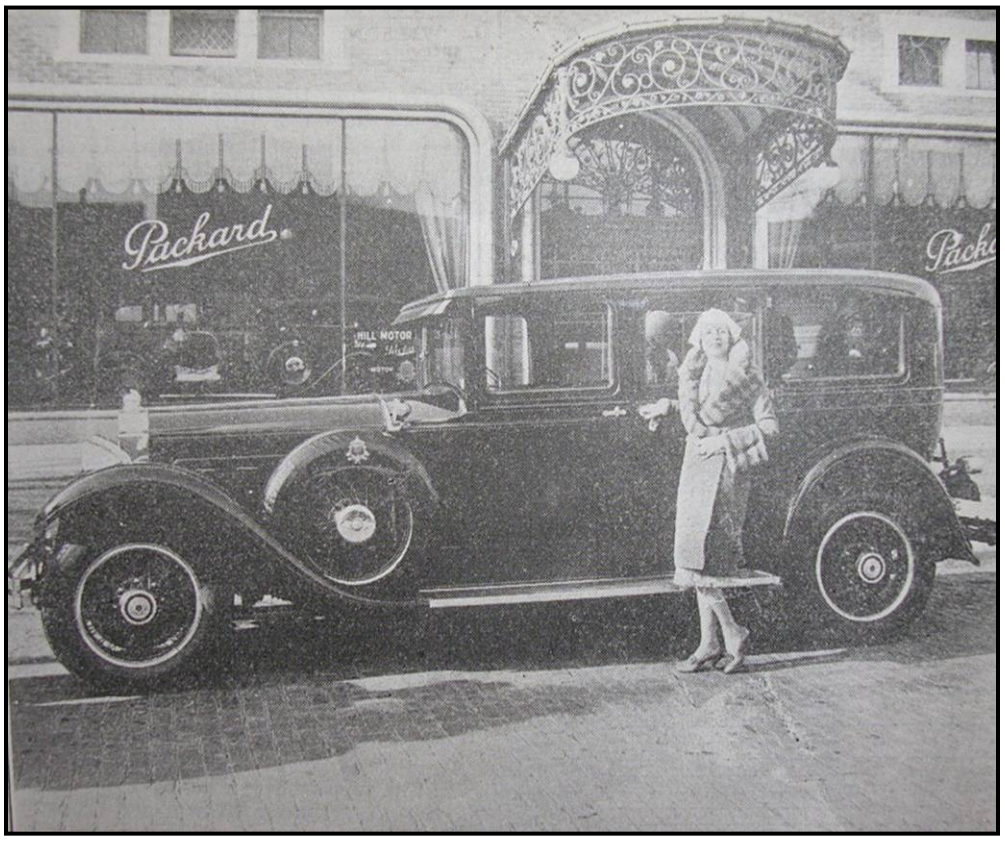
Historic Structures Report:
Foley-Rice Dealership (1924-27)



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May 2008

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EXECUTIVE SUMMARY

The Foley-Rice automobile dealership, formerly known as Hill Motor Sales Company, located at 644 Madison Street in Oak Park was designed by two prominent Oak Park architects, Eben E. Roberts and his son Elmer Roberts. The dealership is a relatively intact example of a 1920's automobile showroom, and is the best surviving example of such architecture along the Madison Street Corridor, which was known as Oak Park's "Auto Row". The building is significant due to the fact that it is the work of prominent Oak Park architects and because it is a unique example of a prominent commercial style in the 1920s. The Hill Company building was listed as a "significant building" (National Register Potential) on the Madison Corridor survey conducted by the village of Oak Park in 2006. Following the survey, it was nominated to be designated an Oak Park landmark on November 2, 2007.

No significant alterations were completed on the building until the 1960's when the owners covered the façade in aluminum siding and modified the interior. In the late 1980's and early 1990's, new owners renovated the interiors and restored the exterior façade, removing the 60's aluminum. Despite the renovations, the building has experienced significant water-related damage, possible structural and environmental-related problems, poorly executed repairs, and poor maintenance. The most significant of issues is the water damage—both interior and exterior. Ensuring that the building is watertight will be of primary importance in any restoration project.

All restoration should follow the Secretary of the Interior's Standards for Rehabilitation of historic buildings. Additionally, care should be taken to follow the three steps of basic tenets of historic preservation: to preserve what can be preserved of the original fabric of the building, repair what can be repaired and restored. If the original material cannot be saved, the replaced material should match the original appearance as best as possible. Although the building has undergone numerous alterations, the building's unique massing and front façade remain relatively unchanged since the building's construction. Overall, the building has very good integrity in terms of design, materials, and setting.

I. INTRODUCTION AND METHODOLOGY

This Historic Structures Report (HSR) was produced in partial fulfillment of requirements for Building Pathology, a graduate level course at the School of the Art Institute taught by Joshua Freedland, Edward Gerns, and Steve Kelley of the firm of Wiss, Janney, and Elstner in Northbrook, Illinois. The class was intended to provide opportunities for students to learn about the way buildings work, and why they deteriorate. For this assignment, in the spring of 2008, five members of the class were assigned the task of completing an HSR investigation of the Foley-Rice dealership.

The methodology used to complete this project included personal interviews with one of the Foley-Rice owners, visual inspection of the building and surroundings, digital photography of the site and building,. It also included examination of archival documents at the Oak Park Historical Society, Oak Park Library, and the Village of Oak Park permits department. To begin, the entire class visited the site and divided into five groups. These five groups examined the building site, exterior, interior, mechanicals and structure with the instructors, taking notes and photographs. Each group member focused on one of the five essential building elements, organized photographs and began researching their selected area. In March, our group presented an overview of the project. The group then assimilated more research, made recommendations for further investigation, and designed an adaptive reuse plan. The final HSR was presented to the class on May 7, 2008. Copies of the report were sent to the building's owners and to the Village of Oak Park.

Foley-Rice group members included: Christine Bernick, Deborah Carey, Jenny Kim, Katie McManus, and Molly Sargent. We extend our thanks to Mr. Rice who opened his building to the class more than once, Doug Karrare whose nomination to the landmark commission served as an invaluable resource for our group, the archivist at the Oak Park Historical Society for helping us access early Oak Park and Foley-Rice building history and Scott Golz from Spannuth Boilers for providing insight on the original heating systems.

II. HISTORY

Oak Park

Oak Park is the first suburb west of Chicago and encompasses a total of 4.5 square miles. The first non-Native American settler of the village—Joseph Ketterstring—purchased approximately 137 acres of land in 1837. Ketterstring's property grew to incorporate the areas bounded by Chicago, Harlem, the Metra tracks and Oak Park Avenue. The village of Oak Park was incorporated in 1903. Two events would significantly contribute to the growth of Oak Park between 1837 and 1903. The first occurred in 1848 when the area was linked to Chicago by rail through the Galena & Chicago Union Railroad. At this time in the mid-19th century, a town that had a stop on the railroad was almost guaranteed to develop into a prominent suburb. The other event that contributed to Oak Park's development was the Great Chicago Fire of 1871; at the time of the fire, the population was approximately 500. By the time the Village of Oak Park was incorporated in 1903, there were 10,000 residents.

During the 19th century the village earned its reputation for religion, Temperance and the seeds of great architecture and literature. One early account refers to Oak Park as the location where "the saloons stop and the church steeples begin". Two individuals who were residents of Oak Park in these early days were Frank Lloyd Wright and Ernest Hemmingway, their legacy continues to contribute to tourism in the area.

In the 20th century Oak Park's population grew expeditiously. Between 1900 and 1910 the population roughly doubled to 20,000 and then doubled again to 40,000 by 1920. Twenty years later there were 66,000 residents in Oak Park. Today, the population is approximately 52,000, a decline that is due, for the most part, to the shrinking size of the average family unit.

Construction of both residential and commercial buildings was significant in the first part of the 20th century due to the population growth in the village. Commerce was a new amenity in Oak Park, as residents were no longer forced to travel into Chicago to do their shopping. After the turn of the century, people who lived in Oak Park wanted to shop in Oak Park. This demand resulted in twelve commercial districts, one of which was the Madison Street Corridor.

Madison Street Corridor

The Foley-Rice dealership sits on Madison Street and stretches from Austin Boulevard to Harlem Avenue. When Oak Park was incorporated in 1903, Madison Street was primarily vacant except for a street car that traveled the full length of the street—a valuable element in ensuring the future growth of the area [Figure II-1]. Figures show there were 35 new properties developed between 1900 through 1919 with 48 properties being developed from 1920 through 1930 which resulted in a significant shopping destination.[1] [Figure II – 2] From the late Teens to

[1] Wiss, Janney, Elstner Associates, Inc., *Madison Street Corridor, Architectural Historical Survey*, p 12.

the '60s, Oak Park remained a popular destination for car buyers. Most of that business was centered on Madison, so much so that the area was known as "Auto Row."[2] In 1925, there were 34 auto-related businesses on Madison Street. It was during these years that the Village of Oak Park ranked behind only Chicago's famed Motor Row and Rockford as a top destination for car buyers.

Auto-Row

The automobile industry was formed in America at the close of the 19th century, with 2,500 cars manufactured in 1899. By the turn of the century, auto manufacturers had already made a great deal of progress in improving both the quantity and quality of cars being produced. By 1907, the sale of cars increased substantially, due to the fact that sales had finally reached the middle-class market. It was this increase in production that developed automobile repair and sales buildings as a distinct building type, not only in cities, but in small towns as well. By the early 20th century, dealers discovered that business increased when other auto-related shops—such as parts and repair centers—were grouped together on a well-maintained road, (not always easy to find in the early days of the automobile). In Oak Park, Madison Street best fit these conditions due to the fact that it is a four-lane street that connected the village to Chicago. As early as 1912, automobile dealers and garages had begun to occupy a majority of the space on Madison.

The building style of 1920's auto show rooms most closely resembles the form of typical commercial buildings at the time with their utilization of a store front and cornice. [Figure II – 7 & 8] The large windows were designed to dominate the first floor façade and were ideal for views of the automobiles from both the street and sidewalk. These buildings commonly contained a store front with a large servicing area located in the back of the structure. Today there are thirteen "auto-related" buildings on Madison Street that remain from the 1920's. These existing structures were used for both sales and servicing. In addition, two buildings from the 1940's remain. Of all these structures, eleven are recognized as having some level of architectural merit—three of which were designed by Eben Ezra Roberts (E.E. Roberts) for use in servicing the automobile industry. [3]

E.E. Roberts & Elmer Roberts, Inc.

E.E. Roberts' prominent impact on the architectural landscape of Oak Park contributed greatly to the community's character and history. With Oak Park's largest architectural firm in history, Roberts established himself as a master of many styles and types of buildings.[4] Though the majority of his designs were residential, Roberts explored areas of commercial architecture as well. These included schools, churches, cultural buildings and storefronts. His variation of

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[2] Bill Dwyer, "Extra! Extra! Read All About It! Auto Row on Madison was Never Dull," *Wednesday Journal of Oak Park and River Forest*.: pp.1

[3] Wiss, Janney, Elstner Associates, Inc., *Madison Street Corridor, Architectural Historical Survey*, pp. 14-15.

[4] Kaarre, Douglas. Draft of Historic Landmarks Nomination Report, p.7

architectural styles embodied the desired aesthetics of the time, creating a large, reflective body of work unparalleled in the village of Oak Park.

E.E. Roberts [Figure II-3] studied architecture and drafting in New Hampshire at the Tilton Seminary, but his father, George Smith Roberts, was credited with teaching his son drafting from an early age. E.E. Roberts' first job in the field was for Solon S. Beman at his Chicago architecture firm. Roberts contributed to projects such as the George Pullman's residential neighborhood and a building on Michigan Avenue.

Roberts quickly established his own practice in Oak Park focusing on residential architecture. His large practice employed numerous draftsmen and was well known and regarded throughout Oak Park. His earlier residential design styles, such as Queen Anne and Tudor Revival, reflected the contemporary tastes of the 1890s. But Roberts was most noted for his Prairie inspired structures which he noticeably shifted towards by 1900. [Figure II – 5 & 6]

In 1912, E.E. had moved his practice out of Oak Park and relocated it to Chicago. The firm shifted focus from smaller residential projects to larger commercial and large-scale projects. Elmer Roberts [Figure II – 4], E.E. Roberts's son, graduated from the University of Illinois in architecture and was employed by his father starting in 1913. By 1924, Elmer became partner and the firm was renamed to E.E. & Elmer C. Roberts, Inc.

Of their commercial endeavors, there are four buildings found on the Madison Street Corridor. All four buildings remain today with two of them altered. This first building was the Oak Park Cleaners & Dryers in 1921 which utilizes more prairie-style detailing. The other three structures were part of "Auto Row" including 260 Madison [Figure II- 9 & 10], 700 Madison [Figure II-11 & 12] and the Foley-Rice building. These three buildings share a similar layout including a large first floor showroom with servicing areas in the back, a quintessential style of the historic automotive showroom.

E.E. Roberts designed over two hundred buildings for Oak Park by creating stock buildings which he varied through different decorative features.[5] His styles ranged from Prairie to Tudor Revival and he managed to form an identifiable and prominent collection of projects that came to symbolize Oak Park's history of development and change. As a long standing citizen of the community, Roberts' designs will continue to define the area as an architecturally diverse and influential hub of turn-of-the-century architecture. In 1926 E.E. Roberts was forced into semi-retirement due to health problems, but his son continued to run the company.

Foley-Rice Building

The Foley- Rice auto dealership is situated at 644 Madison St. in Oak Park between Wesley and Euclid Streets. The building extends from Wesley westward midway to Euclid along Madison Street; the remaining portion of the property contains a parking lot which terminates at Euclid Street. The building is comprised of two sections, the eastern one story building [Figure II – 13] was designed by E.E. and Elmer Roberts and completed in 1924; the western two story portion

[5] AIA Guide, p. 142

was constructed three years later [Figure II-14]. The building contractor was Harper and Butendorff.

The dealership is an excellent example of an automobile showroom. The building is clad in yellow wire-cut brick with terra cotta ornament. Details reflect both Victorian Romanesque and Art Deco details which are evidenced by clustered and foliated colonettes, decorative terra cotta bands, quoins, windows of varying shapes and sizes, reliefs of human faces with natural overtones and other reliefs with angular, exaggerated features.

Both sections of the building, despite the three year difference, are unified by material and design which gives the building a sense of continuity. The rectangular storefront windows with curved corners along Madison Street match the earlier structure, as does the wire-cut brick cladding which was produced by the Wisconsin Lime and Cement Company.[6]

The original structure (East) has two large showcase windows which flank the central arched entryway. The entry is surrounded by a glass transom and sidelights and framed in cream-colored terra cotta molding. Each window is separated by a cluster of three terra cotta colonettes extending from the base to the roof. The base of the windows is clad in green terra cotta. Above each window is a set of small, diamond paned windows set back in a four inch terra cotta surround border. A simple terra cotta band extends above the windows below a brick parapet trimmed in flat, terra cotta coping. Centered above each window set are whimsical, terra cotta reliefs of figures with exaggerated and angular features engaged in auto repair or driving [Figure II-15]. This was not the first example of ornamental faces used in the Roberts' design. In 1905 an apartment building designed by E.E. incorporated some similarly unusual faces [Figure II – 16].

The 1927 addition (West) is comprised of a prominent, rectangular, central entry with curved corners. A cluster of foliated, terra cotta colonettes flank the entrance along with two rectangular windows. The base of the window openings is continued in green terra cotta. Above the entrance is a narrow, arched window with a keystone header which incorporates an upright, lion-like form.[7] Like the original section, the large, storefront windows are separated by clustered colonettes. Steel windows from David Lupton and Sons Co. are centered above the first floor openings.[8] Terra cotta reliefs of a human faces surrounded by wheels are arranged above each metal frame window below the terra cotta clad roofline.

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[6] E.E. Roberts and Elmer Roberts, Plan #2612: Specifications for Building Addition at 644 Madison Street, April 9, 1927. (From Village of Oak Park - Historic Landmark Nomination Report Draft, p.4.)

[7] Kaarre, p. 5

[8] Draft of Historic Landmark Nomination Report by Doug Kaarre, Urban Planner/Historic Preservation, p. 5

According to the Village of Oak Park Historic Landmark Nomination Report, the west façade of the building has been significantly altered.[9] Currently, the first floor is covered in what appears to be EIFS with the original brick still located behind this system. Two rectangular windows and a door have been installed near the Madison street corner.

The building history indicates that the entire two buildings were covered in aluminum siding in 1967 [Figure II-17] and that Foley-Rice restored the façade in 1990 (plans found in the Appendix B).[10] Other changes include the showroom window in the 1927 building which had been a garage door in 1959. That window, to the east of the main entrance, is currently comprised of two glass doors, with a transom above and sidelights, but it is not clear when those changes occurred. In addition, at some point in time, the original ornate metal canopy of the 1924 building was removed and the doors were modified from the original two door entry with a glass transom above. Brackets which held the canopy are still evident on either side of the entry. Most of the windows are original with the exception of the display windows in the showroom.

The site was originally owned by the Hill family through 1975. During this time it was used as an auto dealership. In 1976 through 1989 it was owned by Meetinghouse Display. In 1990, Foley-Rice purchased the property and renovated the building.[11]

Decline of Motor Row and the Automobile Industry in Oak Park

As car dealerships in neighboring areas became more prolific, Madison Street went into a state of decline as several sites burned down, others were demolished, and still others were transformed by adaptive reuse [Figure II-18]. As late as 1987 the five remaining auto dealers in the village accounted for over $1 million in sales tax revenue, not to mention hundreds of jobs.[12] As of 2007 the only auto dealer currently doing business in Oak Park was Foley-Rice Cadillac which announced they were closing in July of 2007. The two major causes of the decline were General Motors dropping the Oldsmobile line which accounted for approximate 50% of their business. This coupled with high property taxes caused Foley-Rice to close their doors and the history of Auto-Row.

[9] Ibid.

[10] Ibid.

[11] Ibid.

[12] Ibid.

SIGNIFICANCE OF SITE

The significance of the Foley-Rice auto dealership is defined not only by its overall architectural details and integrity, but by the historical context in which it is located. Situated on Madison Street, Foley-Rice was the last of the automobile showrooms in the once booming auto-row district of Oak Park. Despite the economic challenges found throughout this section of Madison Street, the building and area retain great significance due to the historic character of a themed district as well as the great potential and ability to generate business and commercial success.

