KENNICOTT** 

382 feet **Built 1998** 



**MV HUBBARD** 

280 feet Built 2019



**MV AURORA** 

235 feet **Built 1977** 



# **Vessel Information Table**

			Mainline Fe	erries			Day Boa	t Ferries		Shuttle Ferries		
	<u>Columbia</u>	Kennicott	<u>Malaspina</u>	<u>Matanuska</u>	<u>Tustumena</u>	<u>Aurora</u>	<u>LeConte</u>	<u>Tazlina</u>	<u>Hubbard</u>	<u>Chenega</u>	<u>Fairweather</u>	<u>Lituya</u>
Year Built	1974	1998	1963	1963	1964	1977	1974	2019	2019	2005	2004	2004
Length (feet)	418	382	408	408	296	235	235	280	280	235	235	181
Beam (feet)	85	85	74	74	59	57	57	67	67	60	60	50
Displacement (long tons)	7,684	7,504	5,994	5,569	3,081	2,132	2,132	3,016	3,016	787	787	647
Loaded Draft (feet-inches)	17'-6 1/8"	17'-6"	16'-10"	16'-11 5/8"	14'-4 1/2"	13'-8"	13'-8"	13'-11"	13'-11"	8'-6"	8'-6"	12'
International Tonnage: Gross	13,009	12,635	9,121	9,214	4,529	3,124	3,124	5,304	5,304	3,420	3,424	758
(cubic capacity) Net	4,932	3,790	3,667	3,824	1,451	987	987	1,591	1591	1,026	1,027	227
Domestic Tonnage: Gross	3,946	9,978	2,928	3,029	2,174	1,280	1,328	3,217	3,217	1,333	1,280	97
(cubic capacity) Net	2,683	7,354	1,253	1,235	898	453	566	2,188	2188	827	870	66
Horsepower @ Service Speed	14,000	13,200	8,000	7,200	5,100	4,300	4,300	6,000	6,000	19,310	19,310	2,000
Service Speed (knots)	17.3	16.75	16.5	16.5	13.3	14.5	14.5	16.5	16.5	32	32	11.5
Fuel Usage (gallons/hour)	397	354	270	234	151	190	188	250	250	600	600	55
Normal Crew Capacity	63	55	47	48	38	24	24	14	14	10	10	5
Certificate of Inspection Limits												
Passengers	600	499	499	499	174	300	247	297	297	250	250	149
Vehicles (lane feet)	3,200	1,700 SE 1,460 SW 85 SE	1,960	1,960	852	720	720	1,060	1,060	720	720	360
Quantity of 20 foot vehicles	160	73 SW	98	98	42	36	36	53	53	36	36	18
Commercial Vans	16*	24*	15*	15*	13*	8*	12*	4	4	3	3	2
Staterooms - 4 berth	45	48	45	5	6	-	-	-	-	-	-	<u> </u>
Staterooms - 3 berth	-	-	-	21	-	-	-	-	-	-	-	_
Staterooms - 2 berth	56	58	26	79	17	-	-	-	-	-	-	_
ADA Staterooms (4 berth)	-	2	-	-	-	-	-	-	-	-	-	_
ADA Staterooms (2 berth)	3		1	1	1	-	-	-	-	-	-	_
Total Staterooms	104	109	72	106	24	-	-	-	-	_	-	-
Total Berths	298	320	234	243	60	-	-	-	-	-	-	-



