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DRAFT

Marine Infrastructure Site Visit Report

Date of Site Visit:	April 14 & 15, 2016	**Project Name:**	Wrangell Site Assessment
Date of Report:	06/09/2016	**Project No.:**	1508.15
Reported by:	Craig Funston	**Client:**	MFA
Location:	Wrangell, AK		
Weather:	Overcast, 60° F		

Present at Site:
Craig Funston; RPS
Stacy Frost; BMI

Distribution:
MFA

North Pier:

1. The northern pier is approximately 300' x 60' and is arranged parallel with the shoreline. A general layout sketch is shown in Figure 1. The pier is of treated timber construction typical for the region.

2. The pier is supported by creosote treated timber piles with butt diameters of approximately 12 to 14 inches. In general, the piles appear to be in fair condition. Probing with a pick was conducted at the waterline on a limited number of piles to check for borers or decay and all tested piles appeared to be sound. No probing was performed at the deck level due to lack of access. Physical damage was observed at a number of piles, and much of the cross-bracing, that is likely due to impacts from floating debris during storms.

3. The northwest corner of the pier appears to have been impacted by vessels and is sagging significantly.

4. The timber deck consists of 3" x 12" planks laid as a wearing surface over 4" x 12" structural planks. The deck is supported by a grid of 4 x 12 stringers and 12 x 12 pile caps. The wearing surface is heavily decayed and in some locations is supporting plant growth. The condition of the structural planks, stringers and pile caps was not able to be physically assessed due to lack of access. Visually these structural elements appeared to be in reasonable shape.

5. This pier appears to be in fair enough condition to allow rehabilitation and re-use. Removal of the entire wearing surface as well as an unknown amount of the structural deck will be required. Additionally, replacement of a portion of the stringers, pile caps, and piles will be required in areas of physical damage or decay. Extensive replacement and enhancement of bracing will be needed.

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Tower Crane at North Pier:

1. An elevated crane is situated at the south end of the pier as shown in Figure 2. The crane is supported on a steel tower structure approximately 24' x 40' and stands approximately 45' tall from the deck to the base of the crane. The top of the mast in its current position is approximately 110' above the pier deck.

2. The functionality of the crane is not known, however, it appears to be obsolete equipment and the supporting steel structure is corroded and has physical damage in areas. If the functions of the crane are needed for future use, the tower will need to be reconditioned and the crane will likely need to be replaced.

Conveyor and Support Towers:

1. An overhead conveyer located at the south end of the pier spans between the shore and the North Pier. The conveyer is supported by steel towers at each end. The shore tower is significantly damaged near the base, with large tears and deflections in the columns. The conveyor system and towers will need to be demolished and removed from the site prior to any re-use of the pier.

Bulkhead:

1. Approximately 650 ft. of steel bulkhead extending south from near the midpoint of the pier was constructed sometime after 1992. This bulkhead appears to be constructed of the bottom portions of railcars stood on edge, spanning between steel wide-flange piles. The piles are tied back to buried anchors with steel thread-bars (Dywidag). This bulkhead is severely corroded and has failed over a significant portion of its length.

2. The bulkhead will need to be completely replaced if a vertical face at the waterline is needed for future functions. It may be possible to drive a sheet pile type bulkhead just offshore from the existing bulkhead to reduce demolition efforts, however, more study of permit restrictions and costs is needed to prepare a plan for bulkhead restoration.

3. Delaying the bulkhead restoration would reduce near-term development costs. Some shoreline work will be needed to secure any hazardous areas.

South Crane Pier:

1. Foundations remain in place from a shore mounted crane used by the previous owners. These foundations are supported by steel piles and appear to be in fair condition. The capacity of the foundations is not known at this time.

