Department of Economic and Community Development
State Historic Preservation Office

CONNECTICUT STATE REGISTER OF HISTORIC PLACES REGISTRATION FORM

This form is for use in nominating individual properties and districts to the Connecticut State Register of Historic Places (C.G.S. Chapter 184b, Sec. 10-409(2). See instructions in *How to Complete the Connecticut State Register of Historic Places Registration Form*. Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets. Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Hartford Rubber Works Company Boiler House and Tire Storage Building

other names/site number United States Rubber Company Boiler House and Tire Storage Building

2. Location

street & number 45-55 Bartholomew Avenue

city or town Hartford ☐ vicinity

county Hartford zip code 06106 ☐ not for publication

3. State Agency Certification

I hereby certify that this nomination ☐ meets ☐ does not meet the documentation standards and criteria for registering properties in the Connecticut Register of Historic Places. (See continuation sheet for additional comments.)

State Historic Preservation Officer Date

4. Classification

Ownership of Property
(Check as many boxes as apply)

- ☒ private
- ☐ public-local
- ☐ public-state
- ☐ public-federal

Category of Property
(Check only one box)

- ☒ building(s)
- ☐ district
- ☐ site
- ☐ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in count.)

Contributing	Non-Contributing	
2		buildings
		sites
		structures
		objects
2		Total

Property Owner

name Hands On Hartford, INC.

address 330 Main Street, 3rd Floor

city Hartford state code CT

zip code 06106 phone

5. Historic Preservation Council

Approval date

Comments

6. Function or Use

Historic Functions (Enter categories from instructions)	**Current Functions** (Enter categories from instructions)
Industry	Vacant

7. Description

Architectural/Archaeological Classification
(Enter categories from instructions)
Industrial Vernacular

Materials
(Enter categories from instructions)
foundation Brick, Concrete
walls Brick, Concrete
roof Asphalt
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)
SEE CONTINUATION SHEET

8. Statement of Significance

Applicable Connecticut Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for State Register listing.)

☒ **1** That are associated with events that have made a significant contribution to our history and lives of persons significant in our past; or

☒ **2** That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

☐ **3** That have yielded, or may be likely to yield information important in prehistory or history.

Levels of Significance (local, state)

Local, State

Areas of Significance (Enter categories from instructions)

Industry, Transportation

Significant Dates
1912

Significant Person

Cultural Affiliation (Complete if Criterion 3 is marked)

Architect/Builder
Ford, Buck and Sheldon, Structural Engineers and Architects
Fred T. Ley, Builder

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)
SEE CONTINUATION SHEET

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

10. Geographical Data

Acreage of Property 1.5

Municipal Map, Block and Lot Number and UTM Coordinate (If possible)
(Place additional UTM references on a continuation sheet.)

	Map	Block	Lot
1	159	485	060

	Zone	Easting	Northing
2	18	690910	4625266
3			
4			

☐ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Lucas A. Karmazinas, Principal/Architectural Historian
organization FuturePast Preservation date 8/18/2014
street & number 940 West Boulevard telephone 860-428-7982
city or town Hartford state CT zip code 06105

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Architectural Description: Hartford Rubber Works Company Boiler House and Tire Storage Building

Interrelationship of Buildings and Surroundings

The Hartford Rubber Works Company Boiler House (1912) and Tire Storage Building (ca. 1912) stand at the center of the block formed by Bartholomew and Francis Avenues and Park and Hamilton Streets, in Hartford, Connecticut (Figures 1-4). The buildings are located in the city's Parkville neighborhood, 0.15 mile west of Interstate 84, 1.23 miles southwest of the Connecticut State Capitol and historic Bushnell Park, approximately 1.7 miles southwest of the center of downtown Hartford, and 0.57 mile east of Prospect Avenue, the latter the city's western border with the City of West Hartford, Connecticut. The buildings share a single 1.5-acre parcel, this comprising approximately ten percent of the aforementioned city block. The property is flanked by Bartholomew Avenue to the east, and the New Haven-Hartford-Springfield Rail Corridor to the west.

The Boiler House (1912, 45 Bartholomew Avenue) is set back roughly 160 feet from Bartholomew Avenue, while the former Tire Storage Building (ca. 1912, 55 Bartholomew Avenue) stands approximately 75 feet to the southeast with its façade (east elevation) set back 15 feet from the street. The remainder of the shared parcel is an asphalt parking lot, this framed on its eastern and northern sides by a narrow lawn. A concrete sidewalk runs along Bartholomew Avenue and a small island of grass with two small coniferous trees is located at the center of the lot. The parcel abutting the north side of the property consists of an asphalt parking lot while that further to the north, as well as those to the northeast, east, and south, are developed with historic industrial buildings dating from the early-nineteenth through the mid-twentieth centuries. Many of these are historically associated with the Hartford Rubber Works Company, or its eventual acquirers, the Pope Manufacturing and United States Rubber Companies, yet these properties are not included in this nomination, which is limited to the property legally identified as 45-55 Bartholomew Avenue.

Notable Features of the District

The Hartford Rubber Works Company Boiler House and Tire Storage Building were built as ancillary buildings included within a large industrial complex that once sprawled along the west side of Bartholomew Avenue approximately 800 feet south from its intersection with Park Street. The Boiler House is a three-story reinforced concrete power station of generally utilitarian design yet with a number of notable architectural flourishes (Photographs 1-8). The nearby Tire Storage Building is a two-story red-brick structure characterized by vernacular industrial styling typical of early-twentieth century factory buildings (Photographs 11-15).

The Boiler House has a rectangular footprint measuring 108 feet by 58 feet, with reinforced concrete walls and a poured concrete foundation. The eastern half of the building stands approximately two-and-a-half stories tall, while the rectangular tower at its northeast corner is roughly three stories (Photographs 1, 2, 6, and 8). The western half of the former power station terminates at one-and-a-half stories in height, yet, like the eastern block, its flat roof is topped by a half-story pitched-roof monitor running nearly

the full length of the building (Photograph 6). The monitors have solid concrete block walls and a metal roof. Concrete parapets with metal coping are present on all elevations of the building's various rooflines.

The front and rear (east and west) elevations of the Boiler House are delineated into six bays by engaged piers rising the full height of each elevation (Photographs 1, 2, 6, and 7). These are intersected at the juncture of the first and second stories by a reinforced concrete girder spanning the full width of the building. All but the northernmost of the first story bays on the east elevation have recessed walls of poured concrete with molded, full-height arched openings infilled with a mix of brick, concrete block, and plywood. In some cases the infilled openings frame reduced windows or doors, while others are unbroken. The northernmost first-story bay on the east elevation lacks an arched opening as it once led to an adjoining building. This opening, however, is now infilled with brick.

The upper-story bays on the east elevation have solid, recessed concrete walls, these terminating in a reinforced concrete cornice. A rectangular concrete projection rises from the upper-half of the first story all the way to the roof at the building's southeast corner (Photograph 1). This once served as an ash hopper, allowing for the storage and removal of coal ash. A sign painted directly on the concrete wall extends nearly the full width of the east elevation just below the cornice. This has a dark green background and white lettering that reads, "SPAGHETTI WAREHOUSE," the name of a tenant located in the Tire Storage Building during the early 1990s.

The south side of the Boiler House, is a three-bay elevation similar to the east, yet bears additional architectural detailing (Photographs 3, 4, and 5). Full-height piers delineate the elevation's three bays while a full-width girder divides the first and second stories. The tall first-story bays likewise have recessed concrete walls with infilled arched openings, however, unlike the east elevation, the two western upper-story bays appear to have once housed recessed window openings set in molded concrete surrounds (these since infilled with brick). The upper section of the easternmost bay bears similar detailing. This rises higher than those to the west and terminates in a stepped parapet. Below the parapet there is a recessed bay with molded surround, within which is an additional recessed panel with molded arch opening and a molded spandrel below. A metal beam that likely once supported a chain hoist projects from the top of the easternmost first-story bay, above which is a plaque embossed in the concrete that reads "1912."

