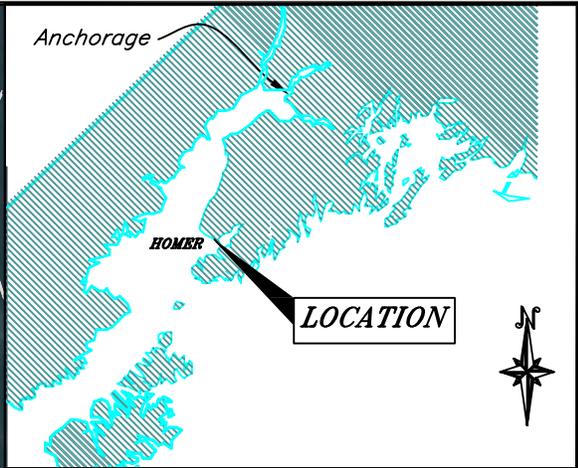


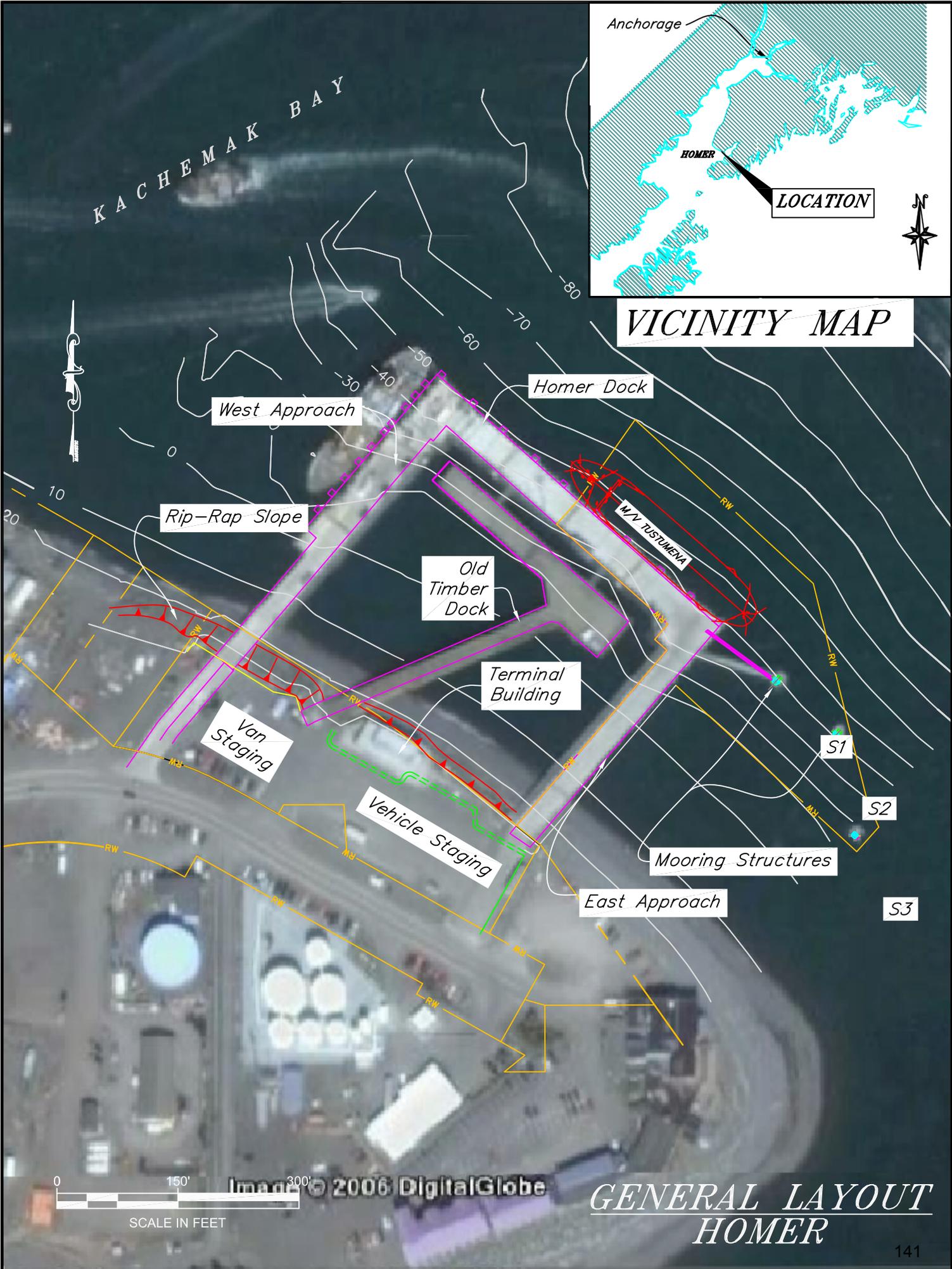
KACHEMAK BAY



LOCATION



VICINITY MAP



West Approach

Homer Dock

Rip-Rap Slope

Old Timber Dock

Terminal Building

Van Staging

Vehicle Staging

MV JUSTINA

Mooring Structures

East Approach

S1

S2

S3



SCALE IN FEET

Image © 2006 DigitalGlobe

GENERAL LAYOUT HOMER

Homer City Dock

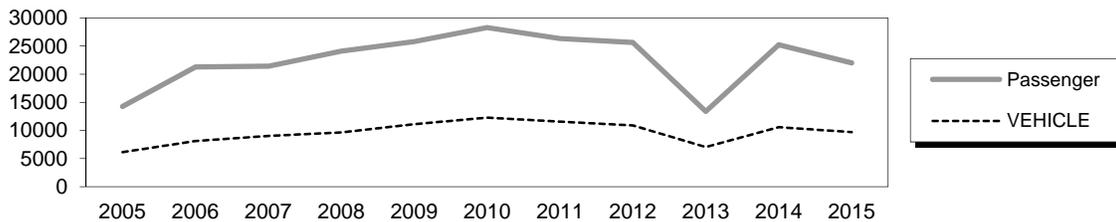
4690 Homer Spit Road

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 presence of nearby Homer Harbor traffic has produced docking conflicts in the past. 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 10 years of total passenger and vehicle traffic at Homer is shown below. The M/V Tustumena was out of service most of 2013, causing a steep dropoff in traffic at the terminal.



The most recent above water survey was completed on August 28, 2014, while the most recent underwater inspection was on September 20, 2013. The most recent Fracture Critical inspection was completed on September 28, 2012.

Vessels	
Name	Berthing, Alignment
FVF	Starboard
Aurora / Kennicot / Tustumena	Stern/Starboard

Tidal Data (MLLW 0.0 feet)	
EHW	24.8
MHHW	18.1
MHW	17.3
ELW	-6.1

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

Generator & Building	
This facility does not have a generator.	

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)	
Dimensions:	30' wide x 300' long
Year Built:	2002
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

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	-

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

LEGEND

V = Vertical Steel Pipe Piling

B = Battered Steel Pipe Piling

