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HISTORIC STRUCTURE REPORT
Hoover Block
(Historic Structure 02)

Dayton Aviation Heritage National Historical Park
Dayton, Ohio

The Hoover Block, circa 1893. New Dayton Illustrated. (Dayton: National Coupon Publishing Company, 1893)

January 1999

QUINN EVANS/ARCHITECTS

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HISTORIC STRUCTURE REPORT

Hoover Block

(HS - 02)

Prepared by

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Recommended: _____ Date: 11/20/98
Acting Superintendent, Dayton Aviation Heritage National Historical Park

Concurred: _____ Date: 11/30/98
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Approved: _____ Date: 11/30/98
Regional Director, Midwest Region

Dayton Aviation Heritage National Historical Park
Dayton, Ohio

National Park Service

United States Department of the Interior

October 30, 1998

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Hoover Block

(Historic Structure 02)

Dayton Aviation Heritage National Historical Park
Dayton, Ohio

January 1999
Final Report

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Part A:

Introduction

Part A: Introduction

General Property Description

The Dayton Aviation Heritage National Historical Park comprises four noncontiguous sites in Dayton, Ohio. The park was established to "commemorate the legacy of three exceptional men — Wilbur Wright, Orville Wright, and Paul Laurence Dunbar — and their lives and works in the Miami Valley; recognize the national significance of the contributions made by the Wright brothers and Paul Laurence Dunbar and the city of Dayton's role in their contributions; [and, to] promote preservation and interpretation of resources related to the lives of these three men and the invention of [manned] flight through a management framework based on cooperation among the diverse groups that share an interest in aviation history and Paul Laurence Dunbar."[1] One of the four sites is the Hoover Block. Located at the southeast corner of West Third Street and South Williams Street, approximately ten blocks from the center of Dayton, the Hoover Block is a three-story, red brick, commercial structure with a full basement. Built in 1890, the original design of the building consisted of stores on the ground floor, office suites on the second floor, and an open meeting room on the third floor.

The Hoover Block's significance stems from the fact that the Wright brothers operated their printing business there from 1890 to 1895, and the building's association with poet Paul Laurence Dunbar. The building continued to play an important role in the lives of the Wright brothers when, after the Wright's invention of the airplane at the turn-of-the-century, the third floor of the building was used by the International Aeroplane Club of Dayton for monthly meetings from its founding in 1909. The Hoover Block is listed in the 1989 National Register of Historic Places Nomination Form as a contributing structure in the West Third Street Historic District. The building itself is not currently under nomination as a National Historic Landmark.

Project Team Members

Following the objectives of the Dayton Aviation Heritage National Historical Park, the National Park Service, Great Lakes Systems Office, engaged the professional services of Quinn Evans/Architects, an architectural firm specializing in historic preservation, to prepare this Historic Structure Report. Team members providing support to Quinn Evans/Architects included: Fitzpatrick Structural Engineering, P.C. for structural engineering; SWS Engineering, Inc. for mechanical and electrical engineering; Seebohm, Ltd. for historic paint analysis; and, ATC Environmental, Inc. for lead based paint inspection services. The project team has gathered information, in addition to that which had been previously researched and collected, and conducted on-site physical investigation, to formulate strategies for the repair and preservation/rehabilitation of the Hoover Block. The results of this investigative research and documentation are contained in this Historic Structure Report, which is arranged in the following manner:

Part A: Introduction

This section includes a general description of the property and documents the project team members, the scope of the project, and the investigation methodology.

Part B: Historic Documentation

This section documents and analyzes historic information as it relates to the chronology of the property. It also includes summarizations and references to historic documentation previously compiled by the U.S. Government, as well as original information gathered by Quinn Evans/Architects. In addition, an architectural analysis of historic graphic information including photographs, drawings, and maps is included in this section.

Part C: Archeological Analysis

This section summarizes the archeological investigations that have been conducted at the property, as well as any other pertinent information that has been ascertained as it relates to the historic chronology of the building and historic outbuildings.

Part D: Neighborhood Contextual Analysis

This section includes an analysis of: the historic turn-of-the-century commercial buildings in the neighborhood of the Hoover Block; regional building traditions displayed in the area; and relevant commercial buildings constructed elsewhere around the same time.

Part E: Architectural Analysis

This section presents and analyzes historic building chronology information that has been gleaned from the physical investigation, and addresses variations in construction techniques, technology, materials, and design.

Part F: Existing Conditions Analysis

This section evaluates and documents the existing conditions of the property. It includes an exterior fabric analysis, interior fabric analysis, structural, mechanical and electrical systems analyses, historic paint analysis, and an analysis of the existence of lead based paint.

Part G: Building Chronology

This section presents both written and graphic analyses of the building's chronology based on known historical, archeological, and physical investigatory information, with an emphasis on building configuration, the location of door and window openings, and building materials. This section also presents an analysis of each building episode that the building has undergone.

Part H: Design Recommendations

This section proposes design alternatives and recommendations for the preservation/rehabilitation and contemporary use of the building.

Part I: Research Recommendations

This section provides recommendations for further research and investigation of the building that are outside the scope of this report.

Investigation Methodology

The project team conducted an in-depth study of documentary materials related to the property. These materials included: the *General Management Plan/Interpretive Plan* and the *Draft General Management Plan/Environmental Assessment* prepared by the Denver Service Center of the National Park Service; Ann Deines' September 1996 draft report entitled, *Dayton Aviation Heritage National Historical Park Historic Resource Study*; the *Interpretive Plan [for the] Dayton Aviation Heritage National Historical Park* prepared by the Division of Interpretive Planning at Harpers Ferry Center; Mary Ann Johnson's book entitled *A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio*; Fred C. Fisk and Marlin W. Todd's book entitled *The Wright Brothers from Bicycle to Biplane*; Fred C. Kelly's book entitled, *The Wright Brothers: A Biography*; Gaede Serne Zofcin Architects, Inc.'s *Master Plan Study for the Hoover Block Dayton, Ohio*; National Register of Historic Places Nomination Forms; National Historic Landmark Nomination Forms; and historical photographs, drawings, Sanborn insurance maps, and newspaper clippings. A thorough survey of the building and its structure was conducted to document the building's architectural characteristics, including moldings, construction techniques, material changes, fenestration, hardware, trimwork, and door type changes, as well as structural framing changes, all of which provide insight into the evolution of the building.

This report is based on documentary evidence collected to date, limited physical probing and destructive testing, and architectural inspection. Of necessity, the research is not concluded with the completion of this report. Rather,

it will be supplemented in the future by further information gathered through archeological investigation, and by subsequent documents and information as they are discovered.

1 U.S. Department of the Interior, National Park Service, Denver Service Center, General Management Plan/Interpretive Plan: Dayton Aviation Heritage National Historical Park • Ohio (Denver, CO: November 1997), 2.

Part B:

Historic Documentation Summary

Part B: Historic Documentation Summary

Located on the southeast corner of West Third and South Williams Streets on the west side of Dayton, Ohio, the Hoover Block was built by Zachary T. Hoover in 1890 in a Commercial Romanesque style. In its original configuration, the three-story brick building, with a basement, had three shops on its first floor, multiple suites on its second floor, and, typical of block buildings constructed at that time, a meeting hall on its third floor. Dayton City Directories list the names and occupations of some of the building's tenants over the years, but reveal little about the changes that were made to the building itself. Two of the listed tenants, Orville and Wilbur Wright, a.k.a. the Wright Brothers of aviation fame, rented a second floor suite in the northwest corner of the building from 1890 to 1895, out of which they operated their printing business. The Hoover Block, a good example of commercial architecture at the turn of the century, is on the National Register as a contributing structure for the West Third Street Historic District. The building itself is currently not under nomination for national historic landmark status.

Before gaining fame as inventors of the airplane, the Wright Brothers supported themselves with two businesses, a job-printing business and a bicycle showroom, repair, and manufacturing business. Orville had become interested in the printing business at a very young age. By the eighth grade he owned his own printing press and together with fellow classmate, Ed Sines, established a job-printing business. A disagreement about how to handle a payment from a customer led Orville to buy out Sines, although Sines stayed on as an employee of Orville's. A few years later, Orville built himself a bigger press. Ambitious to:

> be a really good printer, Orville took employment during two summer vacations with a printing establishment in Dayton, and worked there sixty hours a week. But he felt that the most fun and satisfaction in connection with printing had been from building his own press. Along in the spring of 1888, when he was nearly seventeen years old, he started to build another press.[1]

When the press was finished, it was big enough and fast enough to print a newspaper. Orville rented a room at 1210 West Third Street near Broadway for his growing business. The first documented work from the company is from 1888 and credited to the Wright Bros., Job Printers, indicating that at least one of Orville's brothers were involved. In the spring of 1889, Orville began printing a neighborhood weekly called the *West Side News*. The paper quickly became a fairly profitable business. Occasionally, Wilbur, his brother, would help fill space in the paper by writing humorous essays. After a few weeks, "[Wilbur's] name was added to the paper's masthead as 'editor,' along with Orville's as publisher."[2]

Paul Laurence Dunbar, a friend of Orville's since grade school, was a possible contributor to the West Side News. Several poems, written in his style but uncredited, appeared in the newspaper. Dunbar himself "was to become famous before the Wright brothers with his many books of poetry, his plays, words to many songs, and novels that he wrote."[3] In 1890, Dunbar, as editor and publisher, established the *Dayton Tattler* for African-American readers. Orville Wright printed the newspaper, but the *Dayton Tattler* ceased publication after three issues. By this time, Orville and Wilbur had moved to a larger space, renting a second floor suite in the front of a building known as the Hoover Block, located at 1042 West Third Street. Dunbar is reported to have written a short poetry verse about Orville and his printing business on one of Orville's office walls in the Hoover Block:

> "Orville Wright is out of sight
> In the printing business
> No other mind is half as bright
> As his'n is."[4]

In addition to printing their own newspaper as well as Dunbar's, the Wrights also did custom printing jobs for a variety of clients, and, in fact, job-printing appears to have been a major portion of the Wrights' business. Orders included the printing of minutes and reports of church conferences, constitutions and bylaws of various church-related or civic organizations, advertisements, holiday menus, letterheads, calling cards, directories, and annual reports. A considerable amount of business came from the Wrights' father, Bishop Milton Wright, who served as

the publishing agent for the *Old Constitution* of the Church of the United Brethren in Christ, and as publisher for the *Christian Conservator*. Historical accounts suggest that while the Wright Brothers occupied their suite in the Hoover Block, they "placed their office in the room fronting on West Third Street and carried out their printing activities in the rear of the suite."[5]

In April of 1890, Orville, with Wilbur as his partner, converted the *West Side News* from a weekly to a four-page, five-column daily called *The Evening Item*. After about four months, they suspended the paper. Although the paper was never in debt, the profits apparently did not justify the time and energy required. For a short time they then embarked on publishing a small two-column weekly called *Snapshots* which was devoted to vigorous comments on current local events. They began publishing the magazine on October 20, 1894 with publication continuing for about two years. In 1895, the Wrights moved their printing business from the Hoover Block to 22 South Williams Street, which was located directly south the Hoover Block.

Two years prior to the first issue of *Snapshots* being published, the Wright Brothers had developed a keen interest in bicycles, as had the rest of the nation, which was caught up in a bicycle craze. Although the Wrights' printing business was financially successful, they yearned "to get involved in another business enterprise to satisfy their pioneering temperaments and to challenge their mechanical minds."[6] As a result, they opened the Wright Cycle Exchange, their first bicycle shop, in December 1892. Located at 1005 West Third Street, the shop required that they divide their time between the printing and bicycle businesses. The name of the bicycle shop was changed to The Wright Cycle Company in 1894. The shop moved to two other locations before being combined with the printing business in 1895 at the 22 South Williams Street building.

The 22 South Williams Street building, rented by the brothers from 1895-1897, was the first location in which their bicycle and printing businesses were brought together under the same roof. It was the fourth bicycle shop (out of an eventual five) operated by the Wright Brothers, and is the only building that remains intact in its original location. Further, "two significant events occurred during the years [that] Wilbur and Orville occupied the 22 South Williams building: the death of Otto Lilienthal, a German aeronautics experimenter, and the expansion of their bicycle business from merely sales and repairs into the manufacture of their own brands."[7]

Anxious to put their own mechanical skills to better use, and to expand their business, the Wright Brothers decided to begin manufacturing their own line of bicycles in late 1895. In order to do this, however, they had to transform their sales and repair shop into a well-equipped light machine shop. They designed and built their own one-cylinder gasoline engine to drive an overhead line shaft that provided power to the machine tools.

As the bicycle business continued to increase, and the production of the Wrights' own line of bicycles was underway, the importance of the printing business dwindled. The last issue of *Snapshots* was published April 17, 1896 and "carried an advertisement for the first bicycles manufactured under the Wright Brothers' own brand names."[8] They released samples from which to order on April 24th, with full production beginning on May 15, 1896. The first model to be produced was the Van Cleve, named for the Wrights' great-great-grandmother, who was one of the original white settlers of Dayton. It is the production of the Wrights' bicycles that provided the brothers with the mechanical experience and financial resources necessary to later begin their airplane experiments.

In August of 1896, Orville contracted typhoid fever from the well at the rear of The Wright Cycle Company building. It was during his recuperation that he and Wilbur learned of Otto Lilienthal, his glider experiments, and his death in a glider crash. This sparked their earliest serious discussions on the subject of flight, and provided the "emotional impetus that set them on the path to manned flight, culminating in the invention of the airplane in 1903."[9] As Wilbur recounted:

> My own active interest in aeronautical problems dates back to the death of Lilienthal in 1896. The brief notice of his death which appeared in the telegraphic news at that time aroused a passive interest which had existed from my childhood... and as my brother soon became equally interested with myself, we soon passed from the reading to the thinking, and finally to the working stage.[10]

In late 1897, the Wright Brothers once again moved their bicycle and printing businesses, selecting 1127 West Third Street. This new shop was to be the final location of both the bicycle and printing businesses. It was in this building that the brothers built their experimental gliders, their first airplane, and conducted much of their aeronautical research that launched them into a new career and business.

As their interest in flight grew, the brothers' involvement in their printing business decreased, leaving their friend Ed Sines solely responsible for the printing business. In late 1899, when Sines was injured and could no longer manage the business, they decided to give up the printing business entirely and concentrate on their bicycle business and the mechanics of flight. The experience they gained while manufacturing their bicycles proved invaluable to them as it eventually resulted in the invention of the "first power-driven, heavier-than-air machine in which man made free, controlled, and sustained flight."[11]

Soon after the Wrights gave up the printing business, Lura Hoover, Zachary Hoover's daughter, married Frank Hale, who from 1900 until World War I operated a grocery store on the first floor of the Hoover Block. It was during the time that Hale operated his store that the Wright Brothers took their first manned flight in 1903, inventing the first powered airplane. On May 13, 1909, the day Wilbur and Orville returned to Dayton "following a trip to Europe, where [their] flying demonstrations had made them international celebrities," the International Dayton Aeroplane Club was founded by a group of West Side residents to honor the Wright Brothers.[12] The first meeting of the club was held at Hamburger's Hardware Store.[13] Due to large attendance, monthly meetings were thereafter held in the meeting hall on the third floor of the Hoover Block. The meetings were often attended by Wilbur, Orville, their father, and their brother Lorin. The purpose of the meetings was to stimulate and foster "research in the science of aeroplanautics in general, cooperating in the exploitation of aerial devices, collecting literature bearing thereon and recognizing meritorious contributions or achievements by the conferring of suitable honors."[14]

The Dayton Journal Herald for Friday, December 20, 1957, reported an extensive fire at the corner of West Third and South Williams on the previous evening. The fire apparently started behind a shop at 10 South Williams then spread to the Hoover Block. Kantor's Supermarket, Inc., at 1062 West Third, and the California Wine store at 1058 were both damaged. The third-floor meeting hall and the second floor apartments were also damaged. The newpaper reports the hall was in use by the Pilgrim Holiness church at the time the fire broke out. The fire may have prompted the 1950s renovation of the third floor for use as a gymnasium, when "partitions creating a 2-level locker room and an office area"[15] were added to the space.

Other than the Wrights, Hales, and the International Dayton Aeroplane Club, little is known about the tenants of the Hoover Block. Tax records, deeds, and city directories have yielded some additional information, however, it is sketchy at best. After its "heady early decades where the Hoover Block played host to the burgeoning careers of men like the Wright Brothers and Paul Laurence Dunbar, and housed one of the earliest organizations devoted to the fledgling activity of manned flight, the Hoover Block settled into housing a succession of groceries, bakeries, and assorted other retail establishments and began its slide into senescence and decay."[16] By 1972, the second floor suites and third floor meeting hall were vacant. Physical investigation of the first floor revealed permit stickers on the back wall, the dates of which indicated the first floor was in use throughout 1981.

In November 1980, Fred C. Fisk, an antique bicycle aficionado and collector, published an article for *The Wheelmen* magazine. Fisk was assisted in his research by Marlin Todd, who had studied the Wrights Brothers for most of his adult life. In the process, Todd revealed that he had "a very rare unpublished photo of the Wright Bicycle shop [at 22 S. Williams]"[17] Entitled "The Wright Brothers Bicycles," Fisk's article featured Todd's photo for the first time.

Around the same time that the article was published, Mary Ann Johnson discovered that the building at 22 S. Williams was still standing. She had been researching aviation heritage sites in the Dayton region for Aviation Trail, Inc., a nonprofit organization she helped found, when she came across the building. The mission of Aviation Trail, Inc. was to preserve and promote Dayton's aviation heritage by mapping key historical sites in the Miami Valley to form an "Aviation Trail" for tourists to follow. By including the Hoover Block and The Wright Cycle Company building on the Aviation Trail, Johnson brought recognition to the forgotten structures.

Aviation Trial, Inc. had "just finished a project of printing thousands of brochures on aviation sights in the Dayton area. They jumped at the chance to save and restore this shop and the Hoover building."[18] Further deterioration of the Hoover Block was mitigated in 1982 when Aviation Trail, Inc. purchased the building from Arva Realty for $30,000 and began embarking on plans to restore it as: a visitor's center for the historic district encompassing it; an educational facility where materials related to the Wright Brothers and Paul Laurence Dunbar could be displayed; a parachute museum; and office space for Aviation Trail, Inc.[19]

On January 25, 1989, the West Third Street Historic District, which includes the Hoover Block and The Wright Cycle Company building as contributing structures, was listed in the National Register of Historic Places. The Wright Cycle Company building was designated a National Historic Landmark (NHL) in 1990. The National Park Service prepared the NHL nomination form for the Hoover Block in 1987-1988, but that nomination failed. However, it "carried with it the expectation of reconsideration at such time as rehabilitation could correct defects in the structure's integrity."[20]

On October 16, 1992, Congress passed legislation establishing the Dayton Aviation Heritage National Historical Park to "commemorate the legacy of three exceptional men - Wilbur Wright, Orville Wright, and Paul Laurence Dunbar - and their work in the Miami Valley."[21] Properties included in the park were four new national historic landmarks: (1) a core unit consisting of The Wright Cycle Company building, the Hoover Block, and the vacant land between those two structures; (2) the Huffman Prairie Flying Field at Wright-Patterson Air Force Base; (3) the 1905 Wright Flyer III in Carillon Historical Park; and, (4) the Paul Laurence Dunbar State Memorial. Of the four landmarks, only the first one was destined for ownership by the National Park Service. The other three were (and continue to be) owned and administered respectively by: the Wright-Patterson Air Force Base, the Carillon Historical Park, and the Ohio Historical Society.

In 1994, the 2003 Committee purchased the Hoover Block from Aviation Trial, Inc. for $100,000, and a year later purchased The Wright Cycle Company building for $200,000, donating both buildings to the National Park Service. The 2003 Committee, comprised of community leaders and activists in Dayton, was "the godparent to the [Dayton Aviation Heritage National Historical Park] and diligently nurtured and guided the effort to make the park's vision a reality. Having generated the grassroots support and the idea for a national park in Dayton, the 2003 Committee helped prepare the enabling legislation and gained the bipartisan support of political leaders that led to establishment of the park."[22] The 2003 Committee is spearheading the Century of Flight program, celebrating 100 years of powered, heavier-than-air flight.