Serving as a main artery through south Oak Park, the Madison Street Corridor is one of twelve distinct commercial districts in Oak Park. Madison Street has functioned as a main thoroughfare connecting Oak Park to neighboring places such as Forest Park and downtown Chicago for over a century. The architectural character of the village of Oak Park is comprised predominantly of upper class residential areas, of mostly single family homes. In addition, due to the number of significant homes and famous residents, Oak Park is a successful tourist destination. The Madison Street Business Corridor is encompassed by all three of Oak Park's historic districts, allowing for potential commercial benefits from tourists [Figure II – 19]. Though the area has been struggling for some time, its central location and vibrant surrounding areas allow for potential economic success.

Directly adjacent to Foley-Rice and the rest of the auto-row district on Madison Street is the Gunderson Historic District. The Gundersons were an influential element in the development of residential architecture throughout Oak Park. They produced some of the earliest subdivisions in Oak Park including the notable Gunderson District which borders Madison Avenue. The Ridgeland and Frank Lloyd Wright Historic Districts are found within several blocks of the site as well. The Ridgeland District is a much larger historic district located directly north of Foley-Rice. This close proximity may benefit the district economically through tourism and increased pedestrian traffic.

Madison Street connects Oak Park to the neighboring village of Forest Park. Though the business districts of both villages are located on Madison Street, Forest Park's has proven to be much more successful. Madison Street in Forest Park is lined with restaurants, boutiques and bars. The commercial success of this area has negatively affected Madison Street in Oak Park. It is widely viewed among both Oak Park and Forest Park residents that the Forest Park's Madison Street business district is more favorable than Oak Park's. The close proximity has only ameliorated the declining conditions and economic struggles of the Madison Street Corridor.

Although the current state of the Madison Street Corridor is questionable, its historic significance and definitive history is not. Fortunately, the footprints of an automobile district and successful commercial corridor still remain along Madison Street. The architectural styles of the 1920s are clearly evident in several buildings, including the Foley-Rice dealership. Though the area has encountered major changes and shifts in business ownerships, there remain several automobile-related businesses. For example, CarX which is located in the building across from the Foley-Rice buildings at 700 Madison Street, also by E.E. Roberts [Figure II – 12]. The building has been modified with one ½ of the building has been removed. At 845 Madison Street [Figure II – 20], a Town and Country Auto Repair has been integrated with a daycare, Little Beginnings

Daycare. There have also been re-uses of automobile-related buildings in for entirely different use. One example is the 218 Madison [Figure II-21] which now houses the Park District of Oak Park.

Foley-Rice owns four properties in the district including the dealership at 644 Madison Street [Figure II – 22], an old showroom located on the south side of Madison Street, a former auto body shop and an apartment located on the east side of Wesley Street.

Madison Street is clearly marked as a commercial district by several strategic devices. The street is a wide thoroughfare with high traffic and sidewalks that line each side of the street. The large storefront windows found in many of the surrounding businesses and the accessibility by foot may provide an invitation for more pedestrian traffic and business. Means of beautification have also been attempted by creating medians and trees in the center of Madison Street [Figure II – 23]. Planters embedded in each median clearly say "Oak Park Madison Street" intended to demarcate the area from others [Figure II-24]. Madison Street flags are attached to street poles that line each side of the street.

The Madison Street Corridor's history is still evident in the placement of buildings, architectural character of the buildings, and the overall nature of business of the area. Madison Street is eligible as an historic district for its Motor row automobile theme possessing ten contributing buildings. It may also be a local landmark with eleven significant buildings to the district and Oak Park. Finally, the Foley-Rice dealership is also eligible to be individually listed on the National Register.

The Foley-Rice dealership has numerous economic and historic attributes giving the building and the area great potential. Due to its accessibility, Foley-Rice has numerous re-development opportunities. The building is easily accessible by car, foot, or public transportation, which is less than one mile away. The district is in close proximity to downtown Oak Park, downtown Forest Park and main transportation routes. Madison Street is a main thoroughfare in Oak Park and receives over 17,000 vehicles daily.[13]

Foley-Rice Site Timeline:
1924 East Building constructed
1927 West Building constructed
1924-1953 Hill Motor Sales
1956 Ganey Motor Sales, Paul Halls' Madison Street Motor Sales
1963-1966 Tom Coward Lincoln Mercury
1968-1972 Royal Lincoln Mercury
1973-1975 vacant storage, Hill family sold property
1976-1989 Meetinghouse Display (John Davis)
1990-2007 Foley-Rice Cadillac
2007-present vacant building for sale[14]

[13] NAI Hiffman, Commercial Real Estate Services. www.hiffman.com

[14] Kaarre, p. 9.

SECTION II FIGURES: HISTORY

Figure II–1: Madison Street in 1903
Source – Madison Street Corridor – Architectural Historical Survey

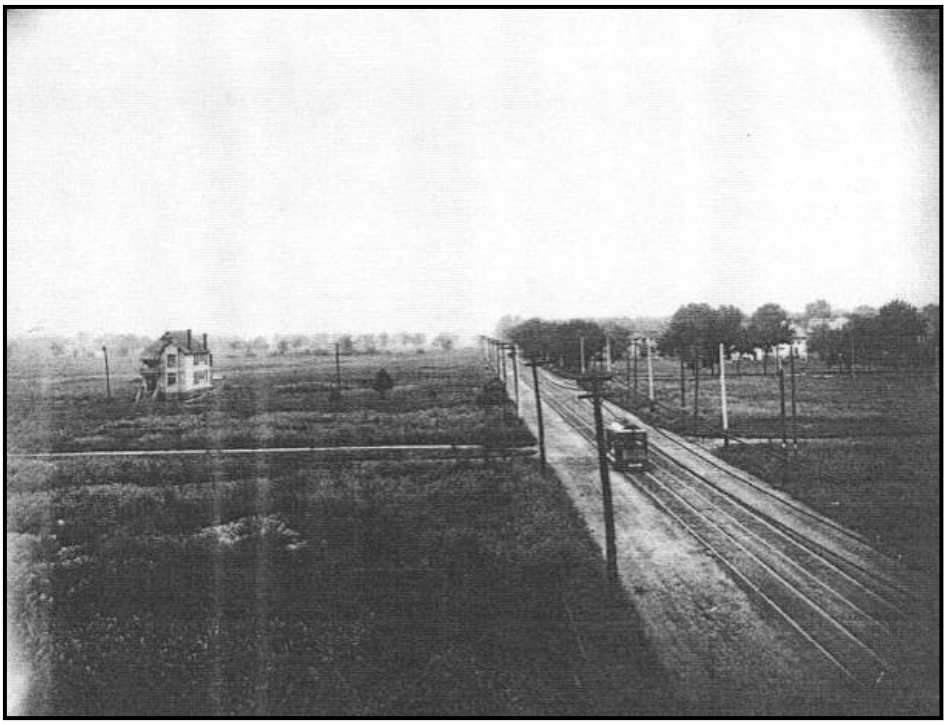


Figure II – 2: Madison Street in 1967
Source – Madison Street Corridor – Architectural Historical Survey

Figure II – 3: Eben Ezra Roberts "E.E."
Source: academics.triton.edu

Figure II – 4: Elmer Roberts
Source: academics.triton.edu

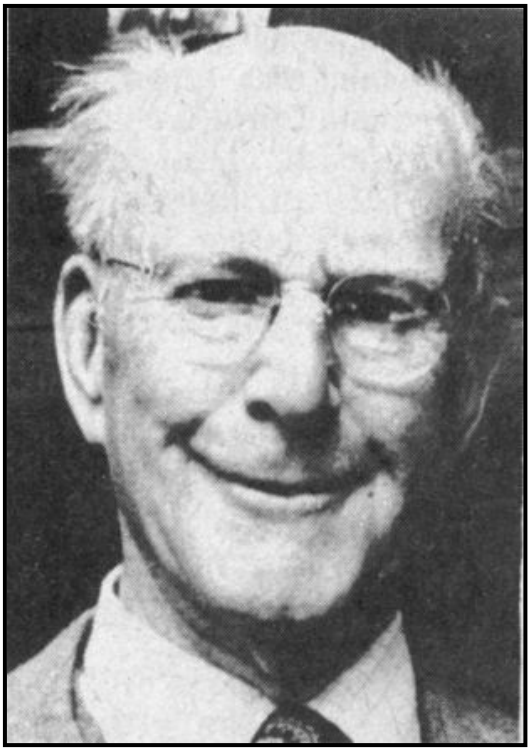


Figure II – 5: Arthur J. Lloyd House/1910--324 S. Euclid
Example of E.E. Robert's Residential Queen Anne Style

Figure II – 6: Henry P. Magill House/1903--164 N. Euclid
Example of E.E. Robert's Residential Prairie Style

Figure II – 7: Nilsen Auto Electric Service Company/1926--645 Madison Street
Architect – Henry J. Appelbach – Example of 'Auto-Row' Building Design
Source – Madison Street Corridor – Architectural Historical Survey

Figure II – 8: 1922--245 Madison Street
Architect – Unknown – Example of 'Auto-Row' Building Design

Figure II – 9: Hills Motor Sales/1920--260 Madison
Example of E.E. Robert's "Auto-Row" Design
Source – Madison Street Corridor – Architectural Historical Survey

Figure II - 10: 260 Madison Today

Figure II – 11: Oak Park Buick Sales/1922--700 Madison
Example of E.E. Robert's 'Auto-Row' Design
Source – Madison Street Corridor – Architectural Historical Survey

Figure II - 12: 700 Madison Today

Figure II – 13: Foley-Rice / East Side 1924

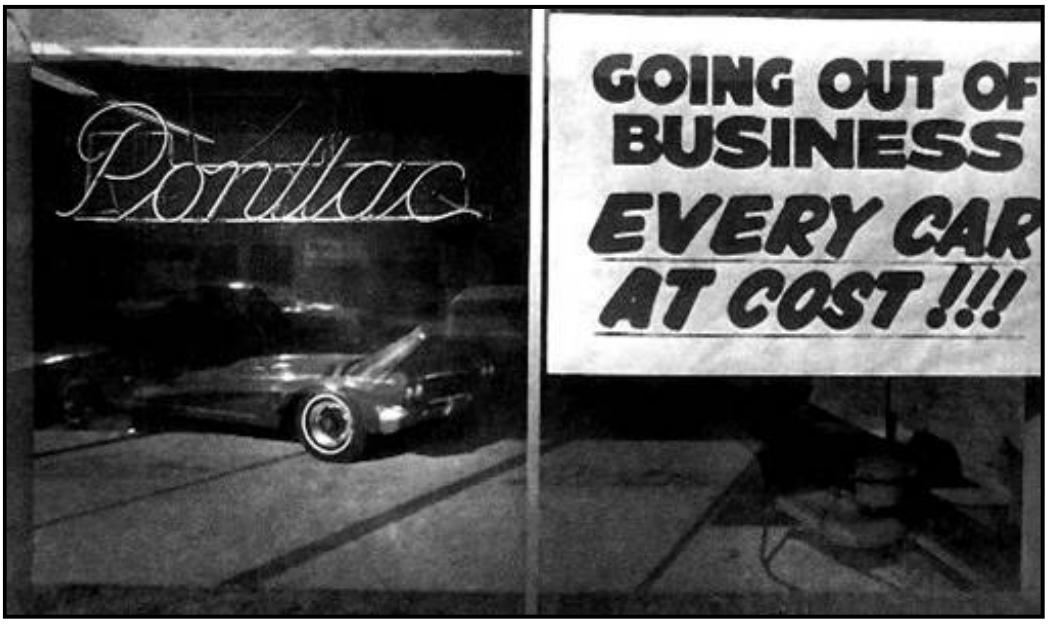
Figure II – 14: Foley-Rice / West Side 1927

Figure II – 15: Foley-Rice Ornamental Face

Figure II – 16: Apartment Ornamental Face

Figure II – 17: Foley-Rice / 1967
Façade Alteration
Source – Madison Street Corridor – Architectural Historical Survey

Figure II – 18: Decline of Auto Row
Source – Madison Street Corridor – Architectural Historical Survey



SECTION II FIGURES: SITE

Figure II – 19: Map of Oak Park Historic Districts
Arrow notes where Foley-Rice is located