# **Vessel Engine and Power Plant**

		ı	Mainline Ferri	es			Day Boa	at Ferries		Shuttle Ferries		
	<u>Columbia</u>	Kennicott	<u>Malaspina</u>	<u>Matanuska</u>	Tustumena	<u>Aurora</u>	<u>LeConte</u>	<u>Tazlina</u>	<u>Hubbard</u>	Chenega	<u>Fairweather</u>	<u>Lituya</u>
Main Engines												
Number	2	2	2	2	2	2	2	2	2	4	4	2
Make	Wartsilla	Wartsilla	EPD	EMD	EMD	EMD	EMD	EMD	EMD	MTU	MTU	CAT
Model	9L32	32E Diesel	DMRV-12-3	16-710G7C-T3	12V645F7B	R12-645-E7	12V645F7B		12-710G7C-T3	16V595 TE70L	16V595 TE70L	3508B
Max hp/unit	5220	6690	4062	4000	2550	2150	2550	3,000	3,000	4830	4830	1000
RPM	750	750	375	900	900	900	900	900	900	1850	1850	1600
Year Installed	2014	1998	1963	2018/2019	1996	1977	2000	2,019	2,019	2,004	2,004	2004
Propulsion												
Туре	CPP	Wartsilla	CPP	CPP	Fixed Pitch	Fixed Pitch	Fixed Pitch	CPP	CPP	Waterjet	Waterjet	Fixed Pitch
Make	Lipps	Lips	Rolls Royce	Rolls Royce	Bird Johnson	Peterson	Peterson	RR Kamewa 60A/4-B	RR Kamewa 60A/4-B	Kamewa 90S II	Kamewa 90S II	Sound Propeller
Blades/Vanes	4	4	4	4	4	4	4	4	4	6	6	3
Generator Plants												
How many	3	2	3	3	2	2	2	2	2	3	3	11
Make	CAT	Baylor	CAT	CAT	CAT	CAT	CAT	CAT	CAT		Northern Lights	
Model	D3512	PTO	3508	3508	3508	D353E	3412DITA	C18	C18	M6125T	M6125T	3304 DIT
Cylinders	12	N/A	8	8	8	6	12	8	8	6	6	4
KW/Unit	845	2,400	560	560	560	300	435	550	550	185	185	105
RPM	1200	1800	1200	1200	1200	1200	1800	1800	1800	1800	1800	1800
Emergency Generator												
Make	CAT	CAT	Cummins	Cummins	CAT	CAT	CAT	CAT	CAT	Northern Lights	Northern Lights	CAT
Model	C18	3408	NHRS 6G	NHRS 6G	D336	D353E	D3406	C18	C18	M6125T	M6125T	3406C
KW/Unit	?	385	160	160	150	300	315	550	550	185	185	320
RPM	?	1800	1200	1200	1800	1200	1800	1800	1800	1800	1800	1800
Bow Thruster												
Туре				=1	Electric	Electric	Electric	Electric	Electric	Electric (2)	Electric (2)	Electro
	Diesel	Electric	Electric	Electric	Electric	Liectric	Licotric	Licotric	Licetile	Licotilo (2)	Liectric (2)	Hydraulic
Make	Diesel White-Gill	Electric White-Gill	Electric Kamewa	Kamewa	Siemens	Brunvoll	Kamewa	Rolls Royce	Rolls Royce	Quantum Marine	Quantum Marine	Hydraulic Thrustmaster
Make Model			Kamewa							Quantum	Quantum	
	White-Gill	White-Gill	Kamewa	Kamewa	Siemens	Brunvoll	Kamewa	Rolls Royce	Rolls Royce	Quantum Marine	Quantum Marine	Thrustmaster