On November 2, 1995, the National Park Service took title of both The Wright Cycle Company building and the Hoover Block. Both buildings form the core of the National Park Service unit, and are the only properties owned by the National Park Service in the Dayton Aviation Heritage National Historical Park. Because of the condition of the Hoover Block, one of the National Park Service's main goals is to make the facades weathertight and to protect the building from further deterioration and other immediate threats. The NPS also desires to document the building in order to answer the questions of authenticity and integrity. Further, the NPS intends to protect the Hoover Block for visitor purposes. To accomplish this objective, "The Hoover Block's interior and exterior will be restored generally to the Wrights' occupancy in the mid-1890s."[23]

Historic Photo Analysis

Hoover Block 1893

Figure 1 *This detail of the Hoover Block, ca. 1893, was taken from a larger photo collage of West Third Street commercial buildings. New Dayton Illustrated (Dayton: National Coupon Publishing Company, 1893).*

Figure 1 is a detail of a larger photo collage (Figure 2) of West Third Street commercial buildings. As this image was taken approximately three years after the Hoover Block was completed, it is believed to show the original configuration and design of the north and west elevations of the Hoover Block. In general, the elevations are brick, punctuated by limestone accents, with iron cornices, gutters, and downspouts. Four brick chimney stacks are visible along the west elevation, and two appear to be part of the east elevation. The upper two floors appear similar to each other, but strongly differ from the ground floor level elevations. The second and third floor elevations are separated from that of the ground level by a datum of continuous limestone that runs the length of the north elevation.

On the north elevation, at the second and third floors, there are three bays of window openings separated and flanked by brick pilasters. The pilasters have recessed panels (one wythe deep) that seem to divide each one into two. They do not align with the iron columns at the ground floor level. The recessed panels at each pilaster originate at the second floor level and continue to the head and spring lines of the third floor window arches, where the recess corbels back to the pilaster face in five courses. Each of the recessed panels is accented with a limestone sill four brick courses above the limestone datum line. The panels are interrupted twice by limestone bandings: one aligning with the spring line and headers of the second floor windows, and the second aligning with

the sills of the third floor windows. More limestone banding occurs above the corbelling of these panels, becoming the header of the center third floor window, and continuing all along the length of the elevation. This banding is only interrupted by the brick arches above the other two sets of third floor windows. Above this, the brick surface continues uninterrupted across the length of the elevation just below the iron cornice.

The bays on the north elevation form an A-B-A pattern. The two outer "A" bays each contain three windows per floor, two narrower ones flanking a wider one - again, in an A-B-A pattern. Each of these window groupings is headed by a low, brick arch, with a limestone keystone, at both the second and third floors. The outer bays step back from the pilasters one brick wythe under the upper arch, so that the second floor arch is recessed within the third floor arch. Each window grouping then steps back another brick wythe, making the window frame two wythes behind the pilasters. The material spanning between the top of the flat windows and the bottom of the arches appears to be wood framing.

The central bay on the north elevation, the "B" bay, is considerably more narrow than the outer two, and contains only one window with a flat, limestone head per floor. This bay also steps back one brick wythe from the face of the pilasters. And, similar to the recessed panels of the pilasters, the top of this bay corbels back to the pilaster face in five courses, just below the third floor window's limestone head. The limestone sill of all of the third floor windows align with the banding in the pilaster panels, as do the limestone heads of the second floor windows below. Between the third floor sill and the second floor header is a limestone plaque with "HOOVER....BLOCK" inscribed on it.

Below the limestone datum is an iron cornice and frieze supported by six decorative iron columns, one of which is located at the west elevation. Between these columns, three recessed openings can be seen, each part of a separate glass shop front. From left to right in the photo, these shop fronts were addressed as 1042, 1044, and 1046 on the 1897 Sanborn Map of Dayton City.[25] The glass appears to be large panes with metal frames, with approximately two-foot high, coffered, wood paneled bases (three panels per segment). The shop front at 1046 extends around the northwest corner, onto the west elevation one half bay, and is the only shop front with canopy sun shading. Lettering on the 1044 shop front spells out, "BILLIARDS....POOL" at the right and "FINE....CIGARS" at the left.

There is also lettering visible at the second floor's westernmost bay of windows, above 1046, that appears to read, "WRIGHT....AND....WRIGHT....JOB....PRINTERS".

At the sidewalk level, the photo shows what appears to be a smooth, continuous curb around the base of the building that would have required a person to step up at each entrance from the sidewalk. A fire hydrant at the northwest corner of the sidewalk is visible, indicating that there was plumbing available to the block at this time. No downspouts or chimney stacks are visible at this elevation, but there appear to be tops of two stacks that may be located at the east elevation.

The west elevation is divided into an A-A-B-A-A bay pattern that is evident at all three floors. Distinction in the window and pilaster design of the upper two floors separates these levels from the first floor level. There are three different pilaster designs on this elevation that, similar to the north elevation, separate and flank the five bays. The pilaster at the northwest corner is exactly the same as its neighbor on the north elevation, only narrower. The southernmost pilaster and the two pilasters between the "A" bays are similar to the northernmost pilaster just discussed, the difference being in the length of their recessed panels. The panels extend below the limestone datum that aligns with [becomes] the sills for the second floor windows, and end with their own limestone sills, three brick courses below the datum. This limestone sill appears across the length of each bay also. The two pilasters near the center of the elevation are narrower than the others and have no recessed panel.

The bays themselves are very similar in design to that of the central bay on the north elevation. Each bay is recessed behind the face of the pilasters by one brick wythe, and the tops of each bay corbel forward over five courses to be flush with this face. Within each of the outer, "A" bays, two windows are set widely apart, with limestone sills and heads that seem to continue the entire length of each bay. The central "B" bay contains only one window. Like the windows at the north elevation, these are double-hung, one-over-one.

There are a few aberrations in the uniformity of the bays. One is a thick panel of that is attached to the northernmost bay. It is located in the area between the second and third floor windows, is approximately four courses high, and runs the width of the bay. Another aberration is the southern most, second floor window of this same bay. It appears to have always been bricked in, even though it has an articulated head and sill.

The elevation changes at the limestone sills of the bays and recessed panels. Four brick courses come forward, flush with the pilasters for the length of the elevation. From this point, the pilasters continue, undivided, to a limestone base that runs the length of the elevation at ground level. Half of the northernmost bay is a storefront, defined by two iron columns and the iron cornice. The other half of the bay is, like the center bay at the ground level, featureless. The two bays flanking the central bay, however, do have small square windows, located well above eye level, with limestone sills and heads. In the southernmost bay, two doorways are visible, the southernmost of which has a transom matching the two square windows, complete with head and sill. There appears to be two low curbs coming out perpendicularly to the building at the bay north of the central bay, which may flank an opening to the basement. Also visible are two downspouts, stopping 12"-24" above the sidewalk along the west elevation. One centers itself on the right-hand pilaster, between the two northern "A" bays. The second centers itself on the southernmost pilaster of the west elevation. These lead up to the continuous horizontal line of the ornate iron cornice at the roof. The downspouts break through between the paired brackets which demarcate the rhythm of the pilasters and their divisions. Above these, centered on each of the "A" bays, are brick chimney stacks.

West Third Street Commercial Buildings, 1893

Figure 2 is a collage of snapshots featuring commercial buildings on West Third Street. From left to right are shown the Gunkel Block (1109-111 West Third Street) built in 1898, the Hoover Block (1042-1046 West Third Street) built in 1890, The Morey Block (1029-1039 West Third Street) built in 1884, and the Walters Block (1120-1130) built from 1885 to 1893. The only additional feature in this photo that is more clearly revealed on the Hoover Block building is a third downspout at the easternmost edge of the north elevation.

One item that can be noted with respect to the neighborhood context is that a portion of the building just east of the Hoover Block can be seen in this photo. It appears to be a three-story building, with glass-front shops on the first level, moderately large windows (equivalent to Hoover Block's upper floor windows) on the second level, very small, arched windows at what could be the third floor level, and a heavy profiled cornice at top. The only other detail that can be made out is the word, "MANUFACTORY" at the frieze above the storefronts. (See Figure 15, page 28, for a composite map of the commercial buildings on West Third Street.)

East View of West Third Street, Including Hoover Block, 1912

Figure 3 shows the north elevation and half of the northernmost bay of the west elevation of the Hoover Block. The shop at 1046 is leased to Frank B. Hale, as can be read on the signs, for his grocery store. The businesses in the neighboring bays appear to be a confectioner / ice creamery in 1044, and a watch repair / jeweler in 1042. This photo does not reveal any significant changes to the building itself, except the addition of a window box at the center bay, third floor window. It does appear as if the curb in front of the 1046 entrance door has been cut down and that the panel above the second floor window on the west elevation is made of wood, the lettering of which is unintelligible. There also appears to be a diamond pattern in the third floor windows of the north elevation.

Figure 2 *This composite photograph, ca. 1893, features several of the commercial buildings on West Third Street. New Dayton Illustrated (Dayton: National Coupon Publishing Company, 1893).*

What is of great interest here is the neighboring buildings that are visible. To the east of the Hoover Block is the small, three-story building that was evident in the 1893 photo, which plays host to the "Tom Joe Hand Laundry" and the "Empire Bakery." According to the 1989 National Register of Historic Places Nomination Form for the West Third Street Historic District, the Setzer Building was later built at this location in 1906, but apparently retained the earlier facade, which is still visible in this post-1906 photograph (see Figure 5 also). The existing Setzer building facade was constructed in 1922. To the east is a small one-story poultry shop, followed by the Enterprise Building (1026-1028) built in 1890, containing the "Pekin Theater". Further down the block, the elevations of the Booth Building (1018-1020) built in 1890, and the Needham Building (1010-1012 West Third Street) built in 1897 are visible. Just across the street from the Hoover Block is the Morey Block (1029-1039 West Third Street) built in 1884, now shown with a fire escape at the center of its elevation. The painted sign on the upper story might read "Hoover & Gaines" referring to a West Side business founded by Rev. S.W. Hoover and J.W. Gaines. The drug store is also listed as belonging to Z.T. Hoover, the builder of the Hoover Block. There is another Hoover / druggist connection: Dr. Emery C. Hoover was a West Side physician and druggist. To further exemplify the close family and business ties at this end of town, Z.T. Hoover's daughter Lura was the wife of Frank B. Hale at this time.

The building to the east of the Morey Block is listed as "Mory's Block and Hall" at 1023-1027 West Third Street in the 1989 National Register of Historic Places Nomination Form for the West Third Street Historic District. Although the name, and variant spellings, leads to confusion, there was in fact a second "Mory's Block" just east of the first (1029-1039 West Third Street), as revealed on Sanborn maps and other documentation. It was not

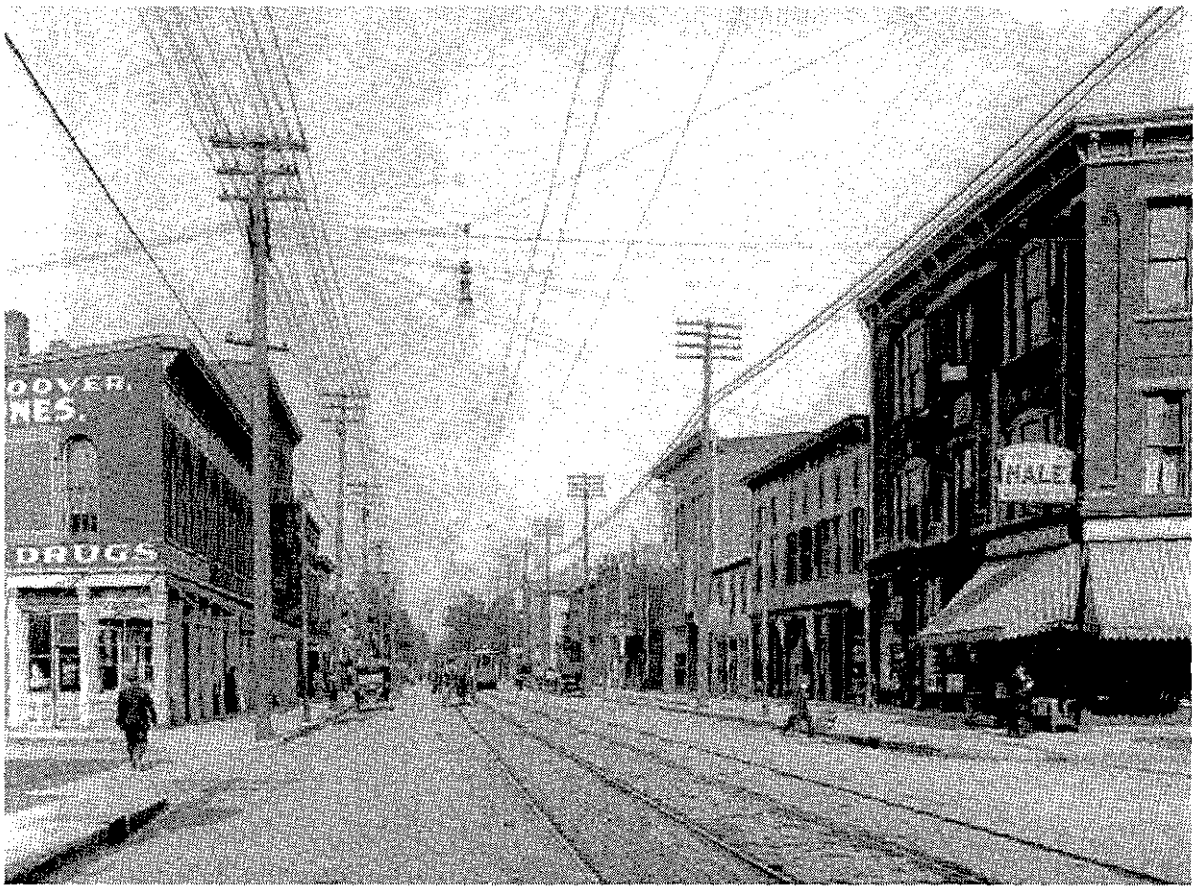

Figure 3 *View looking east on West Third Street, ca. 1912. The Hoover Block is the first building on the right with the Frank B. Hale sign. (Marvin Christian Collection, William Preston Mayfield Photos)*

unusual for a developer to have several buildings bearing his name within close proximity, as is the case with the Webbert and Gunkel buildings discussed later. The National Register of Historic Places Nomination Form then lists the J.A. Prior Building, built in 1924, as being at the 1029-1039 West Third Street address, and later photos (Figure 9, 1986) show a significantly different facade, indicating the first Morey block was replaced. Further east on this side of the street, the sign for the "new" Midget Theater (1019-1021 West Third Street) built in 1912, is visible, and just past this building is Gem City Ice Cream Building (1005 West Third Street) built in 1886. (See Figure 15, page 28 for a composite map of the commercial buildings on West Third Street.)

Northwest Corner Hoover Block 1915

Figure 4 clearly shows the curb cut and an entrance ramp into Frank B. Hale's store at 1046 West Third Street. It also shows that other modifications have been made to this storefront. The upper portions of each window appear to have been replaced with decorative metal panels. The east windows have a heavy horizontal muntin approximately two feet below the edge of the metal panels there; it is possible that these are actually raised sashes, as the west windows show no such muntin.

One interesting detail that is more visible in this photo, and probably original to the building, is the decorative capital above the iron column of the west elevation. Another is the unintelligible writing on the panel above the second floor window on the west elevation.

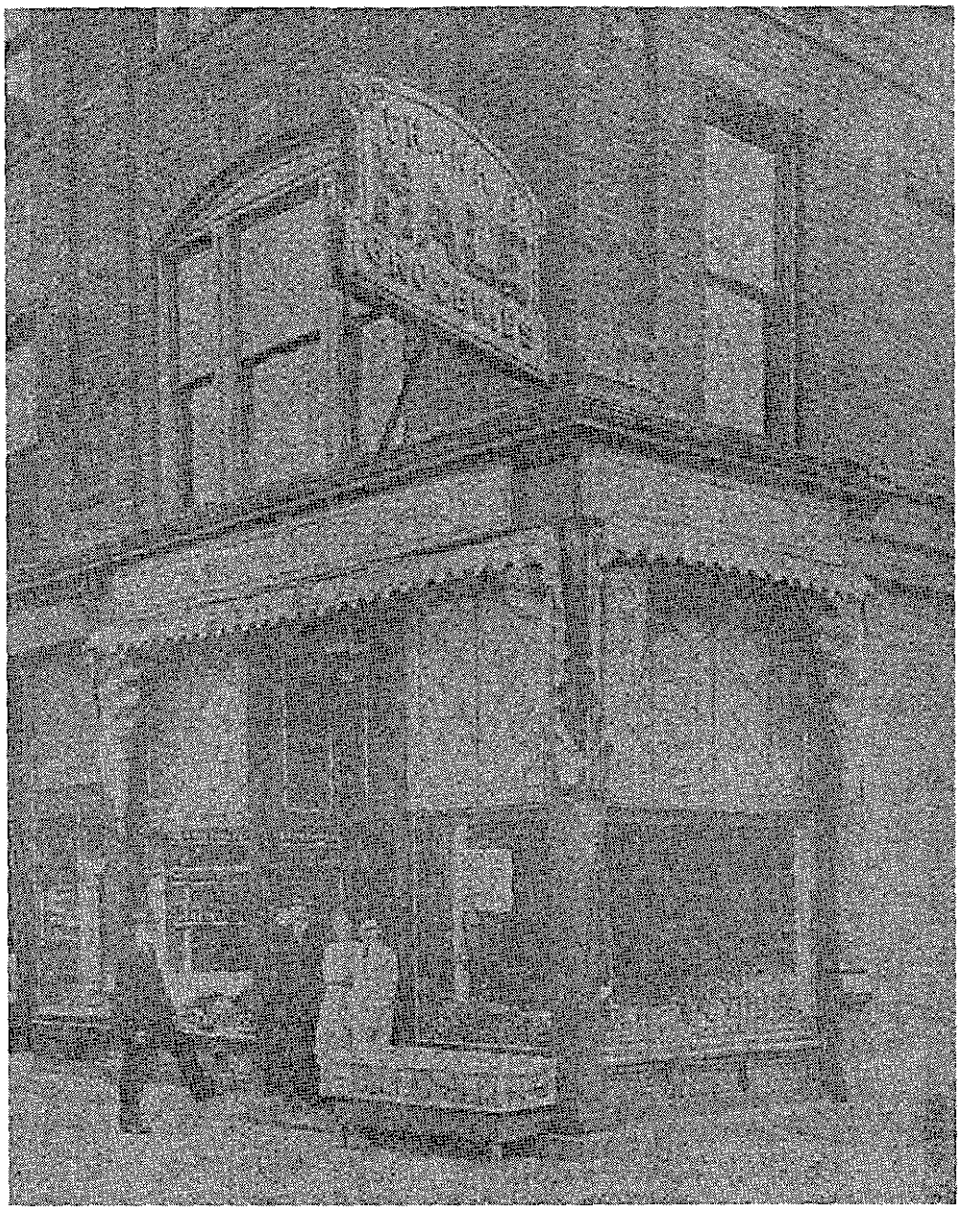

Figure 4 *View of the northeast corner of the Hoover Block, 1915. Note the curb cut, and the ramped entrance into Frank B. Hale's store. (Dayton Daily News, May 16, 1915).*

West View of West Third Street, Including Hoover Block, circa 1922

Figure 5 shows a rare view of the Hoover Block's east side. Little seems to have changed in the appearance of the building. The east elevation clearly shows two chimneys and a painted advertisement. This advertisement may read, GEORGE.....sugar," possibly for the George Brothers' Confectioner shop at 1044. Frank B. Hale's store at 1046 appears to have been replaced by the Kroger Company; "....ER GROCERY STORE" can be read at the northwest corner of the frieze. The sign outside of 1042 in raised letters reads, "U.E. Sapp and Son....Jewelers," below which is a lighted pair of eyeglasses; it is possible that West Side Optical was sharing this space.

The other buildings on the 1000 block seem to have remained the same. "Tom Joe Hand Laundry" is still in the neighboring building, now joined by "The Davis Clothes Shop," as the sign reads, and "Herolf Brothers Life," possibly a life insurance company. The continued existence of this facade dates the photo to before the 1922 remodeling of the Setzer building. The building further east still reads, "POULTRY..GAME...EGGS," below which is written, "ERIE...", and the Enterprise Building still bears the "Pekin Theater" sign and appears to house "FACTORS WEST SIDE PRODUCE MARKET." The only identifiable building visible across the street is the "MORY BLOCK" indicated by a stone in the upper right hand corner of the photo.