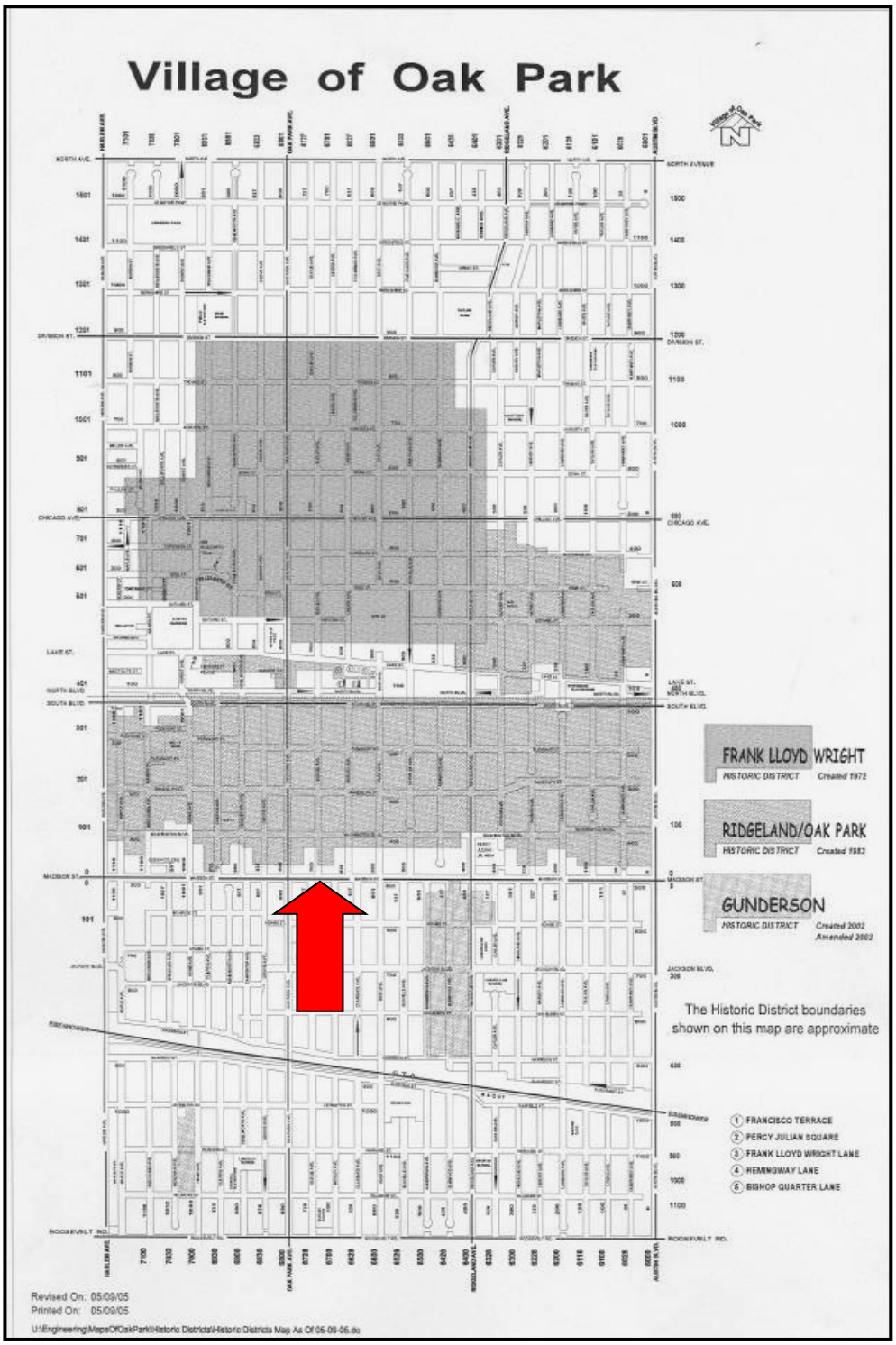


Figure II - 20: Franklin Motor Co/1922--845 Madison
William F. Kramer, Architect

Figure II - 21: Oak Park Motor Sales Co. /1923--218 Madison
Architect Unknown

Figure II – 22: Foley-Rice -- 644 Madison Street
Source: www.hiffman.com

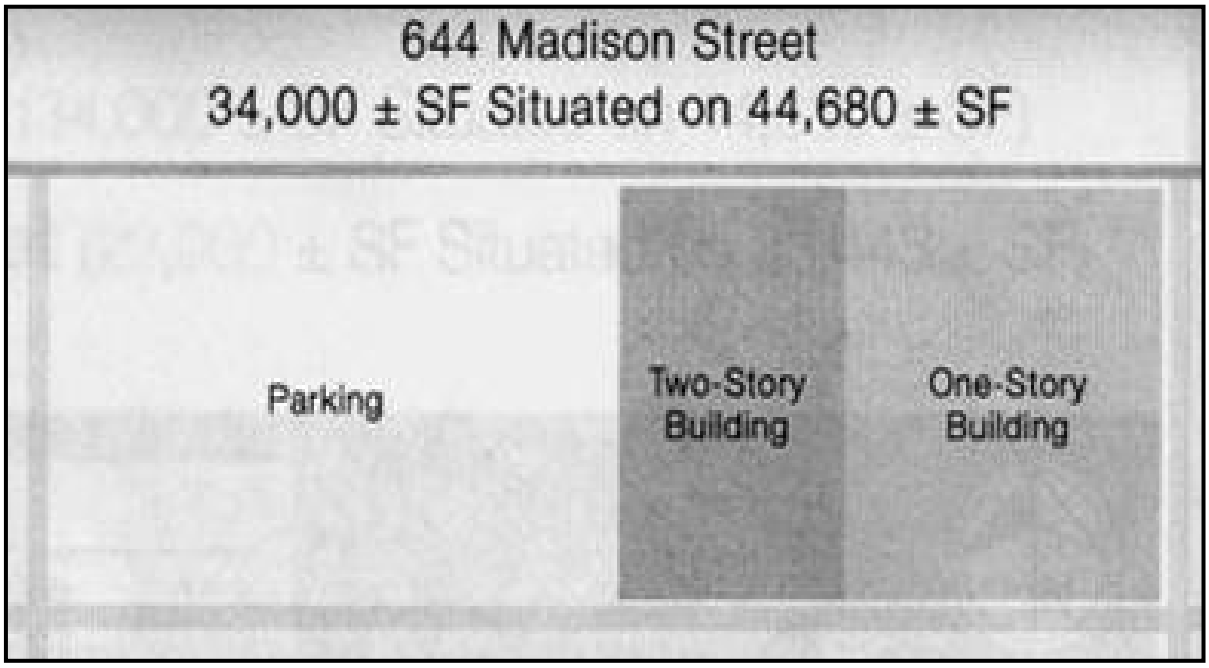


Figure II – 23: Views of tree-lined Madison Street

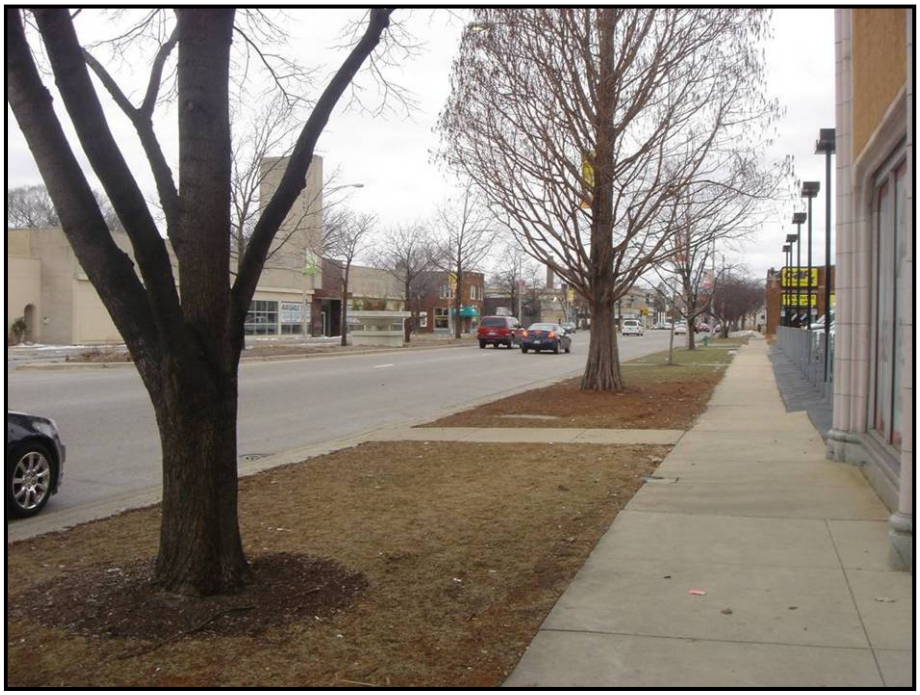


Figure II – 24: Planters placed along median of Madison Street

III. ARCHITECTURAL AND STRUCTURAL EVALUATION

OVERVIEW

Located on the corner of Madison and Wesley streets, The Foley-Rice dealership's main entrance and primary façade face south on Madison Street. This façade is notable not only because of its many details and various materials, but because it maintains a significant amount of its historic features. Both sections of the building are constructed of brick with terra cotta ornament and feature an overall rectangular massing with a main entrance centrally located within each building. The display windows uniting the facades are flat-arched openings with cream-colored terra cotta trim; the windows on the West addition are slightly smaller than the East. The East end of the building is four bays long and features an irregular roofline in which the parapet of the middle two bays steps up to its highest point. Each bay is clearly demarcated by terra cotta pilasters running from the ground to the top of the parapet.

EXTERIOR DESCRIPTION

South Façade

The South façade is the principal façade of the building, and is constructed of yellow, wire-cut brick with cream-colored terra cotta ornament, and a green, triple-spot glazed terra-cotta base that resembles granite [Figure III-1]. The building has an overall rectangular massing, with a number of ornamental terra-cotta flourishes. The East building features an irregular, stepped roofline with a parapet capped by flat, terra-cotta coping. Under the parapet, a terra-cotta cornice with various figures engaged in automobile-related activities extends along the façade [Figure III-2]. Above the showroom windows of the East building four groups of diamond pane lead glass windows are set deep into terra-cotta surrounds. Although the location of the current showroom windows is original, the configuration of the glass within them seems to have been altered to incorporate smaller expanses of glass. This change is evidenced by the presence of the original steel framing still surrounding the windows, while the center panel of glass is now divided with an aluminum mullion. In the center of the East building is a terra-cotta arched doorway with a large glass transom. Extending along the base of the two buildings is a green, triple-spot glazed terra cotta band that has been glazed to resemble granite.

The West addition is characterized by a barrel vaulted roof, and a more sparing use of terra-cotta decoration [Figure III-3]. It too has terra-cotta coping that is flush with the façade, however, its profile is more ornamental than the East building's. The second floor is denoted by four rectangular and one arched steel-sash awning window. These windows currently contain four different types of glazing including wired safety glass with a pebbled surface, regular wired safety glass, plain glass, and Plexiglas. They all have terra-cotta sills. The façade is divided into five bays by a series of colonettes extending from the ground to just above the second-floor windows. These pilasters gather at the door and window frames in clusters, framing the building's openings. This feature is underscored by the central configuration of the entrance, located below the large arched window on the second story.

East Façade

The east face of the building is a secondary façade. Its main use was as a service entrance for the repair area of the dealership [Figures III - 4 and III - 5]. At the roofline of the building, the parapet is notched in some places, giving the effect of a crenellation. This portion is capped by a flat, terra-cotta coping. The southernmost portion of the east façade features three bays carried around the corner of the building in the same configuration and materials as the storefronts on the building's South facade. While the southern-most window is still intact, the following two have been partially in-filled in with what appears to be tan-colored stucco–although further inspection would be required to determine if this addition is in fact, EIFs. Moving north down the façade, there is a terra-cotta lintel located above what appears to have once been a garage door opening, but has since been bricked in [Figure III-6]. This façade has a secondary entrance to the repair area of the building, and is accessed through a centrally located door with a large glass transom above it. As with the rest of the windows and doors on this side of the building, this door is topped by a rectangular terra-cotta lintel that lays flush with the surface of the brick, and has a shield-like crest at its center [Figure III-7]. The garage door on this façade has been replaced with a more recent aluminum model; however its original wood frame remains. The steel-sash awning window on this side of the building is the same configuration as those on the second floor of the south facade, and has a terra-cotta sill as well. The base of the building on this facade is less ornamental than the South facade, as it is constructed of cast-stone that has been scored at intervals to resemble masonry block.

North Façade

The North façade is the least important façade of the building, both due to its location which borders an alley and the extensive reconstruction of the 1924 building's rear, and the infill of many openings on the 1927 building [Figure III-8]. The entire façade of the 1924 building has been replaced by a red-brick wall with various aluminum ventilation grills. Upon further inspection inside of the building, it is obvious that significant portions of the original wall were removed, then filled with concrete masonry units and bricked in on the exterior. The parapet on this side has a stepped form to accommodate the vaulted ceiling in the repair area, and the coping used on this portion has a different profile from the glazed terra cotta used on the previous facades. The coping on this side of the building is orange in color, unglazed, and has a pronounced lip at each joint between the units.

The 1927 building has retained the majority of its American bond, common brick wall, although repairs in a different red-brick are evident in several areas [Figure III-9]. This same brick has been used to fill in what appears to have been three windows and an entrance on the ground floor of the building. The barrel-vaulted roof is evident from this side of the building, as there is no parapet. Pipes leading to the internal gutters on the roof are visible on the interior of the building. The coping used here has the same profile as that on the 1924 building side; however, it is a dark grey color. Continuing with the use of steel-sash awning windows in the service areas of the building, the second floor has six of these windows, resting on cast-stone sills. This side of the building also has a garage door, which, as on the east facade, has a modern aluminum door fitted into the original wood framing of the previous door. To the right of the garage door is an

entrance that is obviously a later addition, as evidenced by the replacement brick infill surrounding the door frame. There is a thin, (approximately four inches), cast-stone foundation running the length of the 1927 building's base.

West Façade

The western portion of the building borders a large parking lot that was once the car sales lot for the dealership. This façade is American bond, common brick, with a parapet wall capped with flat-profile grey-colored terra-cotta. The majority of the wall (from the ground, to approximately six feet from the top of the parapet), has been covered in an external insulating finishing system (EIFS). [Figure III – 10] At the southern end of the building, a secondary entrance and two casement windows have been installed.

INTERIOR DESCRIPTION

Interior Overview

As stated earlier, Foley-Rice consists of two structures built in 1924 and 1927. Both have a rectangular plan with office and showrooms in the front and a service area to the rear. This plan is typical for small industrial building type such as factories, warehouses, and auto showrooms dating to the early twentieth century.

Interior Showrooms

An article in the magazine, *Architectural Forum*, from 1927 stated "the automobile show rooms present a spacious air of distinction that marks their presence and their purpose so unmistakably that the most casual passer-by cannot fail to be impressed."[15] This is true of the Foley-Rice buildings. They were originally open display rooms with several office and service rooms lining the rear wall that separate the showrooms from the service areas. Large storefront window framed the entire South side, with the entrance at the center. There has been significant alteration of the showrooms. Originally the showrooms ceiling were approximately 20 feet high and had much more detailing at the ceiling and around the windows than appear today. [Figure III – 11]. At some point the showrooms were subdivided with the addition of partition walls and dropped acoustical tile ceilings although much of the original detailing appears to remain above the drop ceiling. [[Figure III – 12 & 13]. The floors of the showrooms retain a decorative combination of encaustic & glazed clay tile stylized in Art Deco design that is original, but shows signs of deterioration.

"The technicalities and formalities of sale and purchase are not to be over-emphasized by an obtrusive array of desks, typewriters, filing cabinets and other office paraphernalia."[16] A

[15] Wharton, William F. "Architecture and Decoration of Automobile Show Rooms." *Architectural Forum*. March, 1927. p 305.

[16] Ibid. p.308.

mezzanine level in the rear of the East showroom contained offices and storage on both the first floor and the mezzanine level. A carpeted staircase with an iron balustrade leads from the center of the room to the mezzanine. [Figure III – 14] The mezzanine originally overlooked the showroom with series of arch openings with an iron balustrade running across but the arched opening have been in filled and much of this part of the building have been altered and reconfigured. [Figure III - 15 & 17] There are skylights that provided lighting to the mezzanine level.

Structure

Overview

The two buildings of Foley-Rice use different construction methods. The 1924 building was constructed of steel framing and the1972 building used reinforced concrete. Both building have concrete foundations.

1924 Building (East Section)

The steel frame structure of Foley-Rice's 1924 building allows the showroom to be expansive and unobstructed with plenty of room to show off the newest models of the automobile [Figure III – 18]. Storefront windows extend along Madison Street and wrap around the eat side of the building to the service area. The storefront windows function like those of earlier commercial Main Street buildings—but are much larger so that people could easily see into the showrooms when they were passing by on trolley cars or were walking along the street. [Figure III - 19]

The service area behind it also uses a steel frame method consisting of steel beams, columns and bow string and pitched trusses. The space is full of light with exposed steel bowstring trusses creating a vaulted roof [Figure III-20]. The columns, I beams, bowstring vaults and trusses are joined with bolts, whereas the seat plates and stiffeners are welded [Figure III - 21]. Above the bow string trusses, at the ceiling, wood rafter[eag1]s are spaced 12 inches [eag2]apart to support the roof sheathing. Purlines are placed longitudinally at regular intervals to keep the rafters supported and aligned; wood bridging is used to prevent rotation of the rafters and helps to distribute the roof weight [Figure III - 22].

1927 Building (West Section)

The 1927 addition was built using reinforced concrete. This type of construction was commonly used for automobile showroom and service areas because it supported heavy loads and was fire and vibration resistant.[17] The showroom in this section is smaller with a dropped ceiling. A decorative reinforced concrete column that is covered with plaster and Victorian Romanesque ornamentation, dominates the visual character of the space [Figure III-23]. The room features similar architectural elements as the earlier showroom such as the storefront windows extend along Madison Street with double doors marking the entrance.

[17] Ibid. p.80.

Behind this showroom there is another service area. It is a smaller [eag3]than the East service area with the reinforced concrete structure defining the space. Round concrete columns support the concrete[eag4][eag5] one way joist system designed to spans of 15-36 feet. [18] In this one-way system, the joist load carrying capacity is unidirectional, with a flared beam supports for greater sheer resistance. [Figure III - 24] The most prominent feature of the rear area is a wide, curved concrete ramp that connects the floors. [Figure III - 25]

The second floor was used for automobile storage. Like the 1924 section, it has a barrel vaulted roof with steel bow string trusses. The roof is also constructed in the same manner. There are wood rafters extending along the length of the building with wood ridge boards and bridging distributing loads, aligning, and supporting the wood members.

Rising above the roofline ridged skylights provide light and ventilation to the servicing areas in both buildings. They extend along the midsection of the roofs, running from north to south, set above the roofline with 12 inch wood curbs. The skylights are positioned by purlins and a series of steel trusses extending the width of the skylights. The East section ridge skylights are fixed but were probably ventilating skylights originally. [Figure III - 26] Two rows of ventilating ridge skylights in the West building have operable louvers and plastic glazing [Figure III - 27].

Mechanicals

Overview

During the inspection of the building we came across a basement that is not currently in use. There was approximately one to three inches of water in this basement with some of the original fixtures that are sitting in this water corroding. What the basement does yield is information about the original mechanical systems.

Heating

There are two boilers down in the basement. The first boiler is an International boiler [Figure III- 28]. International Boiler was a large boiler manufacturer out of East Stroudsberg, Pennsylvania. The boiler is cast-iron and appears to be a sectional steam boiler. The different sections of the boiler were brought down into the basement and bolted together with tie rods. Scott believes this boiler ran on oil for two main reasons. The first is there is no appearance of coal storage in the basement. It would have required a large section as well as some sort of way to transfer the coal from upstairs into the basement. There is also two oil storage tanks present [Figure III - 29] which leads Scott to believe this is how the boiler was powered. In his opinion he felt that this boiler would have been sufficient to heat the entire building.

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[18] Ching, Francis. Building Construction Illustrated:2nd Edition. Van Nostrand Reinhold. New York, 1981, p. 7.34.

The second boiler was a Wa-Tu-Bo Steel Boiler [Figure III- 30]. Wa-Tu-Bo was manufactured by Water Tank Company based in Chicago. This company is now part of Delta Boiler. This boiler would have been constructed in the basement. Most likely in the 1960s the boiler was converted from oil to gas powers with the addition of a side arm seen in Figure III- 31. The chimney still remains that would have provide the flue for these boilers. There is also an oil hot water heater but it is much newer (but still corroded).

Various Tanks

In the basement there were at least two hot water tanks [Figure III-32]. Water would be critical in the servicing area to keep it clean as well as being used to wash cars. It is possible that a piece of automotive equipment found in the corner of the basement, Figure III– 33, which appears to say Rotowasher on it, may have been used to clean automobiles or degrease certain surfaces.

Also discovered were three air compression tanks, one seen in Figure III - 34. Given that cars would have been hoisted up, air compression tanks would have been needed and could be the reason they are down in the basement.

Radiators

There is only one set of original radiator which is found in the East showroom. This is a five-column window radiator. Scott felt it may be a Lincoln brand given the flute edging on top as seen in Figure III – 35 but there is a distinct design on the side of the radiator [Figure III - 36] but the maker has yet to be positively identified. It is thought that there would have been radiators in the West showrooms as well as the service areas when these boilers were in use.

Air Conditioning - Showrooms

While there is no indication as to whether there was air conditioning in the showrooms, there are a few reasons this might have been the way the showrooms were cooled. The automobile was definitely as symbol of the 20th century so my thought is the owner wanted showroom wanted to be as modern as possible. There were commercial installations of air conditioning systems by the 1920s so the idea of conditioned air was not out of reach. Lastly and probably most importantly, was the volume of windows. There is nothing to indicate that the original windows were operable. Given the size as well as the open exposures (east and south) these rooms would have gotten a lot of direct sunlight and would have been warm during the summer months. There were large installation seen in theaters and offices, but my thought the two showrooms may have used a unit air conditioning system given the size of the space. [Figure III – 37].

Heating and Cooling - Today

Today there are many heating systems positioned through out the building. There is a roof mounted Carrier system which appears to provide both the heating and the cooling [Figure III – 38 & 39] to the East showroom and possibly sections of the West showroom. The ceilings have been dropped in these areas and there is extensive ductwork. There are a series of offices to on

the west side of the West showroom and there appears to be a separate Carrier Air Conditioning located outside on the west side of the building unit [Figure III – 40] and a Lennox gas-fire furnace that is located in the West showroom that were installed in 1981 [Figure III – 41] that might service these specific areas.

In the Servicing Areas, there are four Modine space heaters that are suspended from the ceiling. In the West Service area, there are Rockwell thermostats that appear to be used to adjust the temperature. In the East Service area, there is also a Trane Heating unit suspended in the corner [Figure III – 42] as well as another Modine heater [Figure III – 43] located over the area that is designated as a lunchroom on the plans. Please note that on the building plans they list Sterling heating systems, however, the heating all say Modine on them except for the Trane. The servicing areas are still cooled using natural ventilation.

Light & Ventilation - Showrooms

There is natural light coming into the Showroom windows. In the second floor offices, there are skylights that bring natural light into these upper floors [Figure III – 44]. It is unknown what the original fixtures looked like in the offices but it appears that they were electric lights as seen in the ceiling of one of the offices on the first floor of the East showroom [Figure III - 45]. The photograph of the showroom from 1927 Architectural Forum [Figure III – 11] shows a portion of a chandelier lighting fixture. Today, florescent lighting are used throughout the two buildings [Figure III – 46]

These two sections of the building would have had air-exhaust fans and ventilators. Note the building plans [Appendix 2] note the location of the air exhaust fans as well as the brand. There are ventilators visible on top of the skylights today [Figure III–47].