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.

Observations

1. This dock is a concrete deck superstructure structure with driven steel pile supports. The structure is designed for freight and ferry operations (HS 25-44) and is adequate for ferry traffic loads. The deck consists of precast concrete panels supported on precast concrete bents. There are 12x12 inch treated timber bullrails and mooring bits mounted on the deck structure. The substructure consists of 30" diameter vertical steel piling and batter piling.

There are hairline cracks mid-span along the outer concrete deck panels that run up the exposed side (facing outward). This is a typical condition. The top surface of deck panels also exhibit transverse spider cracking, either as a result of thermal shrinkage or overloading.

The epoxy coating on the support piling has roughly 75% remaining in the tidal zone. According to the 2012 fracture critical inspection report there are numerous isolated locations on the pipe piles where coating failure has occurred with diameters of up to one inch. There is also minor surface rust forming at the pile top plate boundaries at the embedment locations to the cap soffits. The pile coating is failing most severely near mudline due to high scour and sediment transport along the Homer Spit. There are 236 pound anodes installed on fender piles as part of the new construction; the dock support piles are bonded via thermite welds and heavy wire.

AMHS has no control of the dock or its operations. AMHS is not responsible for dock maintenance. Problems caused by others (such as overload damage or closure due to non-maintenance of critical items) would impact AMHS operations.