Also visible in the photo is the 1100 block, in the distance, featuring the now-missing building at the southwest corner of South Williams Street and West Third Street. According to the 1918 Sanborn map (Figure 19), this building was used as a bank, and in the photo there is a sign on the north elevation which reads in part, "West Side Building Association." Across Third Street is the Gunkel Building (1101-1107 West Third Street) built in 1898, to the west of which is the Gunkel Block (1109-1111 West Third Street) built in 1891, then the Webbert Flats (1117-1119 West Third Street) built in 1908, next to which is another Webbert Building, better known for its association with the Wright brothers, that has since been relocated to Michigan. See Figure 15, page 28, for a composite map of the commercial buildings on West Third Street.

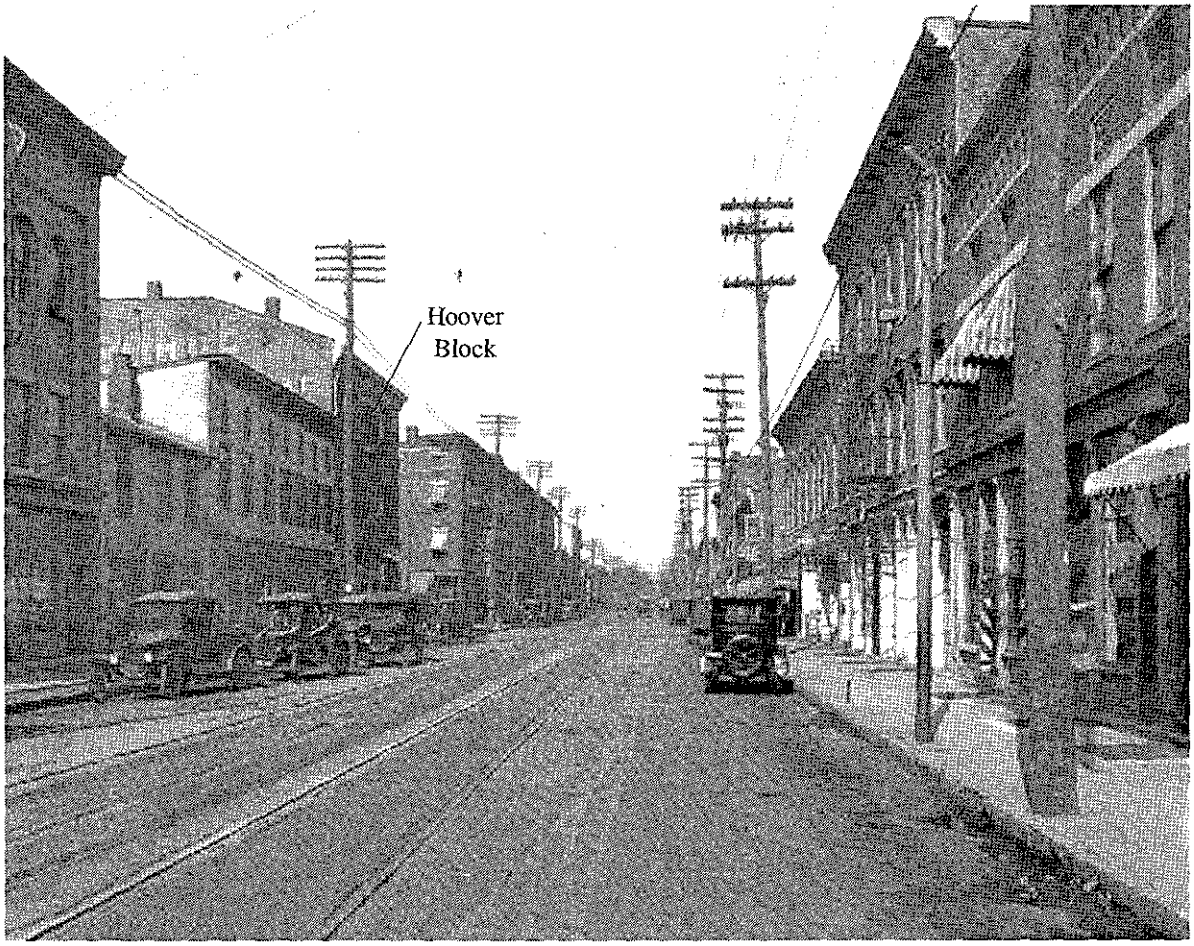

Figure 5 *View looking west down West Third Street, ca. 1921. Note the two chimneys and partially painted sign on the east elevation of the Hoover Block. (Marvin Christian Collection, William Preston Mayfield Photos)*

Northwest Corner of the Hoover Block 1936

Figure 6 has been dated to 1936, however, 1936 was the year that, according to the Sanborn map (Figure 7), the addresses along West Third Street were changed. The address in the storefront of the easternmost bay of the north elevation in the photo still reads "1042," which suggests that the photo may have been taken closer to 1935, just before the address change.

The most dramatic change in the general appearance of the building is that the brick has been painted a light color, inverting the color contrast of the brick to the limestone. Also, along the west elevation, a fire escape is now in place, the wood panel above the second floor window in the northernmost bay is gone, and one of the chimney stacks, just north of center, has a metal, funnel-shaped cap added to it.

At the ground floor level, the storefront of 1042 seems to have remained relatively the same as before, apparently housing a restaurant called, "KOSY RESTAURANT," as indicated by the sign in the window. However, the storefronts of 1044 and 1046 have been drastically modified, consolidated beneath a large sign reading, "GEISLER'S MARKET, I.G.A. STORES, FOODS..MEATS." The upper portion of these two shop fronts have been replaced with square, textured, glass panes, four per bay at the north elevation, and two per the bay at the west elevation. The coffered wood panels below the windows have been replaced with dark ceramic tile. Another painted advertisement for the store completes the northernmost bay on the west elevation.

Sometime between 1912 and the date of this photo, the curb was cut and ramped in front of the entrance to 1044. Drain pipes have, by this time, been routed underneath the sidewalk. The curbs that had jutted out from the west elevation are now gone, but the access door to the basement is clearly visible, as are two more below the north elevation, one each for 1042 and 1044. To the south of the west elevation, a transom with a thin, limestone head has been added over one of the doors, and the end elevation of what appears to be a wood, one-story addition to the south elevation is just barely visible. Further still to the south, a two-story, wood structure can be seen.

To the east of the Hoover Block is the view of one bay of the Setzer building, which was remodeled in 1922. In this photo, the visible bay seems to belong to a Krogers grocery store as the Kroger logo is painted in relatively small letters on the glass storefront.

Northwest View of the Intersection of West Third Street and South Williams Street, Including the Hoover Block, 1982

Figure 8 is the earliest known photo showing the south elevation of the Hoover Block. This photo shows down spouts from the gutter connecting into the middle of the southwest downspout on the west elevation. Also visible is a cinder block, one-story addition to the south elevation of the building.

At the northwest corner of West Third Street and South Williams Street is what remains of the Gunkel Building (1101-1107 West Third Street) built in 1898, to the west of which is the Gunkel Block (1109 West Third Street) built in 1891, followed by the Webbert Flats (1117 West Third Street) built in 1908. The empty lot to the west of the Webbert Flats is the former site of a second Webbert Building, the construction date of which is unknown. At the southwest corner of West Third Street and South Williams Street is the former site of the "West Side Building Association" building. (See Figure 15, page 28, for a composite map of the commercial buildings on West Third Street.)

Figure 6 *View of the northwest corner of the Hoover Block, ca. 1935. (Marvin Christian Collection, William Preston Mayfield Photos)*

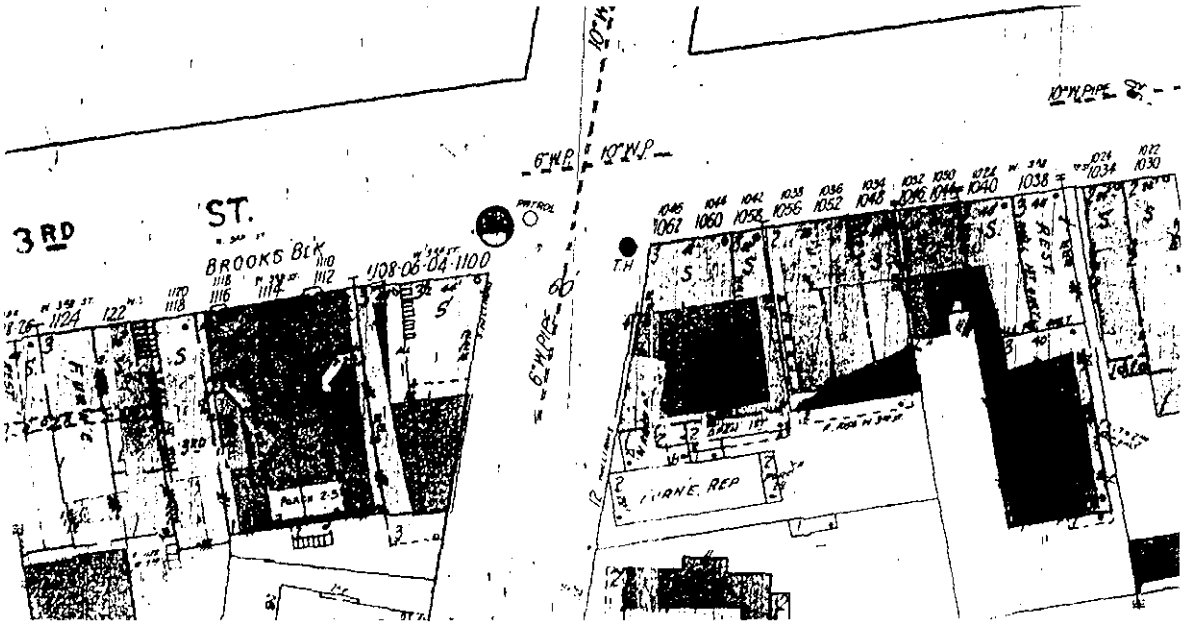

Figure 7 *Partial view of the 1936 Sanborn Map. Note the two numbers above each building on West Third Street. The top number is the old address of the buildings while the bottom numbers are the new addresses. (The Sanborn Perris Map Co., Ltd., New York, New York)*

Figure 8 *Northwest view of the intersection of West Third Street and South Williams Street, ca. 1982. The south elevation of the Hoover Block, as well as the cinder block, one-story addition, can be seen at the far right in the photo. (Aviation Trail, Inc.)*

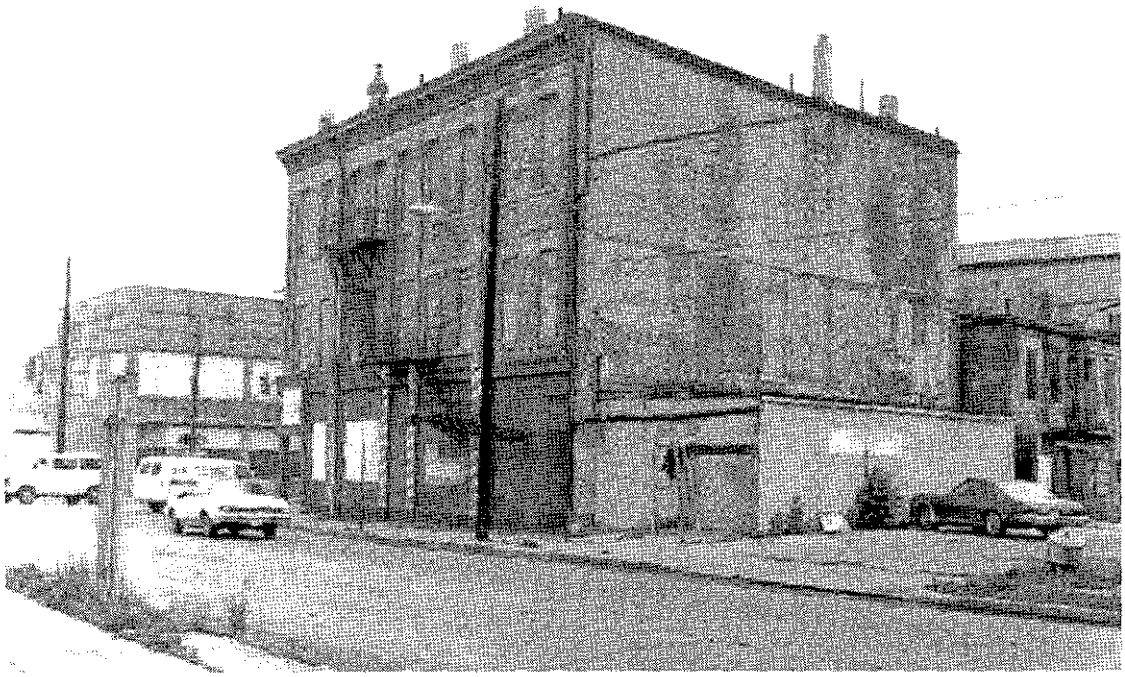

Figure 9 *View of the southwest elevation of the Hoover Block, 1986. Note that almost all of the building's openings have been infilled with masonry. Also, the brick face of the upper stories seems to have several large areas of spalling and erosion. (Aviation Trail, Inc.)*

Southwest Elevation of the Hoover Block, 1982

Figure 9 shows that almost all of the building's west and south openings have been infilled with masonry. The brick face of the upper floor elevations seems to have several large areas of spalling and erosion on both elevations. The southwest corner at the ground level has been cut away, leaving the corner column independent from the storefront. The upper half of the west elevation storefront appears to be boarded over with wood paneling, bearing signage from Aviation Trail, Inc. The rest of the first floor, along the west elevation, is painted a dark color, with lighter diagonal stripes distinguishing the pilasters. Within the two northernmost bays, an area of white has been painted, and a large directional arrow has been painted in the bay just south of center, below the fire escape.

Not all of the openings along the south elevation appear to be original; only those with brick arch heads and limestone sills seem to have been original windows. Two chimney stacks are visible. The central one appears to be part of the south elevation, while the eastern one is probably part of the east elevation. Also evident are the scars and stains of several additions, since removed. Two additions remain, one being a cinder block, one-story, shed-roof addition, spanning across the back of 1044 and 1046; the other being a one-story wood shed roof structure, with corrugated steel side panels behind 1042. These two structures are separated by a set of steel stairs that lead to their roofs. The back of the Setzer Building is also visible.

Bird's-eye view of Hoover Block 1986

Figure 10 provides information about the roof of the Hoover Block. From this view, nine chimney stacks are visible: four along the west elevation, one at the south elevation, and another four at the east elevation. There are also two chimney stacks belonging to the Setzer Building that abut the east elevation of the Hoover Block, the northernmost of which seems to rise above the east elevation, in line with the Hoover Block's chimneys.

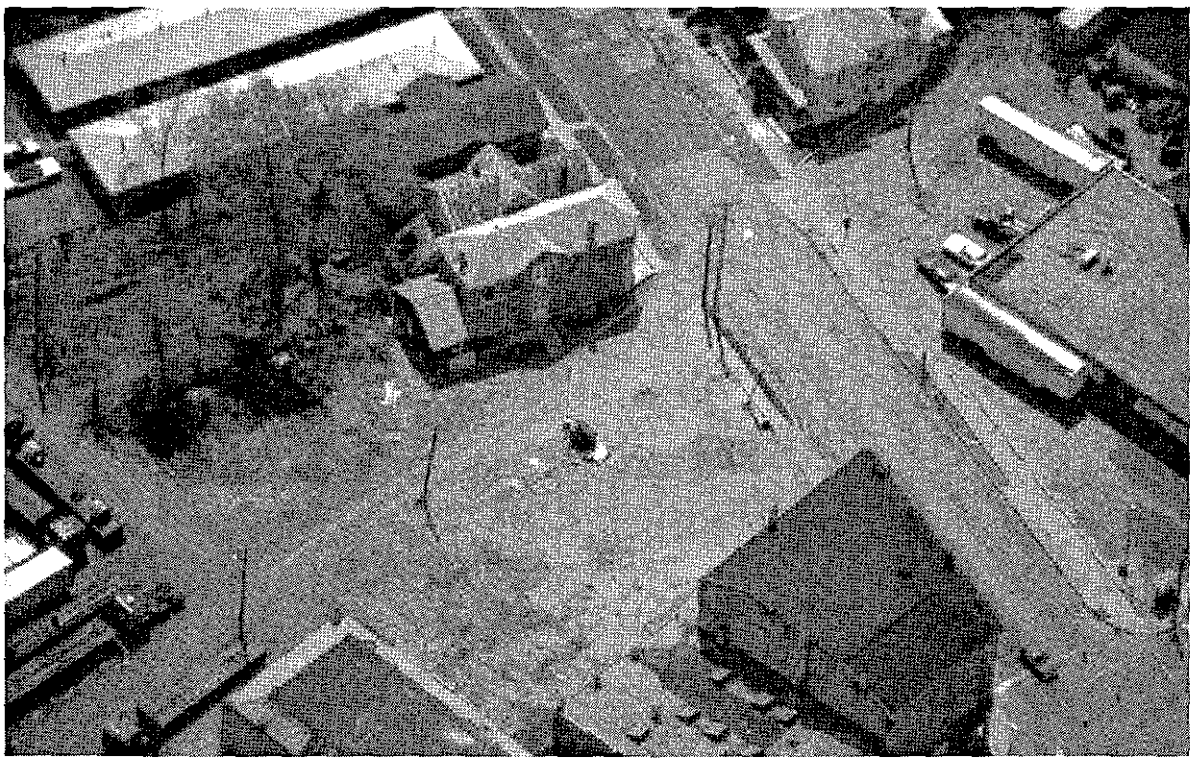

Figure 10 *This photo shows a bird's-eye view of the entire roof of the Hoover Block, which is to the right, directly above, in the foreground. (Aviation Trail, Inc.)*

Interior, 1046 Hoover Block, circa 1900-1917

Figure 11 *Interior, Hale Grocery, 1046 West Third Street, Hoover Block. (NCR Archives, undated)*

Figure 11 is an undated photograph inscribed "FRANK HALE'S GROCERY." Looking from the front to the back of the store (north to south), this photo reveals the original, single bay configuration of the store, maintained by Frank Hale during his tenancy from 1900-1917. The ceiling is papered with a decorative print that matches the walls, which are visible only above the well-stocked shelves. A single row of pendant lights (apparently gas fixtures) runs down the middle of the ceiling. Displays of various pastries, canned goods, and fresh fruit are visible.

Interior, 1046 Hoover Block, 1920

***Figure 12** Interior, grocery at 1046 West Third Street, Hoover Block. (NCR Archives, September 17, 1920)*

Figure 12 is dated September 17, 1920. The ceiling paper has been removed, and the lights have been altered. Two rows of electric lights have replaced the single row of gas fixtures. The pastry case is gone, but the white, three-door cabinet at the back of the room remains; this may be a refrigeration unit. Frank Hale left the grocery business in 1917. Kroger took over, and ran a grocery at this location until 1926.

Interior, 1046 Hoover Block, 1931

***Figure 13** Interior, A&P Grocery at 1046 West Third Street, Hoover Block. (NCR Archives, February 6, 1931)*

The Great Atlantic and Pacific Company took over the 1046 storefront in 1928, according to city directories. Figure 13, dated February 6, 1931, shows the interior of 1046 after it has been expanded into 1044. This occurred about 1930. The former dividing wall has been replaced by columns, which are used as part of the produce display. The lights have again been changed, and at least one ceiling fan is visible. In the background at the right side of the photo is the cashier's window, which is shown in Figure 14.

