



THE MIGHTY MAC

For years, the Straits of Mackinac presented a difficult barrier to travel between the upper and lower peninsulas. When railroads introduced car ferries (boats that carried railroad cars) in the 1880s, it became easier to cross the straits. In 1923, the State Highway Department started a ferry service for passenger cars. However, as more people wanted to cross the straits, especially during deer-hunting season, the wait to board a ferry took hours.

People discussed building a bridge across the five-mile wide straits for years. One early plan called for a series of bridges linking the peninsulas via Mackinac and Bois Blanc islands. In the 1950s, Governor G. Mennen Williams established the Mackinac Bridge Authority. They decided to build a bridge across the Straits of Mackinac.

To deal with the area's high winds and grinding ice, engineers proposed a suspension bridge. A suspension bridge is where the roadway hangs, or is suspended, from cables that are held in place by the bridge's two towers.

Construction of the Mackinac Bridge began in March of 1954. Except for the winter months, work continued for more than three years.

When the Mackinac Bridge opened to traffic on November 1, 1957, it became the world's longest suspension bridge. The Golden Gate bridge in California and the Verrazano-Narrows Bridge in New York both have longer suspension spans than the Mackinac Bridge, but the "Mighty Mac" is the longest overall. It measures 8,614 feet between the cable anchorages on either end. The total length of the bridge, including approaches, is about five miles.

The Mackinac Bridge made travel between the upper and lower peninsulas much easier. Today, it is one of Michigan's best-known landmarks.

Building the Bridge

In 1954, five million rivets, one million bolts, steel cables long enough to circle the equator twice, hundreds of steel beams, and more than a thousand workers were brought to Michigan from all over the country. For the next three and one-half years, workers assembled the pieces across the Straits of Mackinac.

Workers had to first build the underwater supports called caissons. These caissons supported the entire weight of the bridge, so they needed a solid footing on the bedrock beneath the muddy lake bottom. The caissons are steel frames sunk to the bottom of the lake and filled with crushed rock and concrete. The mud and water are scooped out as they sink.

The towers were made in sections and brought to Mackinac on railroad flatcars. "The creeper," a platform with a 90-foot lifting boom, aided in building the towers. The machine lifted pieces of the tower up into place and workers welded them together. Narrow "catwalks" stretched from tower to tower. Workers walked out on these to build the main cables. Each cable had to be "spun" on site because nothing could lift its total weight of 11,840 TONS, all at once. A wheeled trolley or "spinning wheel" took four wires on each trip across the straits. When finished, the giant cable had 12,580 wires, and the cable ends are buried in concrete.

Crews dropped long suspension cables from the suspended cables to support the road. They installed steel trusses that ran from the north and south shores. The center trusses were brought out on barges. They attached the cables to the trusses and then added curbs, railings, and asphalt roadway. After a few coats of paint, the Mighty Mac was complete.

FYI, the name of the green color of the bridge is "Foliage Green."