The west and north sides of the Boiler House bear six and three bays, respectively (Photographs 6 and 8). These possess many of the design and infill details visible on the aforementioned elevations, but the three-story tower at the northeast corner of the building dominates the easternmost bay of the north elevation. This is similar to the corresponding bay on the south elevation, yet rises to a flat roof and has a small rectangular opening with projecting chain hoist beam above. On the ground level, a deteriorated red brick wall – the last vestiges of a once-adjoining building – stands roughly three feet from the Boiler House.

Having long stood vacant, the Boiler House is structurally sound yet it is in generally poor condition. Many of the exterior walls are deteriorated and the reinforcing steel used to strengthen the structure has been exposed in a number of areas, particularly at the building's corners and along its rooflines. The tall, arched windows that once provided generous amounts of light, as well as additional architectural interest, to the building have since been removed and their openings reduced or infilled. The roof is in a

similar state of disrepair and many of the metal sheets that once sheathed the building's monitors are deteriorated or missing, leaving the interior open to the elements.

Due to this exposure, the interior conditions are worse than the exterior (Photographs 9 and 10). While the heavy reinforced concrete columns, girders, and floor that span the open interior space are generally intact, non-original metal floor joists and corrugated metal subflooring added to create a second-floor storage level are highly deteriorated and failing. Peering up towards the concrete roof slab, one can clearly see through the floors that once comprised the upper-story storage areas to the sky beyond.

The Tire Storage Building has been reasonably well maintained by a variety of tenants until recently; the building is currently vacant. This utilitarian two-story building has a trapezoidal footprint measuring 71 feet wide (east elevation) by 130 feet deep (south elevation). The structure has a red-brick foundation and walls and a front-facing, low-pitch gable roof with exposed rafter tails on its north and south elevations (Photographs 11-12). Lacking a prominent façade, the north elevation perhaps best constitutes the primary elevation as a pair of tall, paneled wood doors set in a segmental-arched brick opening at the eastern end of the main block originally provided the principal access to the building (Photograph 13). Above this is a shed-roof porch with plain frame supports, while a one-story brick block with shed roof spans the remaining two-thirds of the elevation to the west. This brick addition was constructed in stages between ca. 1920 and ca. 1950 and is broken by a mix of single and paired window and door openings capped by brick segmental arches. The windows have double-hung six-over-six wood sash. The only openings on the second floor of the north elevation include four original segmental-arched window openings, these with eight-light hopper-style sash, and two non-original window openings with double-hung sash.

The remaining elevations lack significant ornamentation and are principally only broken by plain window or door openings set under brick segmental-arches and with brick sills laid in a rowlock course below (Photographs 11, 14, and 15). Most of the doors and windows are boarded up; however, several of the upper-story windows retain their original eight-light hopper sash. The east elevation is divided into four bays and has four windows on the first floor and three windows and a door above. A metal fire escape with corrugated metal roof leads to the second-story and an illuminated sign reading "BREWHOUSE" is located just below the roofline. The south elevation lacks clearly delineated bays and has ten window openings on the first floor and five on the second. On the west side of the building, its connection with a formerly abutting one-story structure is clearly visible where the tarred flashing of the latter continues to span the elevation. The wall is broken by a mix of door and window openings on the first floor, a pair of segmental-arched window openings on the upper level, and rises to a peaked parapet with tile coping along its roofline.

The Tire Storage Building is in generally good condition. The interior was remodeled for use as a restaurant in 1993, and then as a brewery in 1996, but many of the original interior details remain visible (Photographs 16-21). These include the exposed red-brick walls; heavy timber columns, girders, and floor joists, and wood strip flooring. Constructed among these are the demising walls, various finishes, and equipment required to create the first-floor restaurant, bar, brewery, and kitchen, as well as a second-floor office space. Despite these alterations, the largely open floor plan and utilitarian character of this storage – and later manufacturing – space are clearly evident on both the first and second floors.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Historical and Architectural Significance: Hartford Rubber Works Company Boiler House and Tire Storage Building

Summary Statement of Significance

The Hartford Rubber Works Company Boiler House and Tire Storage Building are significant because of the important role the company and its later acquirers, the Pope Manufacturing and United States Rubber Companies, played in the economic development of the city of Hartford, Connecticut (Criterion A). Driven by the success of its metalworking and tool-making industries, Hartford emerged as a national leader in manufacturing by the 1880s and in 1881, John W. Gray, a rubber merchant, founded his own rubber mill on Bartholomew Avenue. His company, the Hartford Rubber Works Company, quickly established itself in Hartford's fertile business environment. The factory complex that grew up along the west side of Bartholomew Avenue served as the home of the Hartford Rubber Works Company through its acquisition by the Pope Manufacturing Company in 1892, the Rubber Goods Manufacturing Company in 1899, and the United States Rubber Company in 1905. The Boiler House (1912) and Tire Storage Building (ca. 1912) continued to be associated with manufacturing related activities as late as the 1990s, thus making them significant components of the city's industrial heritage and built environment. In addition, the Tire Storage Building displays the standardized techniques used in the construction of brick mill-style industrial buildings throughout the United States during the nineteenth and twentieth centuries, while the Boiler House represents a fine example of early poured-in-place concrete and steel construction designed by the notable Hartford-based architectural and engineering firm of Ford, Buck and Sheldon (Criteria C).

Historic Context:

The Nascent Empire of Colonel Albert A. Pope

In 1851, at a bend in the Park River just west of the present intersection of Capitol Avenue and Flower Street, the Windsor, Vermont metal-working firm of Robbins and Lawrence erected a factory to produce repeating rifles designed by the inventor Christian Sharps. Although Sharps would remain with the firm for just two years and the Sharps Rifle Manufacturing Company itself would fall apart just six years later, the seeds of what would become Hartford's principal industrial district had been sown. Over the next three decades, some of the most prominent and notable companies in American history occupied, expanded, and erected additional facilities and housing alongside the Sharps Rifle plant. Initially known as Rifle Avenue, by the 1890s Capitol Avenue had been home to or currently housed the Pratt and Whitney Company, the Weed Sewing Machine Company, the Hartford Machine Screw Company, Cushman Chuck Company, and the Pope Manufacturing Company.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Most significant to the eventual establishment and subsequent development of the Hartford Rubber Works Company was the formation of the Pope Manufacturing Company – producers of the Columbia Bicycle, and later the Columbia Motor Car – during the late 1870s and early 1880s. In 1876, Boston businessman Colonel Albert A. Pope attended the Philadelphia Centennial Exposition where he witnessed a velocipede for the first time. A self-made entrepreneur, Pope saw the potential in the awkward device and traveled to England to study the machine rumored to be "twice as fast as a horse." After importing the machines for a period of time, Pope settled on a preferred model, the British-made Bayliss, Thomas, and Company's Duplex Excelsior. He bought the patent rights to build the Duplex Excelsior in the United States, and quickly organized the Pope Manufacturing Company for its production.[1]

Rather than establish his own plant to manufacture the machines, in 1878 Pope elected to contract out initial production to Hartford's Weed Sewing Machine Company. As historian Bruce Epperson argues, Albert Pope's decision to build his bicycles at the Weed Sewing Machine Company was due to the renowned manufacturing skills possessed by the city's machinists, gained in the firearm plants of the Colt and Sharps companies. He writes, "Weed's reputation was based on three skills vital to armory practice: an ability to forge the part as closely as possible to its final form; the expert application of machine tools to allow the removal of unwanted metal in the least time and with a minimum of manpower; and rigid quality control over finished parts to reduce or eliminate the necessity for hand fitting at assembly." Of additional importance were Weed's mass production capabilities and the presence of the city's first mechanical drawing school organized under Colt engineer George A. Fairfield, all factors that ensured consistent productivity and innovation.[2]