Cashier's Window, 1046 Hoover Block, 1931

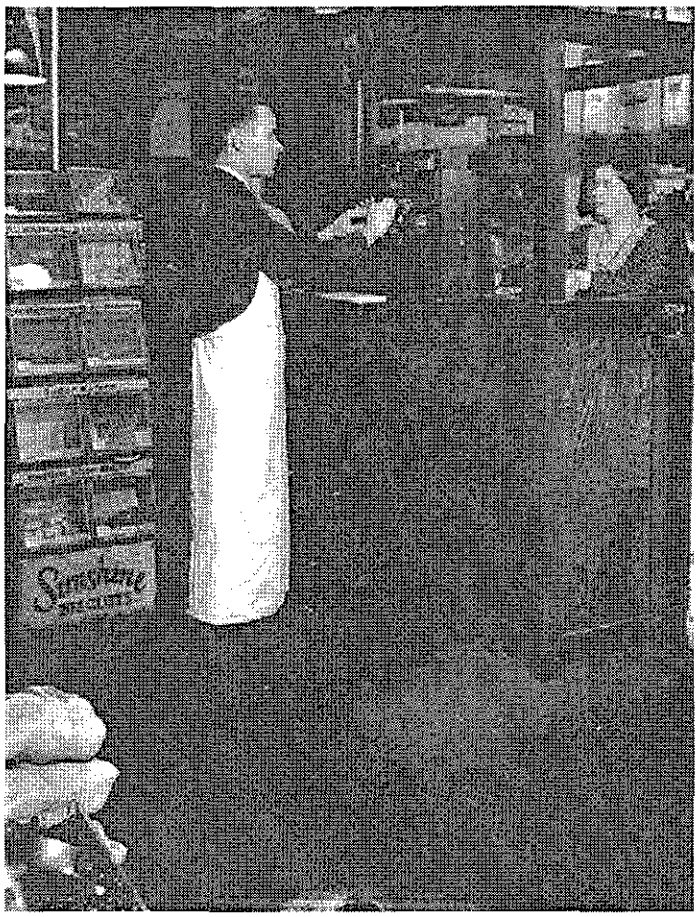

Figure 14 *Cashier's Window, A&P Grocery at 1046 West Third Street, Hoover Block. (NCR Archives, February 6, 1931)*

Figure 14 also dates from February 6, 1931. This photo dates from the time the Great Atlantic and Pacific Company (A&P) operated a grocery at 1044-1046 West Third Street. The two westernmost storefronts were combined in 1930. Details in this photo include: the cash register, an improved model over that visible in Figure 12; a pencil sharpener; and a biscuit display. There is lettering applied to the shirt worn by the gentleman at the register, but the words are not legible.

Historic Maps Analysis

Composite Map 1887-1936

This drawing (Figure 15), based on the Sanborn maps that follow and photographic evidence, shows the relative locations of the buildings discussed in the previous section. The addresses that are shown are the pre-1936 addresses. Building outlines are approximated, particularly on the north side of Third Street, which was not included in post-1887 Sanborn maps. North is at the top of the map.

1 *Hoover Block, 1042-1046 (1890)*
2 *Setzer Building, 1034-1036 (1906)*
3 *Poultry Shop, ca. 1912*
4 *Enterprise Building, 1026-1028 (1890)*
5 *Booth Building, 1018-1020 (1890)*
6 *Needham Building, 1010-1012 (1897)*
7 *Wright Cycle Company Building, 22 S. Williams (1886)*
8 *Morey Block, 1029-1039 (1884)*
Prior Building, 1029-1039 (1924)
9 *Mory's Block and Hall, 1023-1027 (pre-1893)*
10 *Midget Theater, 1019-1021 (1912)*
11 *Gem City Ice Cream, 1005 (1886)*
12 *Gunkel Building, 1101-1107 (1891)*
13 *Gunkel Block, 1109-1111 (1898)*
14 *Webberts Flats, 1117-1119 (1908)*
15 *Webbert Building (date unclear)*
16 *West Side Building Association (date unclear)*
17 *Brooks Block, 1114-1118 (post-1897)*
18 *Walters Block, 1120-1130 (1885-1893)*

Figure 15 *Composite map of the West Third Street commercial buildings, 1887-1936. (Quinn Evans/Architects, 1998)*

Sanborn Map 1887

This map (Figure 16) shows three single-story shops at the southwest corner of West Third Street and South Williams Street. The building addresses from the southwest corner are 1046, 1044, and 1042 West Third Street. The roof of 1042 and 1046 are wood frame with wood shingles; the roof of 1044 is composition roofing. There is an awning extending across the north elevation of 1044 and 1046, around to the west elevation of 1046. To the east is a two-story building with the addresses 1036, 1038, and 1040 West Third Street. The roof construction at these addresses is noncombustible. The later two addresses are shop spaces, and do not appear to be separated by a structural wall. All three addresses may in fact be part of the same building. "Printing 2nd," written across the three addresses indicates that there was a continuous second floor space used as a printing shop. A fire hydrant is located at the northern end of the west elevation.

At the northwest corner of West Third Street and South Williams Street is the Mory Block. The first floor is divided by structural walls into three separate spaces (1035, 1037, 1039) with connecting doorways. The westernmost space, 1039, is titled "Drugs" at the first floor; the other two spaces, 1035 and 1037, are also retail shops and share a stair to the second floor between them. Markings on the north wall indicate 1039 had one opening at each floor, 1037 had two openings on the first and one on the second floor, and 1035 had one opening at the second floor above its back addition.

Figure 16 *View of the 1887 Sanborn Insurance Map. The site of the future Hoover Block is circled. (The Sanborn Perris Map Co., Ltd., New York, New York)*

Sanborn Map 1897

This map (Figure 17) shows the buildings on the southern side of West Third Street. The Hoover Block is shown as a three-story building, divided on the ground floor by 12" thick walls into three retail spaces, addressed from the west as 1046, 1044, and 1042. The east and south elevation walls are described as being 13" thick at the first floor, and 12" thick at the second and third floors. The roof construction across the building is combustible. An interior stair is shown at the back of 1046, leading to the upper floors. Two exterior stairs are shown at the south elevation behind 1046 and 1044 respectively. Markings along the south elevation wall indicate that there was one opening at the ground floor of 1046, two openings at the ground floor and two openings at the second floor of 1044, and two openings at each floor of 1042. A small one-and-a-half-story building stands to the south of the property, behind the Hoover Block.

The building to the east of the Hoover Block seems to have changed proportions. There appears to be two, double-story spaces divided by a structural wall at the ground floor that share the addresses 1036,1038, and 1040. An interior stair runs between the two northern spaces, just behind the north elevation. There are two, single-story additions at the south elevation that are open to the spaces at the north. The westernmost space has an oven behind its addition, and the easternmost space has a small, one-story porch behind its addition. The roof structure over each space is noncombustible. The building at 1034 is shown as a single-story building with a noncombustible roof.

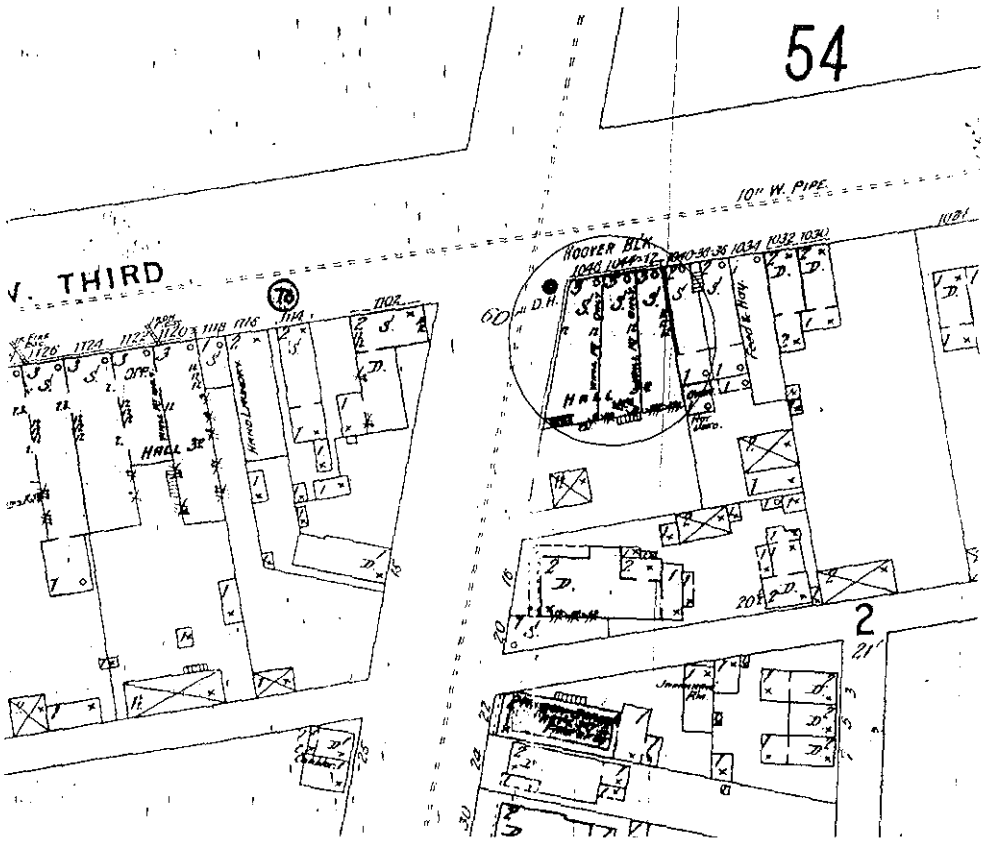

Figure 17 *View of the 1897 Sanborn Insurance Map. The site of the Hoover Block is circled. (The Sanborn Perris Map Co., Ltd., New York, New York)*

Sanborn Map 1911

This map (Figure 18) shows the buildings on the southern side of West Third Street. Again, the Hoover Block is shown as one, three-story building, with 12" thick walls dividing the ground floor into three spaces - the addresses have not changed. Across the plan of the building is written, "HALL 3RD" indicating the primary function of the third floor was to serve as a meeting hall.

The south elevation of the building has several openings: at 1042, there are windows at all three floors; at 1044 there are windows at the first and second floors; at 1046 there are no windows but there is a single door opening into an addition behind the building. This addition, directly behind 1046, is a 12' wide, single-story structure labeled "WARE HO." The roof construction is wood with wood shingles. The single-story addition also leads to a two-story "WARE HO." building, with a shingle roof, immediately to the south. The second building has a 22' wide western elevation, and is nearly as deep as the south elevation of the Hoover Block is wide. A third building has been added, at the southeast corner of the Hoover Block. This one-story structure, with a shingled roof, is separated from the Hoover Block and the additions by a small alley. There is no indication of doors allowing direct access from the Hoover Block or additions to the third building, and its function is unknown.

Figure 18 *View of the 1911 Sanborn Insurance Map. The site of the Hoover Block is circled. (The Sanborn Perris Map Co., Ltd., New York, New York)*

Sanborn Map 1918

This map (Figure 19) only shows the buildings on the southern side of West Third Street. Again, the Hoover Block is shown as one, three-story building, with 12" thick walls dividing the ground floor into three spaces - the addresses have not changed. The west elevation wall is described as being 13" thick on the first floor and 12" thick on the second and third floors. A fire escape is also indicated on the west elevation, just north of center. A gasoline tank is described just west of the building's southwest corner. The south elevation of the building has three openings to a group of additions behind the building. Across the plan of the building is written, "HALL 3RD" indicating the primary function of the third floor was to serve as a meeting hall.

Directly behind 1046 is a 12' wide, single-story structure labeled "WARE RM." with a small, single-story porch just outside the ground floor opening in 1046, the roof construction of which is wood with wood shingles. This single-story porch also leads to a two-story retail building further south on South Williams Street (10 South Williams Street) that also has a wood roof structure. The retail building has a 22' wide western elevation, and is nearly as deep as the south elevation of the Hoover Block is wide. At its east elevation, a small, two-story porch backs up to another, rather small, single-story structure; the two-story porch has a noncombustible roof, while the small single-story structure has a wood roof.

Returning to the south elevation of the Hoover Block, there is a shallow, two-story structure, running behind 1044 and 1042, described as "OPEN" on the ground floor, to which single openings from both 1044 and 1042 lead. This two-story addition, in turn, has a very small one-story room at its westernmost end, that backs up to the 10 South Williams Street retail building.

The building to the east of the Hoover Block now consists of three equal bays, divided by two structural walls, each with a set of stairs, including addresses 1034, 1036 and 1038. The entire building is two stories tall and the roof structure is composition roofing. A new masonry wall seems to have been added at the south of the building, where there are two sets of stairs, one behind 1040, and one behind 1034. The space at 1034 is retail, the space at 1036 is "Plumbing," and the space at 1040 is a "Chinese Laundry."

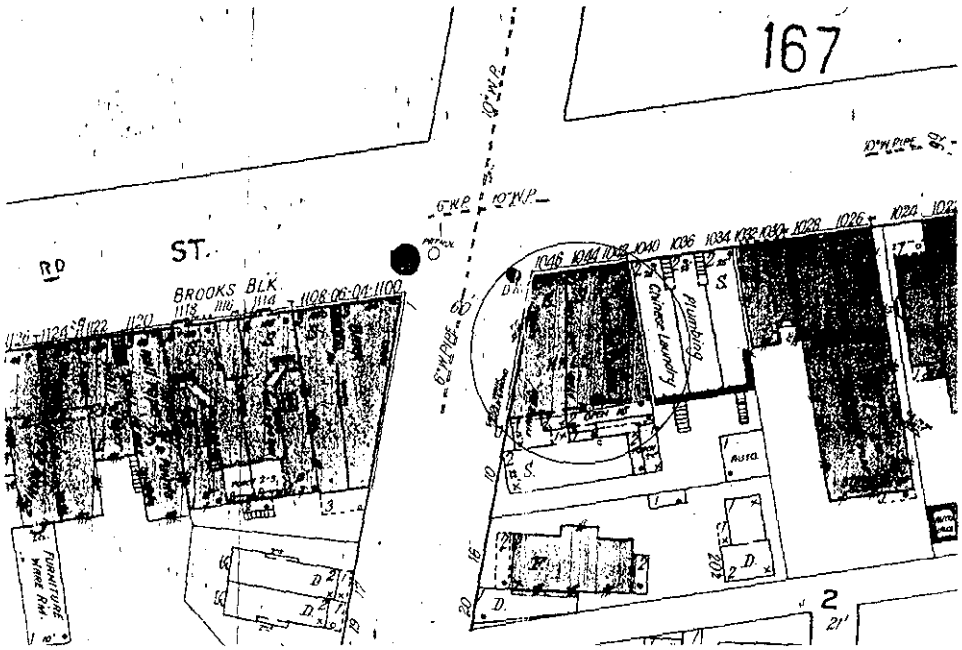

Figure 19 *View of the 1918 Sanborn Insurance Map. The site of the Hoover Block is circled. (The Sanborn Company, New York, New York)*

Sanborn Map 1936

This map (Figure 20) again shows only the buildings on the southern side of West Third Street, however, the addresses have been renumbered. The new addresses read from the west as 1062 (1046), 1060 (1044), and 1058 (1042). At the ground floor, 1062 and 1060 have been combined, and the wall separating these spaces has had an approximately 15' length removed from the north end of the building. Behind the Hoover Block, the additions to the south have changed very little. The address at 10 South Williams Street becomes 12 South Williams Street and the retail space there is labeled "FURNE. REP." The roof structure at this building and the additions have changed to composition roofing. Only the single-story structure behind 12 South Williams Street has been removed.

The building to the east of the Hoover Block underwent similar changes. The addresses now read 1048 (1034), 1052 (1036) and 1056 (1038). The wall between spaces 1052 and 1056 has been cut back approximately 15' from the north elevation and the stair that was there is removed. There is a second-story overhang with composition roofing at the south of the building. This is labeled on the map as "R. ROSE W 3rd ST."

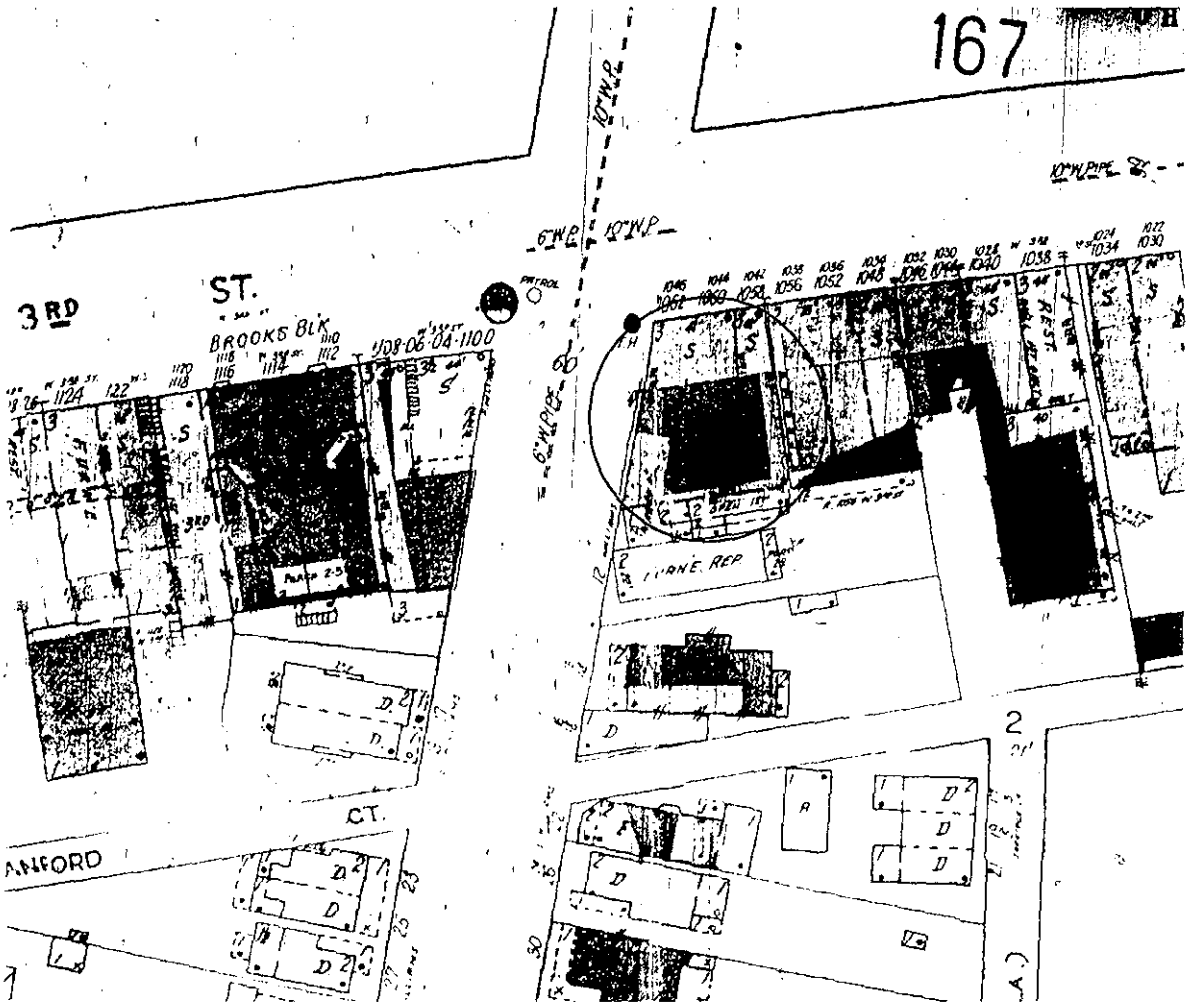

Figure 20 *View of the 1936 Sanborn Insurance Map. The site of the Hoover Block is circled. (The Sanborn Company, New York, New York)*

1 Fred C. Kelly, *The Wright Brothers: A Biography* (New York: Dover Publications, Inc. 1989), 34.

2 *Ibid.*, 37.

3 Fred C. Fisk and Marlin W. Todd, *The Wright Brothers: From Bicycle to Biplane* (West Milton, Ohio: Fred C. Fisk and Marlin W. Todd, 1993), 21.

4 Ann Deines, *Dayton Aviation Heritage National Historical Park Historic Resource Study (Draft)*, (Omaha, NE: U.S. Department of the Interior, National Park Service, Midwest Regional Office, September 1996), 65.

5 Gaede Serne Zofcin Architects, Inc., *Master Plan Study for the Hoover Block Dayton, Ohio* (Cleveland, OH: September 2, 1987), 8.

6 United States Department of the Interior, National Park Service (prepared in conjunction with the 2003 Fund Committee), *Study of Alternatives: Dayton's Aviation Heritage • Ohio*. (U.S. Government Printing Office: 1991 - 573-040/20,039, Region No. 8), 9-10.

7 Mary Ann Johnson, *A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio* (Dayton, Ohio: Landfall Press, 1986), 35.

8 *Ibid.*, 37.

