

HOW TO BUILD A FLOATING BRIDGE

Construction of a floating bridge – especially the world’s longest floating bridge – presents some interesting and unique challenges and opportunities. Below are the major steps it took to build this bridge.



STEP 1: Start building the bridge’s pontoons, anchors and precast roadway sections in Aberdeen, Tacoma and Kenmore.



STEP 2: Begin constructing a staging area near Medina with construction barges and cranes. Drive temporary piles in Lake Washington.



STEP 3: Install anchors, such as these 100-ton fluke anchors, for the floating bridge.



STEP 4: Begin towing pontoons constructed in Aberdeen and Tacoma to Lake Washington.



STEP 5: Install cofferdams near the lake’s shore to build bridge piers for the East Approach structure.



STEP 6: Build East Approach bridge piers inside cofferdams and begin pontoon assembly in a nearby staging area.



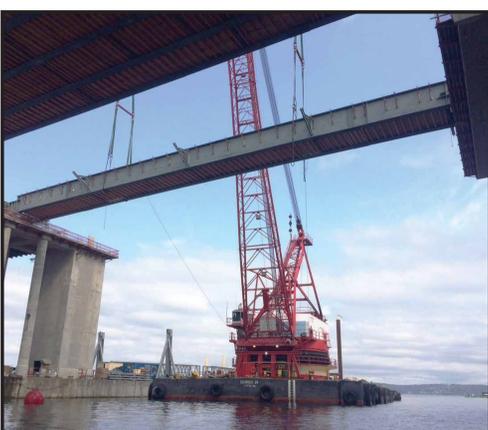
STEP 7: Begin joining football-field-length longitudinal pontoons to the bridge’s “cross” (or end) pontoon near the Medina shoreline



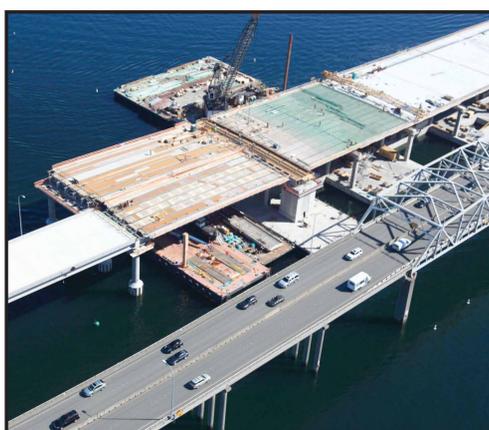
STEP 8: Begin building the floating bridge’s superstructure atop the pontoons. The superstructure has 772 columns, 331 concrete girders, and 776 precast roadway deck sections



STEP 9: Continue assembling pontoons and constructing the East Approach.



STEP 10: Install a series of 190-foot-long girders that make up the transition spans linking the floating bridge to its stationary approach bridges at both ends.



STEP 11: Complete roadway superstructure at the new floating bridge’s west end where it ties into the interim West Connection Bridge and existing SR 520 highway in Seattle.



STEP 12: Complete final testing, inspections and commissioning, and then switch traffic onto the new bridge.