



VORTEX MARINE CONSTRUCTION, INC.

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Rehabilitation and Construction of Piers 1.5, 3 & 5



OWNER: SF Waterfront Partners, LLC

LOCATION: San Francisco, CA

CONTRACT VALUE: \$12,500,000

VORTEX ROLE: Sub Contractor to SJ Amoroso

PROJECT SCHEDULE: June 2004 to September 2006

Project Description

This project consisted of partial replacement and structural rehabilitation of the existing 90 year old Piers that serve as the foundation for several commercial waterfront buildings. In addition, a concrete portwalk was constructed as a walkway along the waterside face of the buildings looking out over San Francisco Bay. Pier 3 required replacement of the entire deck and rehabilitation of the supporting piling. The remaining 750' long wharf structure and supporting piles was rehabilitated from Pier 1.5 thru Pier 5.

Portwalk Construction

Sixty-six 150' long steel H piling were driven to support the precast perimeter beams of the portwalk. Prestressed concrete slabs were then erected to serve as the deck of the portwalk. Finally, mooring cleats were installed along the portwalk to provide permanent mooring for vessels.

Pier 3 Construction

Following demolition of the wharf deck, new cast-in-place girders and beams were erected on the existing piling. A cast-in-place deck was then installed, with incorporated features such as utility trenches, access vaults, and elevator pit. This pier served as the foundation for a new commercial building.

Pier 1.5 – 5 Wharf Structure Rehabilitation

Initially, all degraded concrete and rebar was removed from the structurally unsound wharf. The entire 30,000 SF underdeck area was then mechanically prepared and reconstructed through the installation of rebar mats and a 6500 psi overhead shotcrete slab installation. New cast-in-place concrete beams and girders were installed throughout the project. To support the structure, 400 concrete piles were repaired and wrapped with 2 layers of carbon fiber, and 12 engineered seismic bracing assemblies were installed through the piers.