Light & Ventilation – Servicing Areas

The Servicing Areas have natural light coming in from the skylights and windows on the walls. In addition, there was most likely specific lighting for each of the servicing stations giving that area more direct lighting. Today, florescent lighting supplements the natural lighting. [Figure III – 48]

Adequate ventilation was extremely importation in the servicing areas. There are a number of ways this is accomplished. The first is through exhaust fans as seen in Figure III– 49 & 50 found in the West servicing area. Also found in the West servicing areas are pipes that turn into the room that are symmetrically placed. There could have been some sort of tube that would have connected into these wall-mounted exhaust pipes and then to the exhaust pipe of an automobile and pulled through the pipes [Figure III– 51]. Two other ways the building would have been ventilated and cooled was from the windows on the walls and the skylights

Drainage and Plumbing

We can see at least two large cast iron pipes that come down from the room in the servicing area to the floor that are most likely used for drainage of water from the roof [Figure IV – Mechanicals – 52]. There were also holes in floor of the servicing areas that could have

provided some drainage of water and other debris. According to the 1934 Sanborn Map [Appendix A] there was a 1,000 gallon underground storage tank that was present.

There would have been bathrooms for the public and bathrooms for the workers. The only remaining evidence of the plumbing for workers are some urinals [Figure III – 53] found at the base of the ramp. Otherwise, there is no evidence of the type of plumbing originally in the building.

There are three bathrooms and two of them appear to have been ADA accessible based on the 1990s when then renovation was done

SECTION III FIGURES: EXTERIOR

Figure III-1: South Façade
Principal Facade

Figure III-2: Ornamental Faces
Engaged in automobile-related activities

Figure III – 3: West addition
Barrel vaulted roof with less use of terra-cotta decoration

Figure III – 4: East Façade
Primarily a service entrance with infill showroom window

Figure III - 5: East Façade
Primarily a service entrance

Figure III – 6: East Façade
What appears to be a bricked-up garage door

Figure III-7: East Façade/Door
Topped by a rectangular terra-cotta lintel with a shield-like crest

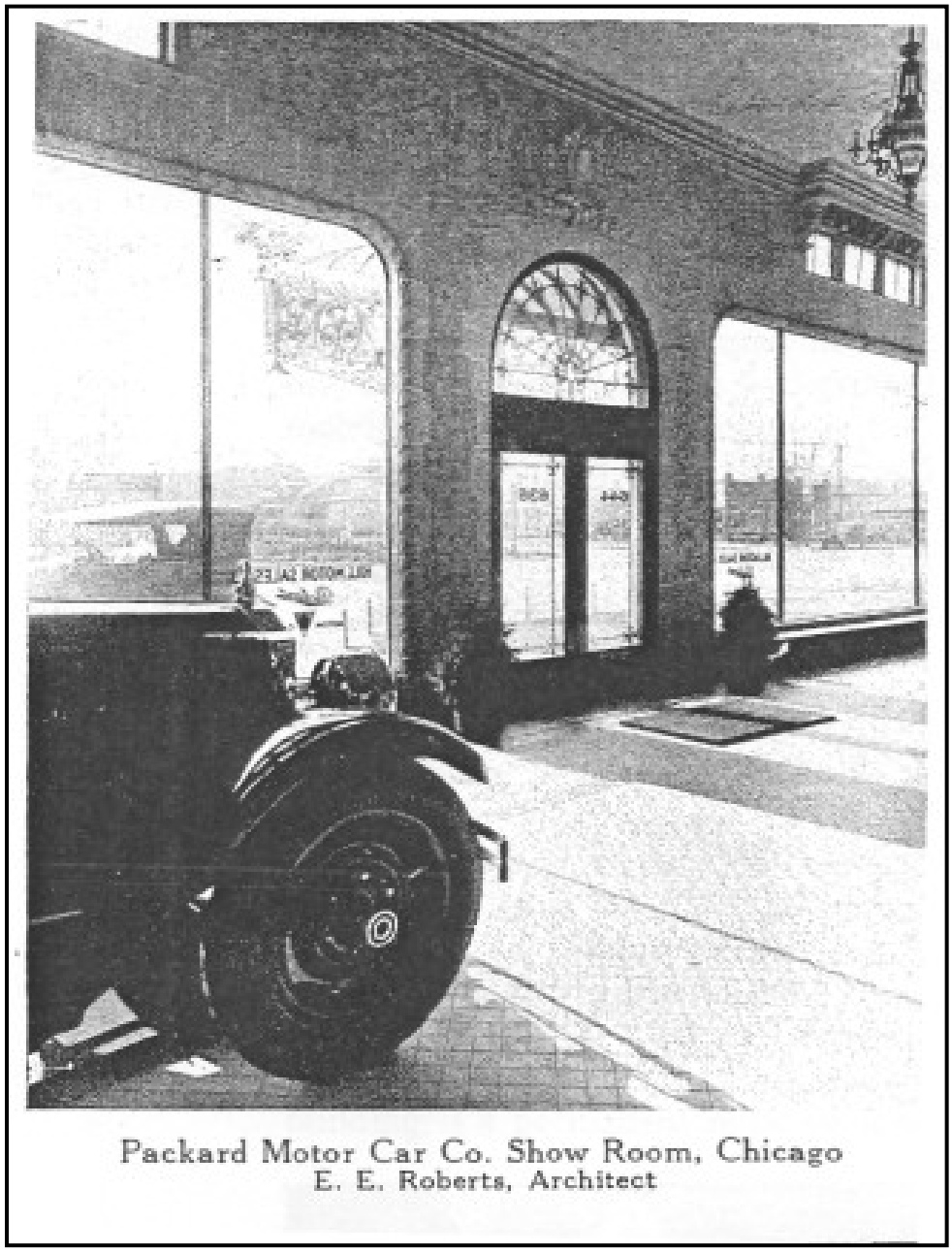
Figure III-8: North Façade
Rear of Building

Figure III – 9: North Façade
Significant infill

Figure III-10: West Façade
Covered in an external insulating finishing system

SECTION III FIGURES: INTERIORS

Figure III – 11 – Photo of Original Showroom



Packard Motor Car Co. Show Room, Chicago
E. E. Roberts, Architect

Figure III – 12: View Today

Figure III – 13: Above the drop ceiling
Note ceiling and window details from original photo [figure III – 11]

Figure III – 14: Examples of the existing tiles

Figure III – 15: Stairway

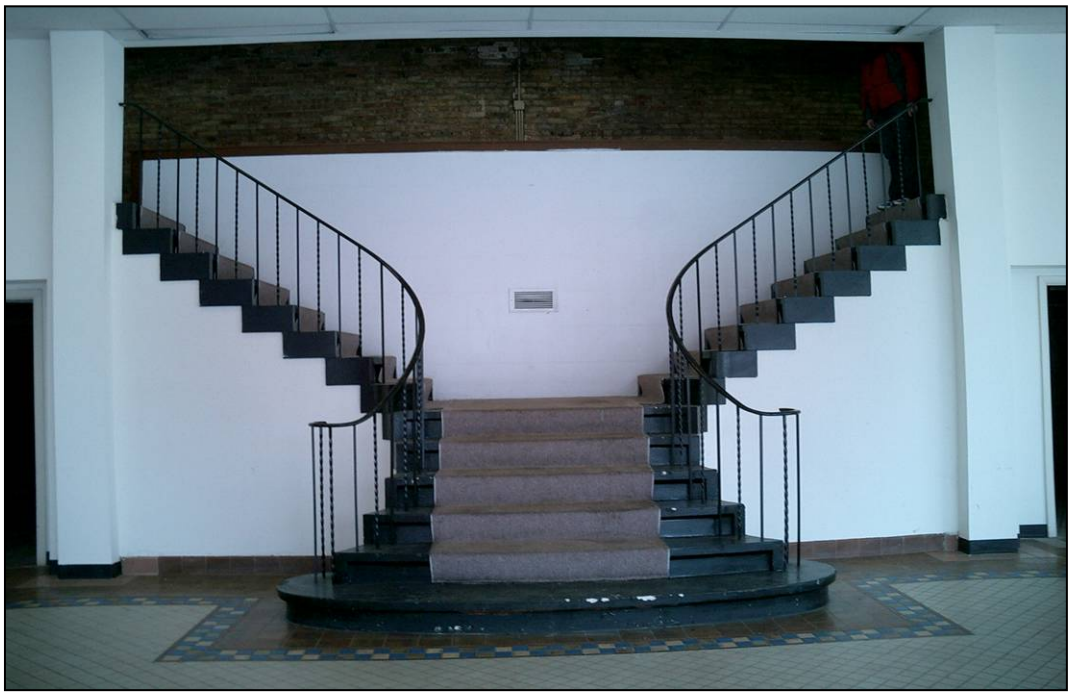
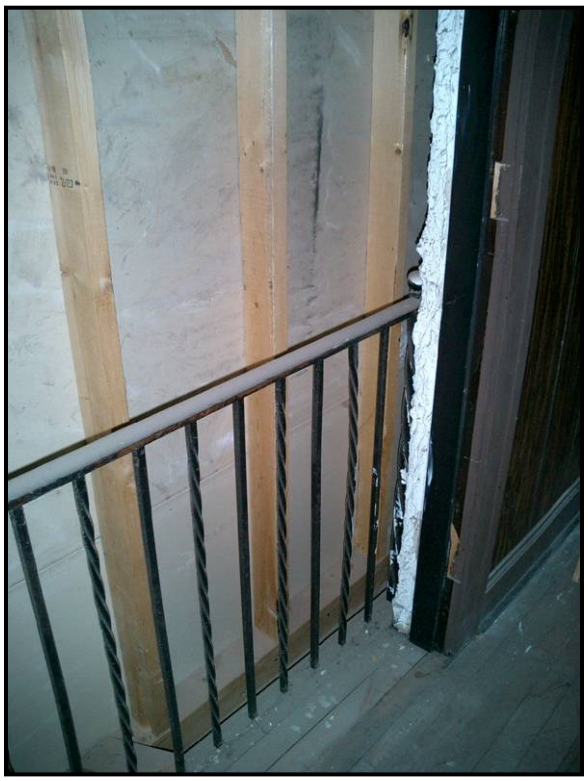


Figure III – 16: Mezzanine arch that has been in filled

Figure III – 17: Original iron railing at mezzanine level



SECTION III FIGURES: STRUCTURE

Figure III - 18: East showroom

Figure III - 19: Storefront windows along Madison Street

Figure III-20: Steel frame construction of East service area

Figure III - 21: Bolted steel trusses and steel columns, welded seat plates

Figure III - 22: Wood members: rafters, bridges, cross-bridges

Figure III – 23: West showroom decorative structural column

Figure III – 24: Concrete One Way Joists

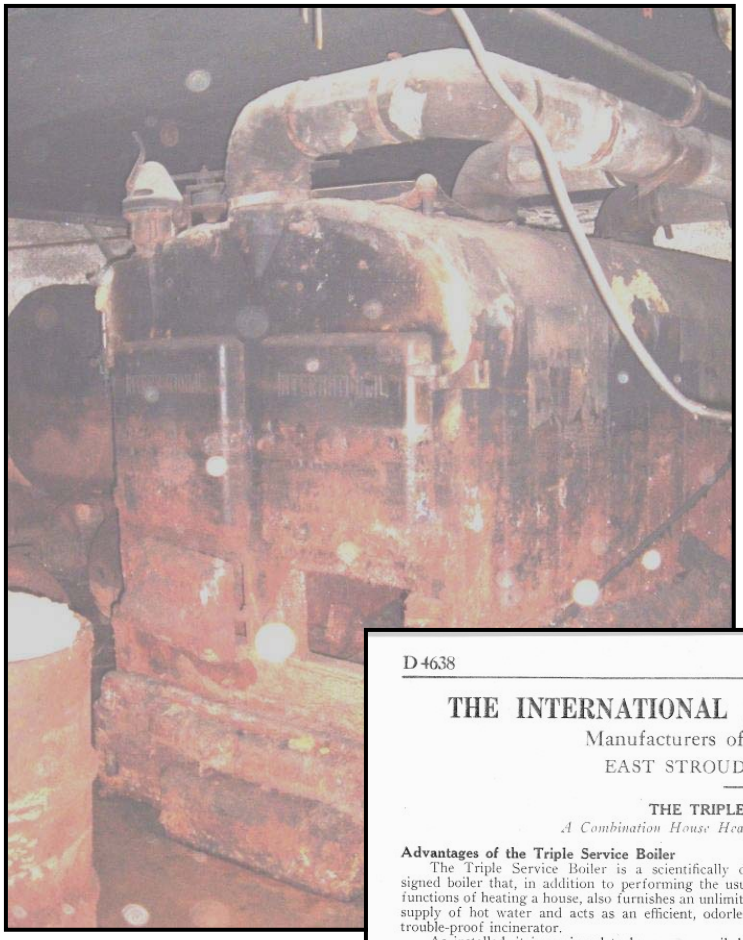
Figure III – 25: Reinforced concrete structure/ramp to second level auto storage area

Figure III – 26: East Ridge skylights

Figure III – 27: West Ridge Ventilating Skylights

SECTION III FIGURES: MECHANICALS

Figure III - 28: International Boiler



Sweet's 1930 Catalog.

D 4638

THE INTERNATIONAL BOILER WORKS COMPANY

Manufacturers of Steel Heating Boilers

EAST STROUDSBURG, PA., U. S. A.

THE TRIPLE SERVICE BOILER

A Combination House Heater, Water Heater and Incinerator

Advantages of the Triple Service Boiler

The Triple Service Boiler is a scientifically designed boiler that, in addition to performing the usual functions of heating a house, also furnishes an unlimited supply of hot water and acts as an efficient, odorless, trouble-proof incinerator.

As installed, it is equipped to burn gas or oil, but in case of fuel failure, it can be converted into a coal or wood burner in less than 30 seconds.

The Triple Service Boiler is designed and constructed in strict accordance with the A.S.M.E. Code and has been accepted by the State of Massachusetts. Operates equally well for steam, hot water, vapor.

Separate Standard Equipment Eliminated

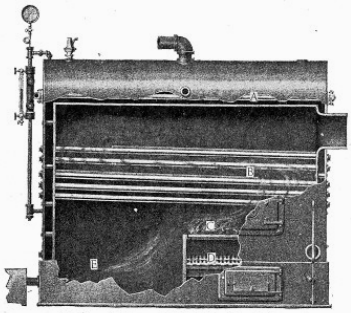
The separate storage tank, special hot water heater, indirect heater, or incinerator are eliminated, for the whole range of duties that heat is called upon to perform, is provided in this one unit.

If Oil or Gas Service Fails

An auxiliary grate, for the burning of coal or wood, is located under the incinerator grate and can be put into use by simply removing the superficial incinerator grate. The capacity of this auxiliary grate is sufficient to keep even temperature indefinitely until the automatic oil or gas service is restored.

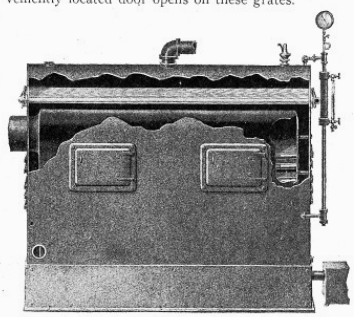
Clean, Odorless Incineration

Complete decomposition of all refuse placed on the incinerator grates is assured. Flue gases pass both over and under these grates, thoroughly drying all garbage before incineration. No ash nor odor can escape to pollute surrounding atmosphere. A large, conveniently located door opens on these grates.



Sectional View of Triple Service Boiler

(A) Domestic hot water coil for heating service water without use of storage tank. (B) House heating. (C) Garbage incinerator. (D) Auxiliary grate for emergency use or disposal of rubbish. (E) Primary combustion chamber for oil or gas



Opposite Side Sectional View of Triple Service Boiler

Interior of the special domed chamber in which the copper tubes, which supply domestic hot water, are submerged in a constant bath of superheated water. Note the large cleaning doors and the construction of the combustion chamber, which is entirely surrounded by water

Submerged Coil Feature Assures Domestic Hot Water Supply

Submerged in the hot boiler water is a copper and brass hot water supply coil. This coil is attached directly to incoming water supply and to house hot water taps.

When house heating system is shut off, hot water service can be maintained by the use of an Aquastat, which puts the boiler to work and automatically controls the temperature of the water.

This submerged type system of hot water supply is the most efficient known and one of the most economical.

TRIPLE SERVICE BOILER CAPACITIES AND DIMENSIONS

Boiler No.		5	7½	10	12½	15	17½	20	25	30	35	40	45	50	55	60	70	80	90	100	110	120
Capacity:																						
Steam Radiation	sq. ft.	500	750	1000	1250	1500	1750	2000	2500	3000	3500	4000	4500	5000	5500	6000	7000	8000	9000	10000	11000	12000
Hot Water Radiation	sq. ft.	800	1200	1600	2000	2400	2800	3200	4000	4800	5600	6400	7200	8000	8800	9600	11200	12800	14400	16000	17600	18200
Weight complete	lbs.	2250	2750	2950	3475	3800	4300	5100	5900	6300	7000	7900	8800	9800	10750	11250	12600	13300	14800	15600	16800	18000
Heating surface	sq. ft.	50	80	105	133	160	188	215	265	321	376	428	488	544	600	656	768	879	991	1103	1214	1326
Recommended diameter, stack	in.	10	12	12	12	14	14	14	16	16	16	16	18	18	20	20	24	24	28	28	30	30
Width of boiler	in.	20	26	26	26	30	30	36	36	36	42	42	48	48	48	54	54	54	60	60	60	60
Length of boiler	ft., in.	4–7	4–9	4–9	5–9	5–8	6–9	6–9	7–9	7–9	7–9	8–9	8–9	9–9	10–9	9–9	10–9	11–9	10–9	11–9	12–9	13–9
Height of boiler overall	ft., in.	4–8	5–3	5–6	5–8	5–10	5–11	6–0	6–1	6–3	6–6	6–8	6–11	6–11	6–11	7–4	7–6	7–6	8–2	8–2	8–3	8–3

SWEET'S

Figure III - 29: Oil Storage Tank

MAY OIL BURNER CORPORATION

Manufacturers of Quiet May Automatic Oil Burners

FACTORIES AND GENERAL OFFICES
BALTIMORE, MD.

NEW YORK, N. Y. 431 MADISON AVE. | CHICAGO, ILL. 35 E. WACKER DRIVE | LONDON, ENG. 15 GREAT JAMES ST. W. C. 1 | PARIS, FRANCE 15 RUE DE LA PAIX

Description of the Quiet MAY Automatic Oil Burner.

QUIET MAY AUTOMATIC OIL BURNER

The Quiet MAY Automatic Oil Burner is a fully *automatic* oil burner suitable for either domestic or commercial installation with steam, hot water, vapor or warm air heating plants.

