

FORD MOTOR COMPANY TWIN CITIES ASSEMBLY PLANT

The new plant . . . is part of a campaign to show the American people what can be done by the use of water power now being permitted to go to waste . . .

New York Times, June 9, 1923

The first automobile produced here by the Ford Motor Company rolled off the assembly line in 1925. The Twin Cities rail hub was already attractive for automobile manufacture: in 1914 the Ford Motor Company built a ten-story assembly plant in Minneapolis. Following World War I, demand for Ford's affordable Model T automobile and Model TT truck grew, and the company renewed its national expansion beyond company headquarters in Detroit. Firm founder Henry Ford believed that "prosperity can be forced on any community if every able-bodied man is given a good job." He planned to extend his operation to a point where every part of the country would have "good business all the time." By 1932, the company manufactured one-third of the world's automobiles.

Hydropower was key to Ford's expansion strategy, part of a company-controlled system for the entire manufacturing process, from raw materials to shipping finished products. St. Paul's 100-foot river bluffs also offered another resource: the underlying sandstone was initially tunneled as a source of fine silica sand used for window glass. Tunnels also connected to a river landing, heralding what was called "a new era of transportation on the Mississippi."

Detroit architect Albert Kahn (1869-1942) designed the one-story plant. Kahn's firm, Albert Kahn Associates, was a world leader in modern factory design based on fireproof reinforced concrete. The facility offered more than 1 million square feet of floor space.

FORD BUILDS NEW FACTORY IN THE WEST

Detroit, Mich., Oct. 27—All major decisions covering the construction of the Ford Motor company's plant to be erected along the Mississippi river between Minneapolis and St. Paul have been made and details just announced here give the first information regarding the magnitude of the new Ford project.

Hydro-electric plant, steam plant and manufacturing and assembly plant constitute the three important buildings with interest centering chiefly about the hydro-electric development since it represents the company's most extensive undertaking of this kind. The dam where power will be developed is 574 feet long and was completed by the government in 1917. When the Ford engineers started work it was discovered that modifications of the power house and substructure built by the government was necessary in order to take advantage of improvements since made in water wheel design. More than 6,000 cubic feet of concrete work was torn out and the changes are nearly completed. They will permit installation of modern turbines and besides improving flow conditions will effect the highest efficiency.

The powerhouse will be 160 feet long and 74 feet wide 48 feet above the foundation. Four water wheels of 4,500 horsepower will be installed, which, in conjunction of four vertical generators, will under normal conditions produce approximately 18,000 horsepower.

Within a short distance of the hydro-electric plant, and on the river bank, it is also planned to erect a steam power house to supplement the water power in case of emergency. The immense manufacturing and assembly plant will be erected on an opposite site on the bluff 100 feet above the water level. It will front on the Mississippi River boulevard and will be faced with stone on three sides and so designed as to present a most attractive appearance. The building will be one story high, 1,720 feet long and 600 feet wide and will have more than 1,000,000 square feet or 23 acres of floor space. Railroad tracks, will of course, enter the building, but a transportation feature will be two tunnels leading underneath the factory form a river dock to elevators which will carry freight directly into the building. This anticipates a new era of river transportation on the Mississippi. Special attention will be given to landscaping and general improvement of the grounds in the company's 187-acre tract so that it will blend harmoniously with the surrounding parkway development.

Detailed descriptions of the plant were widely circulated across the United States; this account was published in the October 27, 1923 St. Petersburg, Florida Independent.



The Ford Plant in ca. 1925, looking east. Undeveloped areas near the plant prior to Intercity Bridge (1927) contrast with Minneapolis near Hiawatha Avenue, shown in the foreground. *You are here



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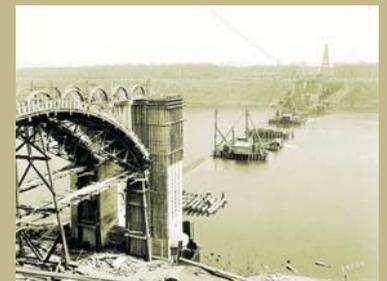
1. First Ford car at Twin Cities Plant, 1925. 2. Ford cars loaded at river terminal, 1925. 3. Ford Plant from Ford Parkway, 1936. 4. Assembly line, 1956. 5. New plant construction completed in 1963.

Ford Motor Company obtained an initial 50-year federal license to use Lock and Dam No. 1, and in 1924 Motor Company completed the hydroelectric plant designed by Albert Kahn and supplied with four Westinghouse turbines. The license required that the plant also supply free energy to the government dam. The plant generated additional energy that was sold to Northern States Power Company for general distribution. In 2007, the facility was sold to Brookfield Power, a Quebec hydroelectric firm.

INTERCITY BRIDGE

The Intercity Bridge spans the high bluffs of the Mississippi from Ford Parkway in St. Paul to E. 46th Street in Minneapolis. One of the largest reinforced concrete bridges ever constructed in Minnesota, the concrete, continuous-rib-arch structure is 1,523.6 feet in length with three 300-foot main spans. It was designed by Martin Sigvart Grytbak (ca. 1883-1953), a Norwegian-trained bridge engineer employed by the City of St. Paul. Minneapolis and St. Paul divided the \$1,324,000 cost. Completed during the early automobile age in the Twin Cities, the Minnesota Historical Society describes it as one of the state's "major extant examples of the 'golden age' of reinforced concrete, arch-bridge design and construction."

The bridge connected the Ford plant with a Minneapolis workforce and fueled the development of the Highland Park area of St. Paul.



Bridge construction, 1925.



Intercity Bridge, 1927. Listed on the National Register of Historic Places.

Photos courtesy Minnesota Historical Society unless noted. Funded in part by Federal Highway Administration.

