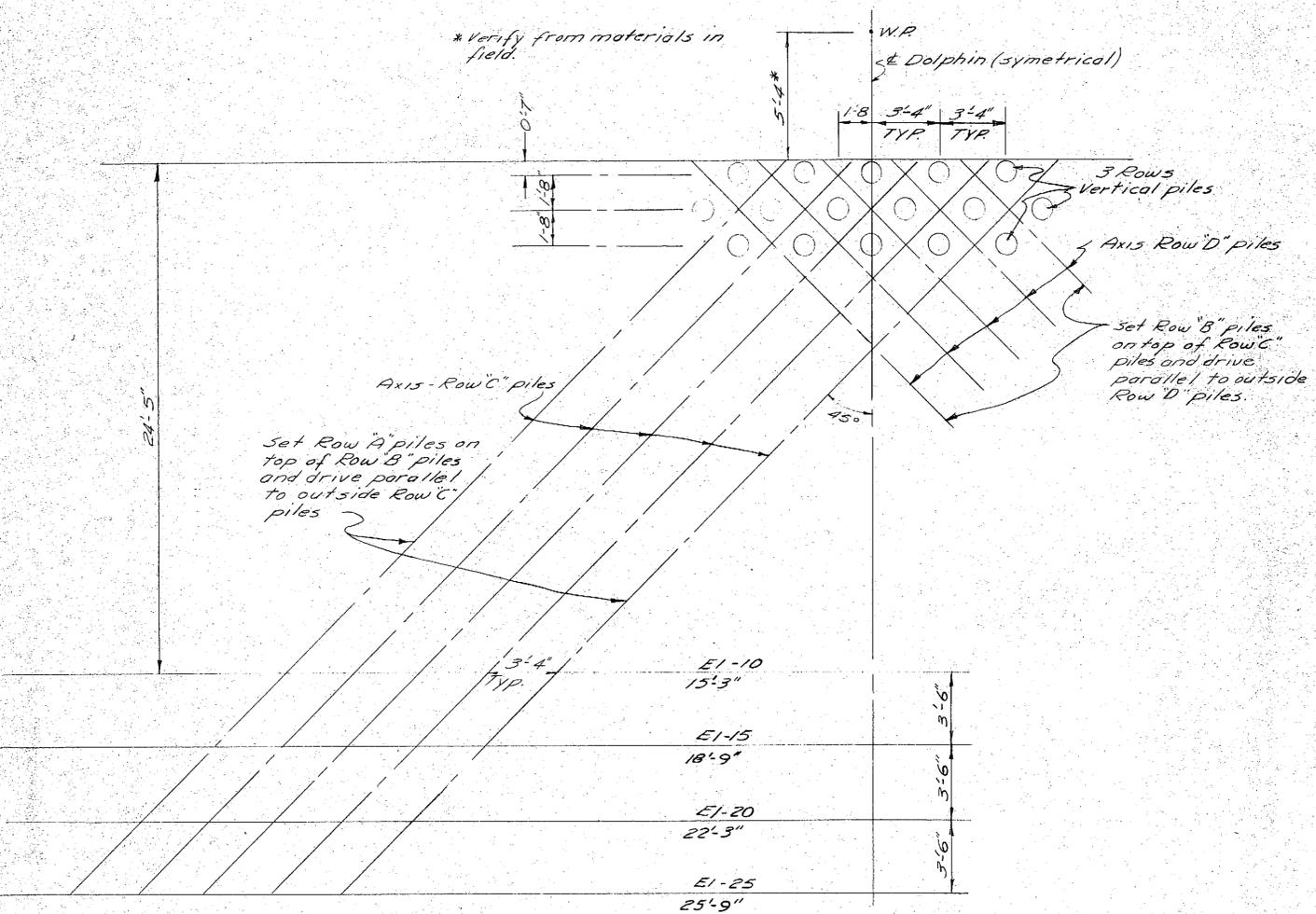
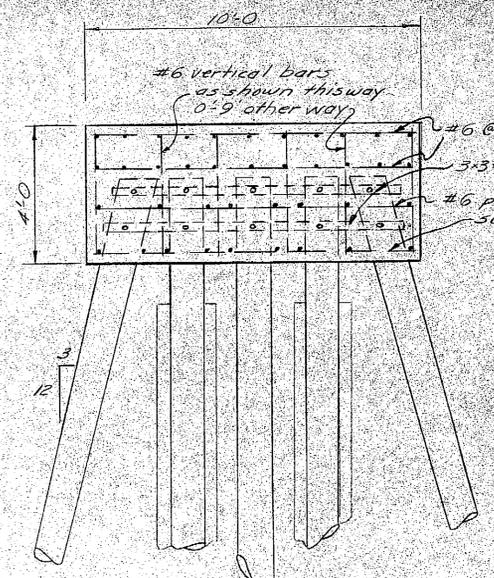


