

cta preservation specialists

~cultural resource management~

Application for Landmark/Landmark Site

Port Terminal Building A, formerly the Ford Motor Assembly Plant

901 Fuhrmann Boulevard

Application Question 8

The former Ford Motor Company Plant at 910 Fuhrmann Boulevard at the Port of Buffalo is highly endangered. Mostly vacant since it was acquired by the Niagara Frontier Transportation Authority in 1967, the building is now owned by the Erie Canal Harbor Development Corporation.

Application for Landmark/Landmark Site

Port Terminal Building A, formerly the Ford Motor Assembly Plant

901 Fuhrmann Boulevard

Application Question 9

City Landmarks Criteria for Designation

The former Ford Motor Company Plant at 901 Fuhrmann Boulevard at the Port of Buffalo is a lasting testament to Buffalo's contributions to the automobile industry. Constructed 1930-1931, the main assembly building was designed by notable industrial-use architect, Albert Kahn. The steel-reinforced factory exemplifies Kahn's characteristic approach to industrial architecture as a method of enabling large-scale assembly lines for the mass-production of automobiles. The building's location also provides a unique glimpse into the history of Buffalo's early-twentieth-century industrial activity in relation to the Outer Harbor. Situated on the Outer Harbor portion of the City's Industrial Heritage Trail, the Ford Motor Company Plant was specifically designed to take advantage of the site's waterfront access for shipping and receiving products. Oriented in relation to the Outer Harbor as well as the adjacent railroad networks and streets, the Ford Motor Company Plant exemplifies the intricate relationship between the Outer Harbor and industrial production. Providing over one thousand jobs in the area until the plant closed in 1958, the building remains an important contribution to the architectural, industrial and cultural history of Buffalo.

Given this significance, 901 Fuhrmann Boulevard is clearly eligible for local landmarking as provided in Section 337 of the Buffalo City Charter 37-14 Criteria for Designation, under Criteria 1, 3, 4, 5, and 6.

Criteria 1: They have character, interest or value as part of the development, heritage, or cultural characteristics of the City, State, or Nation.

The Ford Motor Company Plant made a significant impact on the industrial development of the Outer Harbor area as well as the city of Buffalo at large. As one of the largest automobile manufacturers in the world, the Ford Motor Company's decision to locate its new plant at 901 Fuhrmann Boulevard represented a significant investment in Buffalo's Outer Harbor in 1930. The choice of site was explicitly informed by its relationship to shipping networks on both the waterways and railroads, which enabled the plant to increase production and processing speeds. Significant work was required in order to prepare the site for utilizing these shipping networks, as a substantial acreage of the property was originally underwater when Ford first purchased the land. As the *Buffalo Courier-Express* reported, in "June 1930, 94 acres of land lying underwater next to Fuhrmann Boulevard was purchased from the state and the Buffalo Creek Railroad. A year later, the swampland had been miraculously transformed into an important cog in operations of the gigantic Ford Motor Company."¹ Although the site was "strategically located for transportation facilities, providing lake, barge canal and railroad terminals,"² a significant amount of the waterfront acreage required infill in order to provide viable access to the plant. The Great Lakes Dredge and Dock Company transformed the area at the western end of the property, infilling the area in order to raise it above the waterline and construct concrete docks. The resulting assembly building "juts toward Lake Erie and has dock space on three sides," with additional materials shipped and received by motor trucks and along adjacent rail lines.³ Newspapers marveled at "the realization that a year ago the site was covered by 20 feet of water,"⁴ and could now "make possible the shipment of parts from Dearborn by means of the Ford lake fleet."⁵ Designed in direct relation to these waterways, the Ford Motor Company Plant made a significant physical and economic impact on the development of the Outer Harbor.

The construction of the plant at this location not only enabled the company to take advantage of multiple shipping routes, but also encouraged optimism for the growth of further industrial development in the Outer Harbor at the time. The opening of the Ford Plant in 1931 was accompanied by, "the belief that the new building will stimulate industrial development of the waterfront sector along the Hamburg turnpike, for which Buffalo has long had ambitions."⁶ Local newspapers marveled at the new potential for increasing industrial facilities in the Outer Harbor, stating "There can be no doubt that the establishment of the huge new Ford plant on the Turnpike [now Fuhrmann

¹ "Assembly Line Miracles are Routine at Ford Plant," *Buffalo Courier-Express* (August 26, 1951), 16-D.

