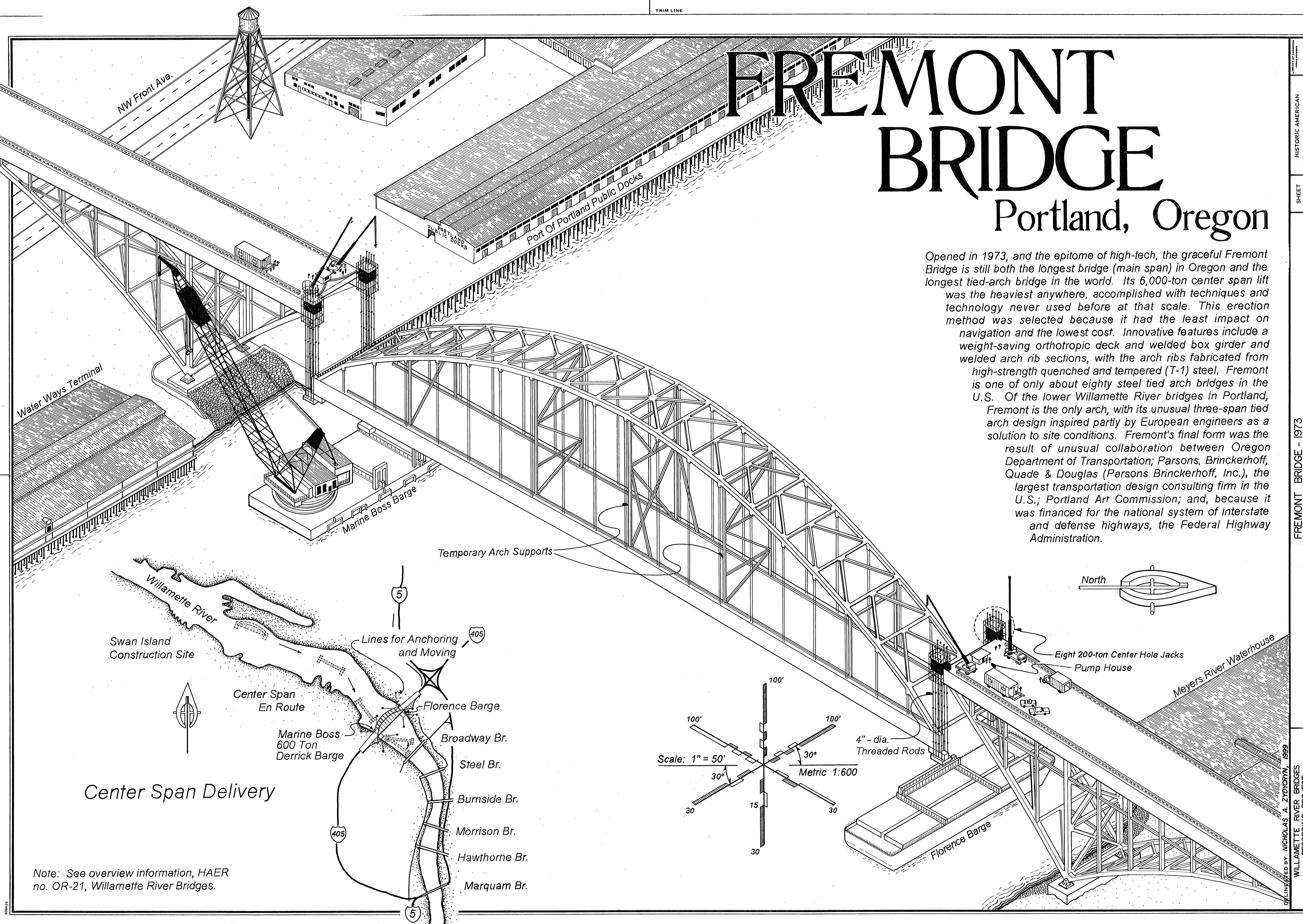


TRIM LINE

FREMONT BRIDGE

Portland, Oregon

Opened in 1973, and the epitome of high-tech, the graceful Fremont Bridge is still both the longest bridge (main span) in Oregon and the longest tied-arch bridge in the world. Its 6,000-ton center span lift was the heaviest anywhere, accomplished with techniques and technology never used before at that scale. This erection method was selected because it had the least impact on navigation and the lowest cost. Innovative features include a weight-saving orthotropic deck and welded box girder and welded arch rib sections, with the arch ribs fabricated from high-strength quenched and tempered (T-1) steel. Fremont is one of only about eighty steel tied arch bridges in the U.S. Of the lower Willamette River bridges in Portland, Fremont is the only arch, with its unusual three-span tied arch design inspired partly by European engineers as a solution to site conditions. Fremont's final form was the result of unusual collaboration between Oregon Department of Transportation; Parsons, Brinckerhoff, Quade & Douglas (Parsons Brinckerhoff, Inc.), the largest transportation design consulting firm in the U.S.; Portland Art Commission; and, because it was financed for the national system of interstate and defense highways, the Federal Highway Administration.



Note: See overview information, HAER no. OR-21, Willamette River Bridges.

HISTORIC AMERICAN
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SHEET
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OREGON
OR - 104

FREMONT BRIDGE - 1973
INTERSTATE 405 AND US 30 SPANNING THE WILLAMETTE RIVER
MULTNOMAH COUNTY

PORTLAND

BY: NICHOLAS A. ZYDORCYN, 1999
WILLAMETTE RIVER BRIDGES
RECORDING PROJECT
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

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