The Quiet MAY is of the pressure atomizing, mechanical draft type. Low velocity air is provided in proper proportion to a measured amount of finely atomized oil as it enters the combustion chamber. This proven method produces absolutely quiet and economical operation.

There is only one pump on the Quiet MAY, which serves the double purpose of bringing the fuel from the storage tank and developing pressure for atomization.

The Quiet MAY is listed to burn 28° gravity oil (American Oil Burner Association specification No. 3) or 25° gravity Pacific Coast Diesel Oil.

Electric Ignition:—All models and sizes are equipped with especially designed transformers which ignite the oil as it leaves the atomizer. (No gas is used in any form.)

The flame may be adjusted for size and shape so as to conform with the requirements of the boiler or furnace.

Grates are removed from boiler and the combustion chamber is lined with refractory material, which is part of the standard installation work.

Triple control is provided by means of the thermostat or room temperature control—the boiler or furnace control, and the combustion control are synchronized into automatic operation through the Quiet MAY Control Panel, which is either mounted on the burner or on a laminated board for wall mounting. A. C. or D. C. Motor Driven.

The Company Behind the Quiet MAY

The entire time and resources of the May Oil Burner Corporation are devoted to the manufacture of ONE Product—The Quiet MAY Automatic Oil Burner.

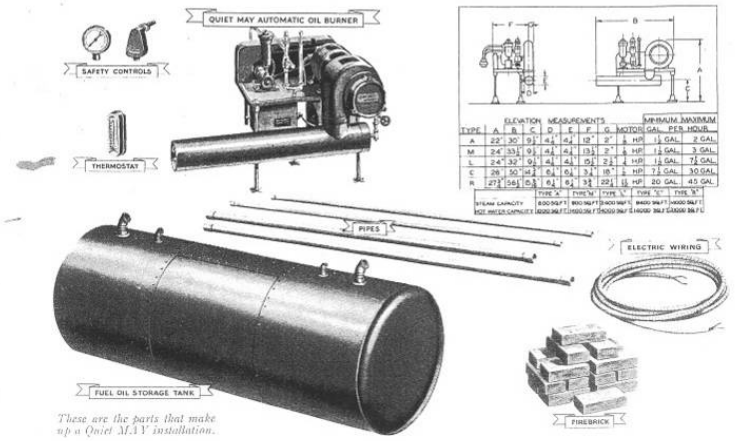
Executive offices, laboratories, and factories are in Baltimore, Md.

A staff of engineers are constantly observing the performance of Quiet MAY Automatic Oil Burners in operation in order to anticipate any possible improvement. Proof of the correctness of original design is demonstrated through the fact that the Quiet MAY Automatic Oil Burner of today embodies the same basic principles and design as the first Quiet MAY marketed. And the constant and uninterrupted performance of the Quiet MAY for five consecutive years has placed the product beyond the realm of speculation or experiment, into the category of a tried and proven staple.

Further proof of this are the many thousands of Quiet MAY Automatic Oil Burners operating successfully and satisfactorily in residential and commercial installations throughout the United States and Canada, and in foreign countries, such as England, Belgium, Germany, Holland, France, Japan, China, Australia, Russia, etc.

The Quiet MAY Automatic Oil Burner is sold and installed only by authorized Quiet MAY dealers who are required to maintain at all times one or more individuals who have successfully completed a rigid Factory Training Course in Installation and Maintenance.

Dealer and factory service representatives are established and maintained in all principal cities throughout United States, Canada and the world.



These are the parts that make up a Quiet MAY installation.

TYPE	A	B	C	D	E	F	G	MOTOR	MINIMUM GAL. PER HOUR	MAXIMUM GAL. PER HOUR
A	22"	30"	9½	4¼	4¼	12"	2"	¼ HP	1½ GAL.	2 GAL.
M	24"	33½	9½	4¼	4¼	13½	2"	¼ HP	1½ GAL.	3 GAL.
L	24"	32"	9½	4¼	4¼	15½	2½	½ HP	1½ GAL.	7½ GAL.
C	26	50"	14½	6¼	6¼	31½	18"	1 HP	7½ GAL.	30 GAL.
R	27½	56½	16½	6¼	6¼	33½	22½	1½ HP	20 GAL.	45 GAL.

	TYPE "A"	TYPE "M"	TYPE "L"	TYPE "C"	TYPE "R"
STEAM CAPACITY	830 SQ. FT.	900 SQ. FT.	2400 SQ. FT.	8400 SQ. FT.	14000 SQ. FT.
HOT WATER CAPACITY	1000 SQ. FT.	1100 SQ. FT.	2900 SQ. FT.	10100 SQ. FT.	16800 SQ. FT.

SWEET'S

Continued on next page

Figure III - 30: Wa-Tu-Bo Boiler

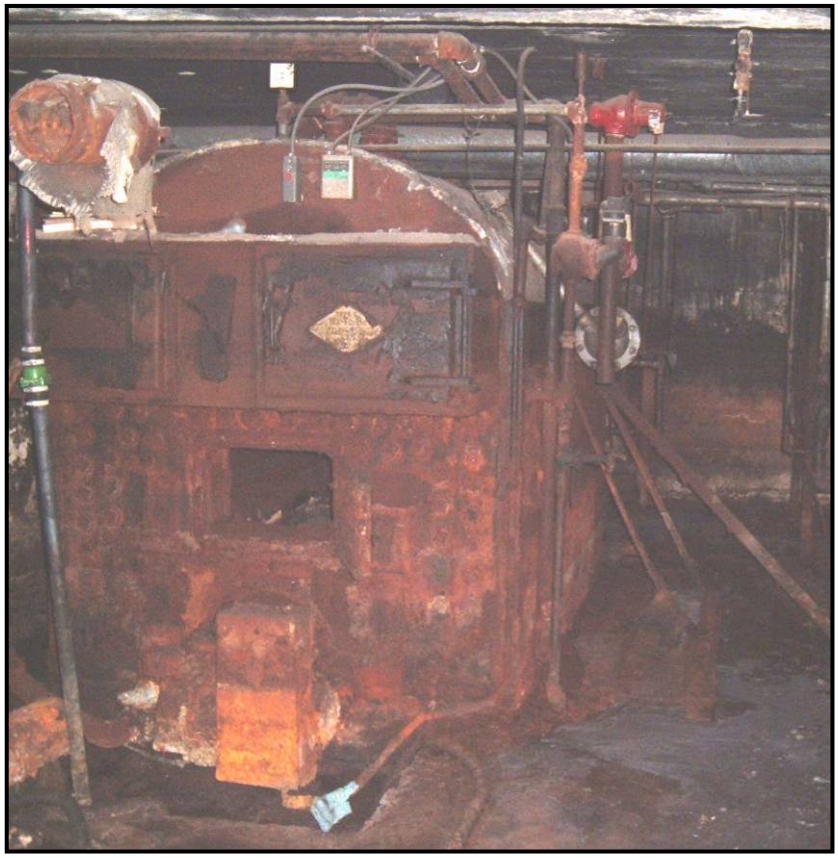


Figure III – 31: Side Arm

Figure III – 32: Hot Water Storage Tank

Figure III – 33: Rotowasher

D 4276

THE NATIONAL PIPE BENDING CO.

Manufacturers of Steam Actuated Water Heaters

156 River Street, NEW HAVEN, CONN.

OFFICES IN THE FOLLOWING CITIES

ATLANTA, GA. BOSTON, MASS. CHICAGO, ILL. CLEVELAND, OHIO LOS ANGELES, CAL.
BALTIMORE, MD. BUTTE, MONT. CINCINNATI, OHIO DENVER, COLO. MEMPHIS, TENN.
MINNEAPOLIS, MINN. NEW YORK, N. Y. PHILADELPHIA, PA. PITTSBURGH, PA.

Products

WATER STORAGE HEATERS (Bulletin No. 65); INSTANTANEOUS WATER HEATER (Bulletin No. 55); FEED WATER HEATERS (Bulletin No. 51A, 53); COAL BURNING TANK HEATERS (Bulletin No. 52);

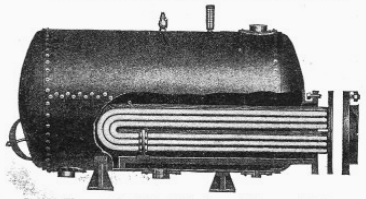
Also Coils, Pipe and Tube (Bulletin No. 60), Caustic Liquid Heaters (designed to suit service), Fuel Oil Heaters (designed to suit service).

National Hot Water Heaters

We make hot water heating units of two types, storage and instantaneous. Each type has its advantages and the installation depends upon the hot water demand. For either exhaust or live steam.

Single and Double Element Storage Heaters

A combination of a closed pressure vessel and a steam tube heating element. For use under conditions where the instantaneous demand for hot water exceeds the immediate steam supply. A properly proportioned hot water storage heater will insure ample hot water without increased boiler capacity in many instances.



Single Element Steel Shell Horizontal Storage Heater

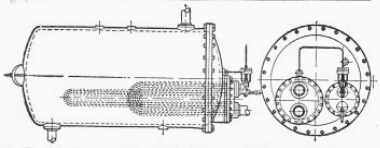
Made in horizontal and vertical type to supply from 100 to 15,000 gal. of hot water per hour, heated through standard temperature range 50° to 180° F., with steam under pressures from 0 to 100 lb. gauge.

Standard diameters and storage capacity:

Shell diameter.....in.	36	42	48	54	60	72	84	96	108
Gals. per ft. of length...	52	72	95	131	142	215	282	366	462

Hourly Heating Capacities—These capacities depend upon water temperature required and available steam pressure. Heating elements can be furnished to meet any requirements. Relative heating values to steam under different steam pressures are as follows:

Steam pressure.....lb.	0	2	5	10	20	30	50	75	100
Ratio	1	1.09	1.22	1.39	1.67	1.87	2.18	2.47	2.70

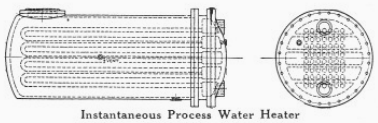


Double Element Steel Shell Horizontal Storage Heater

Instantaneous Type

Heats water as it flows either continuously or intermittently. Built for steam pressures up to 75 lb. per sq. in.

U-bend copper tubes through which the water passes are fitted into a cast iron or steel shell through which the steam for heating is passed. Made in sizes from 210 to 12,000 gal. of hot water per hour at temperatures from 40° to 180° F.



Instantaneous Process Water Heater

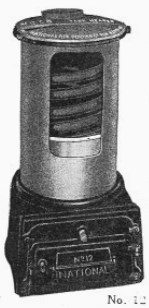
Feed Water Heaters

National Feed Water Heaters are made up of a cast iron, wrought iron or steel shell containing one or more helical coils of seamless copper tubing. The water is pumped through the coils absorbing heat from the exhaust steam in the shell.

These heaters are made in sizes to provide for heating the feed water for a wide range of boiler sizes and invariably show large savings of fuel.

Copper Coil Coal Burning Tank Heaters

The National "Multi-Flow" is ideal for hot water supply for domestic use, restaurants, beauty parlors, apartments, small hotels, country clubs, etc., and is adaptable for heating small bungalows, garages, sun porches, etc.



Construction—The high grade construction of the National insures long life and continuous service. Jacket is extra heavy gauge iron, with red vitreous enamel finish, top and base high grade gray iron.

Large double wound copper coils with brazed seamless manifolds.

Coils tested to 600 lb. pressure will stand up under any city water pressure.

Fire brick combustion chamber, triangular grates, and lift drafts.

Tank Capacities in Gallons—No. 12, 150 gal.; No. 16, 300 gal.; No. 20, 600 gal.

No. 12

Figure III - 34: Air Compression Tank

D 4198

QUINCY COMPRESSOR CO.

Air Compressors and Dry Vacuum Pumps

313 Maine Street, QUINCY, ILL.

SALES AND SERVICE LOCATIONS

ATLANTA, GA. BUFFALO, N. Y. CINCINNATI, OHIO DALLAS, TEX. HOUSTON, TEX. MEMPHIS, TENN.
BIRMINGHAM, ALA. CHICAGO, ILL. CLEVELAND, OHIO DETROIT, MICH. KANSAS CITY, MO. MOLINE, ILL.
NEW ORLEANS, LA. OKLAHOMA CITY, OKLA. PHILADELPHIA, PA. ST. LOUIS, MO. WASHINGTON, D. C.

Products

AIR COMPRESSORS: Air, Hopper and Water Cooled; and Piston Type DRY VACUUM PUMPS for many purposes. Air compressors range from 1 to 128 cu. ft. displacement and from 100 to 200 lb. pressure according to size of compressor and requirements. Vacuum pumps are suitable for displacements of 10 to 40 cu. ft. and for maximum vacuum of approximately 28 in. at sea level.

Quincy Air Compressors and Vacuum Pumps

Compressors and vacuum pumps are supplied individually or in complete built-up units in any desired style with or without pressure or vacuum control and either driven by V-belts or direct connected.

All belt driven units are equipped with single or multiple V-belts, are of special construction affording flexibility and capacity to absorb starting shocks. Because V-belts are intended to run loose and without slippage there is less bearing strain and consequently less wear on both compressor and motor bearings. V-belts will not jump off pulleys and there are no troublesome idlers. A positive power saving of from 20% to 30% by actual test results from the use of V-belts over the conventional flat type with idler or belt tightener.

Quincy Compressors are built along the most advanced engineering lines and with the idea of producing a compressor having long life, low upkeep costs and with comparative freedom from trouble.

Model J

MODEL J COMPRESSORS

Sizes	Displacement, cu. ft.
J-1	4
J-2	4 to 12
J-3	11 to 19
J-4	22
J-5	27

Single stage air cooled, driven by cast iron gear and pinion of any desired type. Designed for use in connection with a dry sprinkler system and fire protection service.

Model D

MODEL D COMPRESSORS

Sizes	Displacement, cu. ft.
D-1	4.2
D-2	6—12
D-3	13—19
D-4	22
D-5	27

Single stage air cooled, exceptionally silent units driven by single and multiple V-type belts.

Model A

MODEL A COMPRESSORS

Sizes	Displacement, cu. ft.
A-0	1.4
A-1	4.2
A-2	8.6
A-2F	12
A-3	19.2
A-4	22
A-5	27.6

Furnished also with tight and loose pulleys if desired or with sheave type pulley for V-belt drive.

Model W-3

MODEL W WATER COOLED

Sizes	Displacement, cu. ft.
W-1	22
W-2	39
W-3	62
W-4 Duplex	128

Model W-3—Single cylinder, illustrated, shows mounting of automatic unloader for the purpose of maintaining uniform pressure under continuous operating conditions.

Model WD

MODEL WD COMPRESSORS

Sizes	Displacement, cu. ft.
WD-1	22
WD-2	39
WD-3	62
WD-4	128

Single stage water cooled, quiet multiple V-belt drive. May be furnished with automatic pressure control or automatic unloaders for either intermittent or continuous service.

Model W-4 Duplex—Maximum displacement 128 cu. ft. with pressure limit of 150 lb. Motor requirements, 15 to 25 hp. Suitable for industrial uses, operation of pneumatic tools, and any heavy duty requirement. Lubrication, full pressure system to all bearings. May be direct connected to gas engine or motor.

Model W-4

MODEL R DRY VACUUM PUMPS

R-1	4 x2½ in.
R-2	4½x3½ in.
R-3	6 x4 in.

Single cylinder, air cooled dry piston type vacuum pumps. Suitable for general industrial service where average vacuum of not to exceed 28 in. at sea level is required.

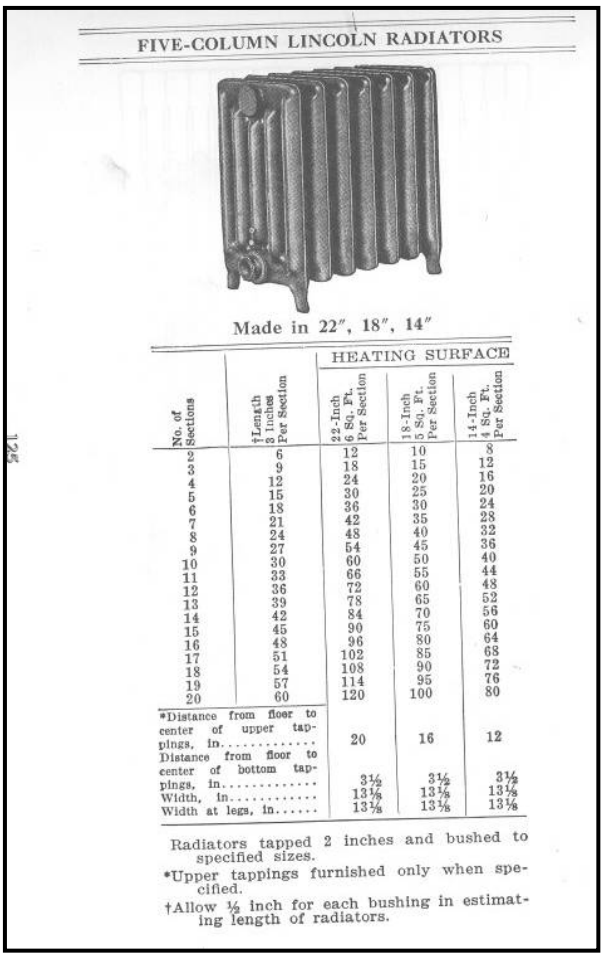
Descriptive Bulletins

The compressors and vacuum pumps illustrated and described here are but representative of the Quincy line. Descriptive bulletins of any or all types will be gladly sent on request, together with estimates or recommendations from our engineering department which is available for special service without obligation. Please state the requirements if engineering service is desired.

SWEET'S

Figure III – 35: Radiator

Figure III – 36: Radiator detail



FIVE-COLUMN LINCOLN RADIATORS

Made in 22″, 18″, 14″

No. of Sections	†Length 3 Inches Per Section	HEATING SURFACE 22-Inch 6 Sq. Ft. Per Section	18-Inch 5 Sq. Ft. Per Section	14-Inch 4 Sq. Ft. Per Section
2	6	12	10	8
3	9	18	15	12
4	12	24	20	16
5	15	30	25	20
6	18	36	30	24
7	21	42	35	28
8	24	48	40	32
9	27	54	45	36
10	30	60	50	40
11	33	66	55	44
12	36	72	60	48
13	39	78	65	52
14	42	84	70	56
15	45	90	75	60
16	48	96	80	64
17	51	102	85	68
18	54	108	90	72
19	57	114	95	76
20	60	120	100	80
*Distance from floor to center of upper tappings, in.		20	16	12
Distance from floor to center of bottom tappings, in.		3½	3½	3½
Width, in.		13⅛	13⅛	13⅛
Width at legs, in.		13⅛	13⅛	13⅛

Radiators tapped 2 inches and bushed to specified sizes.

