

Solano during November 2025. The ferry's 425-foot length is the giveaway for the superstructure is completely gone and the interior vessel is now its own wildlife area.

# SEARCH FOR SOLANO

AT ONE TIME, THIS VESSEL WAS THE WORLD'S LARGEST RAILWAY FERRY  
BY ROGER CAIN

Originally constructed by Central Pacific Railroad as a reinforced paddle steamer with independently powered sidewheels, the *Solano* was the largest ferry of its kind in the world when launched during 1879. It held this title for 35 years until her sister ship, the *Contra Costa*, was launched in 1914. *Contra Costa* was some 13 feet longer.

The *Solano* was needed to offer rail connections to the myriad of small towns in the Sacramento Delta and other northern California locations since the economics of the area were rapidly expanding while population figures boomed. *Solano* was designed by Arthur Brown who was the California Pacific Railroad's superintendent of bridges and buildings. Therefore, it should come as no surprise that the

vessel was built much like a rail bridge! *Solano's* construction utilized four wooden Pratt trusses set longitudinally under the deck of her four sets of rails.

Moving large trains is no easy business and *Solano* was fitted with two walking beam steam engines that could produce 2000 horsepower apiece. Each engine, with a 5-foot bore and 11-foot stroke, drove a paddle wheel that in turn drove the ship through the water. The two side paddles could be operated independently and this gave the vessel the maneuverability needed to handle the rapid currents of Carquinez Strait, which ran at about 6-knots.

Each end of *Solano* had its own pilot room and this meant there was no need to turn the 425-foot vessel around for each return trip and this was a huge plus. Arthur Brown also created the

ferry slips and approaches for *Solano*. The slip at the town of Benicia reached out diagonally downstream into the Carquinez Strait while the Port Costa slip, being further downstream from Benicia, pointed directly upstream. The distance across was only about one mile, or just 13 lengths of the *Solano*. Brown designed the ferry to have a time in transit of just 9-minutes and this included starting and stopping. Each slip had a 100-foot-long apron — or linkspan — with four sets of rails. These matched the four sets of rails on the ferry and this easily facilitated loading and unloading. They were hinged and balanced by weights and pontoons that accommodated the 9-foot tides.

As noted, *Solano* was operated by the Central Pacific Railroad to ferry entire trains of up to 48 freight cars

on the transcontinental line operated by the company to and from the San Francisco Bay area. Once in service, the transcontinental railroad was re-routed from its original 1869 120-mile course from Sacramento to Oakland via Altamont Pass and Niles Canyon, to the 1879 more level 92-mile course from Sacramento to Benicia and, via the *Solano*, to Oakland.

At 116-feet wide, *Solano* was capable of carrying on her four tracks an entire 24-car passenger train plus locomotive or a 48-car freight train and locomotive. On 24 November 1879, *Solano* began her trials when she left from Meigg's Wharf carrying 75 selected VIP guests. *Solano* sailed around Alcatraz to arrive at Benicia where a large celebration — complete with a military band and 26-gun salute — awaited the dignitaries.

*Solano* set an amazing record for continuous operation (aside from a few dry-dockings for upgrading and a couple accidents) over a period of 51-years from Benicia and Port Costa — and this was done on a 7-day-a-week, 24-hour-a-day schedule. She ran from 1 December 1879 to 15 October 1930 and by 1904 she was making 36 to 46 crossings every 24-hours. During



Map showing the *Solano's* route.