² "Giant Lake Shore Ford Plant Open to Visitors Next Week," *Buffalo Evening News* (Aug 26, 1931), 13.

³ "Assembly Line Miracles...", 16-D.

⁴ "Giant Lake Shore...", 13.

⁵ "Plant Purchase Increases Trico's Floor Space 33%," *Buffalo Evening News* (Feb 3, 1945), 3.

⁶ "Business Stimulant Seen in Ford Plant," *Buffalo Courier Express* (Sep 2, 1931), 7.

Boulevard] encourages the possibility of other industries locating along the harbor at a future date.”⁷ The Ford Motor Company Plant provided a boost of confidence for other industries looking to build within reach of the Outer Harbor, where “Buffalo is awakening to the possibilities of the harbor and the city now appears anxious to develop the district.”⁸ At the time, many claimed “the opening of the plant means the first development of an industry other than lake shipping on the Buffalo harbor. It means the realization of the dream of pioneers in Buffalo that the lake front should be more than a mere shipping center.”⁹ In this way, the construction of the Ford Motor Company Plant in this location was essential to the physical and economic growth of the Outer Harbor, and is therefore integral to the industrial heritage and development of the area.

Criteria 3: They exemplify the historic, aesthetic, architectural, archaeological, educational, economic, or cultural heritage of the City, State, or Nation.

The Ford Motor Company Plant is a lasting testament to Buffalo’s contributions to the automobile industry. From its opening in 1931 till its closing in 1958, it is estimated that nearly 2 million automobiles were assembled at the plant.¹⁰ The building was designed to accommodate the assembly line production method popularized by Kahn and Ford in the 1910’s, where each worker would have a highly specialized task that would contribute to the overall manufacturing of an automobile. With car bodies assembled on the second floor and the chassis on the first floor, the production line was so well-timed that “as a chassis passes the junction point of the lines on the ground floor, the body with the matching number will arrive simultaneously so the two can be joined.”¹¹ Each assembly line worker typically covered “no more than ten feet of territory and each has only a small operation to perform on all models.”¹² Using this production method, the Ford Motor Company Plant manufactured an average of 40-50 automobiles an hour by 1954.¹³ By 1956, a newly finished car or truck would leave the assembly line about every 2.5 minutes, resulting in an average of 200-300 units every 24 hours, sometimes even more on days when production ran in double shifts.¹⁴ Automobiles made at the Ford Company Motor Plant were sold across the city, as well as in more distant locations such as Pittsburgh, Cleveland and New Jersey. In this sense, the building at 901 Fuhrmann Boulevard represents Buffalo’s substantial contributions to the history of automobile manufacturing nationwide.

⁷ “An Important Announcement,” *Erie County Independent* (Hamburg: Dec 11, 1930), 4.

⁸ *Ibid.*

⁹ “Giant Lake Shore...,” 13.

¹⁰ “Ford Plant to Close February 14,” *Buffalo Evening News* (Jan 14, 1958), 34.

¹¹ “Assembly Line Miracles...,” 16-D.

¹² *Ibid.*

¹³ “Ford Plans Boost at Fuhrmann Unit,” *Buffalo Courier-Express* (Dec 22, 1954), 11.

¹⁴ “Assembly Line Miracles...,” 16-D.

The building also attests to the economic impact of the automobile industry on the cultural heritage of the City of Buffalo. By the time it closed in 1958, the Ford Motor Company employed 1260 local workers on an eight million dollar payroll at the plant. By providing over a thousand jobs at the plant in Buffalo, the Ford Motor Company had a substantial influence on both the local economic development and cultural heritage of the city. The building at 901 Fuhrmann Boulevard is thus strongly connected to the history of local employment in this industry through the mid-twentieth century.

Criteria 4: It is identified with a person or persons who significantly contributed to the development of the City, state, or nation.