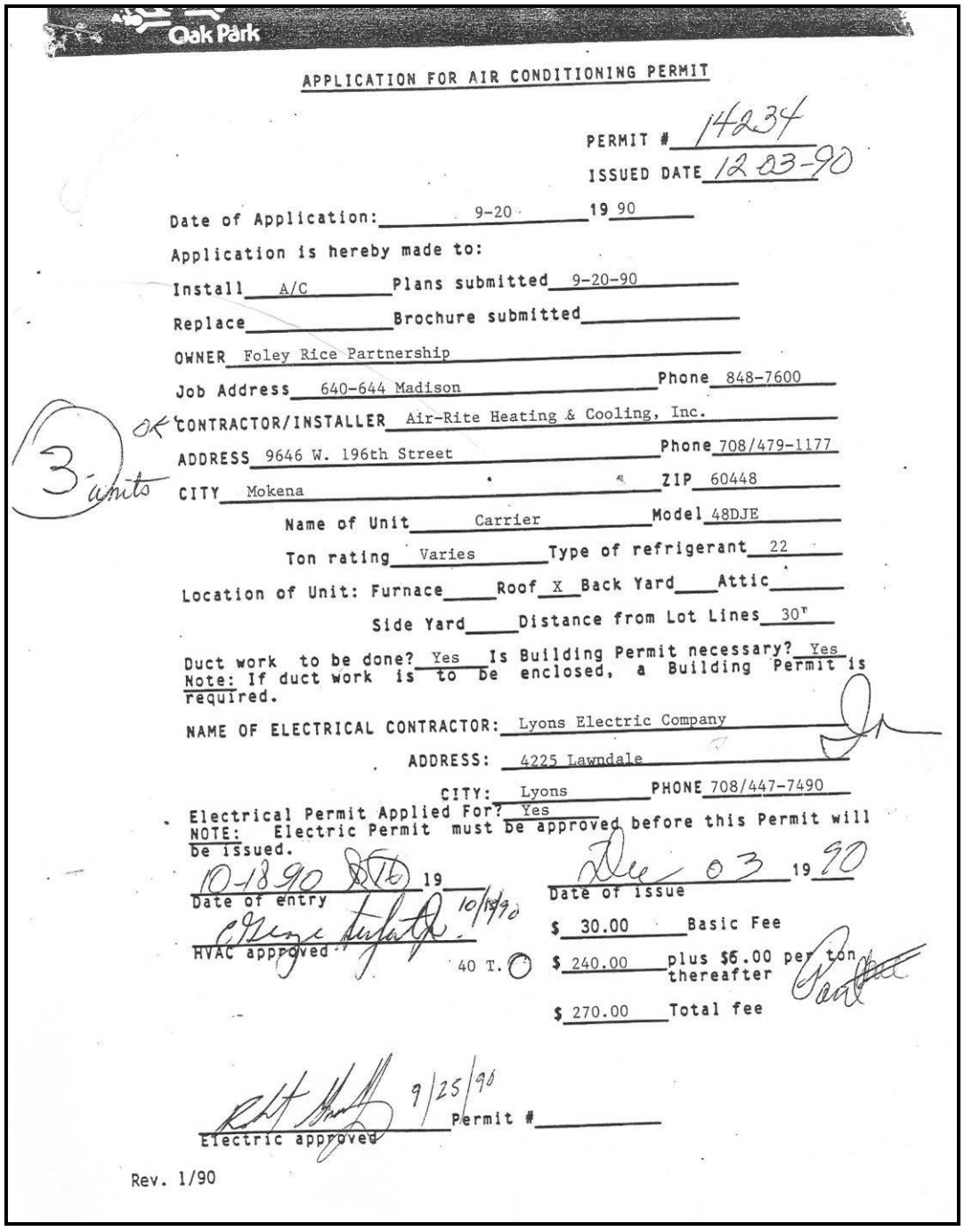
*Upper tappings furnished only when specified.

†Allow ⅛ inch for each bushing in estimating length of radiators.

Figure III – 37: Air Conditioning Ad

Figure 11-62 *Advertisement (from* The Heating and Ventilating Magazine, *March 1928, p. 157).*

Figure III – 38: Building Permit for Roof Top Unit – Air Conditioner



Oak Park

APPLICATION FOR AIR CONDITIONING PERMIT

PERMIT # 14234

ISSUED DATE 12-03-90

Date of Application: 9-20 19 90

Application is hereby made to:

Install A/C Plans submitted 9-20-90

Replace _____ Brochure submitted _____

OWNER Foley Rice Partnership

Job Address 640-644 Madison Phone 848-7600

OK CONTRACTOR/INSTALLER Air-Rite Heating & Cooling, Inc.

3 units ADDRESS 9646 W. 196th Street Phone 708/479-1177

CITY Mokena ZIP 60448

Name of Unit Carrier Model 48DJE

Ton rating Varies Type of refrigerant 22

Location of Unit: Furnace ____ Roof X Back Yard ____ Attic ____

Side Yard ____ Distance from Lot Lines 30"

Duct work to be done? Yes Is Building Permit necessary? Yes
Note: If duct work is to be enclosed, a Building Permit is required.

NAME OF ELECTRICAL CONTRACTOR: Lyons Electric Company

ADDRESS: 4225 Lawndale

CITY: Lyons PHONE 708/447-7490

Electrical Permit Applied For? Yes
NOTE: Electric Permit must be approved before this Permit will be issued.

10-18-90 19 Date of entry

HVAC approved 10/18/90

40 T.

Dec 03 19 90 Date of issue

$ 30.00 Basic Fee

$ 240.00 plus $6.00 per ton thereafter

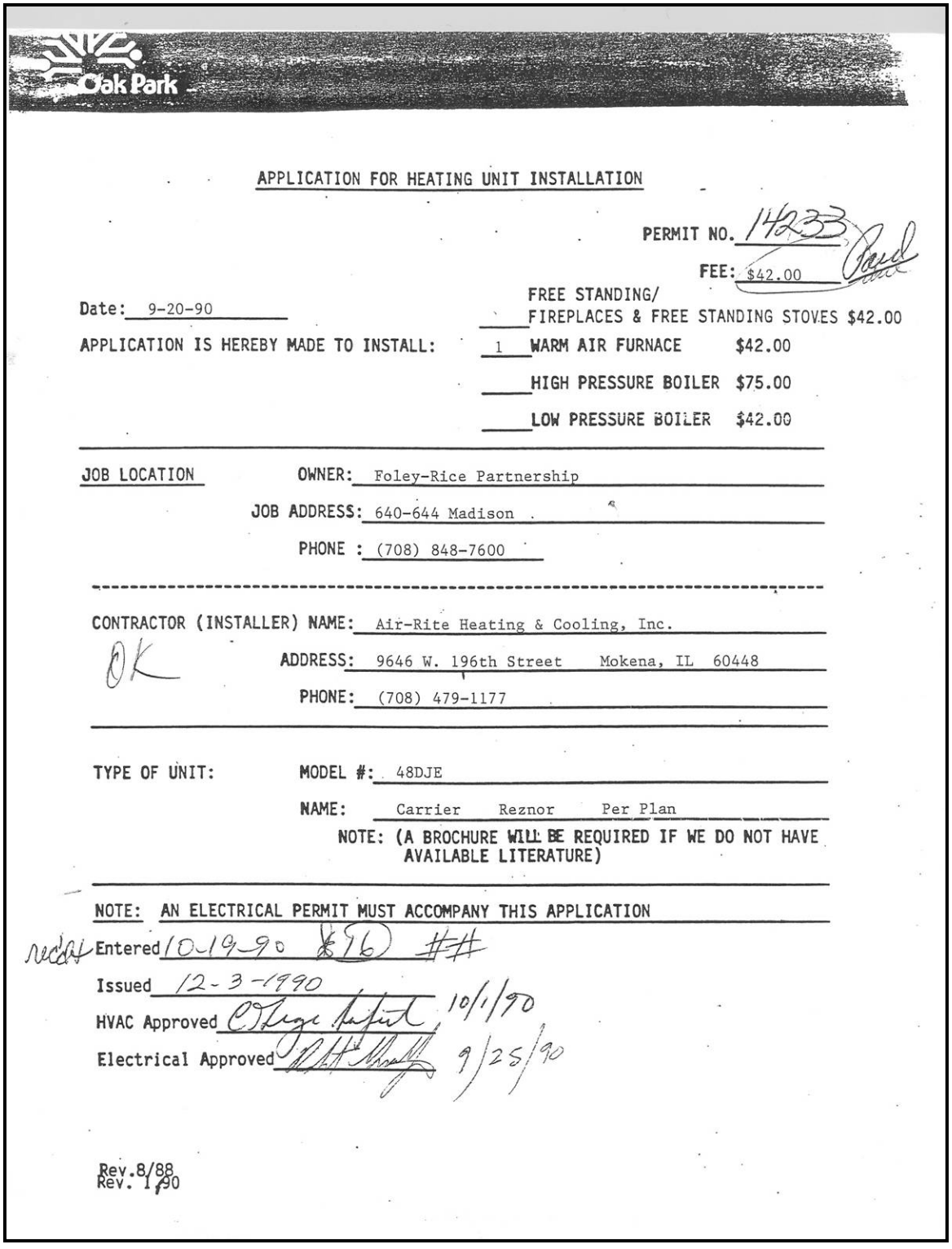
$ 270.00 Total fee

9/25/90 Electric approved

Permit # _____

Rev. 1/90

Figure III - 39: Building Permit for Roof Top Unit - Heating



Oak Park

APPLICATION FOR HEATING UNIT INSTALLATION

PERMIT NO. 14233

FEE: $42.00 Paid

Date: 9-20-90

APPLICATION IS HEREBY MADE TO INSTALL:

___	FREE STANDING/ FIREPLACES & FREE STANDING STOVES	$42.00
1	WARM AIR FURNACE	$42.00
___	HIGH PRESSURE BOILER	$75.00
___	LOW PRESSURE BOILER	$42.00

JOB LOCATION

OWNER: Foley-Rice Partnership

JOB ADDRESS: 640-644 Madison

PHONE : (708) 848-7600

CONTRACTOR (INSTALLER) NAME: Air-Rite Heating & Cooling, Inc.

OK

ADDRESS: 9646 W. 196th Street Mokena, IL 60448

PHONE: (708) 479-1177

TYPE OF UNIT:

MODEL #: 48DJE

NAME: Carrier Reznor Per Plan

NOTE: (A BROCHURE WILL BE REQUIRED IF WE DO NOT HAVE AVAILABLE LITERATURE)

NOTE: AN ELECTRICAL PERMIT MUST ACCOMPANY THIS APPLICATION

recd Entered 10-19-90 $76 ##

Issued 12-3-1990

HVAC Approved [signature] 10/1/90

Electrical Approved [signature] 9/25/90

Rev.8/88
Rev. 1/90

Figure III - 40: Outside AC unit

APPLICATION FOR HEATING UNIT INSTALLATION

The Village of Oak Park
Building Department
383-6400, Extension 332

Date January 30, 1981

Application is hereby made to:

____ Add
____ Install a X Furnace in a ____ New Plant
____ Boiler ____ Existing
X Replace

Fee: 20.00 Paid

Permit Number: # 10281

Location: Owner: John Davis, Metting House Display
Address: 640 W Madison
Phone: 383-4506

Installer: Name: Riley Heating & Cooling
Address: 16 No. 9th. Ave.
Phone: 366-0700

Unit: Name: Lennox G11E-110 gas fired furnace
Model Number:

A brochure will be required if we do not have available literature.

Electrical permit must accompany this application.

Entered 1-30-81
Issued
HVAC Approved Robert D. Whitney
Electrical approved

Figure III – 41: Building Permit for Furnace

FigureIII - 42: Trane Heater

Figure III - 43: Two of the Modine Heaters

Figure III- 44: 2nd floor Skylight Showroom

August Kuhnla, Inc. B 1815

"KuPe" Automatic Quick Acting Ventilator Skylight No. 66

Not Intended for Stage Use

A combined ventilator and skylight that operates instantaneously. It consists of a rectangular metal frame having a hipped roof of glass. Designed especially for immediate vent action in time of emergency.

The sides of the structure consist of vertical sash openings, fitted with side pivoted sash.

Struts from the bottom rail of these sash connect with a runner which is on a fixed vertical rod.

A chain from this runner extends to a point suitable for manual operation, where it passes through a key slot arrangement permitting the sash to be opened simultaneously and locked in any desired position.

Sash may also be opened thermally if so desired, by means of a fusible link.

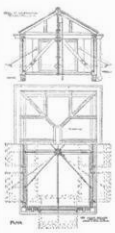
Construction and Installation—We manufacture these skylights of standard gauge galvanized steel (or copper) and deliver same f.o.b. Brooklyn, N. Y., complete (except glass) ready for installation by the purchaser in the following sizes:

2x3 ft. 3x4 ft. 4x5 ft. 5x5 ft.
3x3 ft. 4x4 ft. 4x6 ft. 5x6 ft.

Larger sizes also furnished; these, however, are shipped knocked down and will require assembly at job by practical mechanics.

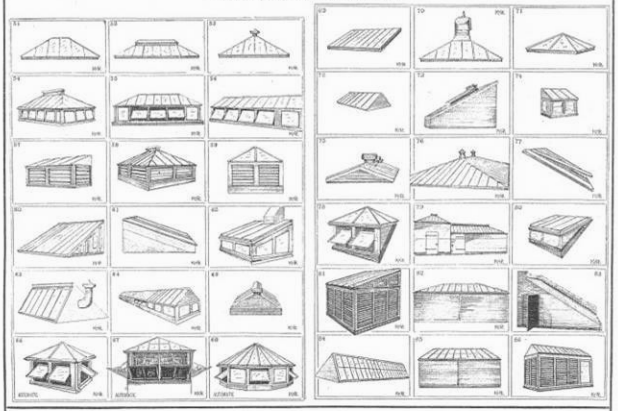
When requested, quotations will be based on complete manufacture and installation by us. (Architects desiring this method should specify accordingly.)

Indorsement—"KuPe" Automatic Ventilating Skylight No. 66 is approved by architects, engineers, contractors and owners, after rigid tests and inspection.



Various Types of "Better Standard" Skylights Manufactured by August Kuhnla, Inc., 10 to 20 Lorimer Street, Brooklyn, N. Y.

Kindly Specify and Order by Number



A Few Designs for Special Purposes by August Kuhnla, Inc.

We Design and Manufacture Skylights and Ventilators for Any Special Purpose

SWEET'S
53

Figure III - 45: original overhead light connection

Figure III – 46: Florescent lights

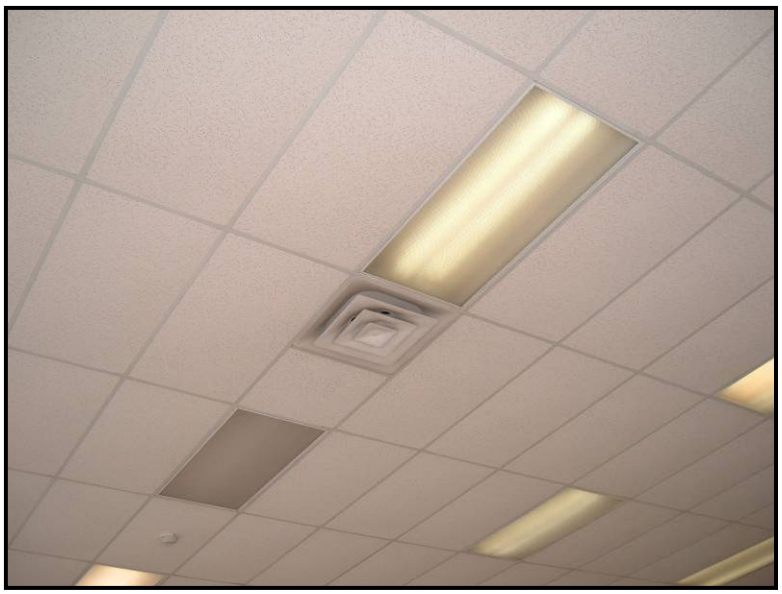
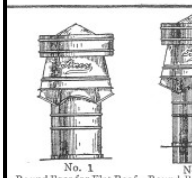


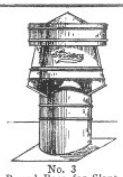
Figure III– 47: Showroom Skylight Ventilator

1856 Arex Company

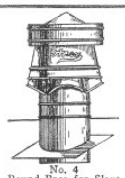


No. 1
Round Base for Flat Roof

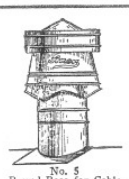
No. 2
Round Base for Flat Roof with Extension



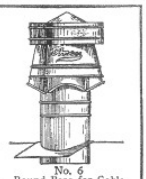
No. 3
Round Base for Slant Roof



No. 4
Round Base for Slant Roof with Extension

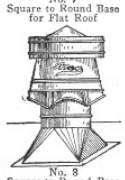


No. 5
Round Base for Gable Roof



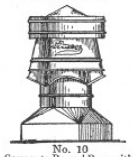
No. 6
Round Base for Gable Roof with Extension

No. 7
Square to Round Base for Flat Roof



No. 8
Square to Round Base for Slant Roof

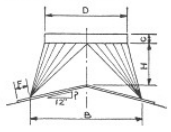
No. 9
Square to Round Base for Gable Roof

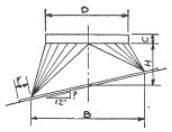


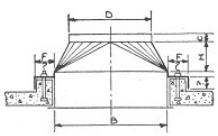
No. 10
Square to Round Base with Shoulder for Flat Roof

How to Order Arex Ventilators

Simply multiply cubical contents of room by number of air changes required per hour. The exhaust capacity table below will indicate the exact size of Arex-Austor required.