In 1890, at a time in which as many as 600 of Weed's employees worked on his machines, Pope purchased the company and capitalized it for $1,000,000.[3] Pope's move was the first of many aimed at stabilizing his business and increasing control over its production methods and finished products. In 1891, he financed the start-up of a factory in Shelby, Ohio to produce steel tubing suitable to his specifications, and in 1892 established his own testing department and metallurgical laboratory in Hartford, headed by MIT engineer Henry Souther. In 1892, he founded his own metal tubing plant at the intersection of Laurel and Park Street, which was moved to the intersection of Bartholomew Avenue and Hamilton Street in 1893.[4]

The Hartford Rubber Works Company

The year 1892 is also notable as it was at this point in time that Pope purchased majority control of his long-time rubber goods supplier, the Hartford Rubber Works Company, after the untimely death of its founder, John W. Gray. Gray was a Hartford rubber goods merchant who established his own rubber mill in 1881 just south of Park Street along Bartholomew Avenue. The original Hartford Rubber Works plant measured just 50 feet by 60 feet and Gray's entire workforce numbered just twenty hands; however, in 1888 the company was incorporated with a capital of $200,000. During the 1890s, the firm expanded to become one of the largest and best equipped manufacturers of rubber goods in the country, positioning itself as the primary supplier of bicycle tires to the Pope Manufacturing Company. The Hartford Rubber Works Company was a critical partner in Pope's efforts to develop and

popularize single-tube pneumatic tires, the likes of which would eventually seen on automobiles. While Pope was an ardent proponent of single-tube tires as early as 1892, at the time of the 1895 Chicago Cycle Show there was only one vendor with a single-tube bicycle tire on display besides the Hartford Rubber Works Company. By 1896, however, nearly every vendor present at the aforementioned show had a single-tube tire on display.[5]

In 1892, a *Hartford Daily Courant* article announcing Pope's acquisition of majority control of the Hartford Rubber Works Company stated that at that time about 170 employees labored at the firm, operating 24 hours a day in order to keep up with the demand for its goods, particularly bicycle tires. As an article in *McClure's Magazine* from 1897 noted, "It was fortunate that the Pope factory and the rubber mill were in the same city, for this allowed the heads of the two establishments to consult together daily, and face new problems and difficulties side by side as they arose." By 1896, maps of Hartford show that the Hartford Rubber Works Company factory consisted of an interconnected complex of brick and frame buildings ranging south from Park Street some 800 feet along the west side of Bartholomew Avenue.[6]

By 1897 the Hartford Rubber Works Company employed hundreds of workers operating an array of equipment including mixers, washers, calenders, and hydraulic presses. These were powered by a pair of 1,000-horsepower steam engines, compared with the single 50-horsepower engine that Gray had started with in 1881. In 1900, a *Hartford Courant* article announced the Hartford Rubber Works Company's acquisition of the India Rubber Company of Akron, Ohio, the New Brunswick Rubber Company of New Brunswick, New Jersey; and the Mechanical Fabric Company of Providence, Rhode Island; the latter, it noted, including a transfer of the company's plant and several hundred employees to Hartford. The following year the acquisition of the Dunlop Tire Company of Belleville, New Jersey, added another 50 employees, thus bringing the total workforce in Hartford to over 1,000.[7]

By the time of these acquisitions several Hartford manufacturers, including the Hartford Rubber Works Company, had become prominent players in a pair of emerging industries, the production of automobiles and automobile components. In 1893 the Hartford Rubber Works Company had designed and manufactured a single-tube pneumatic tire for the first automobile engineered, built, and operated in the United States: the Springfield, Massachusetts-built Duryea car. By 1895 the Pope Manufacturing Company had established a "Motor Carriage Department" in their Laurel Street factory. The latter made Hartford the first city in the country with a company dedicated to production-level output of "horseless carriages," thus leaving both the bicycle maker and its tire-manufacturing subsidiary well-positioned in what would become a nation-wide automobile boom.[8]

The two companies, however, would not continue in tandem on their upward trajectories. Despite the Pope Manufacturing Company's global domination of the bicycle industry through the late 1890s and its early successes in automobile production during the first decade of the twentieth century, the company's collapse in 1914 came fast and hard, regardless of multiple attempts to reorganize and refinance the company and its various branches. The amalgam of increased competition and expiring patents spelled doom for Pope's bicycle holdings by 1903, and despite the company's Laurel Street factory being the largest automobile plant in the country that same year, the geographical limitations of its East Coast location, combined with Pope's decision to focus on electric vehicles rather than market-preferred gasoline-driven models, hindered the manufacturer's ability to compete in an increasingly competitive market.[9]

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

The Hartford Rubber Works Company, on the other hand, was positioned on the edge of its most productive and profitable years. Although in 1899 the business had been absorbed into one of Pope's various holding companies, the Rubber Goods Manufacturing Company, and despite the fact that this in turn had been purchased by another conglomerate, the United States Rubber Company in 1905, the firm's stability and success meant that it was largely allowed to operate without heavy-handed management from outside entities. The quality of the company's proprietary product – including its double-tube "Clincher" tires, released in 1903, and anti-skid "Bailey Tread" tires, released in 1905 – resulted in Hartford Rubber Works Company tires as standard equipment on an array of early automobiles in addition to those built by the Pope Manufacturing Company. Among these were cars produced by Locomobile, Olds, Baker Electric, Pierce, Racine, Packard, Peerless, Pierce-Arrow, White, Stevens-Duryea, Rambler, Cadillac, and Studebaker.[10]

The resultant demand fueled expansion in both the company's workforce and its physical plant through the 1910s. Notable among this growth was the building program carried out during 1912 that resulted in the addition of several new buildings necessary to support the company's record setting productivity and plans to double its workforce to a total of 2,000. This included construction of a technologically advanced, $175,000 boiler house essential towards powering large additions of new machinery, and numerous storage buildings needed to house both finished product and raw materials. The Boiler House and Tire Storage Building were erected at the southern end of the Hartford Rubber Works Company factory complex on the last portions of unoccupied land held by the company. The importance of adding the new capacity is clearly illustrated by the efforts the company went through in process of constructing them. The Tire Storage Building required infilling a small pond occupying the property's southern border, while the Boiler House was sited on a seam of quicksand and clay, necessitating technologically advanced design features.[11]

This growth came at a time when the conglomerate United States Rubber Company – of which the Hartford Rubber Company was one of four participating plants – contributed a total of one-third of the 4,500,000 pneumatic tires produced in the country. Hartford Rubber Works officials predicted a 50-percent increase in demand for 1913, this on top of a 25-percent jump during 1912. In addition, between 1912 and 1913 the Hartford Rubber Works Company planned to increase production of bicycle tires from 550,000 to 750,000, and expand its solid tire output to 3,000,000 pounds. Although the outbreak of World War One a year later resulted in several instances of slowed productivity due to material shortages, the company quickly retooled in order to support demand from the United States military and its allies. By the war's end the company had contributed over 55,000 gas masks, 5,000 pairs of hip-height rubber boots, 5,000 solid rubber tires, and thousands of pneumatic tires for automobiles, machine gun chassis, and various other mechanized vehicles to the war effort.[12]

The success of the Hartford Rubber Works Company continued in the post-war period as increasing numbers of Americans became financially capable of acquiring personal automobiles, driving up the national demand for tires. In 1918 the company initiated another massive building program intended to expand its workforce capacity from a 3,000 employees to a total of 7,000. The expansion included construction of a new six-story, 278,000 square-foot factory and a four-story employee building, both located on the east side of Bartholomew Avenue just south of Park Street.[13]

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Although completion of the company's new manufacturing building allowed the Hartford Rubber Works to begin operating 24 hours a day in three eight-hour shifts, the good times were not to last. Employment peaked at around 4,000 in the early 1920s and began to dwindle throughout the remainder of the decade, as technological advances in machinery allowed for increased production with reduced staffing. Finally, in August 1929 it was announced that the United States Rubber Company would close the Hartford plant and move all of its operations to the conglomerate's Detroit factory. The decision threw a total of 1,400 Hartford employees out of work and removed an annual payroll of $2,500,000 from the local economy. While a handful of highly skilled workers were reported to be making the move with the company, the vast majority of the payroll was comprised of low-skill workers who were easily replaced. By September 1929, it was announced that nearly one-half of those thrown out of work had found new employment or left the city to pursue other job opportunities, however, most of these were highly skilled workers. The plight of the unskilled laborer was much more tenuous, despite local efforts to lesson the impact of the plant's closure.[14]