The building's architect and owner, Albert Kahn and Henry Ford, made significant contributions to the development of the nation, as well as more directly to the City of Buffalo at 901 Fuhrmann Boulevard. Working together since 1905, when Kahn designed his first factory for Ford in Detroit, the architect and industrial entrepreneur have historically been credited with the development of the assembly line production method.¹⁵ Assigning workers to highly specialized tasks that focus on just one aspect of a larger system, the Fordist production method applied scientific principles to manufacturing practices in a manner that rapidly sped up production, increased output, and enabled more products to be sold to more consumers at a lower cost. This method made an immense impact on industrial manufacturing, industrial architecture and consumer practices in America for decades to follow, introducing modern American economic and cultural patterns that are still prevalent today. This practice was well established by the time Ford and Kahn built the plant at 901 Fuhrmann Boulevard, where the assembly building housed the automobile manufacturing operations in this characteristic manner.

Criteria 5: They embody the distinguishing characteristics of an architectural style valuable for the study of a period, type, method, of construction, or use of indigenous materials.

The building at 901 Fuhrmann Boulevard is an excellent example of an architect-designed industrial factory used for automobile manufacturing. The Ford Motor Company Plant is designed in a manner characteristic of architect Albert Kahn, who pioneered great strides in the development of modern industrial factories during the early twentieth century. Character-defining features such as an emphasis on horizontality, plenty of windows and steel framing distinguish the building as typical of Kahn's style. The sprawling two-story building provides over 558,000 square feet of factory space, enabling production lines to organize themselves horizontally across two floors as the assembly line style of production required. The factory emphasizes open, mostly uninterrupted spaces that were designed to enable the flexible placement of

¹⁵ Louis Bergeron, "The Factory Architecture of Albert Kahn." *Architecture Week*. November 15, 2000. Accessed October 6, 2017. http://www.architectureweek.com/2000/1115/culture_2-1.htmlBergeron...

machinery and employee movement throughout the highly organized assembly line. Concrete support columns enable this otherwise open space, in a manner typical of Kahn's factories. While Kahn initially introduced this style of industrial building in the 1910s, this building, constructed in 1930-1931, exemplifies a later example of his style. Support columns are spaced further apart than in his earlier factories, at approximately 40 feet rather than 30 feet, and the building is designed on a broader scale, with two-stories rather than one, that takes advantage of the large site. The building is a particularly good example of one of Kahn's later factories, with modern influences evident in the building's scale, use of materials and minimal ornamentation.

Criteria 6: It is the work of a master builder, engineer, designer, architect or landscape architect whose individual work has influenced the development of the City, state, or nation.

The architect of the building, Albert Kahn, was a revolutionary designer specializing in industrial architecture. Kahn's impact on the history of industrial architecture cannot be underestimated, and his designs for multiple Ford Motor Company factories like the one at 901 Fuhrmann Boulevard played a significant role in his career. Born in Germany in 1869, Kahn moved to Detroit at the age of eleven in 1880. In 1895, he formed his own firm, Albert Kahn Associates, and soon established a professional reputation based on his efficient and economical designs. He began a long and profitable professional relationship with automobile manufacturer Henry Ford in 1905, when he built Packard Plant 10 in Detroit in 1905. His designs for the Pierce Arrow factory complex in Buffalo followed almost immediately after this commission in 1906-1907, where he improved upon many of the construction techniques, structural support systems and innovative floor plans that he had first experimented with in Detroit. Shortly after he completed the first wave of development at the Pierce Arrow plant, he returned to Detroit to build the Highland Park plant in 1908-1909, where he is credited with developing the innovative system of assembly line manufacturing methods alongside Henry Ford. In addition to his numerous industrial commissions, Kahn also designed several notable skyscrapers and residences that demonstrated his diverse skill as an architect. Known primarily for his work with Henry Ford, Kahn designed over two thousand factories between 1900 and 1940.¹⁶ By the time the Ford Motor Company Plant was constructed at 901 Fuhrmann Boulevard in Buffalo in 1930, Kahn's firm was already very well known throughout the nation. By 1938, Kahn's firm employed more than 400 people and was responsible for 20 percent of all architect-designed industrial buildings in the United States.¹⁷ By the time he died in 1942, Albert Kahn had built a multifaceted architectural career that boasted several innovative contributions over a period of four decades of professional experience. His design for the building at 901 Fuhrmann Boulevard is characteristic of his distinctive, influential style of industrial building.