LAYOUT OF DOLPHIN ADDITION
Scale 1"=20'

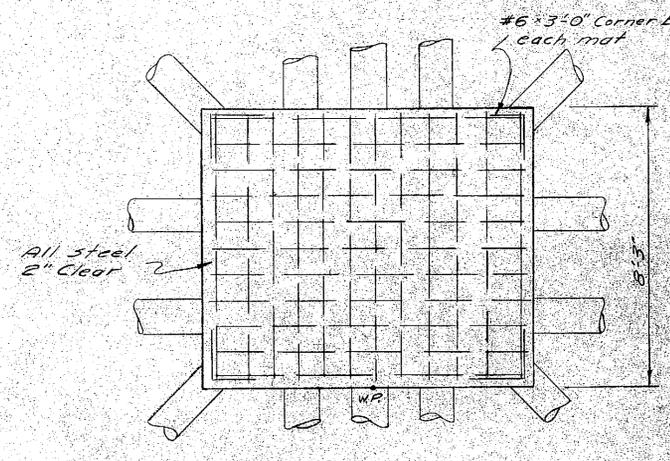
Note: Site contains steel 5 to 6 ft from 1st corner. NORDLING
dated Feb. 1966 verify in field if needed.



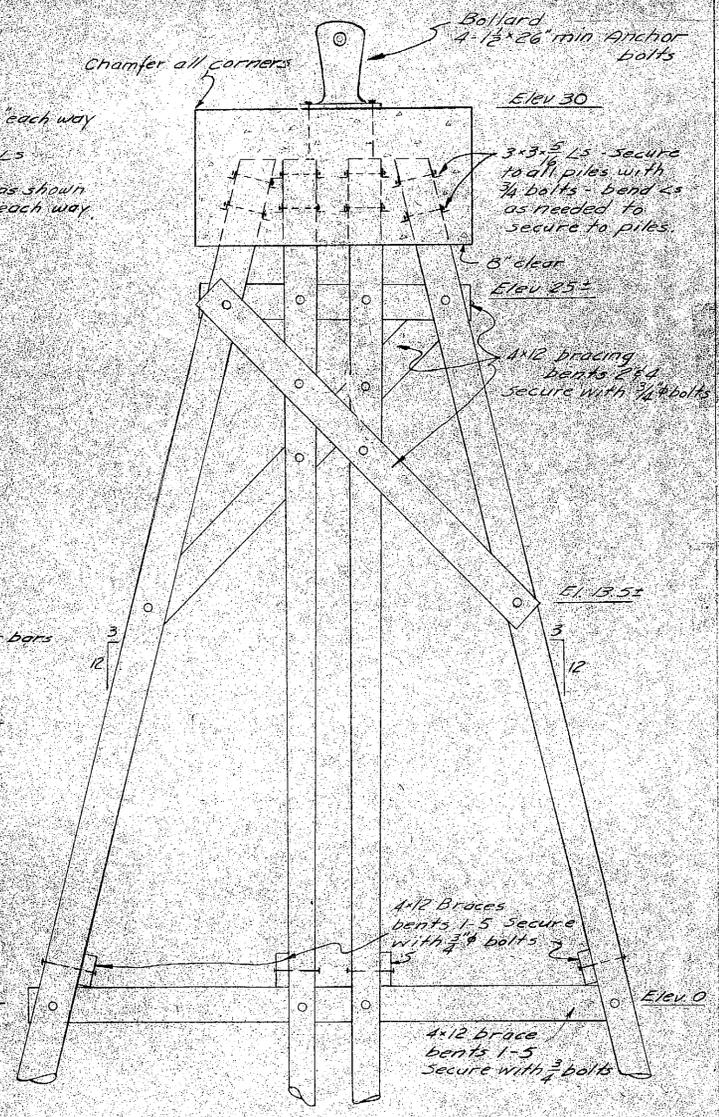
BREASTING DOLPHIN PILE LAYOUTS Scale 1/4"=1'-0"



