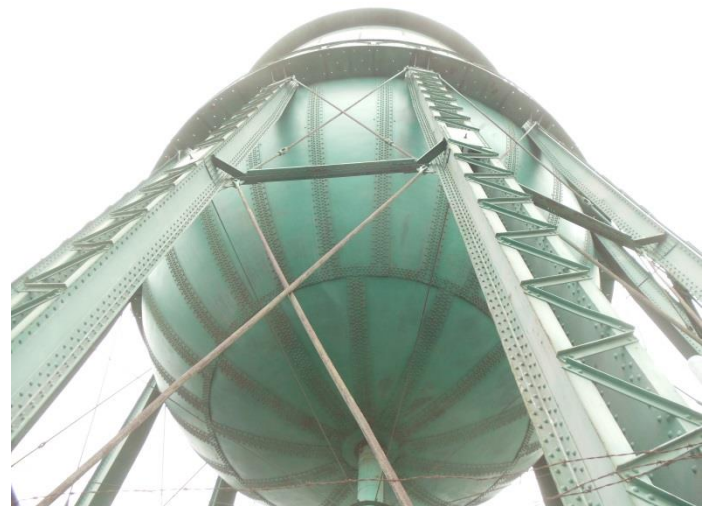




Diagonal steel “X” tension braces, with screw-threaded turnbuckles, and horizontal flanged steel braces hold the tower legs taut.

The structure is the only known example of a full hemispherical bottom elevated riveted steel plate water storage tank supported by 12 Z-laced girder steel legs in Southern California, if not the entire western United States. As seen in the historical photograph of the tower under construction, it was reputed to be the "largest elevated tank in the world" in 1924. The water supply facilities in the designated historic district including the water tower have a long history that began in 1908, when City Engineer A. F. Growell designed and supervised the installation of a partially buried concrete reservoir along the western perimeter of Block 122 along Oregon Street. Stretching from El Cajon Boulevard south to Howard Avenue, the 337.60-foot long, by 150-foot wide, by 10-foot deep "north" reservoir would hold 3.172 million gallons of water from the newly acquired Otay/Chollas water supply line. In order to provide an adequate reserve of water at the University Heights Water Storage and Pumping Station, the City of San Diego purchased all of Block 151 south of the 1908-built concrete reservoir from the College Hill Land Association. The purpose was for the City Engineer to design and supervise the construction of an additional 17.5-million-gallon capacity concrete water storage reservoir south of Howard Avenue. Wooden boards covered both reservoirs.

In order to provide adequate pressure within the system, in 1910 City Engineer Edwin M. Capps designed and installed a 52.2-foot-high by 40-foot-diameter 490,660-gallon capacity upright cylindrical metal water stand pipe near the reservoir. During the early 1920s, the City Water Department discovered that the metal stand pipe next to the north reservoir did not provide enough pressure for the rapidly growing surrounding streetcar suburbs. The City Engineer and fire insurance companies urged city leaders to invest in the area's future by increasing the ability to distribute water under constant



pressure to fight fires in the surrounding communities. For example, if a major conflagration were to occur, the University Heights reservoirs could dry up, forcing the rest of the city to depend on a 24-inch wooden pipe line from the Chollas Reservoir. Both the City Engineer and fire insurance companies recommended the city extend a new 30-inch diameter cast iron pipeline from the Chollas reservoir to the University Heights facility. However, the San Diego Water Department's hydraulic engineer recommended choice was to erect an elevated riveted steel plate water tank instead of an additional and far more costly pipeline. The City's decision to accept the Water Department's recommendation would reflect its continued acceptance of then innovative American hydraulic engineering design principles.

After the passage of a municipal bond act in 1923, the City of San Diego awarded a contract to the Pittsburg-Des Moines Steel Corporation to erect a 1.2-million-gallon capacity elevated metal water tank on the southeast corner of Block 122 in University Heights. The elevated tank was completed the following year. It still stands as the City's most visible urban water storage facility and a testament to the engineering required to supply water for a growing city.