9 *National Historic Landmark Nomination Form for the Hoover Block*, section 7, pp.4-5.

10 *Ibid.*, section 7, p.2.

11 *Master Plan Study for the Hoover Block Dayton, Ohio*, 3.

12 Fisk and Todd, 42.

13 Fisk and Todd, 43.

14 *Master Plan Study for the Hoover Block Dayton, Ohio*, 1.

15 U.S. Department of the Interior, National Park Service, Denver Service Center, *Draft General Management Plan/ Environmental Assessment: Dayton Aviation Heritage National Historical Park • Ohio* (Denver, CO: November 1996), 127.

16 U.S. Department of the Interior, National Park Service, "Dayton Aviation Heritage National Historical Park Ohio" (brochure).

17 *Draft General Management Plan/Environmental Assessment*, 3.

18 *Ibid.*, 14.

19 *National Historic Landmark Nomination Form for the Hoover Block.*

20 U.S. Department of the Interior, National Park Service, Denver Service Center, *Draft General Management Plan/ Environmental Assessment: Dayton Aviation Heritage National Historical Park • Ohio* (Denver, CO: November 1996), 127.

21 U.S. Department of the Interior, National Park Service, "Dayton Aviation Heritage National Historical Park Ohio" (brochure).

22 U.S. Department of the Interior, National Park Service, Denver Service Center, *General Management Plan/Interpretive Plan: Dayton Aviation Heritage National Historical Park • Ohio* (Denver, CO: November 1997), 36.

23 *Ibid.*, 14.

Part C:

Archeological Analysis

Part C: Archeological Analysis

Limited archeological investigation was conducted around The Wright Cycle Company building by Wright State University prior to National Park Service ownership of The Wright Cycle Company building and the Hoover Block. According to the park's November 1996 *Draft General Management Plan/Environmental Assessment*:

> . . . no documentation of the investigation findings was produced. Maps from the historic period indicate the location of a paint and metal finishing shed at the rear of the Cycle building. Maps also indicate three buildings with auxiliary structures on the land between the Hoover Block and the Cycle building. One of the structures housed a storefront hat shop and residences.[1]

In 1996, National Park Service personnel "monitored grading of the plaza area between The Wright Cycle Company building and the Hoover Block for the discovery of subsurface archeological features."[2] According to the *General Management Plan*, "continued historic archeological work in this area is highly probable."[3] Further, the 1996 *Interpretive Plan for the Dayton Aviation Heritage National Historical Park* identifies additional studies, plans, and pieces of research needed to complete implementation of the plan including historic site archeological assessments. The goal of the archeological assessments is "to recover data, determine the size and location of missing structural elements and features, and increase the historical base of information for the park."[4] Accordingly, assessments will be needed for, among other sites, "the Hoover Block, and the adjacent vacant lot behind the structure," as well as for "The Wright Cycle Company building with its adjacent yard."[5]

Floodplains and Wetlands

According to the *General Management Plan/Environmental Assessment*, the core unit (consisting of the Wright Cycle Company Building and the Hoover Block) is not within either a 100-year or 500-year floodplain, although the area did flood in 1913. The closest designated 100-year and 500-year floodplains to the core unit are associated with Wolf Creek, which is approximately one quarter mile from the sites, and the Great Miami River, which is less than one mile away.

No wetlands have been identified at the core unit. However, the channels of Wolf Creek and the Great Miami River within one quarter mile of the core unit are "delineated as riverine lower perennial wetland systems."[6]

Vegetation

Prior to the white settlement of Greene and Montgomery Counties, forests covered about 95 percent of the land. A majority of the woodland cover consisted of hardwood forest types including beech, mixed oak, elm-ash, and oak-maple. Development and agricultural activities soon "reduced the original forest cover to small scattered woodlots on poorly drained soils unsuitable for other crops. However, with management, woodland acreage has been steadily increasing in recent times."[7]

The core unit is located in a developed urban setting in West Dayton. Because of this, no undisturbed native vegetation types exist. What vegetation there is, on or near the core unit, is "typical of disturbed urban areas and consists primarily of maintained lawn and ornamental vegetation..."[8]

Topography and Climate

The terrain in the project area is primarily flat, the result of the grinding-down and filling-in process of glacial action. The core unit is about 740 feet above mean seal level (MSL).

The climate is classified as continental with warm, humid summers and cold, cloudy winters. July is normally the warmest month with an average daily maximum temperature of about 86 degrees while January is typically the coldest month with an average daily maximum temperature of 38 degrees. Precipitation is well-distributed throughout the year and averages about 38 inches annually.[9]

Geology and Soils

The geology of the project area, according to the November 1996 *Draft General Management Plan/Environmental Assessment*, is the result of "glacial advance, retreat, and deposition followed by the deposition of silt, or loess, over much of the region. Soils in the project area formed in several kinds of parent materials including glacial drift, weathered sedimentary bedrock, loess, lacustrine deposits, alluvium, and organic material."[10]

Underlying the core unit is the Crosby-Urban land complex. The natural soil characteristics of this mapping unit have "been eradicated due to the level of disturbance from earthmoving or fill activities. These soils are nearly level and typically occur on uplands underlain by glacial till. They are seasonally wet, somewhat poorly drained, and permeability is slow."[11]

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1 U.S. Department of the Interior, National Park Service, Denver Service Center, *Draft General Management Plan/Environmental Assessment: Dayton Aviation Heritage National Historical Park • Ohio* (Denver, CO: November 1996), 82.

2 Ibid., 82.

3 Ibid., 82.

4 U.S. Department of the Interior, National Park Service, Division of Interpretive Planning, Harpers Ferry, *A Plan for the Interpretation of Dayton Aviation Heritage National Historical Park Ohio* (Harpers Ferry, West Virginia: October 22, 1996), 49.

5 Ibid., 49.

6 *Draft General Management Plan/Environmental Assessment: Dayton Aviation Heritage National Historical Park • Ohio*, 86.

7 Ibid., 86.

8 Ibid., 86.

9 Ibid., 85.

10 Ibid., 85.

11 Ibid., 85.

Part D:

Neighborhood Contextual Analysis

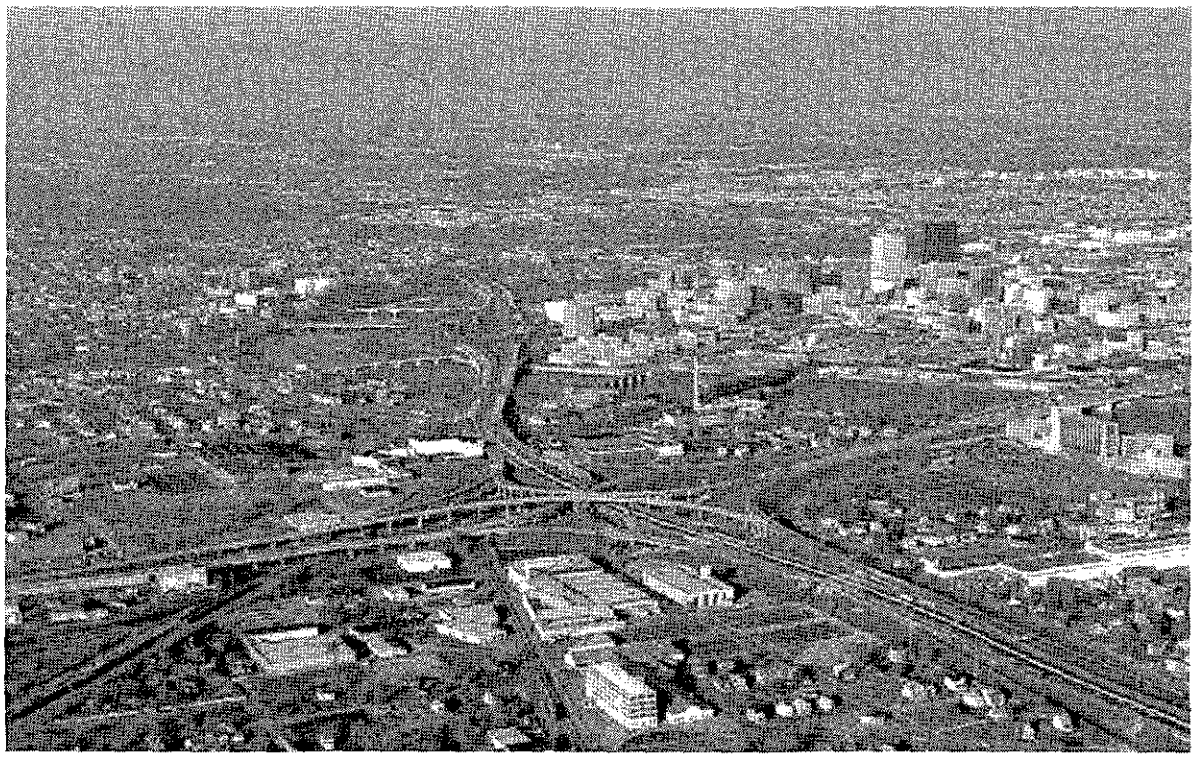

Figure 1 *View of Dayton, ca. 1980s. Downtown Dayton, to the right, is separated from the West Side, to the left, by the Miami River. (Aviation Trail, Inc.)*

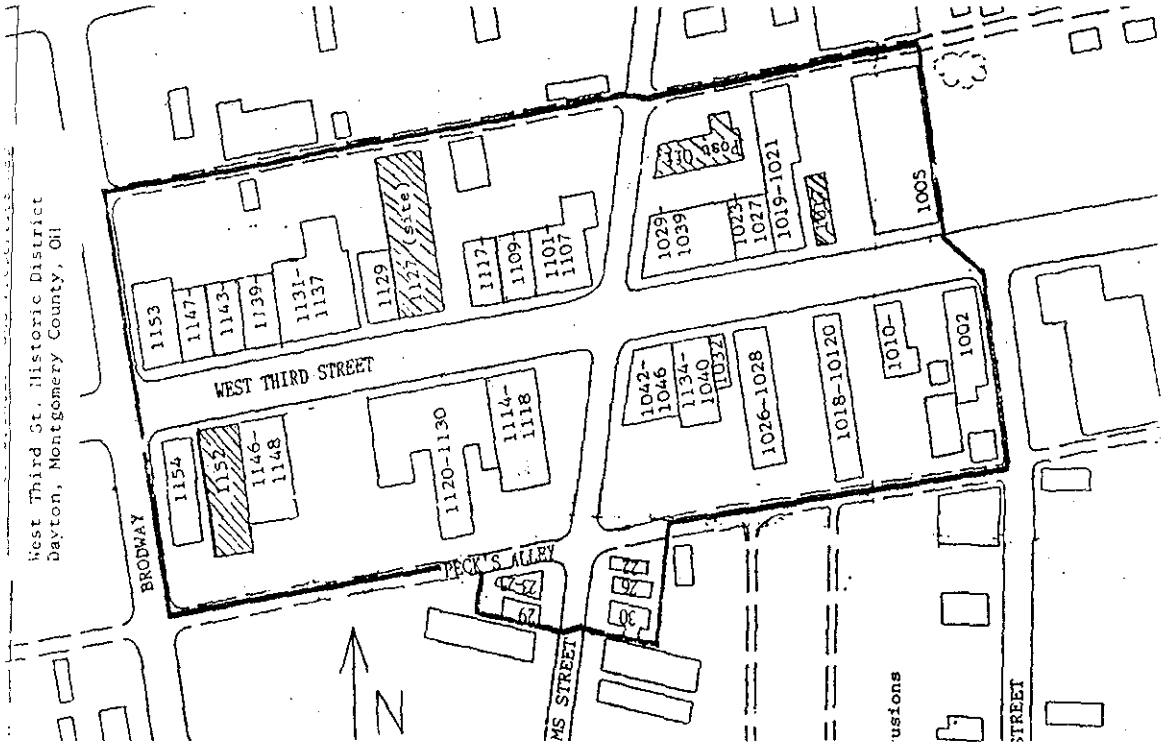

Figure 2 *Map of the West Third Street Historic District. (National Register of Historic Places Nomination Form for the Wright-Dunbar Historic District [now the West Third Street Historic District], 1988)*

Part D: Neighborhood Contextual Analysis

The Hoover Block is located on the West Side of Dayton, Ohio in the West Third Street Historic District, and is listed in the 1989 National Register of Historic Places Nomination Form for the West Third Street Historic District as a contributing structure in the district. In 1869, when Orville and Wilbur Wright's parents moved from Indiana to what was then known as Miami City or the West Side, the area had only recently been annexed by the City of Dayton. Located ten blocks from the center of Dayton, it was one of the city's earliest streetcar suburbs. The neighborhood quickly began to blossom largely due to the extension of the horse car line across the Miami River bridge into West Dayton. It was "hoped that the availability of cheap public transportation would encourage the sale of house lots on the West Side to working men and women who had previously been forced to live within walking distance of the industrial and commercial core of the city. The scheme worked."[1] The street car "added the needed impetus behind the West End development and shops sprung up along the line with residential areas growing up behind."[2] Then, as now, West Dayton "was a place where working men and women made their homes."[3] Both the shops and the homes on the West Side were small in scale, reflecting the needs of the residents who lived there.

Third Street is the city's main east-west thoroughfare, and is divided by the Miami River. The West Third Street Historic District, which encompasses three blocks of West Third Street with a short extension south on South Williams Street to include The Wright Cycle Company building, is largely a commercial district consisting of two- and three-story dark red brick buildings with corbelling and round arches built between 1885 and 1924. Typical of commercial architecture of this period, the District has "the mixed character of the turn-of-the-century. Common unifying elements are the metal cornices, brick, and overall rhythm of the facades."[4] Additionally, the facades in the District have stone and metal trim. Styles range from the High Victorian Italianate and turn-of-the-century Italianate to commercial Romanesque Revival and Neoclassical Revival. According to the National Register of Historic Places Registration Form:

> "this [the West Third Street Historic District] streetcar commercial block is considerably different from the other examples in Dayton. It is more urban, compact, and architecturally distinguished, and is on a greater scale than others found in Dayton, dominated by two and three-story buildings. Those structures that have survived in similar areas are one and two-story strips, primarily at intersections and are interspersed with residential buildings. One of these is part of the Huffman Historic District on East Third Street. The other West Side streetcar commercial block is on West Fifth Street, [however], it is small and nearly demolished."[5]

Figure 2 is a map from the National Register of Historic Places nomination form for the West Third Street (originally called Wright-Dunbar) Historic District, showing many of the buildings discussed in this section. Beginning at the northeast end (or the 1000 block) of West Third Street is an industrial building that was once the Gem City Ice Cream Building (1005). The building actually consists of a series of additions wrapped around the building that housed The Wright Cycle Exchange starting in 1892. This was the first bicycle shop. The present facade dates to 1914. A few doors down on the same side of the street is the Neo-Classical Revival Midget Theater (1019-1021) built in 1912. Next to the Midget Theater is Mory's Block and Hall (1023-1027) built in 1884. A "pivotal early commercial structure," it "is a brick two-story building with a stairway bay and three storefront bays on the street level."[6] Adjacent to Mory's Block and Hall at the northeast corner of West Third Street and Williams Street is the J.A. Prior Building (1029-1039) built in 1924 on the former site of another Mory Building.

Figure 3 is a circa 1980s view looking northwest from 22 South Williams. Across the street from the Prior Building, on the northwest corner of West Third Street and South Williams Street is the Gunkel Building (1101-1107). Built in 1898, at the beginning of the 1100 block, the building is a "significant contributor to the district architecturally and historically. It housed the Hamburger Hardware Store for many years and also Dayton's first branch post office. The building has three storefront bays on West Third Street."[7] Next to the Gunkel Building are the Gunkel Block (1109-1111) built in 1891 and the Webbert Flats (1117-1119) built in 1908 (Figure 4). Both are excellent examples of turn-of-the-century commercial buildings consisting of first floor storefronts with apartments above.

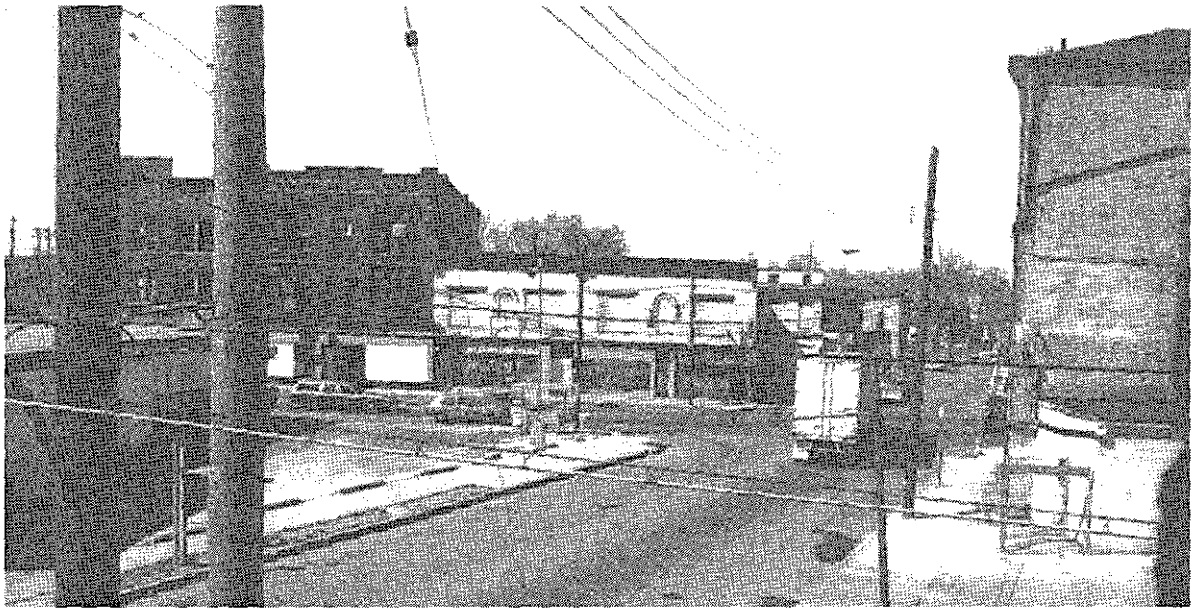

Figure 3 *View, ca. 1980s looking northwest from South Williams Street. The building directly across from where the photo was taken that appears to be white is the Gunkel Building. Adjacent to it on the left is the Gunkel Block, next is the Webbert Flats and then a vacant lot. (Aviation Trail, Inc.)*

Figure 4 *View looking northwest of the 1100 block of West Third Street, ca. 1937. (Marvin Christian Collection, William Preston Mayfield Photos)*

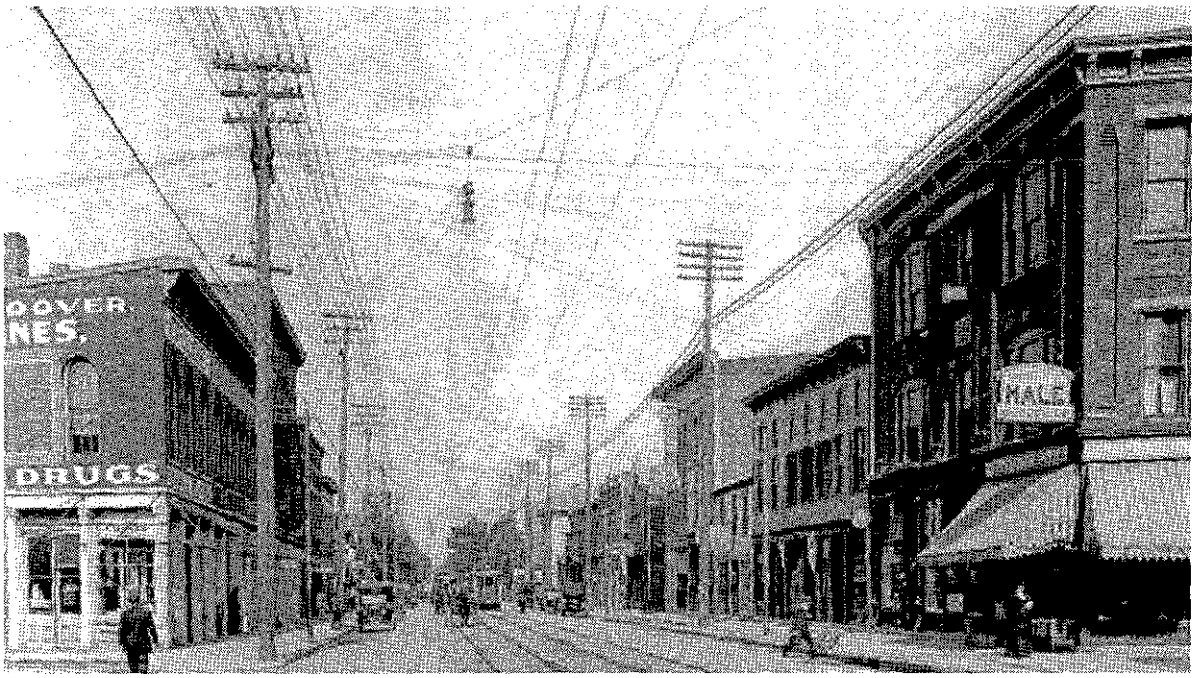

Figure 5 *View, ca. 1912, looking east down West Third Street. The building at the front right of the photo with the sign that reads "Frank B. Hale Groceries" is the Hoover Block. Adjacent to it is the Setzer Building with a wood facade. (Marvin Christian Collection, William Preston Mayfield Photos)*