FRONT VIEW



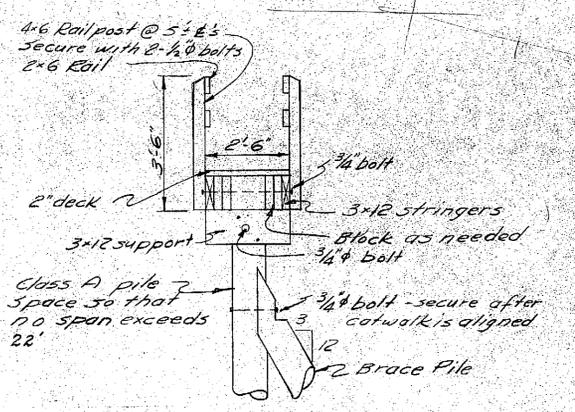
PLAN



ELEVATION

Dolphin Notes

1. Mooring dolphin piles shall be Class A driven to a minimum penetration of 15' and a bearing value of 25 tons minimum. At least 18 tons of bearing must be developed 5' above final tip elevation during driving.

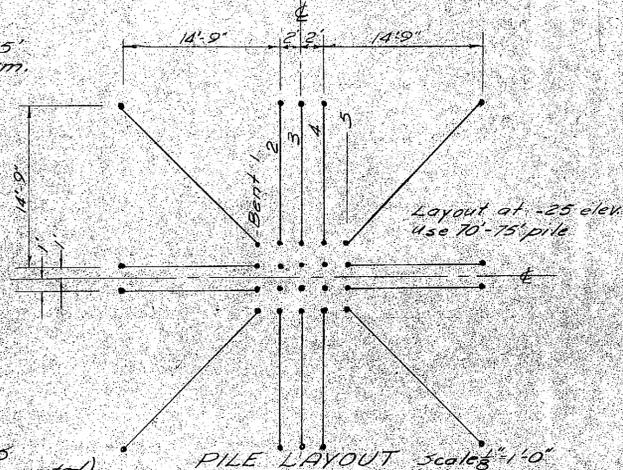


CATWALK DETAILS Scale 3/8"=1'-0"

AS BUILT

MOORING DOLPHIN DETAILS Scale 3/8"=1'-0" (except as noted)