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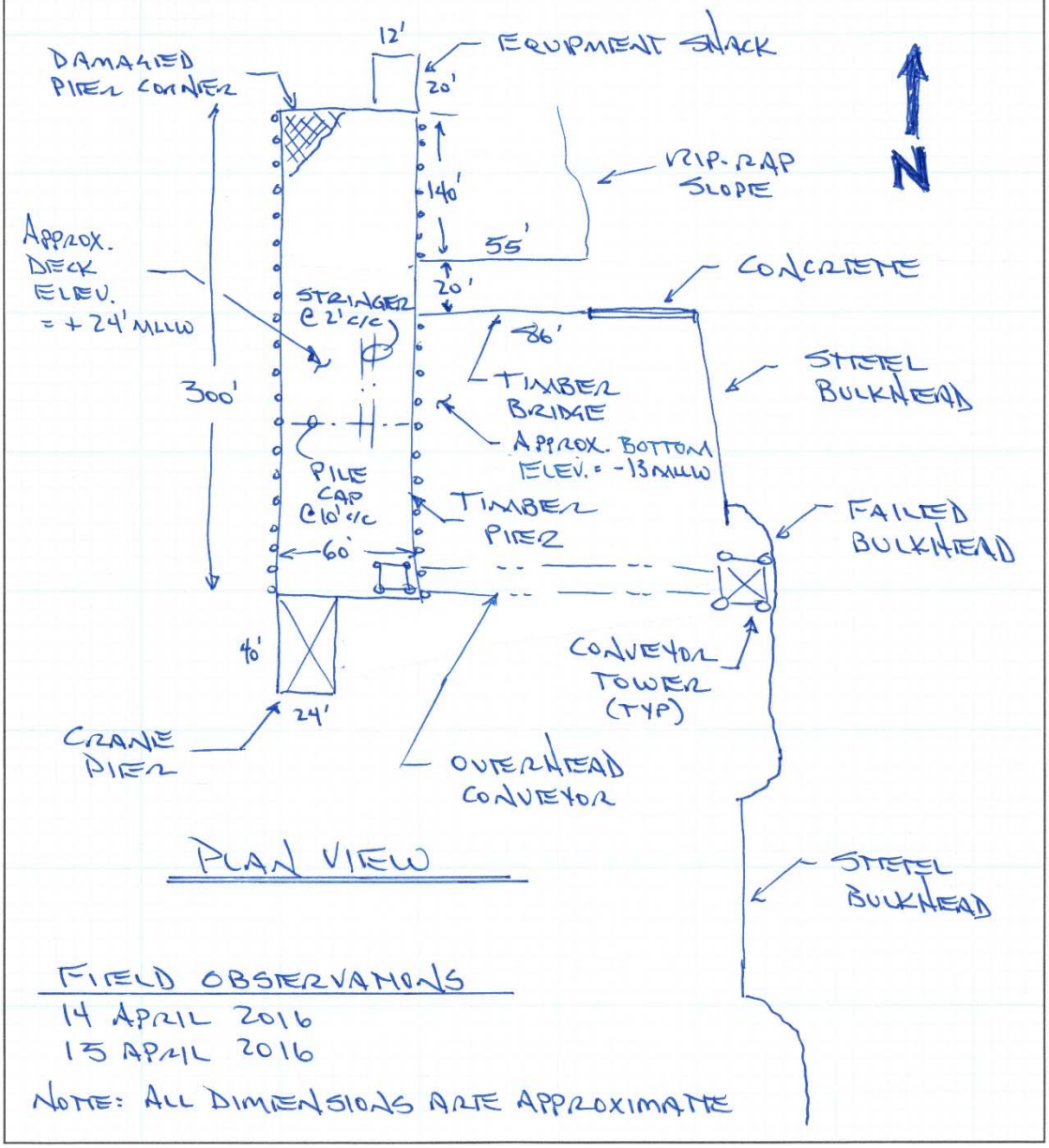
BY C. FUNSTON DATE 6/8/16