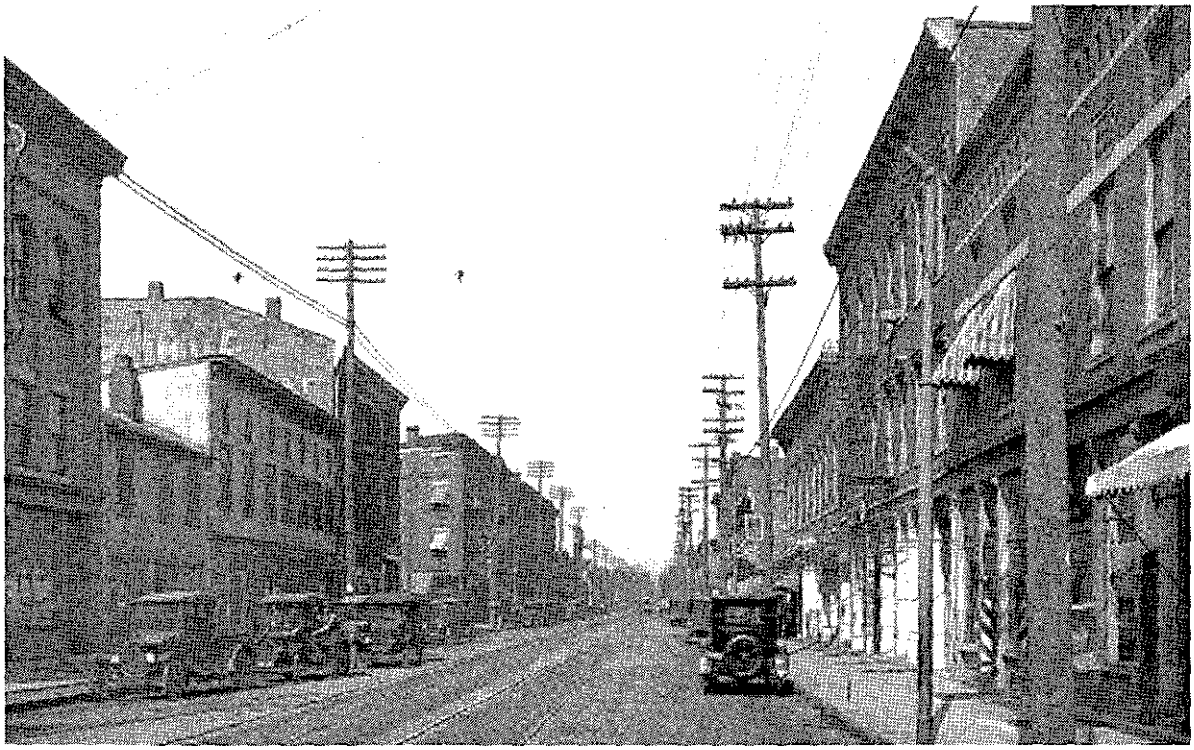

Figure 6 *View looking west, ca. 1922, down West Third Street. The third building down on the left side from the front of the photo heading west is the Setzer Building with a wood facade. The Hoover Block is adjacent to it with a painted sign, that is partially visible with the letters "EORGE," on its side. (Marvin Christian Collection, William Preston Mayfield Photos)*

Adjacent to the Webbert Flats is a vacant lot and a nonconforming modern building. This was built on the site where the Wright Brothers' last bicycle shop was located, and was the shop in which the Wrights invented the first airplane. The shop, which was also a Webbert building, was moved to Greenfield Village in Dearborn, Michigan in the 1930s, leaving a vacant lot on which the modern building was later built. The current vacant lot between the modern building and the Webbert Flats was the former location of a third Webbert building.[8]

The Hale Building (1129), on the other side of the vacant lot, was built circa 1923 and is "a contributing early twentieth century structure."[9] The building next to the Hale Building is the Hoersting-Holtman Building (1131-1137) which was originally built in 1909 with four primary bays and two stairway bays. In 1911, the building was severely damaged by a major fire, as were several other buildings west of the alley. The building was subsequently rebuilt. Next to the Hoersting-Holtman Building are twin buildings, the Groneweg Building (1139-1141), built in 1913 and the William Webbert Building (1143-1145), built circa 1912. The last two buildings on the north side of the block are the Sapp Building (1147-1151), built circa 1912, exhibiting a Prairie Style influence, and the Olney Flats (1153), built in 1913. The Olney Flats is a three-story yellow brick building with three recessed bays. It was originally a grocery store, but was later renovated into a restaurant in the 1940s.

Across the street on the south side of West Third Street is a Neoclassical bank building, built in 1922, that housed the West Side Building and Loan Association (1154). It has the district's only stone facade. Adjacent to the bank is "a nonconforming infill building constructed after the period of significance."[10] The building next to it is the Mariette Flats (1146-1148), built in 1913. This building "represents the influence of early twentieth century cultural expression in architecture...[it] is a three-story, pressed brick, mixed commercial and apartment building in the Georgian Revival style."[11]

A large void exists between the Mariette Flats building and the Walter's Block (1120-1130), the result of a major fire in 1986. The Walter's Block was built between 1885-1893 and is "the only remaining High Victorian commercial block left in Dayton that clearly represents its time in history. [It] is a brick three-story High Victorian Italianate commercial block built in three parts; circa 1885, 1888 and 1893."[12] It has six storefront bays with cast iron pillars. Like the Hoover Block, and several other buildings in the district, the Walter's Block has a lodge hall on the third floor. Adjacent to the Walter's Block is an intrusion, a building that was badly renovated in the 1950s, but "has [since] been compatibly rehabilitated as part of the Walter's Block project."[13] Next door to it, at the southwest corner of West Third Street and South Williams Street, is a void, the cause or reason for which is unknown.

Across South Williams Street, at the southeast corner of West Third Street and South Williams Street, is the Hoover Block (1042-1046) built by Zachary Hoover in 1890 in a Commercial Romanesque style (Figure 5). In its original configuration, the three-story, red brick building, had three shops on its first floor, multiple suites on its second floor, and a lodge hall on its third floor. Adjacent to the Hoover Block is the Setzer Building (1034-1040). The 1989 National Register of Historic Places Nomination Form for the West Third Street Historic District indicates that the building was constructed in 1906. However, historic photos indicate the wooden facade of the building pre-dating the Setzer building was retained. The brick facade, which is what currently exists today, was installed in 1922.

A discrepancy exists with the building at 1032, between the Setzer Building and the Enterprise Block. The 1989 National Register of Historic Places Nomination Form for the West Third Street Historic District indicates that it is a one-story stucco building. However, photos from 1912 (Figure 5) and 1922 (Figure 6), show a two-story stucco structure. Additionally, a photo taken in 1996 (Figure 7) shows a stucco structure with the same roof line as the structure in the 1912 and 1922 photos. While windows are only evident on the first floor in the 1996 photo, it is likely that the windows on the second floor have been closed up, giving the building the appearance of being a one-story structure since the structure is the same height and has the same characteristics as those in the older

Figure 7 *View looking southeast from the northwest corner of the intersection of West Third Street and South Williams Street. The Hoover Block is at the corner, and the Setzer Building is next door, now with a brick facade. (Quinn Evans/Architects, 1995)*

Figure 8 *View looking southeast at the Hoover Block, ca. 1935. The brick facade of the Setzer Building, which still exists today, can be partially seen adjacent to the Hoover Block. (Photo courtesy of the Marvin Christian Collection, William Preston Mayfield Photos)*

photos. Moreover, the 1989 National Register Form states that the building is "clearly a survivor of the earlier low scale buildings present before annexation by Dayton," and that there is little information about the building.[14]

Quite the opposite is true of the Enterprise Block (1026-1028), which was built in 1890 and has a hall on the third floor. This building was constructed after the streetcar line was installed, and is typical of the large, commercial structures along West Third Street. Next to the Enterprise Block, but separated by a vacant lot, is the Booth Building (1018-1020). Built in 1890, the Booth Building is a fine Commercial Romanesque style building. On the opposite side of the Booth Building is a vacant lot and then the Needham Building (1010-1012) of 1897. The Needham Building is "a significant survival of the mixed residential and commercial facade, now rare in Dayton."[15] Still another vacant lot exists between the Needham Building and the last building at the southeast end of the district, the Allaman Building (1002). Built in 1914, the three-story building sports a unique Mediterranean style.

The 1100 block, and to a certain extent the 1000 block, is "in full urban scale resembling a small main street."[16] Moreover, the utilization of space in most of the buildings in the district was typical of turn-of-the-century commercial buildings. Generally there were stores at the ground level with offices and apartments above, and, depending on the height of the building, a meeting hall on the top floor. The composition of the West Third Street Historic District generally resembled other commercial districts across the country built around the same period of time. According to Richard Longstreth:

> the form and scale of most commercial districts are relatively homogenous, with buildings with two to three and seldom more than four stories abutting one another, their street elevations defining the property's edge. More often than not, building facades adhere to one of a few basic compositional patterns that were used nationwide. However, they may vary considerably in detail according to factors such as the building's function, when the community was settled, the periods in which it was prosperous, and the sophistication of the designers.[17]

Further, the "mass manufacture of building products, including ornament, and the creation of new materials allowed thousands of buildings to attain a distinctive appearance previously reserved for only the costliest edifices. Facades served as advertisements for the businesses within."[18] Longstreth goes on to say that: the patterns of commercial development that were established by the mid-19th century remained dominant for another hundred years... Commercial districts in the center of cities and towns and those lining the arteries of residential neighborhoods all constituted variations on the same basic theme. The essential spine of this development was the street, most often one primary route.[19]

In Dayton, Third Street was the city's main east-west thoroughfare, thus it follows that there would be significant commercial development along its stretch. As was the case in many communities across the country, as well as in Dayton, the street served as the anchor with the buildings tending to abut the sidewalk and the other buildings next door, filling as much available space as possible. This dense urban configuration, consuming all available land, occurred whether a building had a very narrow frontage or stretched for half a block, whether the building was one-story or 30 stories. Any openness was essentially the result of necessity—to allow service access to the functions within or to permit natural light and air to reach interior spaces.[20]

And while their dense urban configuration and essentially uniform scale made it seem as though all of the commercial districts looked alike, they in fact, did not. However, by the mid-19th century, "uniform characteristics were abundant."[21] A building might be "modified to suit the needs of the locale, or it might remain more or less constant. Yet even if the architectural dialects were different, the underlying grammar was much the same."[22] Moreover, "commercial architecture was a common language that transcended size and location."[23] The point is that if one were to look at an unidentified photograph, it would be difficult to tell whether a particular building built in 1860 was located in Cincinnati, Louisville, Boston, St. Louis, or San Francisco.

One of the most effective ways of understanding commercial buildings is:

Figure 9 *View looking northeast at the Hoover Block's west and south facades. Note the unadorned south facade. (Aviation Trail, Inc.)*

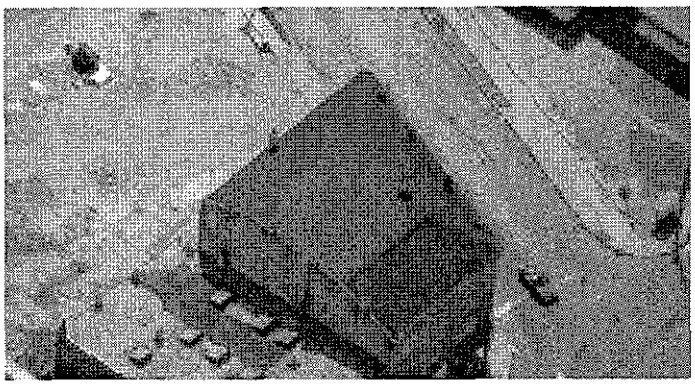

Figure 10 *View of the roof of the Hoover Block. Note the building's irregular shape. (Aviation Trail, Inc.)*

> to examine their facades. This is because between the early 19th and the mid-20th centuries, most commercial buildings were designed to be seen from the front. With relatively few exceptions, they were not conceived as freestanding objects. From the exterior, it is the facade that gives commercial architecture its distinctive qualities and distinguishes one building from the next. Side walls are often party walls, shared with or secured to those of the adjacent structure. When facing alleys or service walks, side walls stand free; however, they are almost always treated in an elementary, utilitarian manner. Rear walls are similarly rendered...[however] when they face a street or, much more rarely, a yard–they tend to echo the facade's composition."[24]

The Hoover Block is a good example of these various facade treatments. Historically, the first floor of the main facade of the Hoover Block, which faces Third Street, featured large storefront display windows punctuated by recessed entries for each of the three shops. As was typically found in late 19th century commercial buildings, the visually heavy masonry upper stories appear unsupported by the glass storefronts (Figure 8). In the Hoover Block, this effect is exaggerated because the first story iron columns are offset from the brick pilasters of the upper two stories.[25] The Williams Street facade, or the west facade, is more austere although it "retains the basic pattern of the building's front. Both the face bricks and the bands of rusticated limestone window sills and lintels continue from the main facade...The east (Figure 6) and south (Figure 9) facades, which serve(d) as party walls with adjoining buildings, are not ornamented."[26]

Perhaps the single most important determinant of form of 19th and early 20th century commercial buildings is the lot configuration. According to Richard Longstreth, this is because the "great majority of [commercial] examples from the early 19th to the mid-20th centuries fill most if not all of their respective lots. Most lots are rectangular, of standard dimensions and deeper than they are wide...Some lots have an irregular shape, and except in some rare instances, the commercial building's form is adjusted to fit that shape."[27] The Hoover Block is a prime example of a 19th century commercial building fitting an irregularly shaped lot (Figure 10).

The West Third Street Historic District, of which the Hoover Block is a contributing structure, is typical of turn-of-the-century commercial areas that sprung up all over the United States. The characteristics and features that it exhibits closely resembles those of other commercial districts built at the same time.

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1 Tom D. Crouch, "West Dayton and the Wrights," pamphlet published by Aviation Trail, Inc., undated.

2 Loren S. Gannon, Jr., Gannon Historical Services, National Register of Historic Places Registration Form for the *West Third Street Historic District* (Dayton, OH: September 2, 1987), section 8, p.2.

3 Tom D. Crouch, "The Wrights at Home: West Dayton Today," American Heritage, (April 1988):105.

4 *National Register of Historic Places Registration Form for the West Third Street Historic District*, section 8, p.2.

5 *Ibid.*, section 8, p.3.

6 *Ibid.*, section 7, p.2.

7 *Ibid.*, section 7, p.2.

8 There is conflicting information with respect to the nonconforming modern building and the vacant lot. The 1989 *National Register of Historic Places Nomination Form for the West Third Street Historic District* says that "Across from the Walters Block is a nonconforming modern building (1127) and vacant lot both which occupy the historic site of the last Wright Brother's bicycle shop..." However, photographic evidence has revealed that two separate buildings once existed on the so-called "historic site." The Wright Cycle Building was located on the site where the nonconforming building now stands, and a second Webbert building (for a total of three) occupied the site where the vacant lot stands.

9 *Ibid.*, section 7, p.3.

10 *Ibid.*, section 7, p.3.

11 *Ibid.*, section 7, p.3.

12 *Ibid.*, section 7, p.3.

13 *Ibid.*, section 7, p.2.

14 *Ibid.*, section 7, p.2.

15 *Ibid.*, section 7, p.1.

16 *Ibid.*, section 7, p.2.

17 Richard Longstreth, "Main Streets," *Built in the USA: American Buildings From Airports to Zoos*. ed. Diane Maddex (Washington, D.C.: The Preservation Press, 1985), 117.

18 Longstreth, *The Buildings of Main Street* (Washington, D.C.: The Preservation Press, 1987), 13.

19 *Ibid.*, 13.

20 *Ibid.*, 14.

21 *Ibid.*, 16.

22 *Ibid.*, 16.

23 *Ibid.*, 16.

24 *Ibid.*, 16-17.

25 Jill York O'Bright, David G. Richardson, and William S. Harlow, U.S. Department of the Interior, National Park Service, Midwest Regional Office, *National Historic Landmark Nomination Form [for the Hoover Block]*, (Omaha, NE: 1987-88), section 7, p.10.

26 *Ibid.*, section 7, 1.

27 Longstreth, *The Buildings of Main Street*, 17.

Part E:

Architectural Analysis

Part E: Architectural Analysis

Exterior Analysis

On the north elevation, most of the major changes have occurred at the first floor level as a result of various remodeling efforts by consecutive tenants at those addresses. It is evident that almost all of the original material of the storefront has been replaced over time. Some of the only remaining original storefront materials are the decorated iron columns along West Third Street and part of South Williams Street. The wrought iron faces of the columns have, over their lifetime, been painted and are now partially sheathed in wood, but are close to their original condition. The modified capitals of the two outer columns on the north facade have been lost. Above the columns was a heavy iron frieze spanning across all three shop fronts between the now missing capitals. The frieze also has been painted and encased in wood paneling, leaving only the cornice of the frieze visible.

The original glass of the storefronts spanned from low bases to the underside of the iron frieze atop the columns. Later remodeling replaced the upper portion of the storefronts at 1046 and 1044 with square, textured glass panes, three per bay at the north, two per bay at the west. The same area above 1042 has only wood stud infill. The wood paneling placed over the frieze extends down over the upper portions of the storefront windows. At some point, the northeast corner was chamfered to create a new entrance, leaving the northeast corner column exposed at all four sides. Other remodeling efforts eliminated all of the entrances, save this corner entrance, and created imitation stacked-stone bases for new, flat windows in bays 1042 and 1046. Only the cuts, in what remains of the original building curb, give any indication of the original storefront entrances.

At the second and third floor elevations, the most obvious changes in the building's appearance are the masonry infilling of all of the window openings, and the painting of all of the brick surfaces. No modifications appear to have been made to the iron cornice, with the exception of a new length of downspout at the east end of the elevation. Other exterior features appear to have remained relatively unchanged since the building was first constructed.

The same is true for the west elevation. Again, most of the changes to this elevation occurred at the first floor level. Originally, there had been the end of the storefront, then one square window in each of the next two large bays. In the last bay there was one door without a transom leading into the back of 1046, and one door with a transom (the size of the other two windows) leading to the second floor. At some point, a transom was added over the first door, though it does not align with any of the other openings. This level of the elevation has received several layers of paint over time.

While the upper portion may have had no reconstruction, it does appear that, at one time, a fire escape had been mounted below the third and fourth windows from the north at the third floor, and below the next three windows on the second floor, though it has since been removed. Again, nearly all of the openings were filled in with masonry; concrete masonry units above and brick at the first floor. Only the doorway leading to the second floor remains usable. Though the iron cornice seems to be untouched, there has been some repair work performed on the two original downspouts, including the addition of newer material and a tie-in from the south elevation gutter. The chimney stacks, now mostly covered, appear to have also undergone some modification.

The south elevation was originally an almost solid brick elevation with narrow, tall arched, punched windows. At the ground level, there were five windows: one in the southeast corner of 1046; two in 1044; and two in 1042. At the second level, there were four windows: two above 1044, and two above 1042. On the third level, there were two windows above 1042; all the windows above 1042 nearly align vertically with the first floor windows, but of the windows above 1044, only the westernmost window corresponds with the ground floor window below, and the ground floor windows are narrower.