Following the shutdown of the Hartford Rubber Works Company factory, the United States Rubber Company assumed the role of a landlord, eventually leasing the Hartford plant to a variety of commercial and light industrial firms through the 1930s and 1940s. Among these was the Champlin Box Company, manufacturers of packing cases and other engineered wood products, which occupied the southern portion of the plant on the west side of Bartholomew Avenue – including the Tire Storage Building – into the early 1990s. In 1945, the United States Rubber Company sold the factory complex to a Hartford real estate syndicate that continued to rent the buildings to tenants such as the Champlin Box Company; Aetna Oil Burner Corporation; Federal Electric Products Company; Reliable Stores, Inc.; Silent Glow Oil Burner Company; the Insulation Company; and Heimovitch Brothers, furniture dealers. Today, a number of these buildings continue to house a mix of commercial occupants or have been rehabilitated for residential use. Others remain vacant or have been demolished. Among the latter were portions of the complex that once stood to the north and west of the Tire Storage Building (east and south of the Boiler House). These were removed during the early 2000s, leaving the Boiler House and Tire Storage Building as the only surviving support buildings associated with the Hartford Rubber Works Company on the west side of Bartholomew Avenue.

Architectural Significance

The Hartford Rubber Works Tire Storage Building is significant as a typical example of early-twentieth century brick factory construction, while the Boiler House is notable as an early example of poured-in-place concrete and steel construction. The former displays the standardized techniques used in the construction of industrial buildings throughout the United States during the nineteenth and twentieth centuries, heavy brick load-bearing walls paired with substantial timber framing and floors. The Boiler House displays more cutting-edge technologies and was noted as being the most advanced powerhouse in the country at the time of its construction because of the architects' use of newly-developed poured-in-place concrete construction techniques, as well from its extensive array of

automated machinery inside. The architecture and engineering firm of Ford, Buck and Sheldon was notable throughout the State of Connecticut, and their resume includes a litany of prominent and significant buildings and important municipal posts and projects.[15]

The Boiler House is notable among Hartford's industrial building stock for its early use of reinforced concrete construction techniques. All but one other identified Hartford factory built through the first half of the 1910s were of traditional brick and timber mill design, as concrete construction techniques did not become common until the end of the decade.[16] The use of poured concrete was explored, perhaps most famously, by Frank Lloyd Wright for the Unity Temple in Oak Park Illinois in 1905 and its use in a factory building followed shortly thereafter. The Detroit architect Albert Kahn, is generally credited with the first application of poured concrete in a factory design, his 1907 plan for the Packard Motor Car Factory. Ford, Buck and Sheldon's design for the Hartford Rubber Works Boiler House followed just five years after this groundbreaking work.[17]

Poured concrete and steel-frame buildings have a number of conspicuous benefits over traditional brick masonry and timber construction. Concrete reduced the risk of fire by largely eliminating combustible wooden beams and structural members, and when combined with steel framing, allowed the architect to create a facade that was dominated by its windows, rather than load-bearing brick walls. As a result, windows spanning from several feet above floor to near ceiling height could run the length of a building's elevation with fewer interruptions from structural elements and providing more light and ventilation. In addition, concrete and steel construction allowed larger spans of uninterrupted floor space than was possible in traditional mill construction. This maximized available square footage and made for more cost-efficient designs.

At the time of its construction, the Hartford Rubber Works Company Boiler House was advertised as being virtually fireproof due to its use of reinforced concrete walls and steel framework, window frames, sash, and doors. The building is dominated by its series of engaged reinforced concrete piers, these framing large bays for the tall, broad window openings. The girders delineating the first and second floors are likewise of reinforced concrete construction, as are the building's foundation, walls, and parapets. Evidence of the wooden plank forms used to frame the walls and support structure are visible on many of the building's surfaces where the edges of the rough-sawn boards left imprints in the cured concrete. These impressions create a variety of linear patterns, giving the building an unmistakable character and expression of structural honesty.[18]

Due to site constraints, Ford, Buck and Sheldon had to contend with a vein of quicksand and soft blue clay that threatened to destabilize any structure built above it. They designed a two-and-a-half-foot thick mat or "raft" of concrete in order to ensure a stable foundation. The mat was reported to weigh 121,171 tons, extensively reinforced with steel bars. In order to prevent linear cracks in the mat, a web of twisted rectangular steel bars were laid at irregular angles throughout the foundation, thus allegedly rendering it impossible for a straight seam or crack to form and compromise the integrity of the mat. The design also eliminated the need for the extensive use of spiles, which were much more complicated to install.[19]

Upon its completion, the Boiler House was equipped with the most advanced power station technologies available at the time. This included six New Haven-built Bigelow-Hornsby water tube boilers, each fueled by a Murphy Iron Works Company automatic stoker, and producing up to 500 boiler horsepower. The boilers were located on the building's first floor and were supplied

with coal via a system of conveyor belts and track-mounted coal cars filled from an overhead coal bin, the latter with a capacity of 1,500 tons. A contemporary description of the system illustrates the degree of automation and efficiency employed:

> The coal will be brought in in cars onto the company's siding, direct from the mines and automatically dumped through the hopper in the track onto a crushing machine. Here after being crushed it will be picked up by an automatic conveyor and taken up to the coal bin. In the bin it will be distributed in the various sections by a belt conveyor, which is to run the entire length of the building.
>
> As coal is needed for the bunkers of the stokers, the operator, seated in a swinging car, running on an overhead track beneath the coal bin, by means of a lever, will fill the car, an automatic scale registering the weight as the car fill. The car is then emptied, by means of another lever, into the stoker. The ashes are automatically shaken out by the stokers and fall into conveyors, that will run into the southeast corner of the basement, under the boilers. The ashes then will be automatically conveyed to the ash bin, suspended by cantilevers on the outside of the building. The ash bin will have a capacity of 950 tons and will be so located that teams can drive underneath and be loaded automatically. The entire building is so arranged that it will not be necessary for the hand of man to touch the coal until it is dumped form the wagons onto the dumps in various sections of the city.[20]

The architecture and engineering firm of Ford, Buck and Sheldon was established in Hartford in 1911 after a partnership was formed between three of the city's most prominent civil engineers, Frederick L. Ford (1871-1940), Henry Robinson Buck (1876-1934), and Paul Sheldon (1881-1931). Ford served as Hartford's City Engineer between 1902 and 1911 and both Buck and Sheldon worked in Ford's office during the early part of his tenure. Buck was the Assistant City Engineer in charge of all sewer work, and Sheldon held the same position with responsibility for all bridge, masonry, heavy foundation, and structural steel construction. Buck and Sheldon left city service to go into private practice as Buck and Sheldon, Inc. in 1909, and Ford assumed the role as the company's president in April 1911. The trio continued in partnership until 1920, despite Ford's relocation to New Haven to work as its City Engineer in March 1912. After Ford's departure the firm was renamed Buck and Sheldon, Inc. and carried on under that name until the men parted ways in 1928.[21]

All three of the partners in Ford, Buck and Sheldon were nationally recognized as talented professionals in their field. The firm was responsible for a variety of significant engineering and design work throughout Hartford and beyond. Among their building projects were a substantial expansion to Trinity Church on Sigourney Street in Hartford in 1911; various additions to Pope Manufacturing Company-held factories throughout Hartford in 1912; a new office and warehouse for the Capitol City Lumber Company on Park Street in Hartford in 1914; a factory for the Hartford Special Machinery Company on Homestead Avenue in 1915; a

wholesale drug plant – allegedly one of the largest in the country at the time of its construction – for the Walker and Gibson Company of Albany, New York in 1915; a factory for the Arrow-Hart and Hegeman Electric Company on Hawthorne Street in Hartford in 1918; and an office and factory for the M.S. Little Manufacturing Company on New Park Avenue in Hartford in 1917 and 1922. The firm's engineering projects were similarly notable and included the design and construction oversight of numerous sewer systems, among them being examples in the Connecticut towns of West Hartford, Windsor, Wethersfield, and Newington.[22]