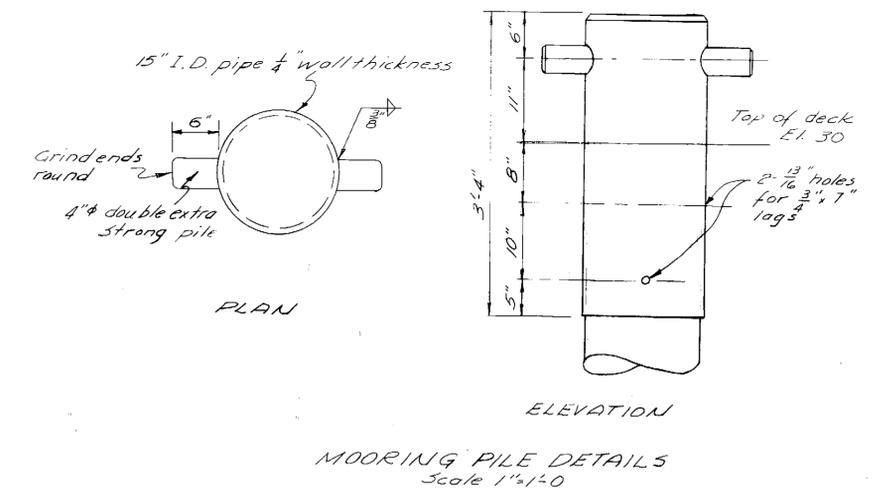
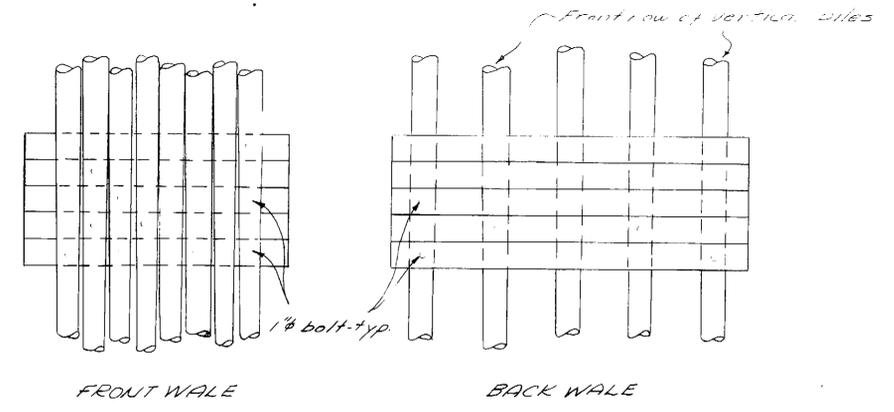
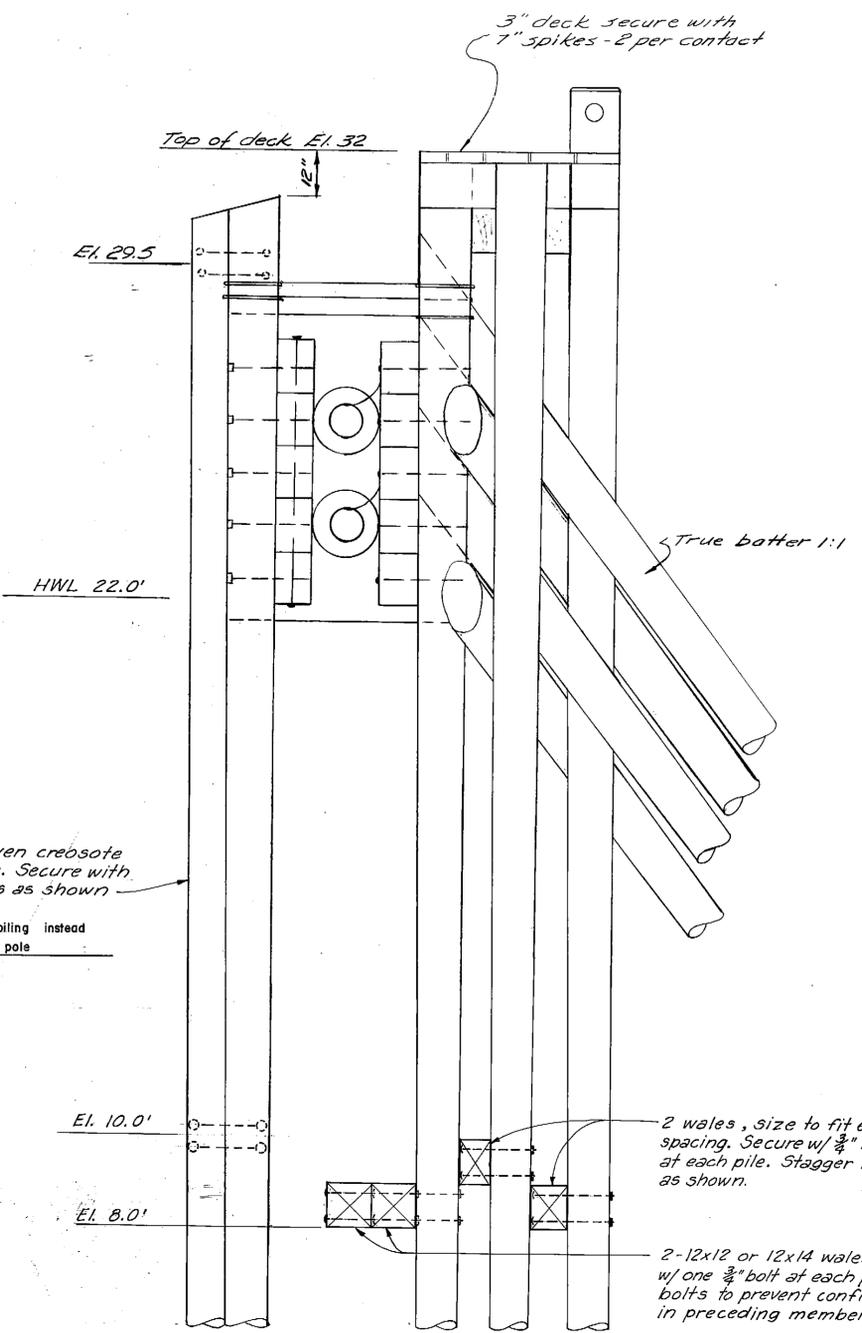
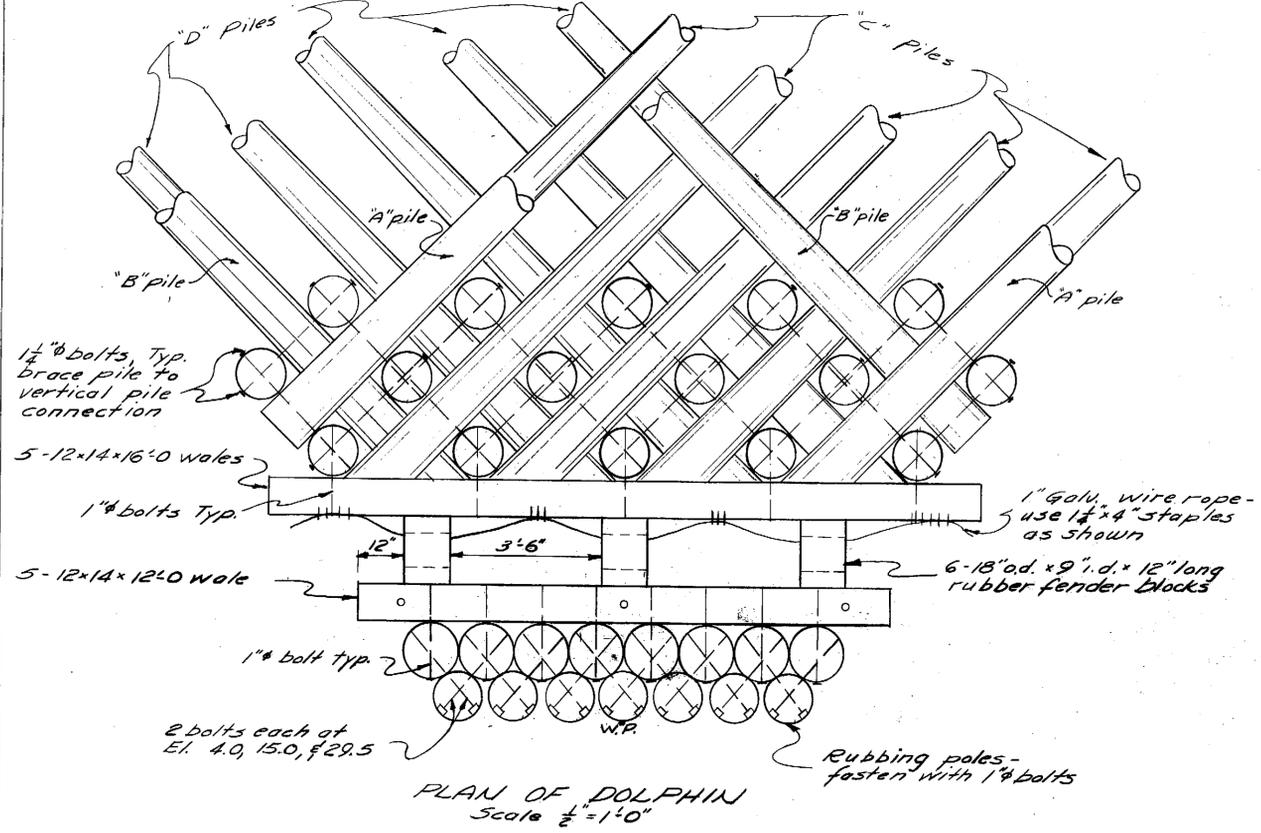
Note: Mooring loads and vessel details not available. Mooring dolphin designed for a 60,000 lbs. transverse mooring load and a 25,000 lbs. longitudinal springing load. Loads applied simultaneously.
By CAMPBELL & Assoc.