¹⁶ Ibid

¹⁷ Clare Cardinal-Pett, *A History of Architecture and Urbanism in the Americas* (New York: Routledge, 2015), 387-390.

Building Description

901 Fuhrmann Boulevard is located on the west side of Fuhrmann Boulevard on the Outer Harbor Middle Channel on approximately 100 acres. Built in 1930-1931 for the Ford Motor Company, it was designed by Albert Kahn in his characteristic style as a modern version of the daylight factory. The building at 901 Fuhrmann Boulevard was designed to be an automobile assembling plant. The two-story, steel-reinforced factory features concrete slab floors and pilastered brick walls. The exterior elevations are defined by simple cubic forms created by flat brick walls interrupted by horizontal groupings of steel industrial windows. Two-story vertical entryways protrude from the building from several locations and are marked by smooth pilasters separated by a single, vertical band of windows. A simple cornice is executed in brick at the roofline, with the building's primary façade facing west towards the harbor.

Site & Building History

Constructed in 1930-1931, the Ford Motor Company Plant at 901 Fuhrmann Boulevard was designed by Albert Kahn as an automobile assembly plant on Buffalo's Outer Harbor. Industrial tycoon Henry Ford purchased approximately 100 acres of land at the site in June 1930, valuing the property for its access to the shipping canals and harbor as well as the nearby Hamburg Turnpike [now Fuhrmann Boulevard] and rail lines. After filling in several acres of land at the waterfront that were formerly submerged in water, Ford also hired the D.E. Horton Construction Company and Great Lakes Dredge and Dock Company to construct three concrete docks on the property.¹⁸ Even before construction on the assembly building began, Ford set to work reshaping the property in order to take advantage of its relationship to the Outer Harbor. The building itself was also designed in relation to these shipping waterways, with its primary elevation and entrance facing the harbor where the business could send and receive products across Lake Erie to its headquarters in Dearborn, Michigan. In this sense, the physical and architectural characteristics of the Ford Motor Company Plant were oriented in direct relation with the budding industrial development of Buffalo's Outer Harbor.

The building was completed by September 1, 1931, and was celebrated with a five-day-long grand opening event. The public was invited to tour the building and observe the automobile production process at each stage, as well as viewing promotional motion pictures about the Ford Company. Approximately 150,000 people visited the plant on Fuhrmann Boulevard over those five days, attesting to the level of interest many had regarding the new building and its industrial operations.¹⁹ Production began in earnest after the grand opening, although rumors regarding labor disputes may have circulated in some newspapers at the time.²⁰ In the first year of production, the plant provided about 300 jobs to local workers, providing a substantial economic boost to the City of Buffalo during the Great Depression.

¹⁸ "Contracts Let for Foundatoin of Ford Plant," *Buffalo Courier Express* (June 10, 1930), 9.

¹⁹ "Scenes During Open House Week at New Ford Plant," *Buffalo Courier-Express* (Sep 6, 1931), 3.

²⁰ "Looking Backwards: Ford Motor Co., Fuhrmann Assembly Plant," *The Public* (Buffalo: The Public, Aug 4, 2015).

The factory building, like many buildings Kahn designed for Ford, was spatially organized in order to maximize the efficiency and speed of assembly line production. With relatively open floor plans spanning the large interior space, interrupted only by support columns every 40 feet, the building design enabled machines to flow throughout the space, passing each worker's specialized station as needed. The production rate of cars and trucks continued to increase through World War II, as the factory supplied thousands of automobiles to Buffalo as well as locations in Ohio, Pennsylvania and New Jersey. By 1951, the Ford Motor Company Plant on Fuhrmann Boulevard had produced "nearly a million passenger cars and trucks."²¹ Demand continued to increase in the postwar period, with production rates reaching all-time highs at the plant during the 1950s. By 1954, the Ford Motor Company Plant was the workplace for over 1200 employees, who were paid from a payroll of over five million dollars a year.²² A one million dollar expansion was added to the site in 1954, which increased the production capacity of the plant from 40 automobiles an hour to 50 an hour, as well as enabling 250 additional new hires.²³