[1] Bruce Epperson, "Failed Colossus: Strategic Error at the Pope Manufacturing Company, 1878-1900." *Technology and Culture,* 2000 41(2): 300-302; Ellsworth S. Grant, *Yankee Dreamers and Doers: The Story of Connecticut Manufacturing.* 2nd ed. (Connecticut: The Connecticut Historical Society and Fenwick Productions, 1996), 256. Ellsworth S. Grant, *The Miracle of Connecticut,* (Connecticut: The Connecticut Historical Society and Fenwick Productions, 1992)*,* 212.
[2] Grant, *Yankee Dreamers and Doers,* 256. Bruce Epperson, "Failed Colossus," 303.
[3] Epperson, 305, 310. Chandler, 209.
[4] Epperson, 312. Grant, *Yankee Dreamers and Doers,* 258.
[5] Cleveland Moffett, "Great: The Marvels of Bicycle Making; A Visit to the Hartford Rubber Works," *McClure's Magazine*, April 1897, Vol. VIII, No. 0, p. 6.
[6] "Parkville Improvements," *Hartford Daily Courant*, November 17, 1881, p. 3; Classifieds, *Hartford Daily Courant*, March 27, 1882, p. 3; "Colonel Pope Controls; He is President of the Hartford Rubber Works Now," *Hartford Daily Courant*, August 29, 1892, p. 1; To Handle Hartford Rubber; Sole Agent of Hartford Rubber Works Appointed," *Hartford Daily Courant*, August 2, 1894, p. 3; Cleveland Moffett, "Great: The Marvels of Bicycle Making; A Visit to the Hartford Rubber Works," *McClure's Magazine*, April 1897, Vol. VIII, No. 0, p. 3; "New Pope Buildings," *Hartford Daily Courant*, July 6, 1895, p. 3.
[7] "Success of Rubber Works," *Hartford Courant*, September 27, 1900, p. 5; "Coming to Hartford," *Hartford Courant*, August 6, 1901, p. 4.
[8] Hartford Chamber of Commerce, *Hartford's Golden Automobile Jubilee, 1897-1947*, (Hartford: Hartford Chamber of Commerce, 1947), 9.
[9] In the five years between 1902 and 1907 alone some 287 American automobile manufacturers began production and then failed. Stephen B. Goddard, *Colonel Albert Pope and His American Dream Machines*, (Jefferson, NC: McFarland & Company, Inc., 2000), 187.
[10] Hartford Chamber of Commerce, *Hartford's Golden Automobile Jubilee, 1897-1947*, (Hartford: Hartford Chamber of Commerce, 1947), 13.
[11] "Hartford Rubber Works' Plant," *Hartford Courant*, February 8, 1913, p. A6.
[12] "Hartford Made Bayonet Scabbards, Hand Grenades and Gas Masks Help In Winning the War," *Hartford Courant*, February 2, 1919, p. X3.
[13] Today these are identified as 1429 and 1409 Park Street, respectively "The Great Project of the Rubber Works," *Hartford Courant*, July 12, 1920, p. 7; "Three Shifts Now At Rubber Works," *Hartford Courant*, September 6, 1920, p. 5.
[14] "To Abandon Rubber Shop Here Aug. 28," *Hartford Courant*, August 20, 1929, p. 1; "Employment Report Made By Committee," *Hartford Courant*, September 12, 1929, p. 17.
[15] "The Latest in Power-Houses," *Hartford Courant*, October 11, 1912, p. 5.
[16] Work on the other example, the Gray Telephone Pay Company, located nearby at 16-30 Arbor Street, was initiated roughly a month after the Hartford Rubber Works Boiler House. While the permit for the former was pulled on September 26, 1912, and that for the Boiler House on October 30, 1912, a contemporary newspaper article published on September 28, 1912 noted that work at Gray had yet to begin, while another published on October 11, 1912 stated that work on the Boiler House had started on September 1, 1912. In addition, the articles note that the Boiler House was slated to be completed by mid-November 1912, the Gray Telephone Pay Company by January 1, 1913. Being a smaller building, it is very likely that the Boiler House was completed first, thus qualifying it as the first identified reinforced concrete industrial building to be erected in the city. "New Factory for Pay Telephone Co.: Gray Company Will Have Modern Building," *Hartford Courant*, September 28, 1912; "The Latest in Power-Houses," *Hartford Courant*, October 11, 1912, p. 5.
[17] Lucas A. Karmazinas, Consultant, Connecticut State Historic Preservation Office, Connecticut State Register Nomination for the "New Haven Screw Company Factory, New Haven, CT," May 4, 2011.
[18] "The Latest in Power-Houses," *Hartford Courant*, October 11, 1912, p. 5.
[19] A total of 121 reinforced concrete spiles, each measuring 25 feet long and tapering from 20 inches square at one end to six inches square at the other, were required to stabilize the smokestack, which additionally sat on a four-foot thick reinforced concrete platform. The stack was the tallest in the city at the time and measured eleven feet wide at its base and tapered to ten feet wide at its apex. "The Latest in Power-Houses," *Hartford Courant*, October 11, 1912, p. 5.
[20] "The Latest in Power-Houses," *Hartford Courant*, October 11, 1912, p. 5.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

[21] "Dinner Given to Engineer Ford," *Hartford Courant*, March 27, 1911, p. 5; "H.R. Buck Takes Son Into Firm," *Hartford Courant*, November 8, 1930, p. 23; "Paul Sheldon, Retired Civil Engineer Dies," *Hartford Courant*, July 30, 1931, p. 20; "Henry R. Buck Killed, 4 Others Injured in Avon Mountain Crash," *Hartford Courant*, August 12, 1934, p. 1; "F.L. Ford Dies, Former Hartford City Engineer," *Hartford Courant*, December 19, 1940, p. 4.

[22] "Hartford Rich in New Buildings: Private and Private Spring Up Everywhere," *Hartford Courant*, April 22, 1911, p. 15; "West Hartford News," *Hartford Courant*, November 20, 1911, p. 16; "Local Firm Has Big Albany Contract," *Hartford Courant*, March 7, 1915, p. 3; "Hartford Building Permits", City of Hartford, Hartford City Clerk's Office.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Bibliography:

Texts and Publications:

Epperson, Bruce. "Failed Colossus: Strategic Error at the Pope Manufacturing Company, 1878-1900." *Technology and Culture,* 2000 41(2): 300-320.

Goddard, Stephen B. *Colonel Albert Pope and His American Dream Machines*. Jefferson, NC: McFarland & Company, Inc., 2000.

Grant, Ellsworth Strong. *The Colt Legacy: The Colt Armory in Hartford, 1855-1980*. Providence, RI : Mowbray Co., 1982.

___. *The Miracle of Connecticut*. Connecticut: The Connecticut Historical Society and Fenwick Productions, 1992.

___. "The Miracle on Capital Avenue." *Hog River Journal,* May/June/July 2004 Vol. 2 (2); 25-29.

___. *Yankee Dreamers and Doers: The Story of Connecticut Manufacturing*. 2nd ed. Connecticut: The Connecticut Historical Society and Fenwick Productions, 1996.

Hartford Architecture Conservancy. *Hartford Architecture Conservancy Survey Volume 3 (North and West Neighborhoods).* Hartford: Hartford Architecture Conservancy, 1978-1980.

Hartford Chamber of Commerce. *Hartford's Golden Automobile Jubilee, 1897-1947.* Hartford: Hartford Chamber of Commerce, 1947.