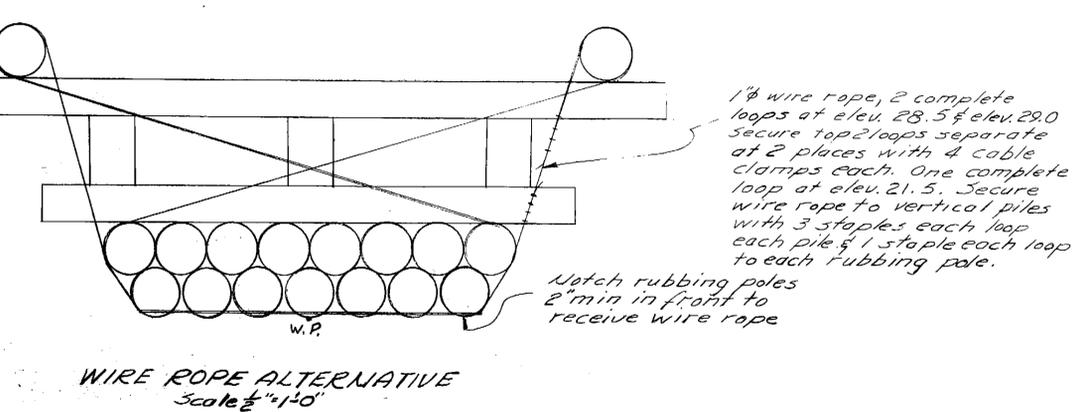
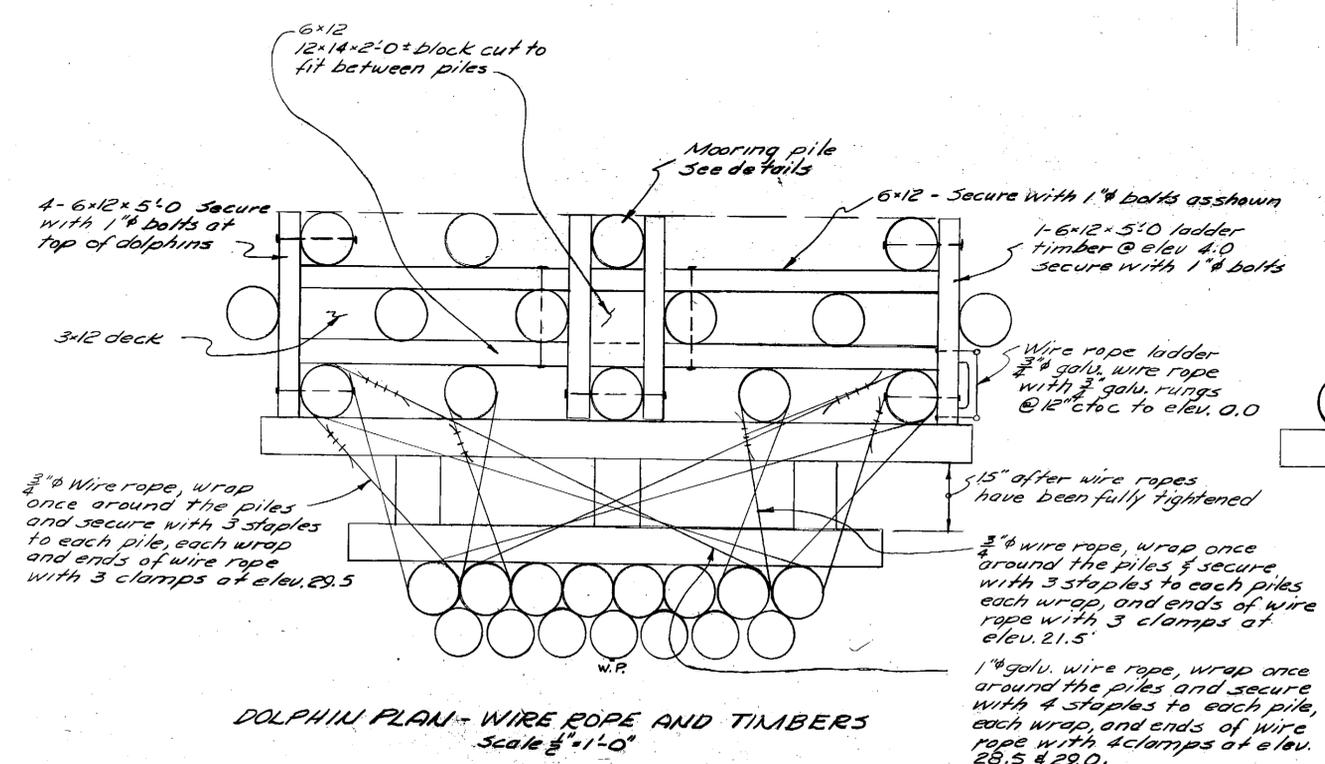
PILE LAYOUT Scale 3/8"=1'-0"