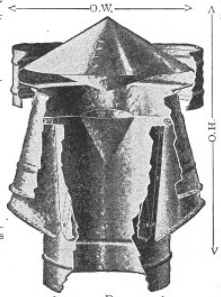




DATA, AREX-AUSTOR (ORIGINAL SIPHONAGE) VENTILATORS

Principal dimensions, in.			Exhaust per hour, cu. ft.	Gauge of ventilators		*Ship. wt., lb.
D	O.W.	O.H.		Galv. iron	Copper, oz.	
12	18	24	37,699	24	16	28
14	21	28	51,313	24	18	38
16	24	32	67,021	24	18	54
18	27	36	84,823	24	18	68
20	30	40	104,720	22	18	93
24	36	48	140,796	22	20	130
30	45	60	235,619	22	20	225
36	54	72	339,293	20	24	405
42	63	84	461,813	20	24	475
48	72	96	603,187	20	28	620
54	81	108	753,407	20	32	800
60	90	120	942,477	18-20	36	910
66	99	132	1,140,397	18	36	1170
72	108	144	1,357,167	16-18	44	1450
84	126	168	1,847,256	16	48	2225

*Weights given are for ventilators only.



Sectional View of Arex-Austor

DATA, AREX-AUSTOR (ORIGINAL SIPHONAGE) BASES

Dimensions of bases, in.				Gauge of bases	
B	H	F	C	Galv. iron	Copper oz.
15 x 15	12	4	3	24	16
17½x 17½	13	4	3	24	18
20 x 20	14	4	3	24	18
22½x 22½	15	4	3	24	18
25 x 25	16	4	3	22	18
30 x 30	18	4	3	22	20
37½x 37½	21	4	3	20	20
45 x 45	24	4	3	20	24
52½x 52½	27	5	4	20	24
60 x 60	30	5	4	18	28
67½x 67½	33	5	4	18	32
75 x 75	36	5	4	18	36
82½x 82½	39	6	5	16	36
90 x 90	42	6	5	16	44
105 x105	48	6	5	16	48

Shipping weight of bases is approximately one-third of that given for ventilators.

Arex-Austor Construction

Arex-Austors are made of Galv. Iron, Ingot or Toncan Metal, Cold-rolled Copper or any other special metal, in any size or gauge. The installations shown on this page are standard; special bases and pipe connections made to order—submit sketch.

Arex-Austors, 24-in. and upwards are provided with brass bolts connecting the frustum to the siphons. This permits installation in two halves and facilitates painting inside and outside at any time after they have been installed.

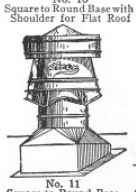
Condensation arrestors furnished at nominal cost when requested.

Unequalled facilities for turning out any quantity of any size ventilators on short notice. Prompt shipments from large stock always on hand.

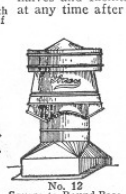
Our engineering department will solve your ventilating problems.

Expert advice without obligation. It will pay you to investigate.

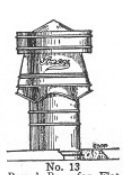
Thousands of installations without a single complaint.



No. 11
Square to Round Base with Shoulder for Slant Roof

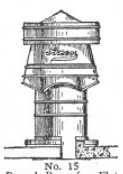


No. 12
Square to Round Base with Shoulder for Gable Roof

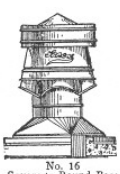


No. 13
Round Base for Flat Concrete Roof with Angle Iron Ring at Bottom

No. 14
Square to Round Base for Flat Concrete Roof with Angle Iron at Bottom



No. 15
Round Base for Flat Concrete Roof with Curb



No. 16
Square to Round Base for Flat Concrete Roof with Curb

Details and Data, Arex-Austor Ventilators and Bases

Figure III – 48: Service Area Skylights & Florescent Lights

B 1800

BLASKI MANUFACTURING CO.

Exclusive Skylight Manufacturers

4132-4138 Belmont Avenue, CHICAGO, ILL.

BRANCHES IN PRINCIPAL CITIES

Products

BLASKI LEAKPROOF *Puttyless* VENTILATING SKYLIGHTS.
BLASKI LEAKPROOF *Putty* VENTILATING SKYLIGHTS.

Special Features

Blaski skylights are entirely self-supported by steel trusses, and do not require any special preparatory construction except the curbs. They are built completely of *No. 18 gauge* galvanized *copper bearing* iron, machine fabricated throughout. All parts are bolted, riveted, or interlocked. An absolutely *solderless* construction which will last a lifetime.

The quality of the die and machine made parts is of a uniform high standard; every piece being an exact duplicate of the original part which was designed and made by experts.

Blaski detachable rod operators eliminate the hanging chain nuisance. All steel (patented self-locking spur gear for highest possible efficiency) mechanisms running in bronze bushings throughout. Will open or close the sash with less than one-third the effort and time required to manipulate other devices.

In the *puttyless* type a perfect puttyless glazing system provides for quick and easy removal of all glass for cleaning and painting of the skylights. This feature saves considerable time and money and insures a better job of painting.

Types

Both the *puttyless* and *putty* constructions are made in three standard types, "B," "C," and "D" as illustrated on the following page.

Standard widths for Type "B" are 4, 6, 8, 10 and 12 ft.

Standard widths for Type "C" are 13 ft. 4 in., 15 ft. 4 in., 17 ft. 4 in., and 19 ft. 4 in.

Standard heights for Type "D" are 4 ft. 4 in., 5 ft. 6 in., 6 ft. 8 in.

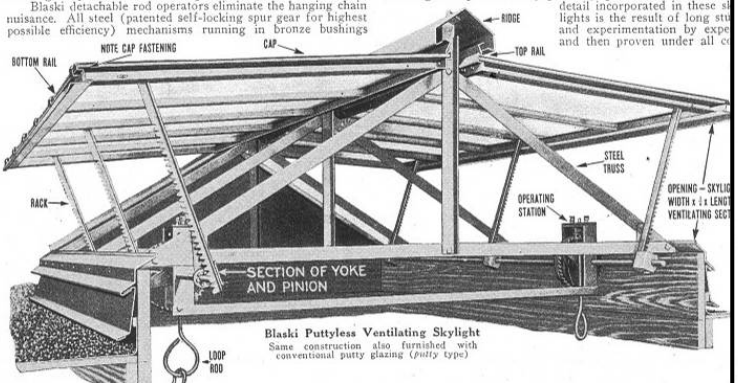
These standard widths and heights are carried in stock in any lengths, ready for erection.

Selecting Sizes for Economy

Specify Type "B" skylights whenever possible. Type "
skylights (full open from the curbs) provide twice as mu
ventilation as Type "C" skylights (upper half open) of t
same area. 8-ft., 10-ft. and 12-ft. widths (Type "B") are t
most economical. Avoid short lengths. For example, o
skylight 10 ft. x 54 ft. (540 sq. ft.) costs the same as th
10-ft. x 16-ft. skylights (480 sq. ft.). More than 12% more sk
light area is obtained for the same money by specifying t
long skylight rather than three smaller ones.

Really Good Skylights

Types "B," "C" and "D" skylights, we believe are the o
standing examples of really good skylight construction. Ev
detail incorporated in these sk
lights is the result of long stu
and experimentation by expe
and then proven under all c



Blaski Puttyless Ventilating Skylight
Same construction also furnished with conventional putty glazing (*putty* type)

Blaski Skylights for All Uses

Types "B" and "C" skylights, in their variety of sizes and possible lengths of ventilating sections, can be placed at strategic points so as to light and ventilate the entire building chiefly through the roof. The increased efficiency and saving of electric light soon pays for the installation. The general trend when Blaski skylights have been tried is increased use, and many architects literally flood the building with Blaski skylights and ventilation. We also receive a large number of orders direct from owners who add to the quantity of Blaski skylights originally installed to cover additional requirements.

Prices, Inquiries, etc.

Requests for quotations should designate whether *puttyless* or *putty* type is wanted, as there is a difference in cost. State number of skylights, their sizes, and length of each skylight to be ventilated.

Quick Delivery

An average of over 100,000 sq. ft. of skylights are stocked for immediate shipment. The actual installation requires only a few simple assembling operations, which any handy man can quickly accomplish with only ordinary tools. This advantage is particularly desirable when skylights are ordered to be erected by mechanics already on the job.

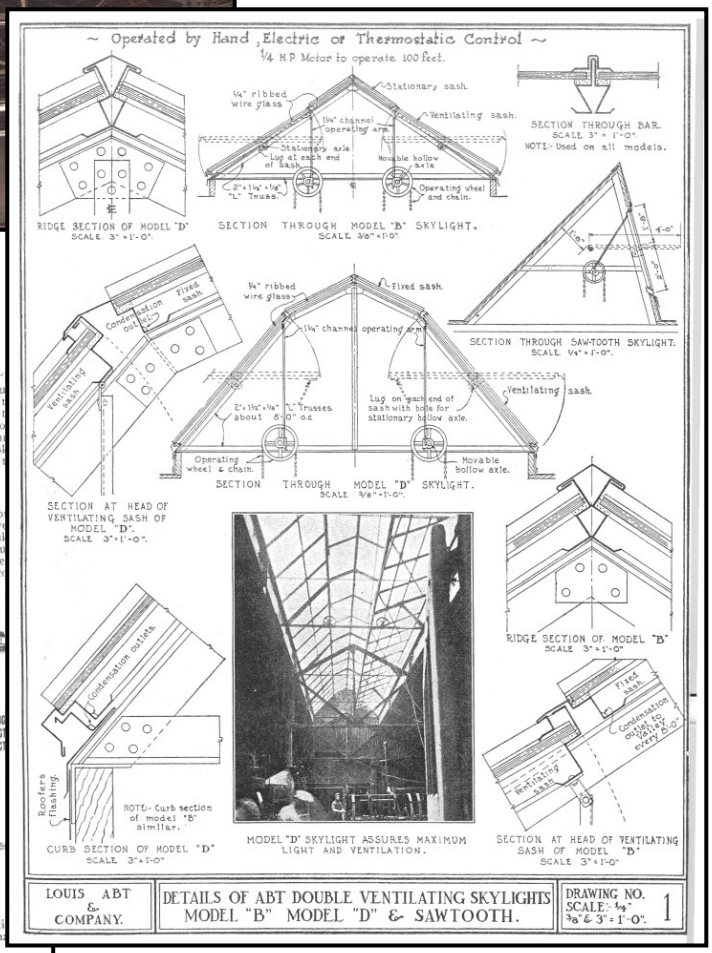


Figure III – 49: Exhaust Fans – Servicing Areas

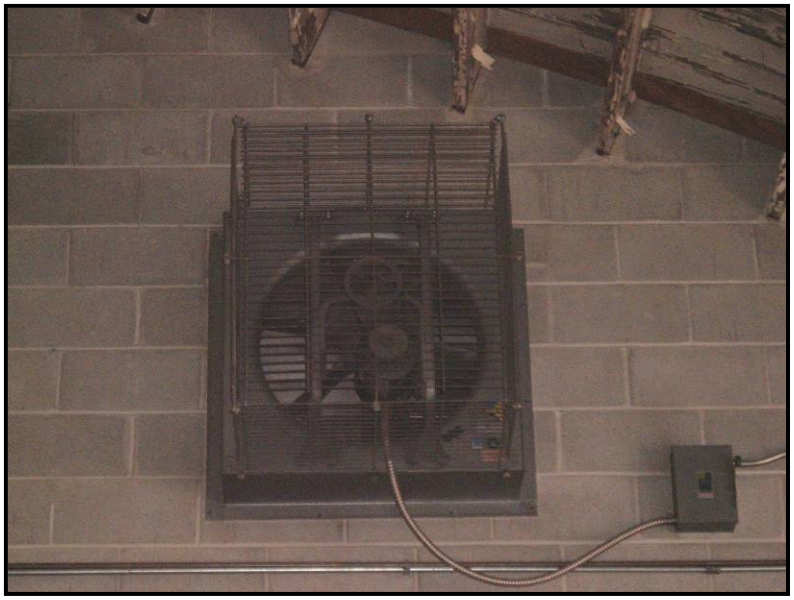
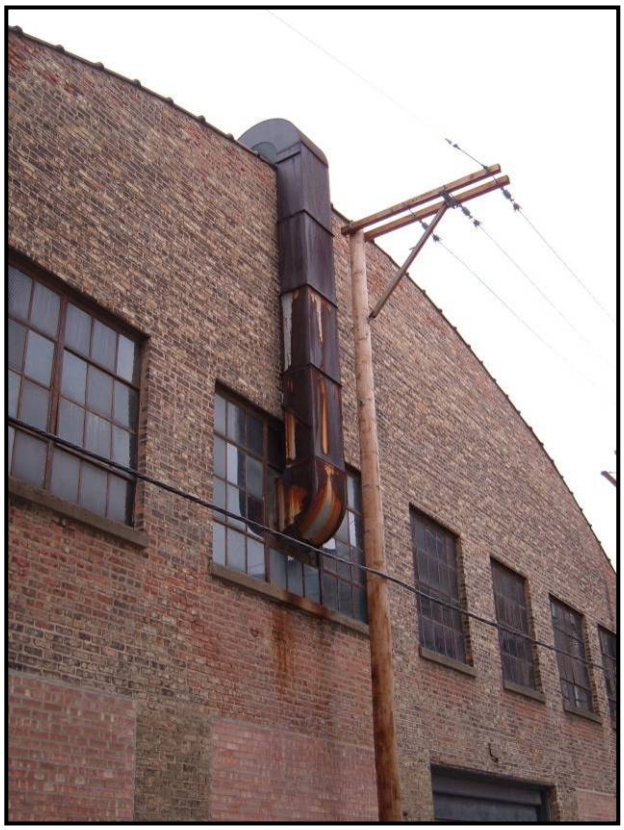


Figure III – 50: Exterior View of Exhaust System



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DIEHL MANUFACTURING COMPANY

ELECTRICAL DIVISION OF THE SINGER MANUFACTURING COMPANY

Manufacturers of Electric Motors, Generators and Fans

ELIZABETHPORT, N. J.

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Products

Motor Driven Ventilating and Exhaust Fans and Blowers; Oscillating and Non-oscillating Desk and Bracket Fans; Ceiling Fans, Column Fans and Fans for Special Application.

For Heating and Ventilating Motors, see page D5127.

Diehl

Motor Driven Exhaust Fans (18 In. and Larger)

Diehl totally enclosed direct connected exhaust fans are intended for use in industrial plants, restaurants, hospitals, schools, public buildings, bakeries and wherever a large volume of air is to be moved. They are furnished in several types and sizes to meet the varying requirements of service and for all combinations of current, frequency and voltage generally used.

High Speed Type—Broad, shallow pitch blades, rotating at high speed, produce an exceptionally large movement of air for the size of the fan. This type fan is recommended when large and frequent air changes are required.

Low Speed Type—When quietness of operation is a factor this fan is recommended. It is equipped with scientifically designed deep pitched, pressed steel fan blades which effectively move large volumes of air without objectionable noise because of the slow speed of the fan wheel.

Mounting—Unless otherwise specified the motors are arranged to run in a horizontal position with the direction of the air current from the motor toward the fan. Fans can be furnished to operate vertically or to draw air through the fan toward the motor. Vertical fans with the motor above the fan are not recommended but will be furnished when desired.

Motors—The motors are totally enclosed to protect the internal parts from moisture, oil, dirt or other matter which might be injurious to the windings.

Bearings are of ample proportions, dustproof, and well lubricated to insure smooth running, long life, and maximum quietness of operation with least amount of care.

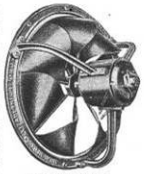
The direct-current motors are series wound and of liberal design to assure good commutation and low temperature rise. Hinged end covers on the commutator end afford easy access to the commutator and brushes.

The polyphase alternating-current motors are of the squirrel cage type having high efficiencies with low temperature rise.

The single-phase motors for the small fans are induction type which are particularly adapted to exhaust fan service. The single-phase motors for the large fans are straight repulsion type having the same general characteristics as the direct-current motors.

Speed Control—Speed regulators to give 50% reduction in speed can be furnished for direct-current fans. Polyphase squirrel cage motors are constant speed, therefore, no speed regulators are furnished.

High Speed Fan



Low Speed Fan

Small Exhaust Fans (9, 12, 15 and 16 In.)

For use where the volume of air to be moved is not large, a line of small exhaust fans fitted with bucket blades is manufactured in sizes of 9, 12 and 15-in. diameter. In proportion to their size, these small fans handle a comparatively large volume of air. They possess the same general characteristics as the large fans but are intended for lighter duty.

Small ventilating fans with flat blades are also manufactured for use in the ventilation of small enclosures, such as, offices, lavatories, etc., where the amount of air to be moved is small and quiet operation is desired. They may readily be installed in transoms, window frames or light partitions. Sizes 12 and 16-in.

The motors are totally enclosed and operate at low temperatures. The alternating current motor is of induction design with a substantial winding that will not burn out even if the motor should be stalled across the line. This is the result of a careful study of the application by our engineers.

Direct-current motors are series wound.

Bucket Blade Fan

Flat Blade Fan

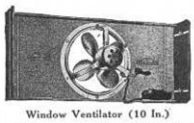
Wind-O-Vent Ventilators

Wind-O-Vent Window Ventilator—An unusually attractive, yet efficient ventilating unit which may be quickly installed in the kitchen, or any other room in the house, for the quiet and thorough removal of cooking odors, smoke, steam, etc. Its installation does not interfere with the raising or lowering of the windows nor prevent the hanging of curtains and shades.

Blades, motor housing and fittings are of highly polished cast aluminum, mounted on a metal panel finished in pearl gray enamel or a plate glass panel with chrome plated fittings. Panels are adjustable in length, obtainable in several sizes to fit windows varying from 17 to 63 in. in width.

Furnished for 110-volt a-c., 60 and 25 cycles and 110-volt d-c., service with pull switch, 10-ft. connecting cord and attachment plug.

Wind-O-Vent Wall Cabinet Ventilator—The Wind-O-Vent Wall Cabinet may be installed in any wall—brick, concrete or mill constructed. Equipped with standard Wind-O-Vent fan assembly. Size 12⅝ in. high, 15¼ in. wide, 5⅜ in. deep. Cabinet and fan assembly packed in separate cartons to enable cabinet to be installed during construction. Finished in pearl gray baked enamel.



Window Ventilator (10 In.)