EPD = Enterprise Delaval FM = Fairbanks Morris

EMD = Electro Motor Division

PTO = Propulsion Shaft Power Take-Off



# **Vessel Static and Dynamic Information Table**

			Mainline F	erries		Day Boat Ferries				Shuttle Ferries		
	Columbia	Kennicott	<u>Malaspina</u>	<u>Matanuska</u>	Tustumena	<u>Aurora</u>	LeConte	<u>Tazlina</u>	Hubbard	Chenega	Fairweather	<u>Lituya</u>
Stern to door CL	268' - 9"	51' - 10"	310' - 1"	310' - 1"	58' - 8"	165' - 10"	165' - 10"	32'-0"	32'-0"			
Bow to door CL	147' - 4"	330' - 1"	98' - 3"	98' - 3"	237' - 2"	71' - 9"	71' - 9"	252'-4"	252'-4"			
Main dk to low point of vessel	*15' - 3"	*25' - 9"	*24' - 0"	24' - 0"	*22' - 5"	5' 5 - 1/2"	5' 5 - 1/2"	20-6"	20-6"			
Main dk to main dk chocks	*0' - 6"	*0' - 11"	*0' - 9"	0' - 9"	N/A	N/A	N/A	N/A	N/A			
Main dk to upper dk chocks	*15' -7"	*20' - 3"	*18' - 3"	18' - 3"	*9' - 4"	17' -11"	17' -11"	19'-0"	19'-0"			
Side door vertical opening	*15' - 0"		*15' 0"	15' 0"	*14' - 0"	15' - 1/2"	15' - 1/2"	16'-0"	16'-0"			
Side door horizontal opening	*20' - 0"	*21' - 4"	*20' - 0"	20' - 0"	*14' - 1"	20' - 1"	20' - 1"	18'-8"	18'-8"			
Ramp width, max out to out			N/A	N/A		16' - 2"	16' - 2"	14'-8"	14'-8"			
Ramp length, hinge to hinge			N/A	N/A		24' - 7"	24' - 7"	36'-3"	36'-3"			
Main dk to low point of bridge wing			*35' - 0"	35' - 0"		24' - 10"	24' - 10"	38'-0"	38'-0"			
CL vessel to extreme outboard of wing			*36' - 9"	36' - 9"		27' - 9"	27' - 9"	33'-6"	33'-6"			
Stern (bow) vertical opening			*14' - 6"	14' - 6"		15' - 2"	15' - 2"	16'-0"	16'-0"			
Stern (bow) horizontal opening			*23' - 6"	23' - 6"		16' - 0"	16' - 0"	24'-0"	24'-0"			
Side door dk to water line, lightly laden	7' - 6"		8' - 9"	7' - 10"		6' - 11"	6' - 11"	8'-6"	8'-6"			
Side door dk to water line, avg loading	7' - 5 1/2"	*9' - 9"	8' - 1"	7' - 7"	*8' - 0"	6' - 0"	6' - 0"	7'-6"	7'-6"			
Side door dk to water line, fully loaded	6' - 7 1/2"		7' - 5"	7' - 0"		5' - 4"	5' - 4"	6'-1"	6'-1"			
Side (bow) door dk to water line, extrm light				8' - 3"		6' 11"	6' 11"	N/A	N/A			
Side (bow) door dk to water line, extrm hvy				6' - 11"		4' 10"	4' 10"	N/A	N/A			
Rear door dk to water line, lightly laden	9' - 5"		9' - 2"	8' - 3"		6' - 9"	6' - 9"	9'-0"	9'-0"			
Rear door dk to water line, avg loading	8' - 9"		8' - 6"	7' - 7"		5' - 6"	5' - 6"	8'-0"	8'-0"			
Rear door dk to water line, fully loaded	8' - 1"		7' - 10"	7' - 0"		4' - 10"	4' - 10"	6'-7"	6'-7"			
Rear door dk to water line, extrm light				8' - 4"		5' - 4"	5' - 4"					
Rear door dk to water line, extrm heavy				6' - 10"								
Roll diff. @ side door, heavy van & tractor	3 1/2"		16"	1' - 6"		2' - 4"	2' - 4"					
Pitch diff. @ rear door, heavy van & tractor	2 1/2"		5.73"	5"		2' - 0"	2' - 0"					

