



## Transportation

### Ports & Maritime

#### Client

City of Long Beach Harbor  
Department

#### Location

Port of Long Beach, California

#### Industry Awards Won

American Association of Port  
Authorities: 2004 Facilities  
Engineering Excellence Award

Construction Management  
Association of America—  
Southern California Chapter:  
2005 Project Achievement Award  
in the Public Sector—More than  
\$100 Million category

Consulting Engineers and Land  
Surveyors of California: awarded  
KPFF Consulting Engineers, the  
designer, the Golden State  
Award—the state's top  
Engineering Excellence honor

Southern California Ready Mixed  
Concrete Association: 2002  
Cornerstone Excellence Award

## Pier T Container Terminal Port Development and Expansion

CH2M HILL provided construction management of the Pier T Container Terminal Complex, Port of Long Beach's 7-year, \$600 million best-of-class facility, which is the largest dollar value project in the Port's history. The project converted an abandoned naval station and shipyard into a world-class container terminal complex.

Construction management at Pier T involved coordinating the activities of 21 prime contractors and hundreds of subcontractors engaged in dredging sediments and soil, demolishing five concrete piers, completing a deep draft concrete wharf, constructing terminal backlands, constructing a new public roadway, installing new utility distribution and pipeline systems, and constructing 18 structures totaling approximately 206,780 square feet. The project also involved more than doubling the width of the Navy mole and constructing the nation's largest on-dock rail yard with more than 83,000 feet of rail linked to the newly opened Alameda Corridor.

Pier T's 14 gantry cranes are among the largest and fastest in the world and are capable of lifting 100 tons. The cranes can reach across a yet-to-be-built generation of vessels with a width of 22 containers, each 8 feet wide. The largest vessels today are 17 containers wide.

Demolition activities and preparing the site for construction required addressing the handling and disposal of large amounts of hazardous and contaminated materials—the amount and type of which were unknown prior to the start of demolition. In addition, a protocol had to be put in place for the safe handling and disposal of unexploded Navy ordnance that was encountered during demolition and dredging. The mass dredging was conducted in environmentally sensitive areas, requiring adherence to state and federal policies. Mature ficus and olive trees were relocated because of the nesting habitat of the endangered black-crowned night heron, and a 25-acre shallow water habitat to be used for foraging by the endangered Least tern was created.

From the beginning, a key emphasis was flexibility and responsiveness in meeting the Port's aggressive schedule for accommodating new tenants. CH2M HILL obtained multiple certificates of temporary and final occupancy from various permitting agencies and readied container facilities for occupancy in August 2002, promptly generating lease revenue for the Port. Construction was completed in November 2004.

Throughout the years of construction activities, CH2M HILL kept disruption of tenant operations to a minimum through task phasing and regular meetings to ensure clear communication and coordination. In addition, disruption of maintenance tasks and corrective work on tenant facilities was minimal because of quality construction planning and practices.