Wall Cabinet Ventilator

Figure III– 51 Possible way to ventilation emissions from automobiles

Figure III - 52: Roof Drainage

Figure III - 53: Urinals

SECTION IV: VISUAL INSPECTION/ EXISTING CONDITIONS ASSESSMENT

OVERVIEW

The dealership is constructed of reinforced concrete and metal framing with a veneer comprised of yellow wire-cut face brick. Common brick, laid in an American bond, is used on the secondary facades of the building. We believe the walls to be three wythes thick, further inspection would be necessary to confirm the thickness as well as to determine what type of ties, if any, are used to anchor the brick façade.

Façade

Brick

Based on visual inspection, the face brick used on the building is generally intact. Any repairs done to this brickwork over time has been done in the same type of face brick, apparently, the company that manufactures it is still in business in Wisconsin. Repointing on facades with the face brick has been adequate [eag6] due to the observation that the brick shows only a few areas of damage due to weathering and does not appear to have altered the shape of [eag7]the brick over time.
The common brick on the secondary facades shows evidence of several losses. This brick is laid in an American bond, and shows no evidence of ties, although every six rows there is a course of header. A metal detector or inspection opening would be necessary to determine ties are present in the wall. The brick has been repointed, but there is little evidence that the original mortar was removed, as the walls appear to have been repointed with a "smear" technique, in which additional mortar is applied over the joints during repointing, as opposed to grinding out the mortar to a certain depth and repointing within the existing joints without filling past the face of the brick. Impact damage at the corner of the building offered a view of the original mortar which due to its grey color, and hardness when scratched, appears to have some Portland cement in it [Figure IV-1].

Damage to the original bricks appears to be due to drainage issues and impact. There are a number of areas on the north façade in which the brick under the window sills has been replaced, and continues to erode [Figure IV -2]. This problem is characteristic for all the areas under the windowsills on this façade, and is most likely due to the absence of a drip edge on the cast-stone windowsills. Other instances of damage is crumbling of the brick due to impact, the location of these failures are on corners on the alley side of the building where it is likely that vehicles or dumpsters have hit the building [Figure IV-3].

No signs of distress were observed at the areas where windows and doors were in filled with new brick. Aesthetically, however, the areas of infill are obviously different from the rest of the wall.

Terra-Cotta

The terra-cotta throughout the façade has relatively limited areas of visible cracking mostly due to what appears to be interface issues. In one such case, the terra-cotta at the corners of the building on the south facade has cracked in the same location—at the corner of the display window's trim [Figure IV-4]. This could be due to the unequal distribution of the building's load putting too much pressure on the terra cotta at these locations. It could also be caused by differential movement or differential stress in the pieces. Directly above this failure, the terra cotta quoining on the top, left hand corner of the wall is out of plumb with the rest of the building [Figure IV-5]. It appears that attempts have been made to correct this by filling the area of separation with sealant, therefore, this damage could have been caused by the building settling, but further inspection would have to be done to determine the exact cause. The green terra-cotta at the base of the building, demonstrates some relatively extensive cracking [Figure IV-6.]. This cracking could be due to the concrete sidewalk being placed directly against the terra cotta. The concrete may have bonded to the terra cotta and then cracked it as the concrete shrunk during drying. Many of these cracks at ground level also occur at the base of the terra-cotta colonette clusters around the window—possible a result of the load being exerted on these members at ground level.[eag8]

Non-structural conditions in the terra cotta include some limited staining and spalling at door and window openings in which the terra-cotta rests on [eag9]steel lintels [Figure IV-7.].

Roof[eag10]

At the time of the visual inspection, the roof was inaccessible, but based on what parts of it were visible, and on its construction, the roof of the 1924 building is thought to have a flat, bituminous roof, while the 1927 building's roof is barrel-vaulted. [eag11]Further inspection would be necessary to determine its exact components and current condition. According to the building's current owner, the building has had a history of problems with drainage and leaks on the roof. No downspouts were visible from the exterior of the building.

Openings

Windows

The most prolific window-type used throughout the building is the steel-sash awning window. The steel on these windows shows considerable surface corrosion and in some cases has stained the masonry surrounding the openings [Figure IV-8]. The glass in these windows was installed from the inside with putty that has significantly deteriorated—to the point of crumbling when touched in some locations. The glass itself in the windows is an assortment of replacements throughout the years—the original appears to be a wire safety glass with a pebbled surface, with later replacements including plain wired safety glass, Plexiglas, and plain glass panes.
The diamond-pane leaded glass windows on the south facade were not readily accessible at the time of the inspection; however, no signs of distress were evident based on limited observation from grade. Further inspection is necessary to determine their exact condition. The showroom windows appear to be unstable due to the deterioration of the original steel mullions [Figure IV-9]. These mullions show significant corrosion at the base, likely due to the temperature

differences caused by the framing system's proximity to the radiators indoors and the single pane glass's poor insulating properties. These temperature differences cause condensation to form on the metal frame and collect at the base, resulting in corrosion of the steel over time. This loss at the base of the window framing system has caused the window to deflect. Minimum pressure exerted on the window results in bowing of the entire framing system. Repair and stabilization of these windows should be a top priority. This condition may have been the reason that an additional aluminum mullion was at some point installed at the center of each large showroom window for additional support; consequently, this addition has not adequately addressed the problem.

Doors

All of the doors on the building's exterior have been replaced over time. All the entrances have aluminum frame, glass doors, and the garage doors have been replaced with modern aluminum overhead doors that have been fitted into the original wood frames of the original garage doors. Some of the original doorways have also been bricked in.

Interior Showrooms

Floors

The tiles are original but some are loose and cracked. [Figure IV – 10] There is some regular spacing of tile cracking. [Figure IV – 11] Other issues in the tile include some impact damages as well as inappropriate repair and replacement which interrupts design pattern. [Figure III -12]

Structure

Concrete Foundation

Visual inspection of the concrete foundation reveals no evidence of significant concrete problems such as spalling, rough and sandy surfaces or structural cracks. A faded ring encircling an oil drain on the floor of the service area [Figure IV – 13] is suggestive of chemical damage of the concrete at some point. But because the concrete is only minimally discolored and dry, the chemical reaction does no appear active. Hence, no further investigation is needed related to the chemical reaction. However, evidence of an oil drain suggests the existence of an underground storage tank which is discussed further in Section V – Recommendations for Further Investigations. Lastly, the basement was inaccessible due to water accumulations. [Figure IV – 14] Further evaluation is recommended to ensure there are no structural problems underground, especially spalling or cracks related to water damage and/or settlement.

Steel Structure

We were unable to inspect the showroom's steel framing because it is behind plaster walls. Because the steel framing in the service area is exposed [Figure IV-15] we could closely examine the structure at ground level. There was no visible evidence of overload or fatigue such as bending, buckling or fracture. Furthermore, there was no indication of any loss of strength in

the members from corrosion associated with water or chemicals which might be exhibited by deformation of the structural frame. There is significant paint deterioration on all members.

The visual inspection of steel members supporting the vaulted roof and skylights was nearly impossible because of the height of the ceiling. But there was no apparent indication of structural problems such as bowing or bending or any visible indications of water damage such as rusting or active water leaks.

Reinforced Concrete

There West showroom features a dominant concrete column with no signs of structural stress such as buckling, bowing or fracture. Even the paint is intact. There is no further evidence of structural problems such as cracking of beams, columns, or visible cracks on the walls. The West service area is reinforced concrete beams and columns supporting the second story auto storage area. Whereas a close visual inspection of several beams and columns found no evidence of bowing, fractures or cracking, on center column was bowed concavely, with peeling and cracked paint which is suggestive of deflection, overload and/or fatigue. A thorough structural analysis is needed to determine if the column is failing and if additional support is needed.

SECTION IV FIGURES: EXTERIOR

Figure IV - 1: View of Original Mortar
Due to its grey color and hardness when scratched appears to have some Portland cement in it

Figure IV – 2: North Façade Window
The brick under the window sills has been replaced and continues to erode

Figure IV – 3 – North Façade
Crumbling brick due to impact

Figure IV - 4: Cracked Terra-Cotta
At corner of display window

Figure IV – 5: Terra Cotta Quoining on the top
Out of plumb with the rest of the building

.

Figure IV-6: Terra Cotta at the Base of the Building

Figure IV – 7:

Figure IV – 8:

Figure IV-9:

SECTION IV FIGURES – INTERIOR SHOWROOM FLOORS

Figure IV – 10: Cracked tile

Figure IV – 11: Continuous cracking

Figure IV – 12: Impact damage & Inappropriate Repair & Replacement

SECTION IV FIGURES - STRUCTURE

Figure IV - 13: Oil drain stain; possible evidence of underground oil storage tank

Figure IV-14: Basement entry; unable to investigate basement foundation due to standing water

Figure IV- 15: Bowed concrete support beam in West service area.

SECTION V: CONCLUSIONS

Architectural Significance and Integrity

Exterior

The significance of the Foley-Rice dealership rests not only on its unique design and materials, but also on the extent to which these have been retained. The building has a great deal of architectural significance, especially the exterior. Aside from its creative massing and unique roofline, character-defining elements of the exterior include its figural ornament of automobile workers, and its eclectic style, which incorporates everything from shield motifs and diamond paned glass windows, to large showroom windows flanked by delicate terra-cotta colonettes. These ornamental elements combined with the building's interesting shape and yellow wire-cut brick give the building a strong visual impact as a distinct building on Madison Street.

Interior

It is apparent that some of the original showroom detailing remains and would provide important architectural significance if it were restored. The original steel frame and reinforced concrete structures remain intact. The exposed steel framing in the Service Areasare dominating visual features in the building.

Alterations

Exterior

The building is relatively unaltered on the south façade, the crucial areas of integrity along the main street. However, there has been considerable amount of infill of openings on the 1927 building's north façade, the in filled showroom windows on the east façade, and the reconstruction of the 1924 building's entire north façade.

The addition of the EIFS to the west façade is an alteration that is easily reversible. The condition of the wall beneath is unknown, but the brick visible above the EIFS shows little evidence of damage as far as can be seen from grade. On this same side, two casement windows and a glass door have been added to allow access to the auto lot from the office inside the building.

The primary façade has almost no alterations aside from the original doors being replaced, and the addition of an aluminum mullion in the storefront system. Historic photos also show what appears to be a decorative glass and cast-iron canopy that once hung above the main entrance of the 1924 building, but it is not documented when this element was removed.

Finally, the two showroom windows at the southeast corner of the east façade have been filled in with either stucco or EIFS. And a new entrance and garage door have been added, while bricking in what appears to have once been an additional garage door opening.

Recommendation for Further Investigation

Although the building appears to be generally sound, there are issues that merit further evaluation. The first is a small, capped drain on the floor of the East service area. This appears to be an oil drain, indicating the possibility of an underground oil tank. This is a potential environmental hazard. An environmental assessment is recommended to determine whether an underground storage tank exists. If it does, the tank has to be removed and the site treated prior to beginning any redevelopment on the site.

Another area of concern is related to the bowing of the reinforced concrete beam supporting the second story of the 1927 building [Figure IV – 15]. Although the structure appears to be generally [eag12]sound a closer inspection of this beam is necessary to ensure that the beam is not stressed, suggesting a weakened support system. [eag13]

Although the current owner has done a significant amount of restoration and rehabilitation[eag14] of the building, the vestiges of serious water problems are still in evidence: corroded windows, corroded girders and beams, large sections of multilayered efflorescence and peeling paint. It will be important to ensure that the building envelope is water tight before any cosmetic improvements, such as rust, paint, and efflorescence removal and painting should be initiated.

As for exterior repairs, the primary problem to be addressed is the stabilization of the showroom windows on the south façade. The considerable deflection allowed by the current, corroded framing system poses a serious safety hazard. Other repairs to be initiated should include removing the corrosion from the steel-sash awning windows, patching cracks in the terra cotta, and removing the EIFS from the west façade.

Redevelopment Opportunities

Redevelopment opportunities for Foley-Rice have been centered on the concern for its surrounding area. Due to the historical significance and uniqueness of the Madison Street Corridor adaptive reuse plans emphasize uses consistent with the commercial district. Therefore, it is appropriate that the Foley-Rice building remain a commercial structure, rather than office or residential space. A master plan was implemented in 2006 for the rejuvenation and improvements to Madison Street in Oak. The project funded $20-25 million to go towards the historic district. A community group, Neighbors for Madison Renewal, have been integral in creating interest and guidelines for the area. So much concern has been placed on maintaining the commercial character of the streetscape that in 2007 temporary zoning restrictions stressed commercial use for the newly vacant building that would be consistent with the Madison Street Corridor.

Foley-Rice has great potential as a space for adaptive reuse. The building is an excellent example of American auto showroom architecture of the early twentieth century. It possesses integrity in terms of its design, materials, setting and overall historic character. Its relatively unchanged appearance and structure is a significant attribute rarely seen.

Because of its open floor plan and adaptable space it has the capacity to adequately support several recommended uses and treatments. The structure provides an abundance of natural light creating a desirable commercial space.

Although Foley-Rice provides many opportunities for future developments, there are several challenges that may need to be considered. Its prior use as an automobile dealership may indicate environmental issues which should be addressed and further investigated. There was a 1000[eag15] gallon gas tank as well as evidence of an underground oil tank.

Furthermore, structural issues may also present challenges. The interior ramp may prove to be a structural issue if removed or altered. The ramp is not only structurally important, but is a historically significant detail that physically conveys what the original function of the building was and how the interior space was used. Because the ramp is an integral part of the historic character of the Foley-Rice building, it is suggested that the ramp be maintained and integrated into future uses of the building.

Finally, a broader challenge is presented in the fact that the Madison Street Corridor is economically struggling. Property taxes are significantly high, while income and business are comparatively low. Because the area lacks a distinguishable character and cohesive feel, the area does not retain its historic identity.

Redevelopment Proposals

The Foley-Rice building provides many opportunities for adaptive reuse that may benefit the community while bringing increases economic activity back to the Madison Street business district. Because of the superior condition of the building and large, open floor plan, the building's potential allows for several redevelopment opportunities. Fortunately, alterations, additions and further changes can be kept to a minimum when re-adapting the building. In response to the neighborhood's needs and character, the Foley-Rice building would be economically successful and appropriate as

1) a Trader Joe's grocery store
2) community fitness center

1] The Trader Joe's redevelopment plan would maintain consistency with the rest of the commercial businesses along Madison Street. The adjacent parking lot would provide more than adequate parking for the store's customers. The surrounding residential areas and lack of other grocery stores in the area indicate that a Trader Joe's would be an appropriate addition to the commercial streetscape.

Not only would a Trader Joe's provide bargain groceries for the area, it would also generate jobs. Job postings indicate that part-time clerks earn from $8 to $12 an hour. Full-time employees, who typically work 47.5 hours a week, earn an average $40,150 in the first year, according to the company's postings. That equals $16 an hour, well above the $12 average pay in the retail industry, according to the latest Bureau of Labor Statistics figures.[19]

[19] Irwin Speizer, Workforce Management, September 2004, pp. 51-54

Trader Joe's produces sales per square foot of more than $1,300, which is twice the industry average (Whole Foods generates about $750 per square foot in sales). In light of this income generating potential, the store would certainly be an economically viable addition to the neighborhood.

2) A community fitness center would be a suitable re-use for the Foley-Rice building as the expansive open layout and large windows would provide an ideal space for workout equipment and exercise rooms.

In both proposed redevelopment projects it is suggested that the interior ramp be maintained and incorporated into the new use or decorative/design feature. It is also appropriate to install an elevator for handicap accessibility. The adjacent parking lot should be maintained to provide sufficient parking for either a grocery store or fitness center.

Bibliography

Allen, Edward. *Fundamentals of Building Construction: 2nd Edition. Materials and Methods*. John Wiley, New York, 1990.

Carter, Drew. Foley-Rice Cadillac to Close. *Wednesday Journal*. Oak Park. July, 27 2007.

Carter, Drew. *OP* Toughens Ban on Non-Retail Stores Downtown. *Wednesday Journal*. Oak Park. May 2, 2007.

Ching, Francis. *Building Construction Illustrated: 2nd Edition*. Van Nostrand Reinhold. New York, 1991.

Cowan, Henry and Forrest Wilson. *Structural Systems*. Van Nostrand Reinhold Co, New York, 1981.

Donaldson, Barry & Nagengast, Bernard. *Heat & Cold, Mastering the Great Indoors*. ASHRAE Publications, Atlanta, 1994.

Friedman, Donald. *The Investigation of Buildings.* W.W. Norton and Co., New York, 2000.

Grayson, Katharine. Demolitions Pave Way for Developments on Madison. *Wednesday Journal*. Oak Park April 30, 2003.

Guarino, Jean. *Yesterday, a Historical View of Oak Park, Illinois*. Oak Ridge Press, Oak Park, 2000.

Holohan, Dan. *Ratings for Every Darn Radiator*. Dan Holohan Associates, Bethpage, 2001.

Kaarre, Douglas. "Hill Motor Sales Company." *Village of Oak Park Historic Landmark Nomination Report (Draft)*. November 6, 2007.

Lafortune, Chris. Two Historic Buildings on Agency's Watch List. *Oak Leaves*. Oak Park. September 26 2007.

Linden, Eric. Board Backs Bright Idea for Foley-Rice. *Wednesday Journal*. Oak Park. April 15, 1992.

McCormac, Jack, and James Nelson. *Structured Steel Design: LRFD Method: 3rd Edition*. Prentice Hall, New Jersey, 2003.

Moore, Fuller. *Understanding Structures*. WCB McGraw-Hill, Boston, 1999.

NAI Hiffman. Commercial Real Estate Services. www.hiffman.com

Neighbors for Madison Renewal. www.renewmadison.com

Phillips, Steven. *Old House Dictionary*. John Wiley and Sons. New York, 1994.

Purdy, C.T. Steel Construction of Buildings. *Bulletin of the University of Wisconsin. Engineers Series*, Vol. 1, #3, October 1894.

Speizer, Irwin. *Workforce Management*. September 2004.

Sweet's architectural catalogues. F.W. Dodge Corporation, New York , c1929.

Wharton, William. "Architecture and Decoration of Automobile Show Rooms." *Architectural Forum*. March 1927, pp. 305-312.

Wiss, Janney, Elstner Associates, Inc. *Madison Street Corridor: Architectural Historical Survey*. Village of Oak Park. February 1, 2006.