Port of Oakland Completes Largest Paver Project in the Western Hemisphere

Ready to roll: The biggest ever port concrete paving paver project is open for business.

In another record-breaking fashion, Berths 57/59 at the Port of Oakland, California, concludes construction on 46 acres (19 ha), the largest ever mechanically installed interlocking concrete pavement project for container yards in the New World. Oakland holds the previous record with 39 acres (16 ha) for the adjacent Berths 55/56.

As reported in a detailed article in the August 2001 issue, the project included massive demolition, reconstruction, and expansion of railroads, wharves, container storage, and streets. As a gift to the public, the project includes a waterfront park on about 1,110 acres (450 ha) next to the San Francisco Bay. Taken together, the work comprises a $600 million investment as foreseen in the Port's "Vision 2000" master plan. Since this magazine has previously reported on the project details, this article instead shows the massive scale and utilitarian beauty from the air.

The 85 acre (35 ha) paving at the Port of Oakland facility serves several post-Panamax container ships along a 6,000 ft (1,830 m) wharf with huge, fast cranes reaching across 22 containers and loading/unloading 34 per minute. The cranes are so tall that they barely cleared passing under the Golden Gate Bridge by a mere 2 ft. (0.6 m) on their delivery by ship to Oakland. Concrete pavers were chosen because they allow complete flexibility for arrangement and movement of shipping containers. Moreover, they provide support or containers and container handling equipment with wheel loads 5 to 8 times that of over-the-highway trucks in spite of expected differential settlement and loads from stacked containers. ICPI members manufactured and mechanically installed 21,150,000 paving units over the course of 2 1/2 years to pave the container storage areas at Berths 55/56 and 57/59. The view from the air offers a grand perspective, so sit back and enjoy the flight.

With a 6000 ft. (1.8 km) long berth, and 4.7 million sf (470,000 m²) of concrete pavers, the Port of Oakland can accommodate the largest container ships.

Over 21 million concrete pavers support loaded and stacked containers three and four high. The weight from stacked containers can total as much as 200,000 lbs. (90,700 kg), or 50,000 lbs. (22,700 kg) concentrated the pavers at each corner, barely a square foot (0.10 m²) in area.

Planting pavers with mechanical installation equipment in a huge field of screeded bedding sand.

Mechanical installation equipment works the laying face installing about 3 million sf (300,000 m²) in Berths 57/59. The concrete pavers were placed in a herringbone pattern for maximum interlock.

The paver installation subcontractor pauses for a photo opportunity.