2. The fender system is in fair condition. The fender system is comprised of three inch thick UHMW plastic panels attached to 36-inch pile framed structures. Trellex Morse shock absorbers are mounted between the dock & fender panels. There are deep gouges & abrasion in the plastic facing of the first three fender panels from the south end, caused by rubbing/impact of the forward part of the Kennicott's sponson.
3. In 2006, the Terminal Manager asked that we replace the eye weldments on the movable bullrail with cleats, as they are more functional for tying off lines – especially in the precarious position that linehandlers are in on the edge of the dock.
4. There are several cracks in the catwalk handrail to S1. These likely formed as micro cracks while in the galvanizing tank during production, and progressively grew in size with repeated freeze-thaw cycles in the field.

This dolphin has a damaged internal steel flange at the attachment to the rubber energy absorbing fender unit; the only thing connecting the fender panel to the dolphin are two temporary chains.

The City of Homer installed a small bollard for use in tying off mid-ship lines, but the bollard is too small for handling lines from AMHS vessels.

5. Utilities run along the west side of the East approach. Several security cameras were installed around the terminal as part of the Homeland Security upgrades in 2005. Dock lighting is from tall mast lights mounted at each corner. High mast lights mounted on the dock don't come on until it's very dark, i.e. the photo cell sensor isn't adjusted correctly. It also appears that seabirds have built nests on the central top cap of the luminaire mast arms. The dock and approach carry fueling lines.
6. There is no luggage cart or pallet-jack at the terminal. The Tustumena must unload its truck onto the dock to move AMHS freight to storage and vice-versa. All freight is hand-loaded.
7. The terminal building exterior is weathered and has algae growth. The siding above the eaves is heavily warped, which provides an entrance for moisture to enter the roof overhang. Exterior vent openings are freely corroding. An exterior door on the west side of the terminal building has a broken latch mechanism in the door frame. The terminal manager plans on building an internal wall to separate the ticket counter from the office space, which is currently one open space. The electronic notice board mounted on the wall next to the ticket counter is a nice feature for communicating general information to the customer, especially during peak hours.
The paint coating is failing on the above-ground heating fuel storage tank and fittings.
8. The ferry terminal parking lot is reportedly low on ADOT priority list for snow plowing in winter. The City plows the dock regularly. Plows have damaged the corner of the curb near the east side of the terminal building. There are intermittent drainage problems in the parking lot. Half the drainage is directed to one of two field inlets, and the cross-slope is nearly flat. The outlet pipes may be tidally influenced and there may be winter freeze-up problems, which both lead to standing water in the parking lot.

Inspection Summary		
Structure	Priority	Recommendations
<i>Category I - Safety Repairs</i>		
None noted.		
<i>Category II - Rehabilitation Work</i>		
Concrete Deck Panels	1	Monitor the deck panels for transverse cracks on the top deck and the mid-span cracks on the end panels.
Dock Support Piling	2	Monitor the piles for coating loss, corrosion and/or structural section loss. Program a project to wrap the pipes in the tidal zone with plastic sheathing. (see Observation #2)
Fender Structures	3	The existing fender panels where AMHS vessels are berthed are being abraded by the vessel sponsens. The spacing the fenders is too far apart. Stucture S1 also needs to be upgraded to allow turning movements by the MV Kennicott. AMHS has tentatively programmed a design project to look into these matters. Scheduled to start in FY13.
Catwalk	4	Monitor the cracks in the handrail posts. Program a repair project in future.
High-mast lights	5	Program a project to adjust the sensitivity settings of the high mast lights on the dock to turn on before dusk and turn off after dawn.
Parking Lot	6	Monitor the condition of the parking lot pavement and shoulders, and look for other signs of drainange/overflow damage.
Terminal Building	7	Program a project to re-coat the exterior of the terminal building and to replace rotten siding. Also, repair the broken latch in the terminal building exterior door.
Terminal Building Fuel Tank	8	Program a project to re-coat the terminal building's heating fuel tank and/or replace corroding fuel lines. Also explore cathodic protection features to reduce future corrosion.
Dock	9	Install a larger mid-ship bollard on the dock for tying off spring lines to AMHS vessels.
<i>Category III - Upgrades Needed</i>		
None noted.		