Ransom, David F. "Biographical Dictionary of Hartford Architects." *The Connecticut Historical Society Bulletin* 54 no. 1-2 (Winter/Spring 1989).

Roth, Matthew, and Bruce Clouette and Victor Darnell, Connecticut: *An Inventory of Historic Engineering and Industrial Sites* Washington, D.C.: Society for Industrial Archeology, 1981.

Atlases and Insurance Maps:

Baker and Tilden. *Atlas of Hartford City and County*. Hartford, CT: Baker and Tilden, 1869.

L.J. Richards and Company. *Atlas of the City of Hartford*. Springfield, MA: L.J. Richards and Company, 1896.

Richards Map Company. *Atlas of the City of Hartford and the Town of West Hartford*. Springfield, MA: Richards Map Company, 1909.

Sanborn Map Company. *Atlas of the City of Hartford and the Town of West Hartford*. New York: Sanborn Map Company, 1917.

Sanborn Map Company. *Atlas of Hartford and West Hartford*. Sanborn Map Company, New York, 1920, 1922, 1950, 1979.

Newspapers:

Hartford Courant, 1850-1980.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

National and Connecticut State Register Nominations:

Karmazinas, Lucas A., Consultant, Connecticut State Historic Preservation Office, National Register Nomination for "Underwood Computing Machine Company Factory, Hartford, CT," June 20, 2010.

Karmazinas, Lucas A., Consultant, Connecticut State Historic Preservation Office, Connecticut State Register Nomination for the "New Haven Screw Company Factory, New Haven, CT," May 4, 2011.

Directories:

Geer's Hartford City Directories, Hartford: Elihu Geer, 1848-1930.

Price & Lee Company Hartford Numerical Directory, Hartford: Price & Lee Co., 1930-1968.

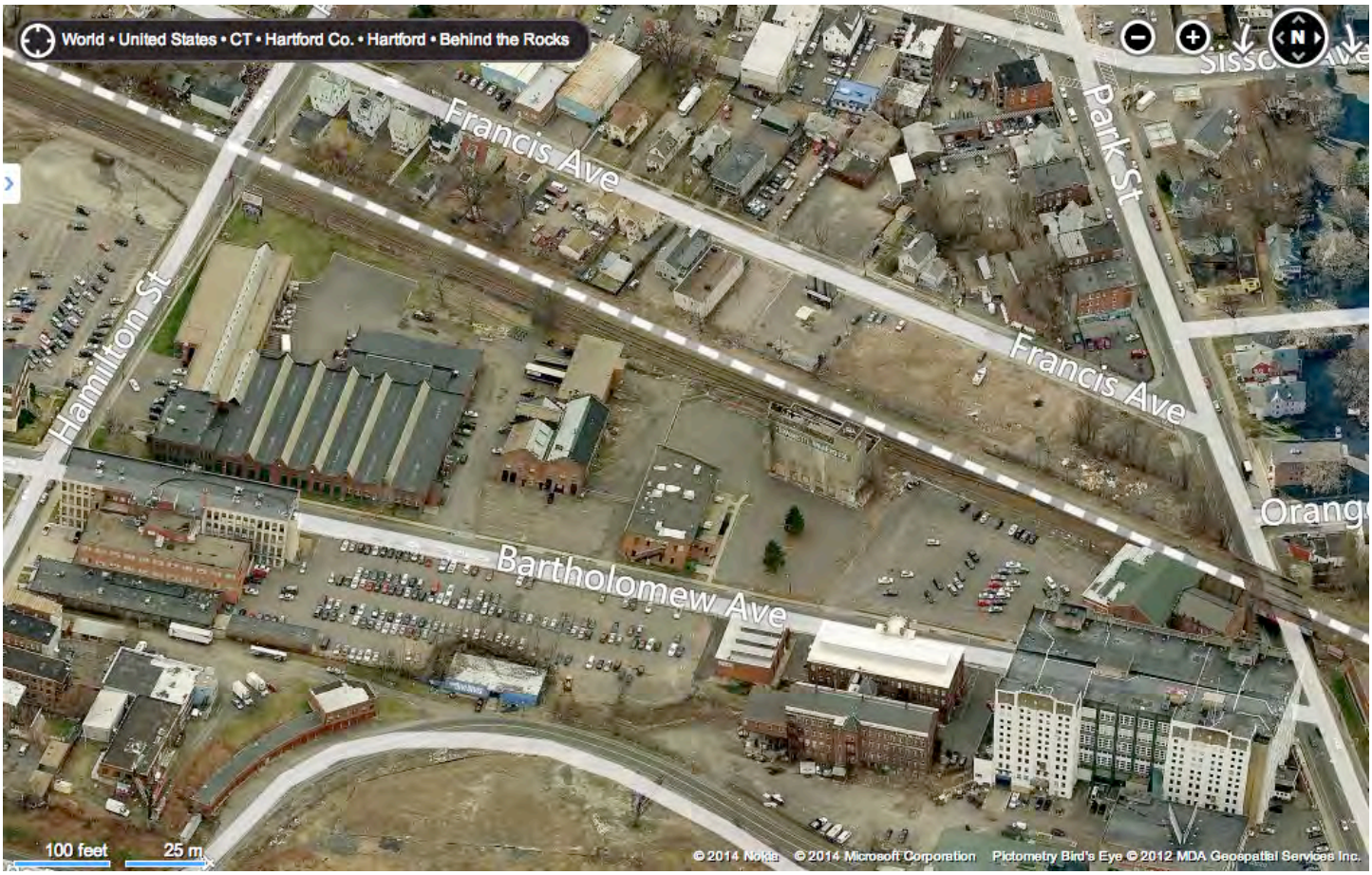
Public Records:

"Hartford Building Permits", City of Hartford, Hartford City Clerk's Office.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Site/Aerial Images:



Block-level aerial image of the Hartford Rubber Works Company Boiler House and Tire Storage Building, 45-55 Bartholomew Avenue, Hartford, Connecticut.
Camera facing west.
Figure 1.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Parcel-level aerial image of the Hartford Rubber Works Company Boiler House and Tire Storage Building, 45-55 Bartholomew Avenue, Hartford, Connecticut.
Camera facing west.
Figure 2.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Parcel map detail of the Hartford Rubber Works Company Boiler House and Tire Storage Building, 45-55 Bartholomew Avenue, Hartford, Connecticut.
Top of page oriented north.
Figure 3.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Aerial map of the Hartford Rubber Works Company Boiler House and Tire Storage Building, 45-55 Bartholomew Avenue, Hartford, Connecticut.
Top of page oriented north.
Figure 4.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

Photograph Directions, Hartford Rubber Works Company Boiler House and Tire Storage Building, 45-55 Bartholomew Avenue, Hartford, Connecticut.
Top of page oriented north.
Figure 5.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	Hartford
Name of Property	Municipality

East (front) and south (side) elevations of Boiler House, 1912. Camera facing northwest.
Photograph 1 of 21.

East (front) and north (side) elevations of Boiler House, 1912. Camera facing southwest.
Photograph 2 of 21.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	Hartford
Name of Property	Municipality

North (side) elevation of Boiler House, 1912. Camera facing northeast.
Photograph 3 of 21.

South (side) elevation of Boiler House, 1912, showing wall and window opening details. Camera facing northeast.
Photograph 4 of 21.

South (side) elevation of Boiler House, 1912, showing date plaque details. Camera facing northeast. Photograph 5 of 21.

West (rear) and south (side) elevations of Boiler House, 1912. Camera facing northeast. Photograph 6 of 21.

CONNECTICUT STATE REGISTER OF HISTORIC PLACES
REGISTRATION FORM – Continuation Form

Hartford Rubber Works Company Boiler House and Tire Storage Building	Hartford
Name of Property	Municipality

West (rear) elevation of Boiler House, 1912, showing wall and window opening details. Camera facing northeast. Photograph 7 of 21.

North (side) elevation of Boiler House, 1912. Camera facing southwest.
Photograph 8 of 21.