Despite this immense success, the Ford Motor Company began negotiations for the sale of the plant on Fuhrmann Boulevard in 1957. Citing that the plant was "no longer advantageously located in relation to the rapidly-growing markets and is not large enough to permit expansion," the company decided to sell the property in 1958.²⁴ At that time, 1260 employees were employed at the facility, which boasted an eight million dollar payroll.²⁵ When the company announced that production from the facility, as well as many of the machines, would be moved to an assembly plant in Lorraine, Ohio, some employees followed the work there, while others stayed in Buffalo. In 1958, newspapers called the closing of the Ford Motor Company Plant the "end of an historic era," as it marked the first time in fifty years that a finished automobile had not been assembled in Buffalo.²⁶

After the assembly building was closed, the former Ford Motor Company plant was subsequently used as the Port Authority's Port Terminal in 1960. When the sale was final, the Port Authority acquired not only the buildings, but also more than 71 acres of adjacent waterfront area and slips.²⁷ While the function of the building was significantly different than it had been as an automobile manufacturer, its use as a terminal continued to attest to the advantageous location of the property on the Outer Harbor. The building was purchased by the Niagara Frontier Transportation Authority in 1967, and has remained mostly vacant since that

²¹ "Assembly Line Miracles...", 16-D.

²² Ibid.

²³ "Ford Plans Boost at Fuhrmann Unit," *Buffalo Courier-Express* (Dec 22, 1954), 11.

²⁴ "Ford Plant to Close...", 34.

²⁵ Ibid.

²⁶ Dean Richmond, "Ford Plant's Demise to Mark End of Historic Era in Buffalo," *Buffalo Evening News* (Jan 15, 1958), 59.

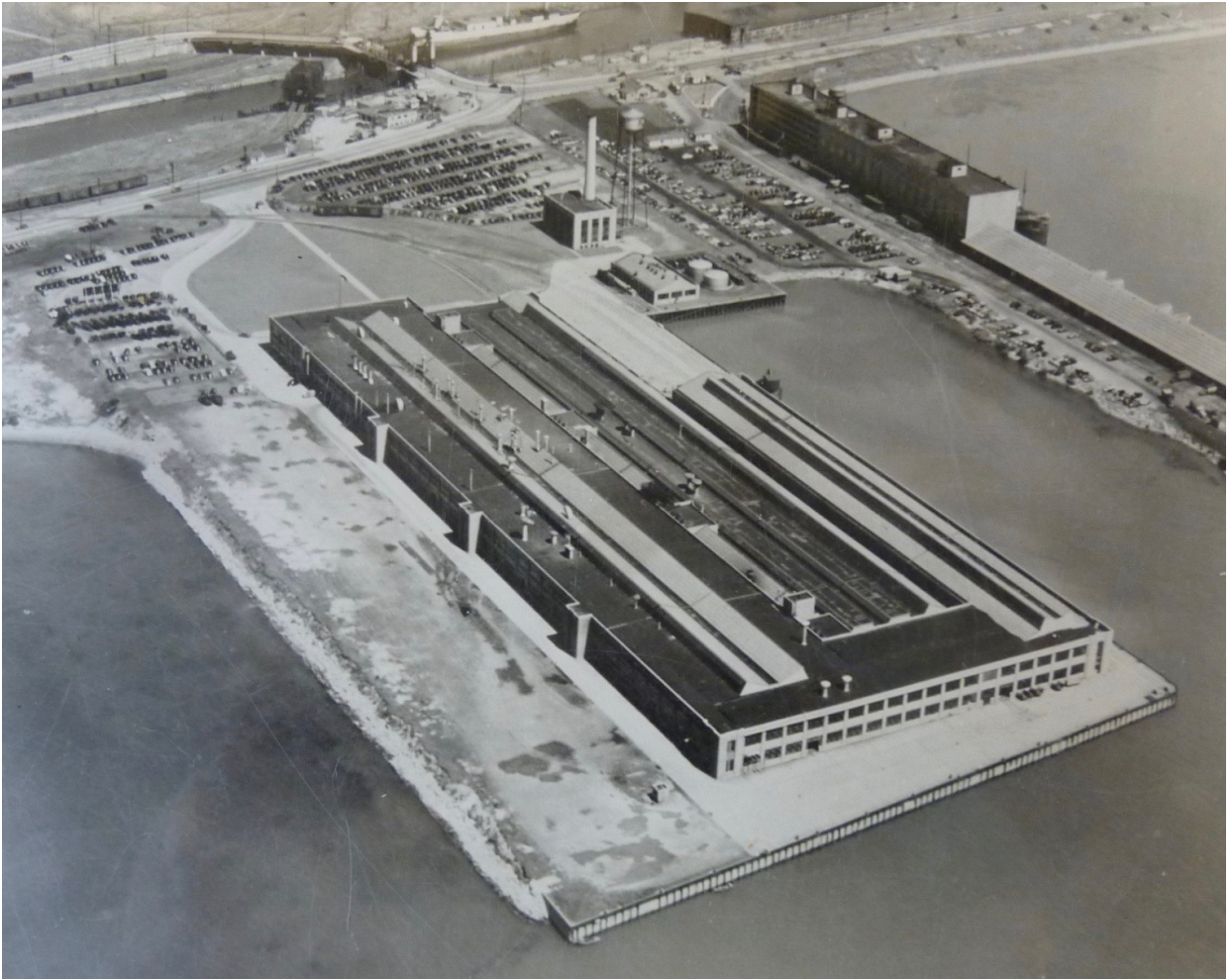
²⁷ Ernie Gross, "Port Authority Ready to Approve \$1,900,000 Offer on Ford Plant," *Buffalo Evening News* (April 27, 1959), 1.