Sometime in the building's history, it appears that the two windows on the ground floor at 1042 were bricked in, and their sills and brick arches removed. Of these two windows, the easternmost appears to have been resized and widened at one point to serve as an entrance, and then resized (narrower) again, the wooden door and frame of which are still visible. These resizings probably occurred after the stair from 1042 to its basement was abandoned. At 1044, two

windows were also bricked in, though their brick arched heads are still visible. However, at some later date, a 10' wide 8' tall opening was cut into the south exterior wall at 1044, the western edge of which aligned with the western edge of the former window. This was subsequently filled in with concrete masonry units and a door placed in the infill. These openings probably occurred after the stair from 1044 to its basement was abandoned. At some point, the window at 1046 was resized to be a door opening and was later infilled with concrete masonry units. Its location does not appear to interfere with the location of the stairs to the basement from 1046.

The windows at the second floor, above 1042, were also resized and eventually filled in. The easternmost window had its sill removed and was partially filled in with brick, both above the sill area and just below the arched header, which is still visible. The dimensions of the remaining opening, which was later filled with concrete masonry units, appears to have the same dimensions as the opening for the wooden door below. The window west of this still retains its sill, but was partially bricked closed for eight courses above the sill and then later completely filled in with concrete masonry units. To the west of this former opening, a smaller, non-original opening was created, and has since been filled in with concrete masonry units also. Further to the west is the window opening above 1044 that aligns with the hallway at the second floor. At some point, it was partially bricked in just below its still-intact, arched header, aligning horizontally with the brick infill of the easternmost 1042 window. Its sill appears to have been lowered to floor level before it was filled in with concrete masonry units. The westernmost window above 1042, which aligns with the second floor stair landing, also was partially bricked in just below its still-intact, arched header to the same horizontal dimension. The opening was also extended to the floor, but retains a clearly visible sill, larger than those of the other window openings, and flush with the brick surface of the wall.

At the third floor level, the easternmost window was, at one point, lowered to only two courses above the brick arch of the window opening below. It has since been infilled with brick and concrete masonry units in layers, and has also had a smaller opening punched into it, which aligns with its original westernmost edge. The window to the west of this still retains its sill, but has been infilled with brick. Both windows retain their arched headers.

Evident in the staining and scarring of the brick surface of the south wall are various wall and roof abutments. This elevation was also completely painted at one point. The additions to its face protected the painted masonry from weathering to some degree. Following the second floor line are what appear to be joist pockets in the brick that may have supported earlier floor / roof structures of the rear additions. There is also staining evidence of different downspout configurations. The downspout at the western edge of the facade appears to be older, though it is not believed to be original; the downspout at the eastern edge of the facade seems fairly new. Some of the brick erosion and scarring may suggest the addition of exterior stairs along the length of this elevation. The chimney stack, which ought to be visible near the center of the elevation, has obviously been modified.

The east elevation originally abutted the west wall of the neighboring Setzer Building, of which only the 1922 brick facade remains. Scarring along the Hoover Block's wall reveals the outline of the now missing Setzer building, as well as two chimney stacks from the Setzer Building that were attached to the east elevation of the Hoover Block. Above the scar, there are several layers of paint, some of which appear to be early advertisements for the businesses on the first floor. Three of the four chimney stacks, that ought to be visible, have either been demolished or modified. Below the scar, near the south end of the elevation at ground level, was an opening in the Hoover Block's wall, which probably once led to the Setzer Building, but that has since been filled in with concrete masonry units.

Aviation Trail, Inc. commissioned architect Stephen P. Brown in 1992 to do architectural construction drawings for the stabilization of the Hoover Block. The drawings were completed on December 7, 1992, and specified that the following work was to be performed:

- Replacement of the existing roof access hatch with a hatch with an integral curb

- Placement of 3/4" sheathing over the double ceiling joists and a guardrail under the roof access hatch in the central truss, as well as the addition of a steel ladder, also at this location
- Removal and storage of two existing metal ventilators, with any remaining holes covered with 3/4" sheathing
- All nine chimneys were to be covered with flexible sheet membrane covers
- Installation of a new silicone / polyurethane roofing system over the entire roof
- The edges of the new roofing system were to be silicone sealed
- Existing parapet copings were to be left in place and covered with the new roofing system
- The gutter along the west elevation was to be cleaned and lined with flexible sheet flashing
- A new fascia board, drip edge flashing, and gutter were to be placed along the south elevation
- Removal of a downspout running diagonally across the south elevation
- Addition of a new downspout at the east edge of the south elevation

The work outlined by Brown was completed in 1993. As a result, the roof was not inspected as part of the 1995 physical investigation.

Interior Analysis

The basement originally had two continuous walls, dividing the space into three different chambers, that corresponded to the spaces above: 1046 at west, 1044 at center, and 1042 at east. In the basement, below the recessed shop entrances at the first floor, two-wythe-wide, approximately 30" long support walls were built perpendicular to the north exterior wall. Each basement space had an access stair to the sidewalk outside and at the south wall leading to the corresponding first floor interior spaces. The space below 1046 had access to South Williams Street, while the spaces below 1044 and 1042 each had a separate access to West Third Street near their respective store fronts. The two sidewalk accesses on West Third Street were later walled up, and at some point the South Williams Street access was covered over. Over time, the interior walls separating these spaces were altered considerably, creating access from one space to the next, and accommodating later introductions of mechanical systems and altered structural systems at the first floor. As the spaces of the first floor merged and changed function, the stairs at 1044 and 1042, leading from the basement to the sidewalk, were abandoned.

The first floor was originally divided into three bays by two continuous brick walls constructed above the walls of the basement. These walls, as well as the east exterior wall, lined up with decorated wrought iron columns on the north facade, each of which is still in place along West Third Street. The three bays between the columns were each faced with a glass storefront with recessed entrances. The storefront of 1046 continued around to the South Williams Street elevation for a few feet, anchored by a large, undecorated, wrought iron column at the northwest corner of the building, and ended a half bay from the corner at another wrought iron column, more like the ones on West Third Street. Originally, the recessed entrances were one step above street level. They later became ramped, each at different times, starting with the grocer's shop at 1046. At the back of each space were doors accessing the basement and windows in the south exterior wall to provide light. The space at 1046 had two additional small windows along the west exterior wall (South Williams Street), and one door leading to the street at the southwest corner.

As the occupants of 1046 and 1044 changed, and as one space expanded into the other, portions of the brick wall dividing these two spaces were demolished. There were even alterations to the party wall in 1042 between the Hoover Block and the Setzer Building. The last major alteration to the two center walls was their nearly complete removal (save two short stubs of the 1046/1044 wall near both the north and south elevations). These were replaced with two lines of 10" diameter steel columns, which approximately followed the line of the former walls. These columns drop through the wood floor (later covered by vinyl tile), and precariously rest on the basement walls below. Atop each line of

columns, a steel beam was placed to support the second floor structure. At some point in the building's history, the northwest corner of 1046 was chamfered, leaving the corner column completely exposed to the exterior. During a later remodeling of the entire first floor as a grocery store, a drop ceiling was added with fluorescent lighting.

Physical investigation revealed that there have been several small additions made to the back of the building over time. There is evidence of joist pockets in the exterior brick coursing, as well as brick scarring and staining on the south elevation. It also appears that the window openings may have been enlarged into doorways or even bricked closed to provide or prevent access to the different additions from within the main building.

The second floor was originally organized into several suites of rooms, the walls of which were constructed of rough sawn lumber, around a t-shaped hallway. Within these walls are heavy timber columns and beams that align with the original brick walls of the first floor to support the structure of the third floor. A stairway led from South Williams Street along the south exterior wall to an open landing on the second floor, and then continued as an open stair from there to the third floor. From the second floor landing, a hallway ran to the north exterior wall, ending at a window with a view to West Third Street. Abutting this main hall, at its center, was a perpendicular hall running to the west exterior wall, also ending at a window, providing a view of South Williams Street. Together with the two south wall windows at the second floor stair landing, these windows provided air and light circulation throughout the passageways leading to the suites. Physical investigation also revealed that this corridor system was distinguished from the suite spaces by a specific red/green/blue paint scheme.

Portions of the suites were incorporated in the remodeling of the entire second floor (1912-1930), presumably to accommodate their use as residences. The new construction consisted of 2x4, four-sided lumber, and did not interfere with the original heavy timber columns. Residential plumbing was installed after 1914, based on the dates, ranging from 1914 to 1917, stamped on the extant fixtures. Heating appears to have been provided by individual stoves, ventilated to the eight chimney flues along the west and east exterior walls, as had been the case prior to these spaces becoming residences. The remodeling of these spaces added more rooms, some storage, kitchens and baths, and built-in cabinets. It also included the addition of small windows in the hallway for limited light and air circulation. The smaller east-west hallway was incorporated into rooms; while the north end of the longer north-south hallway and the stairway became completely enclosed, leaving only the south window below the third floor stairs open to the hallway. The last major construction effort on this floor (1994-1997) was to remove all remaining fenestration from the window openings and to fill them in with masonry, leaving one Plexiglas opening in the central window of the north elevation.

The third floor was originally left completely open as a meeting hall, but, shortly after construction, partitions were added to create a small stage, an anteroom, and foyer along the south exterior wall. This foyer was lit by two arched windows in the south exterior wall. The additional layer of wood flooring was added early in the building's life. This floor detail is typical of other halls found in the area, and generally would have been installed to suit the first tenant of the space. At some point, the stage, the walls flanking it, and the walls of the foyer were removed. In the late 1950s, another room was partitioned off next to the anteroom, when the third floor began being used as a gymnasium. During this period, newer foyer walls, with double doors leading into the main space, were added. A single fixture restroom was added within this foyer, in the southeast corner of the building. As with the second floor, the last major construction effort on this floor, in the early 1990s, was to remove all remaining fenestration from the window openings and to fill them in with masonry. Eventually, one small Plexiglas opening was created in one of the southern windows of the southeast corner.

Part F:

Existing Conditions Analysis

Part F: Existing Conditions Analysis

Structural Report

Introduction and Project Description

The purpose of this report is to evaluate the structural integrity of the Hoover Block building, referenced as HS-02, located at the Dayton Aviation Heritage National Historic Park, Dayton, Ohio. The Hoover Block, constructed in 1890, housed the Wright Brothers' printing business, and presently falls under the National Park Service (NPS) stewardship. Several significant structural modifications have been made to the building since the original construction. A view toward restoring the historic structural construction was considered throughout the physical investigation and analysis. The report concludes with recommendations and options directed at stabilizing the structure while providing adequate load capacity for future intended use.

The NPS desires to restore the exterior of the structure to a turn-of-the-century condition. Interior spaces are to serve primarily interpretive functions to the general public. Remaining space will serve park operations or office type functions. Public access for interpretive use is an adaptive reuse of the space and places a burden on related structural elements. Required safe load capacity is higher for the adaptive public spaces compared to the capacity needed to serve many of the original uses.

The building has a trapezoidal shaped footprint as can be seen in the drawings included in the appendix of this report. The east and south exterior walls are perpendicular to each other, and the north exterior wall is close to perpendicular to the east exterior wall. However, the north exterior wall (front wall) is shorter than the south exterior wall, and therefore, the west wall is skewed from a rectilinear grid. The structure extends three stories in height and has a full basement. The exterior masonry walls are load bearing elements.

The basement and the first floor are divided into three distinct north to south spaces. Interior north and south brick masonry walls define the basement spaces, which are referred to as the west side, middle, and east side throughout this report. Steel columns in the first floor align with the interior basement walls below, and define three north south structural bays at the first floor. These bays are referred to as the west, middle, and east bays in this report, corresponding to the basement spaces. The columns at the west side and the east side do not align with each other, lending credence to the theory that they were later, separate, modifications to the original structure.

The second floor is divided into many smaller spaces by partitions that do not seem to have any particular structural relationship to the well-defined structure below. The third floor is generally a large open ballroom type space. The roof clear spans between the exterior walls.

Floor structures are generally wood joist framing and span in the east to west direction. The first floor joists are supported on the exterior walls and the interior masonry basement dividing walls. The second floor joists rest on the exterior walls and steel beams which span in the north to south direction over steel columns. Third floor joists span east and west to interior wood beams that roughly align with the steel beams below. The third floor joists rest on the west and east exterior walls. The wood beams are supported on large wood columns which are enclosed within the second floor partitions. The wood columns, in turn, are supported by the second floor steel beams. The wood columns do not align with the steel columns below. The roof clear spans the structure, with three 7 foot deep heavy timber trusses spanning from the west exterior wall to the east exterior wall. Wood roof joists and ceiling joists spanning north to south are supported on the trusses.

Support lines within the structure consisting of beams and basement walls are not parallel to the west or east exterior bearing walls, nor are they parallel to each other. This situation complicates the analysis of the structure which is defined as a 'skewed' beam system at the second and third floor internal support lines. Further, each successive joist to the south has a longer span than the previous adjacent joist, but they are generally spaced equally apart. Therefore, the shorter joists to the north can be expected to support much larger loads compared to the longer southerly spans.

Methods and Analytic Standards

A physical investigation was performed on the Hoover Block, October 21 through 23, 1996, and again on August 29, 1997. Tom Fitzpatrick and Cheryl Kryscynski of Fitzpatrick Structural Engineering, P.C., visited the site to perform the inspection and to gather pertinent information from park personnel. Nondestructive methods of exploration were employed wherever possible. However, some destructive access was approved in order to confirm structural support conditions at the second floor level.

Photographs were used to record much of the existing structural conditions. A photo log was kept as pictures were taken. A log of field notes was also made during the investigations. Significant structural measurements were made and recorded where the structure was accessible. The measurements taken were selected in order to facilitate structural capacity analysis. Most of the field notes and resulting measurements are included on the appended drawings EXS 100 through EXS 204. These drawings are listed as follows:

EXS 100	Basement Existing Conditions
EXS 101	First Floor Framing
EXS 102	Second Floor Framing
EXS 103	Third Floor Framing
EXS 104	Roof Framing
EXS 204	Roof Truss Sections

Measurements of wood members are stated as the actual size of the member throughout this report and appended drawings, unless the size is specifically stated as a nominal size. Several existing documents were reviewed during the first visit to the park. A set of 5 drawings produced for Aviation Trail, Inc., by Stephan P. Brown, AIA Architect, dated December 7, 1992, titled *Preservation of the Hoover Block*, proved to be most useful in developing the roof conditions and truss configurations. This set of drawings are numbered from A-1 through A-5.

The following codes and standards were used to complete the structural analysis:

1 *The BOCA National Building Code/ 1993*, Twelfth Edition, 1993, published by Building Officials & Code Administrators International, Inc., Country Club Hills, Illinois (BOCA)

2 *National Design Specification For Wood Construction*, Revised 1991 Edition, published by American Forest & Paper Association, ANSI/NFoPA NDS-1991, (NDS-91)

3 Design Values for Wood Construction, Revised Supplement to NDS-91, published by American Forest & Paper Association, (NDS supplement)

4 *Iron and Steel Beams 1873 to 1952*, Tenth printing 1990, published by American Institute of Steel Construction (AISC), One East Wacker Drive, Suite 3100, Chicago, Illinois

5 *Steel Construction Manual of the American Institute of Steel Construction*, Fifth Edition 1961, published by AISC

6 *Manual of Steel Construction*, Sixth Edition 1967, published by AISC

7 *Manual of Steel Construction - Allowable Stress Design*, Ninth Edition 1989, published by AISC, 400 N. Michigan Avenue, Chicago, Illinois

The BOCA code was used to determine current load requirements for the adaptive use of spaces. NDS-91 and the NDS supplement formed the basis for the analysis of wood members with some modification. The existing wood members in historic structures are considered 'Old Growth' wood, and as such have much higher design strength and stiffness compared to current sawn wood species. Older NDS codes and engineering experience dictate that higher design values than stated in NDS-91 should be used when evaluating the strength of wood, providing that the condition of the *insitu* members conforms to sound 'Old Growth' characteristics. Assumed levels of shear stress are substantially higher than current code values. This modification is justified since the observed members appeared to be sound lumber, with little or no checks, shakes, or knots in addition to being 'old growth' wood. A lower level of permitted safe shear stress was used for the first floor due to the observed conditions at that level. The following stress levels were used in the analysis of wood members.

Table 1: Basic Allowable Wood Stress	
Bending Stress (F_b)	1400 psi
Horizontal Shear Stress (F_v) First Floor	120 psi
Horizontal Shear Stress (F_v) balance of floors	150 psi
Modulus of Elasticity (E_w)	1,800,000 psi

Measurements of steel beams were taken during the physical investigation. Steel members produced prior to the 1940's were only minimally standardized. Each mill and manufacturer rolled their own set of beam and column sections. Therefore, standards 4, 5, and 6 above were used to determine the mechanical properties for the measured steel cross sections. Publication 4 helped to verify the era of construction for each of the members which corresponded to the episodic sequence discussed in the Architectural portions of the HSR. The rough dates of construction were also important in order to identify the type of steel used for each member. Between 1924 and 1932 the standard steel used in buildings was ASTM A9 grade, having a tensile yield strength of 30,000 psi minimum, and an allowable design strength of 18,000 psi. Between 1933 and 1967 ASTM A9 and A7 steel were used as the standard. The yield strength for that era was increased to 33,000 psi, with corresponding increase in the allowable design strength. ASTM A36 steel was adopted as the standard around 1967. A36 steel has a yield strength of 36,000 psi, which reflects a substantial increase in strength capability of steel members. The 1989 edition of the AISC manual was used to determine allowable beam strength criteria using the applicable historic yield strength for the member. Later codes recognize certain characteristics of member shapes that permit the allowable strengths to be higher than the older codes. Simply put, an allowable design value for bending has been 0.60 times the yield strength of the material, while members that qualify as a 'compact' shape and are properly braced can be designed for a higher value of 2/3 of the yield strength (per 1989 manual). 'Compact' section increases were used in the analysis where applicable, regardless of the era of construction, since that will produce about 11% higher capacities when the capacities are limited by bending stress. The following steel types and strength characteristics were adopted for the analysis as related to the episodes and the measurements taken. Further discussion and verifications of steel quality and designation is presented later in this report.

Table 2: Adopted Steel Characteristics			
Location	Years	ASTM Type	Yield Strength
West beam line at north end	1936	A9	33,000 psi
West beam line at south end	1957 to 1966	A9 or A7	33,000 psi
East beam line	1967	A36	36,000 psi

Complex computer modeling of the structure taken along with 'trial' load combinations was required in order to accurately predict the load capacity in some areas. This is partly due to the modifications that have been made to the structure. The third floor wood columns are supported within the span of the second floor beams. Therefore, the second floor beams must support superimposed third floor load in addition to the second floor joist load. The second floor capacity will decrease if the superimposed load at the third floor level is increased. The condition is further complicated due to the continuity of the beams over some columns. Theoretically, there is a large range of combinations of second floor and third floor load possible for the given conditions. The limits set in order to simplify this complexity in practical terms will be discussed in the analysis and recommendation parts of this report.

Existing Conditions and Physical Investigation

Basement

The exterior basement walls are generally stone masonry with some modern concrete block (cmu) which infills openings. Brick infill is used for the high window openings at the west exterior wall. The west and east interior walls are generally 12" thick, 3 wythe, brick masonry with header bond coursing at each 8 courses in height. The mortar in the jointing of all masonry was inspected on a random basis. Some mortar was dusty and crumbled when touched. However, the depth of this unsound mortar appeared to be quite shallow, and relatively sound mortar was detected in every instance. Some minor masonry cracking was noted toward the north end of the east exterior wall. However there is little indication of cracking distress in the walls. Some brick masonry show surface spalls. The brick is a relatively soft material, sometimes referred to as 'Chicago common' brick, and is prone to surface spalling and deterioration due to moisture penetration coupled with expansion due to freezing and thawing action.

The basement was very damp, humid, musty, and standing water was noted on the floor of the east side of the basement. There is very little ventilation of the basement spaces, and it appears that rain water freely enters the basement on the east side. Water staining and mineral deposits were noted on the east wall which indicates that there has been some degree of water penetration through the wall which has carried dissolved minerals that have been deposited on the wall surface. However, the through wall water migration does not appear to be severe at this time. High humidity and free access of water to the basement presents serious long-term problems for the masonry construction. Additional concern regarding moisture effects on wood construction will be discussed later in the first floor survey. The high moisture reacts with older mortars by leaching out the lime base and sometimes chemically reacting with mortar components. That condition will cause the mortar to deteriorate, become soft, loose bond, and leave only the aggregate within the joint. The building is not heated and passes through many seasonal freeze/thaw cycles. The brick, mortar, cmu, and to a lesser degree, the stone will absorb moisture. The

expansion and contraction of the moisture as it freezes and thaws will cause the masonry components to deteriorate from the inside out.