First-floor interior of Boiler House, 1912. Camera facing east.
Photograph 9 of 21.

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

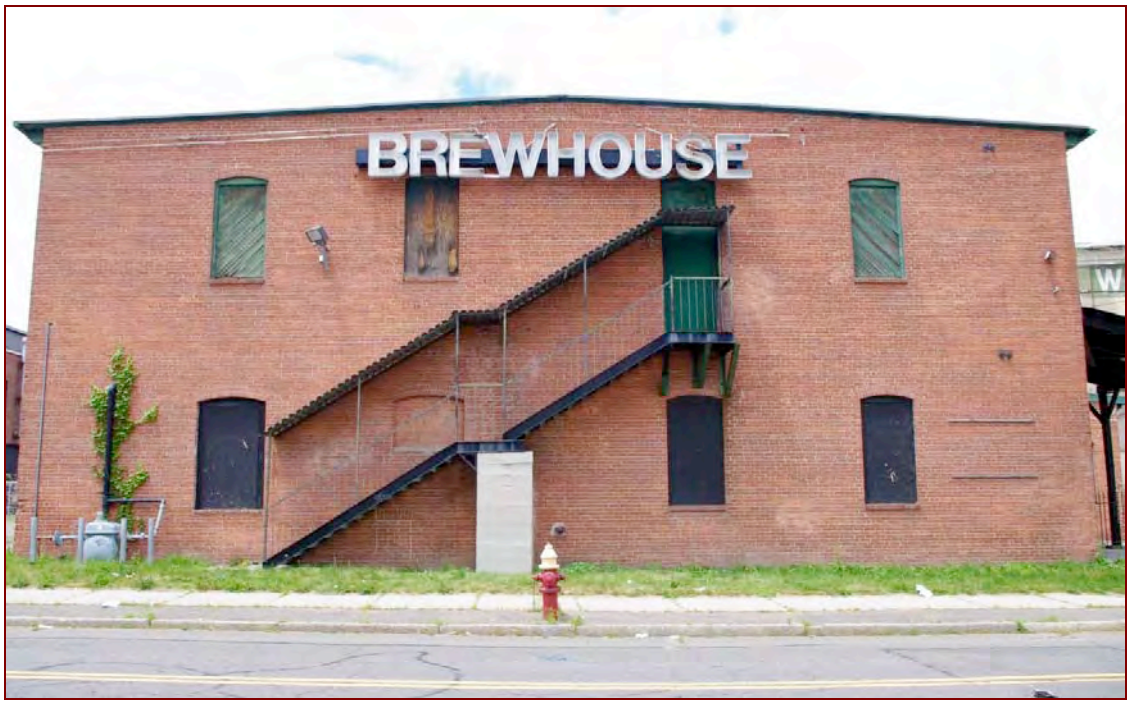
First-floor interior of Boiler House, 1912. Camera facing northeast.
Photograph 10 of 21.

East (side) and south (rear) elevations of Tire Storage Building, c. 1912. Camera facing northwest.
Photograph 11 of 21.

North (front) and west (side) elevations of Tire Storage Building, c. 1912. Camera facing southeast. Photograph 12 of 21.

North (front) elevation of Tire Storage Building, c. 1912, showing primary entry detail. Camera facing southeast. Photograph 13 of 21.

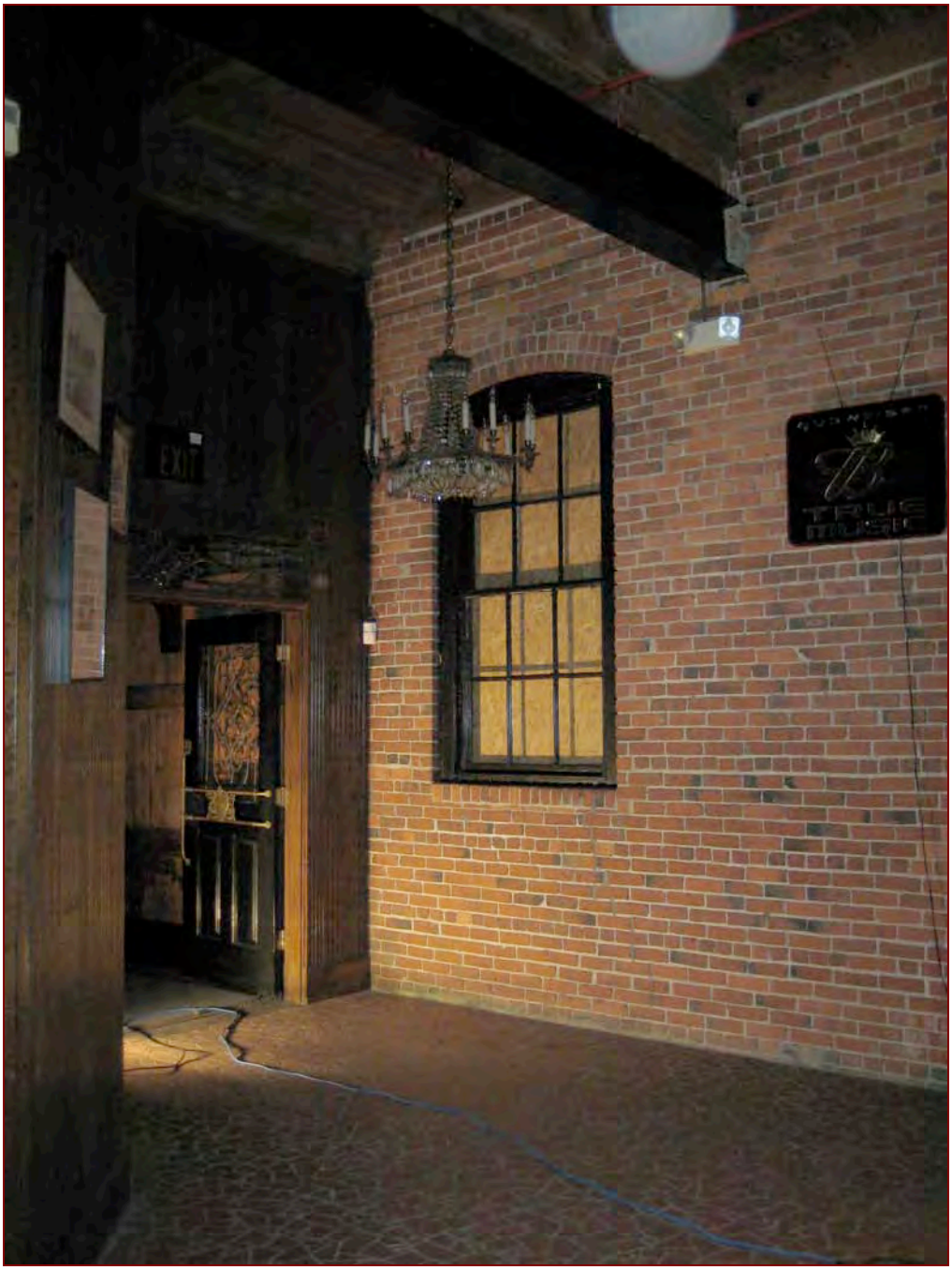
Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality



East (side) elevation of Tire Storage Building, c. 1912. Camera facing northwest.
Photograph 14 of 21.