time. The building, now endangered, is currently owned by the Erie Canal Harbor Development Corporation.

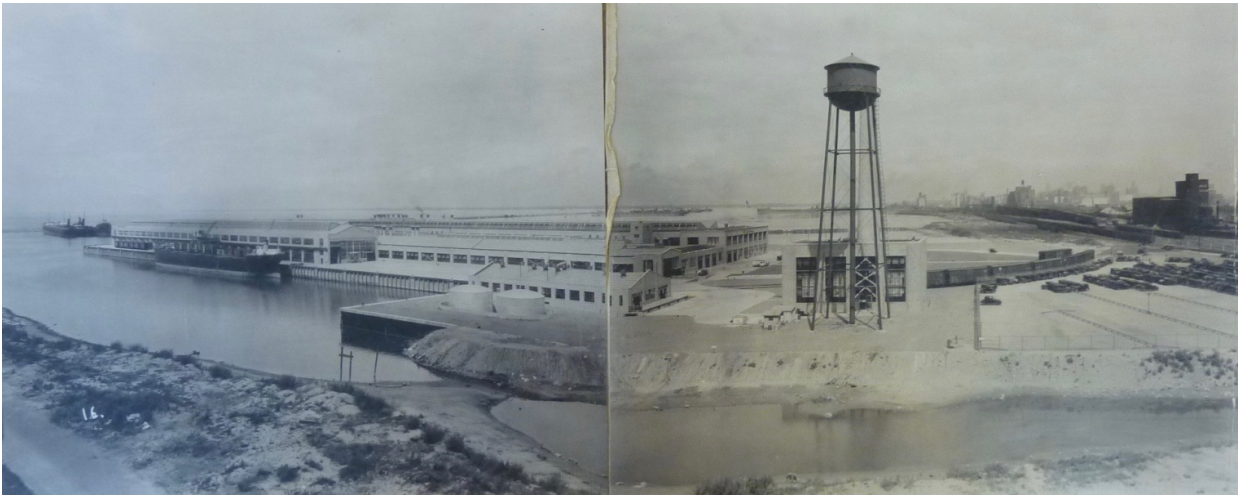
Sanborn Fire Insurance Map, c.1935
Volume 1, Sheet 62



Ford Motor Company Plant, aerial view, 1948
Courtesy of Benson Ford Research Center, Dearborn, Michigan.



Panorama looking north at Ford Motor Company Plant and dock, c. 1948
Courtesy of Benson Ford Research Center, Dearborn, Michigan.