<sup>\*</sup>Not field verified, estimated value only

<sup>\*</sup>Not field verified, estimated value only

# **Hull Surface Areas**



			Mainline	Ferries			Day Boa	t Ferries		SI	nuttle Ferrie	es
	Columbia	Kennicott	Malaspina	Matanuska	Tustumena	<u>Aurora</u>	LeConte	Tazlina	Hubbard	Chenega	Fairweather	Lituya
LOA	418.00	381.00	408.00	408.00	296.00	235.75	235.75	280.00	280.00			
LBP	375.00	338.00	370.00	370.00	276.00	210.00	210.00	250.00	250.00			
Beam, Main Deck	85.00	85.00	73.50	73.63	59.00	57.33	57.33	67.00	67.00			
Beam, WL		80.25			54.50			64.73	64.73			
Depth, Molded	24.00	25.50	23.50	23.50	21.75	19.00	19.00	20.00	20.00			
Full Load Draft	17.57	17.50	16.95	16.97	14.38	13.63	13.67	13.91	13.91			
Full Load Displ	7,774.00	7,500.00	5,553.00	5,570.00	3,067.00	2,122.00	2,150.00	3,001.00	3,001.00			
Surface Areas												
Keel - WL	29,300	34,117	23,320	23,320	14,000	11,060	11,060	15,587	15,587			
WL-Guard	8,289	8,891	6,227	6,227	5,534	3,437	3,437	2,499	2,499			
Guard - Gunnel	32,696	25,000	23,572	23,575	10,579	8,902	8,902	11,870	11,870			
Keel - Guard	37,589	38,148	29,547	29,547	19,534	14,497	14,497	18,086	18,086			
Keel - Gunnel	70,285	63,148	53,118	53,122	30,112	23,399	23,399	29,956	29,956			



# **Elevators**

			Mainline Ferries	5			Day Boa	t Ferries	Shuttle Ferries			
	Columbia	Kennicott	<u>Malaspina</u>	<u>Matanuska</u>	<u>Tustumena</u>	<u>Aurora</u>	<u>LeConte</u>	Tazlina	Hubbard	Chenega	<u>Fairweather</u>	<u>Lituya</u>
Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator	Passenger Elevator
Manufacturer	Otis Sr# 10495	Crane Defense Type 1569-1	Elevator System Group Unidynamics, ID SSK371556 upgraded GE Fanuc 90-30 PLC	Otis LRVF- 0304010	Hydraulic- Montgomery Elevator Co. Type D05053	Hydraulic Cantilevered-Otis Elevator Type 5143045, S# SSJ- 852751	Hydraulic-CEMCO	Bagby 2:1 Roped Hydraulic, No S/N		MacGregor Type MC 3000	MacGregor Type MC3000	Hydraulic-Bagby, #D63605
Elevator	Service Elevator	Service Elevator	Dumbwaiter	Service Elevator		Wheelchair Scissor Lift	Wheelchair Scissor Lift					
Manufacturer	Otis SR#CP18447, 10NIBL	Crane Defense Type 1570-1	Matot, Inc Type 201 S/N 9758	Model 81564 Vintage 10		Porch-Lift Vertical Platform lift, American Stair- Glide	Access Industries Serial # L1294WLT501331 88 Hydraulic Type					
Elevator	Galley Dumbwaiter Elec. MATOT Inc.	Dumbwaiter										
Manufacturer	Model 100, Sr. #10097	Crane Defense 1568-1										
Elevator	Laundry Dumbwaiter Elec. Matot 100,											
Manufacturer	Sr#113594											



# **Refrigerated Van Matrix**

		Ма	inline Fer	ries		Day Boat Ferries				Shuttle Ferries		
	Columbia	Kennicott	Malaspina	Matanuska	Tustumena	<u>Aurora</u>	LeConte	<u>Tazlina</u>	Hubbard	Chenega	Fairweather	<u>Lituya</u>
Number of Van Receptacles	22	12	20	20	5	6	6	4	4	None*	None*	None*
Number of XFMR	1	1	2	2	Fitted as 460 Vac	1	1	480VAC	480VAC	N/A	N/A	N/A
Size of XFMR (KVA)	500	150	(3)x50	(3)x50		100	100	-	-	N/A	N/A	N/A
Number of Distr panels to be replaced	1 of 2	1 of 1	2 of 2	2 of 2	N/A	0 of 1	1 of 1	N/A	N/A	N/A	N/A	N/A
Remove XFMRs YN	Υ	Υ	Υ	Υ	N/A	Υ	N	N/A	N/A	N/A	N/A	N/A
Comments				Has crew	dryer. Find alt	ernate sourc	е					

<sup>\*</sup>None: No Van receptacles installed