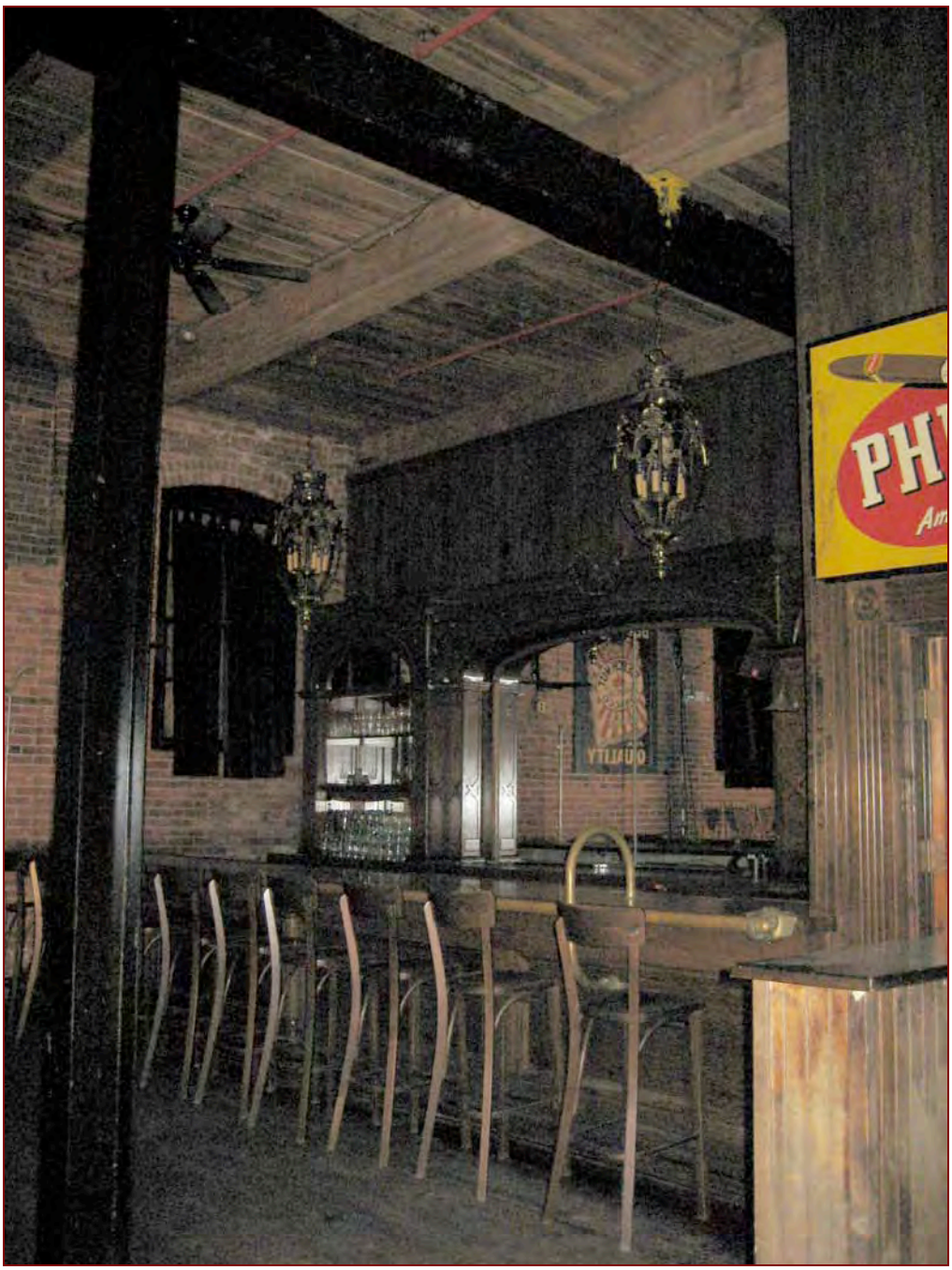
West (side) and north (front) elevations of Tire Storage Building, c. 1912. Camera facing south.
Photograph 15 of 21.

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality



First-floor interior of Tire Storage Building, c. 1912, showing entry corridor. Camera facing northeast. Photograph 16 of 21.

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality

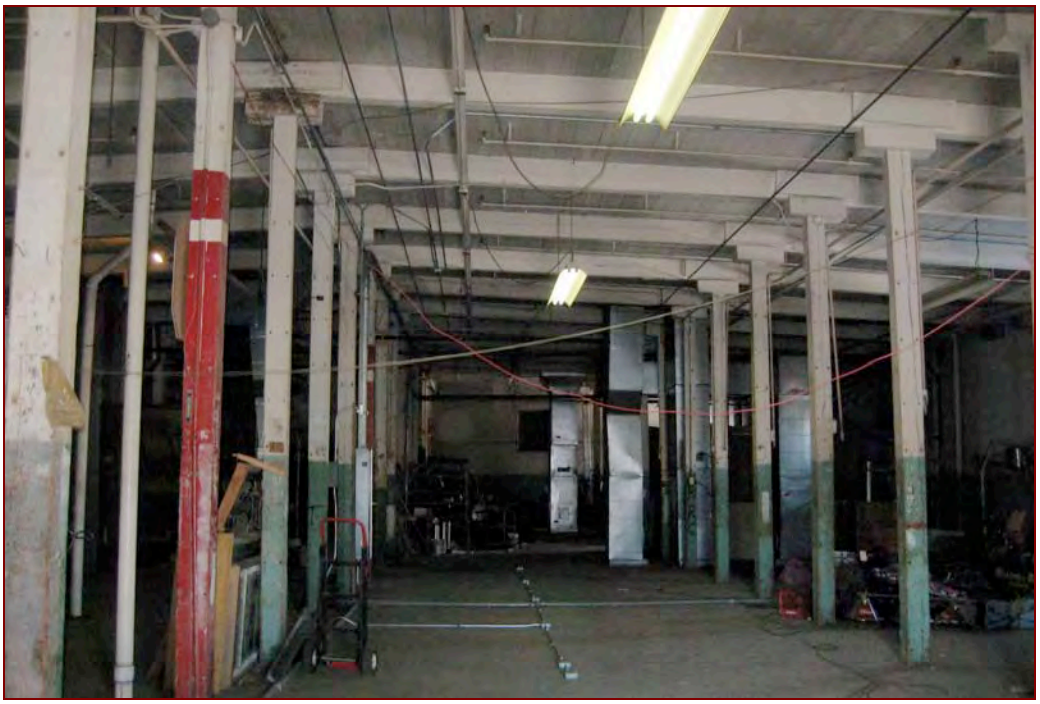


First-floor interior of Tire Storage Building, c. 1912, showing restaurant bar. Camera facing southwest. Photograph 17 of 21.

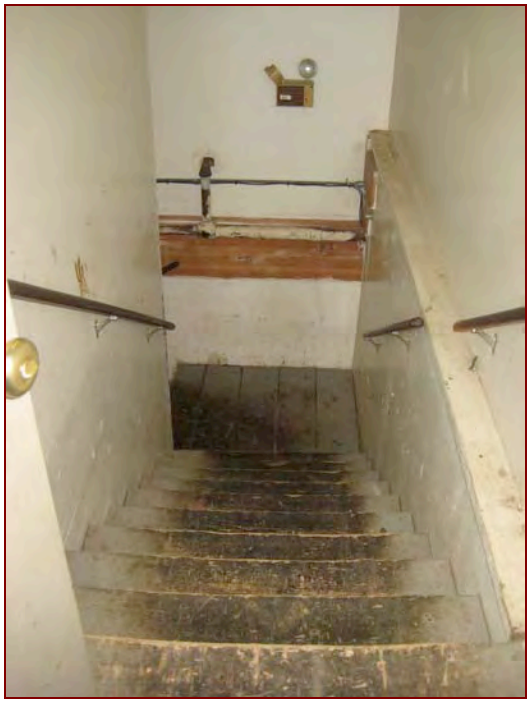
First-floor interior of Tire Storage Building, c. 1912, showing framing and ceiling details. Camera facing southwest. Photograph 18 of 21.

Second-floor interior of Tire Storage Building, c. 1912, showing framing and ceiling details. Camera facing east. Photograph 19 of 21.

Hartford Rubber Works Company Boiler House and Tire Storage Building	**Hartford**
Name of Property	Municipality



First-floor interior of Tire Storage Building, c. 1912, showing framing and ceiling details. Camera facing west. Photograph 20 of 21.



Second-floor interior of Tire Storage Building, c. 1912, showing stair details. Camera facing north. Photograph 21 of 21.