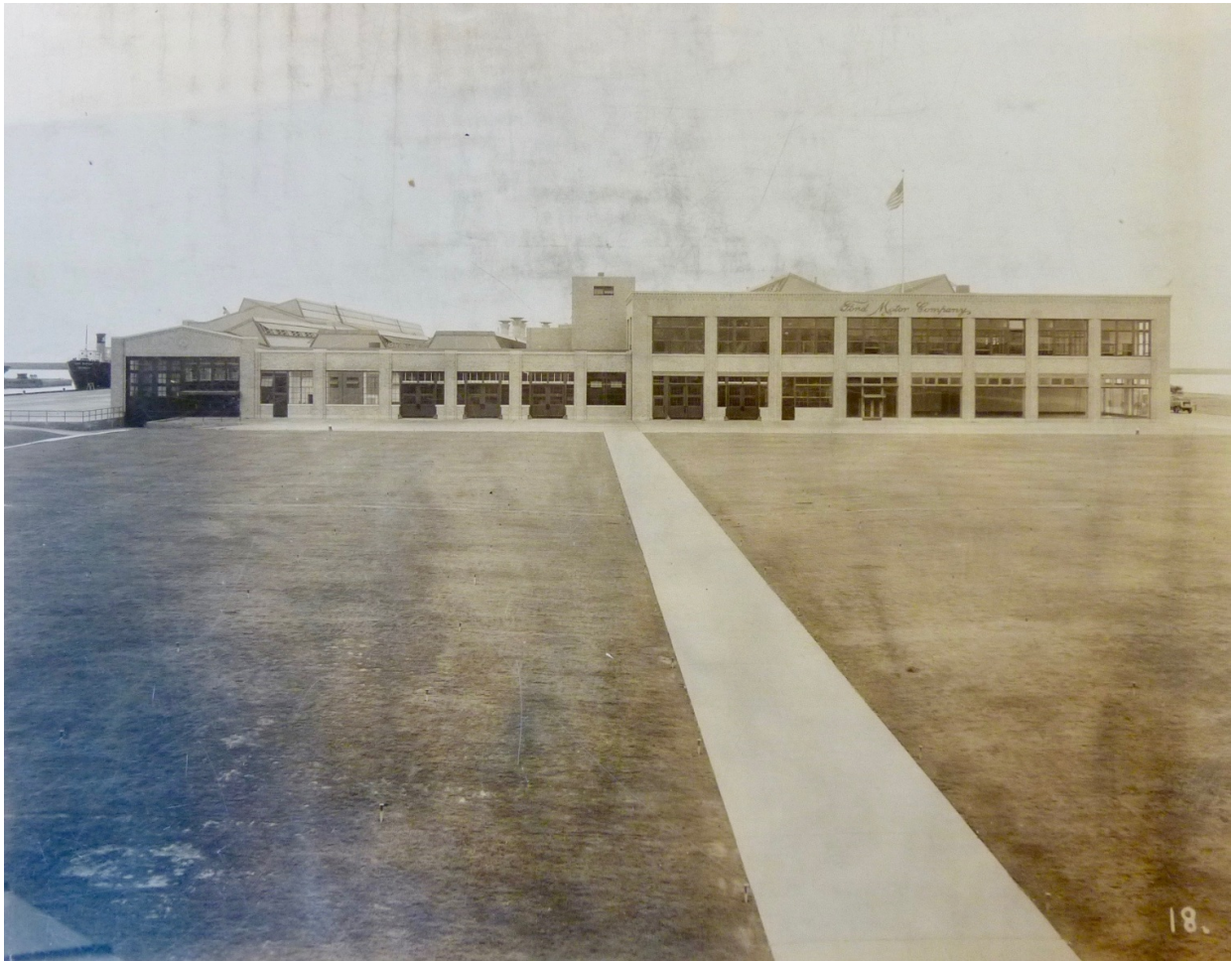
View looking northwest at Ford Motor Company Plant, c. 1948
Courtesy of Benson Ford Research Center, Dearborn, Michigan.



View looking south at the Ford Motor Company Plant, c.1940s
Courtesy of the Buffalo and Erie County Historical Society



View of the Ford Motor Company Plant building, west elevation facing Outer Harbor, c.1945
Courtesy of Benson Ford Research Center, Dearborn, Michigan.



View of assembly line inside Ford Motor Company Building, c. 1945
Courtesy of Benson Ford Research Center, Dearborn, Michigan.



Lining up for work at the Ford Motor Company Plant, August 21, 1945.
Courtesy of Benson Ford Research Center, Dearborn, Michigan.