38 PILE DOLPHIN KETCHIKAN FERRY TERMINAL

PROJECT No. MT 101



- NOTES
- Whenever a brace pile passes between two vertical piles, the three piles shall be connected with a 1 1/2" bolt. (2 connections per brace pile).
 - The fender holding cables shall be tightened fully and the rubber fender blocks compressed so the distance between wales will measure no more than 16".
 - Use R washers for all dolphin bolts in the following sizes:
3/4" x 5/8" - for 1 1/2" bolts
1/2" x 3/4" - for 1" bolts



Design by Swan-Waaster Engineering
Vancouver, B.C.
Design for Alaska Barite Co.
Barite Island Development
Elevations revised for use at Ketchikan.

AS BUILT

38 PILE DOLPHIN
KETCHIKAN FERRY TERMINAL
AS MODIFIED 4-4-69

PROJECT No. MT 101

By CAMPBELL & Assoc. Scale - As Shown Nov. 7, 1968

GRANITE ST.

BRYANT ST.

CARLANNA LAKE ROAD

TONGASS AVENUE

LOT 1

LOT 2

LOT 1

LOT 2

LOT 3

HOLDING AREA

TIDELANDS ADDITION TO U.S. SURVEY NO. 1296

TIDELANDS ADDITION TO U.S. SURVEY NO. 1408

- CHANGE ORDER NO. 4**
- Item #1 Construct an additional 38 pile "Duncan Canal" type dolphin.
 - Item #2 Construct 20 pile mooring dolphin.
 - Item #3 Construct approx. 200 L.F. of catwalks.
 - Item #4 Remove existing 35 pile native pile dolphin and dispose in a manner acceptable to the engineer.
 - Item #5 Straighten dock as required and install 24 pieces of 4"x12"x20' dock cross bracing.
 - Item #6 Furnish and drive 32 dock fender and corner piling and install new 12"x12' chocking. Unable to straighten dock, originally built this way 6"x12" chock was used
 - Item #7 Remove existing decking from both dock structures including the 2" creosote walkway decking and install new 3" creosote pressure treated decking and new creosote handrails around stairways and dock ends facing towers. Install 4" creosote decking under passenger ramp crane base.
 - Item #8 Furnish and drive 4 additional 100' Class A creosote treated piling to be incorporated into the 20 pile mooring dolphin as directed by the Engineer.
 - Item #9 Install 1" galv. cable tie back and suitable anchor system for the mooring dolphin as directed by the Engineer.

Bulkhead Line

WORKING LINE - ESTABLISH FROM STRAIGHTENED DOCK FACE

Pierhead Line

Removed & disposed of these 2 existing dolphins

CHANGE ORDER NO. 4 REMOVE EXISTING DOLPHIN (APPROX. 35 PILES) & CONSTRUCT A NEW DUNCAN CANAL TYPE DOLPHIN, & NEW MOORING DOLPHIN, & CONSTRUCT NEW CATWALKS.

CHANGE ORDER NO. 2 DUNCAN CANAL TYPE DOLPHIN (UNDER CONSTRUCTION)

CHANGE ORDER NO. 4 REPLACE ALL EXISTING DECKING (INCLUDING 8" CREOSOTE) WITH NEW 3"x12' CREOSOTE DECKING. INSTALL NEW CREOSOTE HANDRAILS AROUND STAIRWAYS & WALKWAYS. This dock was built not square with the tower-groups of piling were driven on the face to bring it out in alignment with the face of the other dock structure. One set of additional wales were added to both dolphins (Duncan type)

Existing dolphin located here

NOTE: All Bracing & Piling shall be Douglas Fir Creosote Treated to 12" Retention - Piling shall be Class A - Bracing shall be Construction Grade - Other Timber Materials shall be Construction Grade Douglas Fir with a Creosote Treatment to 8" Retention - Empty Cell. Dock Fender Piling & Dolphin Batter Piling shall have 10' of Penetration. Dolphin Vertical Piling shall have 15' of Penetration.

Revised to show C.O. #4 ~ 1-16-69 ~ RB

DOLPHIN LAYOUT KETCHIKAN FERRY TERMINAL

PROJECT NO. MT 101

Scale: 1" = 50'

Nov. 18, 1968

Sheet 1 of 1