SUBJECT _____



FIELD OBSERVATIONS
14 APRIL 2016
13 APRIL 2016

NOTE: ALL DIMENSIONS ARE APPROXIMATE

Figure 1 – Site plan

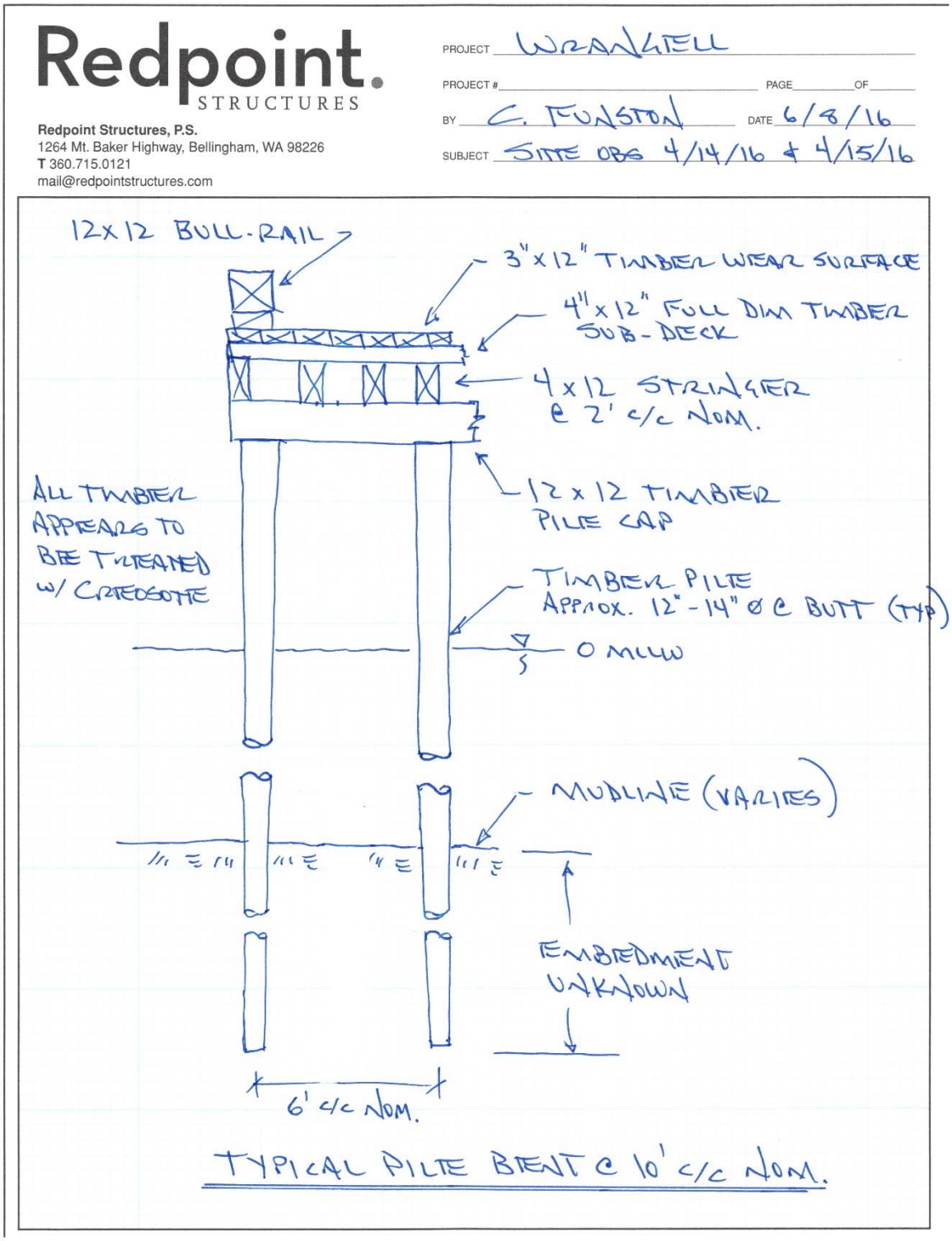


Figure 2 – Elevated crane sketch

Photo 1 – Timber Pier (looking north)

Photo 2 – Timber Pier Deck (looking north)

Photo 3 – Timber Pier Deck (looking south)

Photo 4 – Damage at North End of Timber Pier

Photo 5 –Tower Crane and Conveyor Support

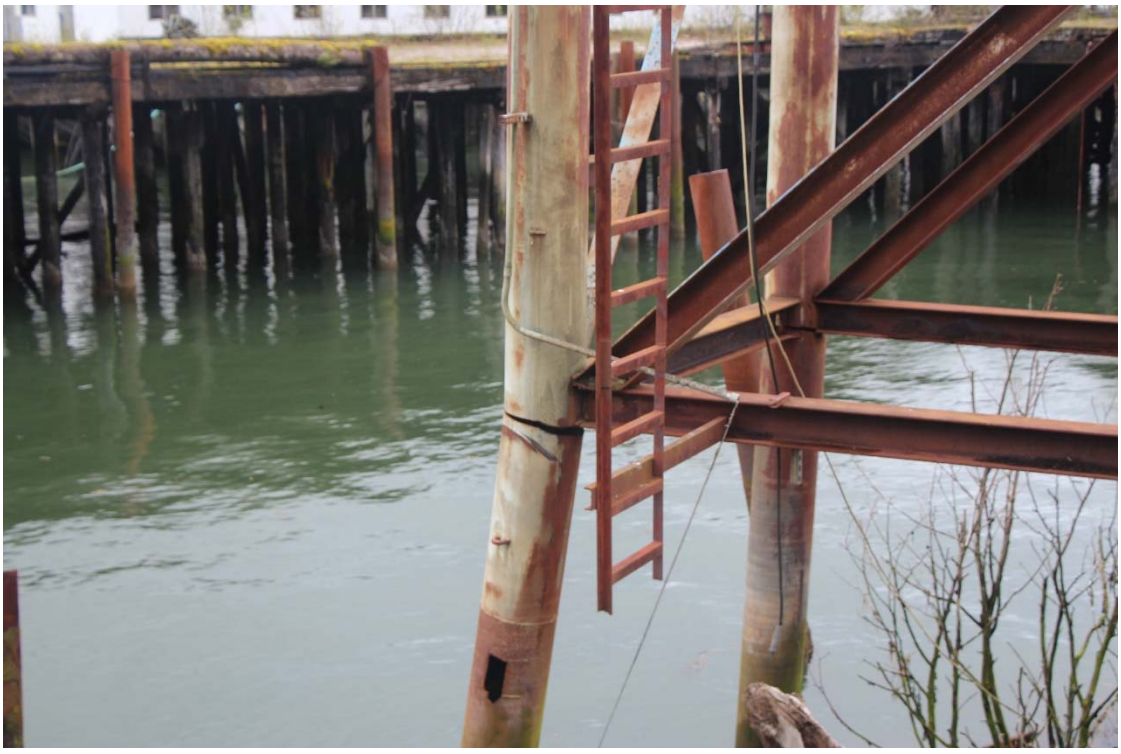


Photo 5 – Failed Column at Shore-side Conveyor Tower


Photo 6 – Railroad Car Bulkhead


Photo 7 – H-Pile at Railroad Car Bulkhead