High water or moisture in the basement also provides an excellent environment to support fungal growth, destructive insect infestation, and oxidization (rusting) of metal pipes, hangers, conduits, and structural steel components. Many pipes and hangers showed severe rust. A wide variety of fungus and mold growth was observed throughout the basement. Figure 1 shows a subterranean termite tunnel which occurs just below the electrical panel mounting wood at the south end of the east side basement. The tunnel was cut to reveal the hollow passage within. This is the termites' access to the interior of the structure. Other destructive insects may also be present since they all prefer a dark and damp environment consistent with the Hoover Block conditions. Termites access the structure from below exterior grade, and the tunnel provides protection from light and dryness between their external nest and their source of sustenance.

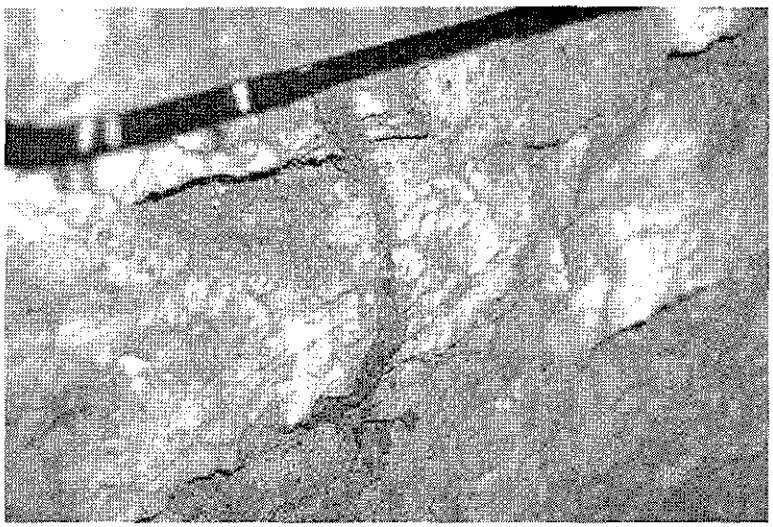

Figure 1 *Termite tunnel on east exterior wall, east basement, south end, below wood panel; tunnel cut by Tom Fitzpatrick at mid-height (photo 1:35, Fitzpatrick Structural Engineering, P.C., October, 1996)*

A brick pier projects into the east and west basement sections at the north end. The middle basement section has two such piers (see appendix drawing EXS-100). Figure 2 shows the westerly pier of the middle basement. These piers formed the structural definition of the original entries to the retail spaces at the first floor street level above. A limestone slab was noted to span between the piers and/or walls at the middle and east basement sections. This can be seen at the top right of Figure 2 and likely was the entrance location into the retail space above. The remaining floor area was framed with a light wood framing which spans perpendicular to the main framing (left of the pier in Figure 2), which may have served as window display area toward the street. This lends further support to the idea that the upper space was originally divided into three distinct retail spaces. Note that the pier shows a severe bow and leans toward the west (left) at the top. The east face of the pier did not show serious signs of distress that would normally accompany the severe bow. The bow is well outside any normally accepted construction tolerance. The pier probably shifted and bowed over time and the associated surface distress was simply repaired rather than reconstruct the pier. In any case, the structural integrity of this element is compromised as it now exists.

The west interior wall has 20-inch nominal square concrete piers or columns, which fall roughly below the steel columns above. These piers appear to be an addition or modification to the original brick wall to accommodate the steel columns above. The piers are board formed concrete members. Figure 3 shows one of the columns

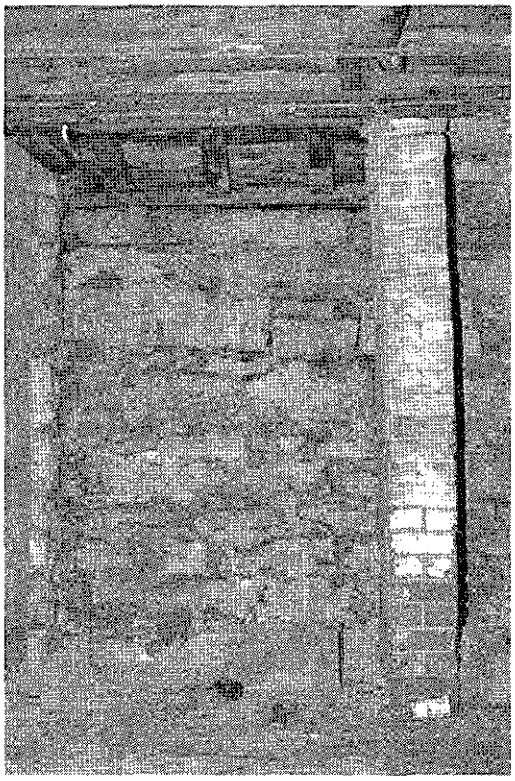

Figure 2 *Bowed brick pier, middle basement at north end (photo 2:10, Fitzpatrick Structural Engineering, P.C., October, 1996)*

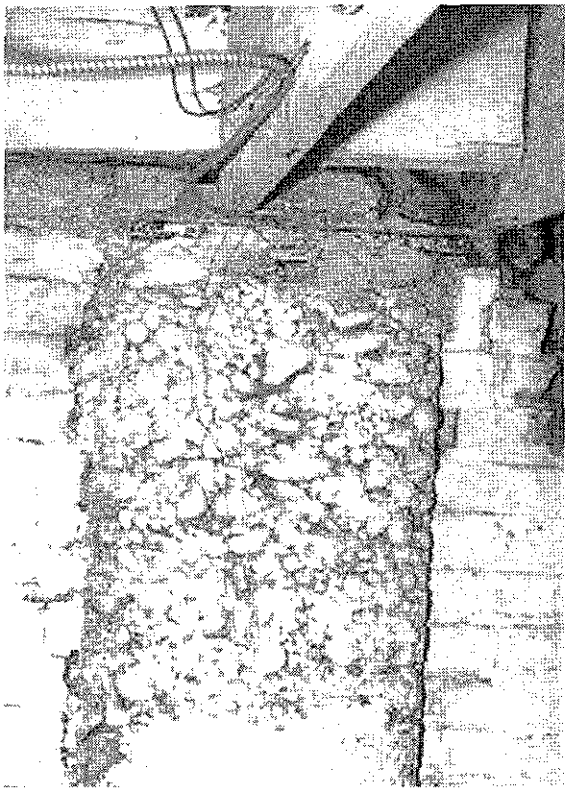

Figure 3 *West interior basement wall, first concrete column from the north supporting steel column above; note extensive honeycombing (photo 2:27, Fitzpatrick Structural Engineering, P.C., October, 1996)*

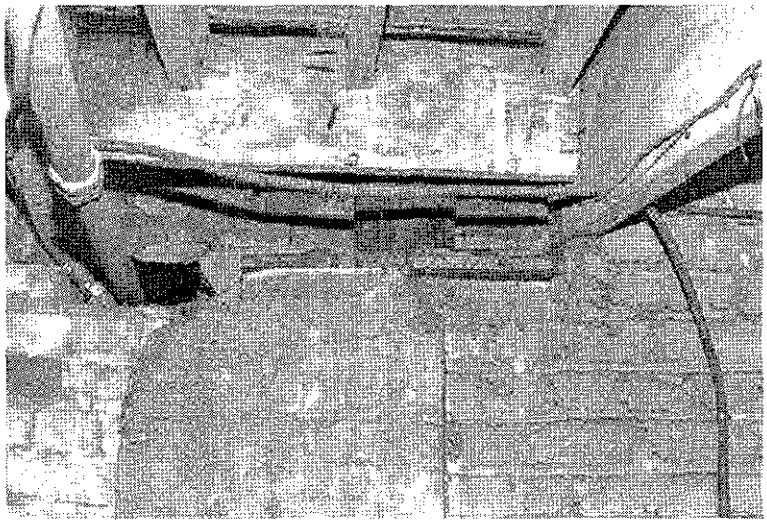

Figure 4 *West interior basement wall, third concrete column from the north supporting steel column above; note steel column aligns on edge of pier, not centered (photo 2:14, Fitzpatrick Structural Engineering, P.C., October, 1996)*

located at the north end of this wall line. Note the severe honeycombing on the face of this column which also occurs at other locations. Figure 4 shows another column condition in the west wall further to the south. The concrete at the top of this column appears to be sound without honeycombing. Honeycombing is due to poor or a lack of vibration of the concrete when it is poured. The vibration eliminates air pockets that weaken the concrete.

Figure 5 shows a different type of column bearing that has been built into the east interior wall. A bearing block of concrete has been added to the original wall, and the base plate for the steel column from above rests on this concrete. The concrete extends the full thickness of the wall and was measured to be 7 inches high, and the detail is typical of the east wall line. The column bearing conditions between the east and west interior walls are distinctly different in execution and workmanship, indicating that they were modified at different times.

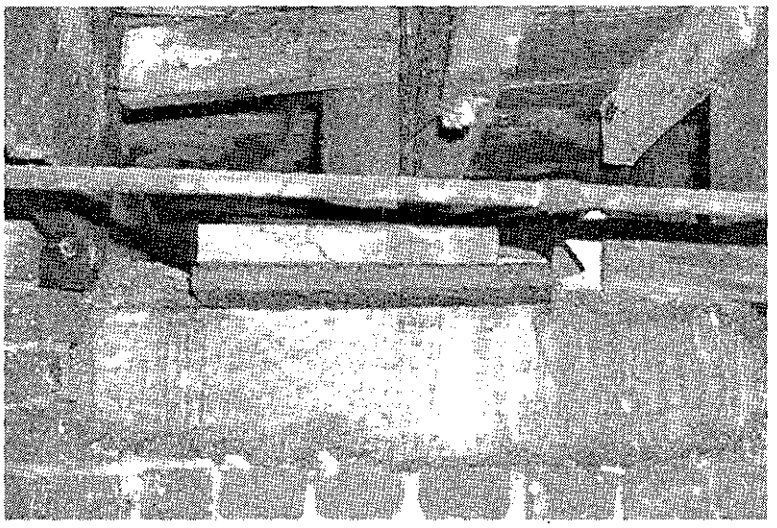

Figure 5 *East interior basement wall, first floor column concrete bearing block, third column from north; note base plate overhangs (photo 1:24, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Note that the first floor steel columns are misaligned along both the east and west walls. The center line of the steel column shown in Figure 4 aligns at the approximate edge of the concrete pier below, rather than aligning with the center line of the concrete pier. This creates an eccentricity on the concrete pier and reflects poor planning and erection methods. This large misalignment would not be likely if the pier and column been placed with the original building.

Bearing plates and blocks on the east wall show similar misalignment. Figure 5 shows the east side of the east interior wall. The steel bearing plate overhangs the wall on this side as can be seen in the photograph. The plate does not overhang the wall on the west face. The plate projects between 2 $^1/_2$" to almost 4" at the east face of this wall. Additionally, the plate does not appear to center on the concrete block along the wall line in every case. Presumably the steel column is centered on the 1" thick steel plate. The existing condition creates a substantial column load eccentricity perpendicular to the east wall.

Wood post and beam shoring occurs in the west and middle basement sections. The shoring was added to supplement the support of the first floor above these basement areas. Floors probably began to sag under the load of the retail spaces above, and the shoring was placed to ease the problem. The shoring is arranged in a rather haphazard manner in the west basement, and generally divides the middle basement down the middle. The wood posts rest on the floor slab, and no independent foundation has been provided. Posts and beams show signs of wood rot. The shoring system can be considered, at best, a temporary support system, and should be replaced with a permanent system if shoring is required to obtain load capacity of the floor above. New post shores should be founded on properly placed isolated footings.

First Floor

First floor joist supports at steel column locations also show an apparent difference in construction method and detailing. Figure 4 above shows the typical condition of the joist end support at the west wall columns, while Figure 5 shows the corresponding construction at the east wall columns. Joist framing has been interrupted in both cases due to the placement of the columns from above. A wood header beam, roughly perpendicular to the joists, supports the interrupted joists at the west wall columns. The header beam is in turn supported by adjacent wall supported floor joists. Figure 5 shows the similar condition at the east wall columns. Note that the joists were interrupted at the column but left unheadered. Wood blocking has been placed on the steel bearing plate below the joist in order to provide support for the joist, which is typical along the east wall columns. The east wall detail can best be described as a haphazard afterthought in supporting the joists, and does not reflect the more sophisticated header detail of the west wall. Comparison of the construction detailing differences between the east and west walls, further supports the concept that these are modifications to the structure that have occurred at different times, and have been executed by different builders.

Figure 6 shows a close-up of joist ends at the east interior wall. The joist ends were exposed by a mechanical opening that was cut through the top of the wall sometime after the original construction. Note that the ends of the joist are cut at an angle which slopes back from the bearing. This method of end cut is referred to as a 'fire cut' joist which commonly occurs in masonry party walls between retail spaces throughout the country. A similar detailing occurs at the west wall joist bearings. A square cut joist end embedded into a stiff masonry wall which extends to the story above, provides a significant restraint against the joist end rotation due to load or other factor. A fire can burn through the floor joist system within the joist span, causing the joists to rotate out of their bearings. A square cut restrained joist floor will tend to rotate the masonry wall as it falls out of the bearing, and theoretically could cause the wall to at least partially collapse. The wall provides a fire barrier to the adjacent space, and collapse would remove that protection of the adjacent space. A 'fire cut' joist floor freely rotates out of the bearing pocket in the masonry wall, without rotating the wall when the floor is severed during a fire, leaving the party wall as a fire barrier for the adjacent space. The wood block below the joist bearing shown in Figure 6 is typical of both east and west wall joist bearings. Wood blocks act as shims to establish the proper bearing level for the joist within the masonry bearing pocket, and also ease the rotation of the 'fire cut' detail. Wood shim blocks as shown are also typical for 'fire cut' construction when the wall extends to the level above. It is unlikely that the joists would be 'fire cut' if the masonry wall stopped at the first floor. The joists would be lapped or square cut as can be seen at the second floor joist bearing as shown in Figure 12, since there would be no need to go to the extra trouble of special cuts.

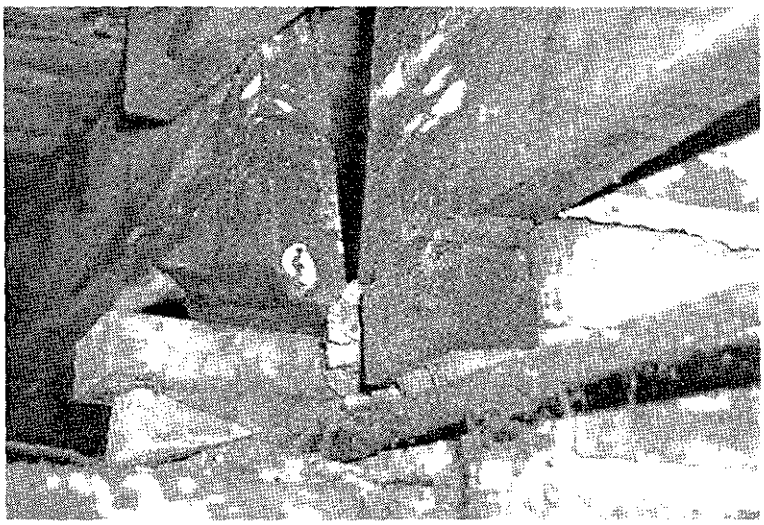

Figure 6 *Joist bearing at east wall mechanical opening just south of the first column bearing block from the north; note that the exposed joist ends are 'fire cut', and joists are not headered (photo 1:18, Fitzpatrick Structural Engineering, P.C., October, 1996)*

The above discussions confirm the theory that the brick masonry basement walls originally extended to the underside of the second floor, acting as party walls between three distinct retail spaces. The joists at the second floor are not fire cut, but lap over the beam from each side. This indicates that the masonry party walls terminated at the second floor. Further less definitive evidence can be seen in the floor framing at the south end of the building. The floor joist framing has been interrupted with headers near the south wall in each of the three basement sections as shown on drawing EXS-101 in the appendix. Headers frame out openings for stairs. The west section stair is the present access to the basement. The middle and east section openings are presently closed off with flooring, but were originally a stair access to the basement area. Figure 10 shows a close-up of the east section framing for the header condition. The exposed end of a tenon for mortise and tenon framing can be seen in that photo. The east and middle header framing was observed to be connected with double mortise and tenon joinery. This detailing was the original connection detailing for the first floor structure, and would be very difficult to accomplish as a structural modification. Figure 7 shows the rotted remnants of a basement stair access to the middle basement section. Therefore, the openings at each basement section are original stair access openings. Three sets of stairs to the basement from the first floor would not be necessary unless each section of the basement served a separate corresponding section of space at the first floor.

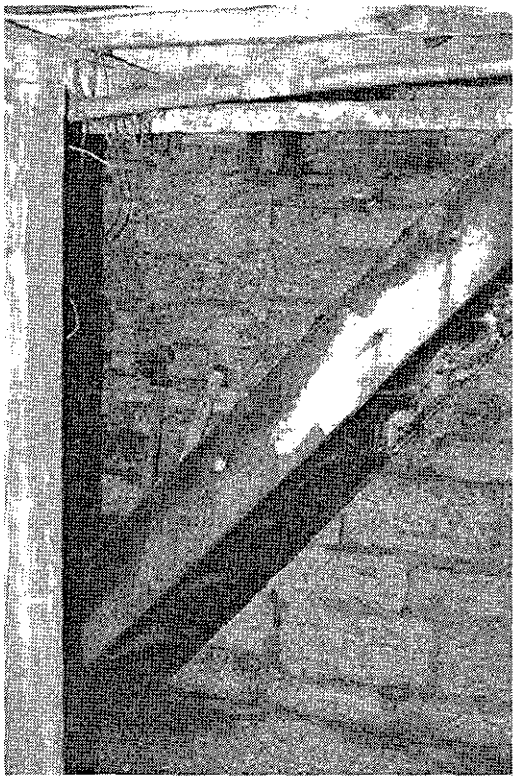

Figure 7 *Stair remnant at middle basement south wall (photo 2:19, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Figures 8 and 9 show further modifications to the structure to accommodate mechanical/electrical access between the basement sections at the east and west walls. Mechanical openings have been cut through the walls without regard to the floor joist support. Figure 8 shows unsupported joists in the east wall, while Figure 9 shows no support for the joists at the right side and tenuous support of the joists at the left side of the figure. This condition is typical of many openings in both the east and west walls.

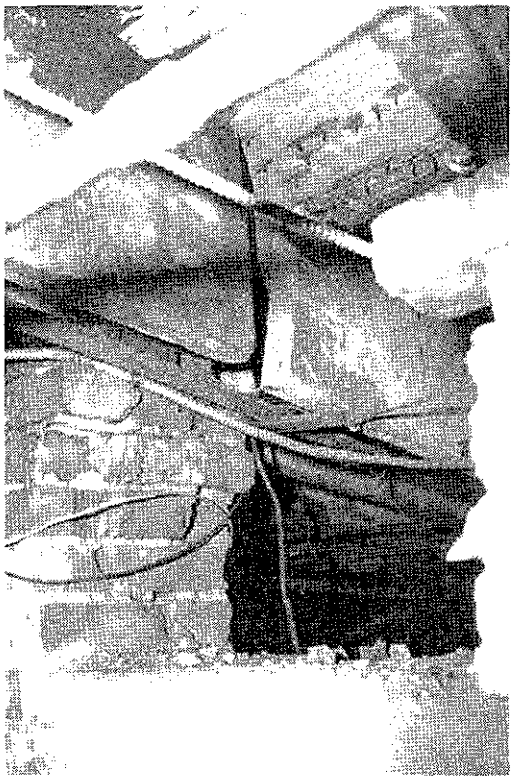

Figure 8 *Unheadered joist at east wall mechanical opening just south of the fourth column; no apparent joist support (photo 1:30, Fitzpatrick Structural Engineering, P.C., October, 1996)*

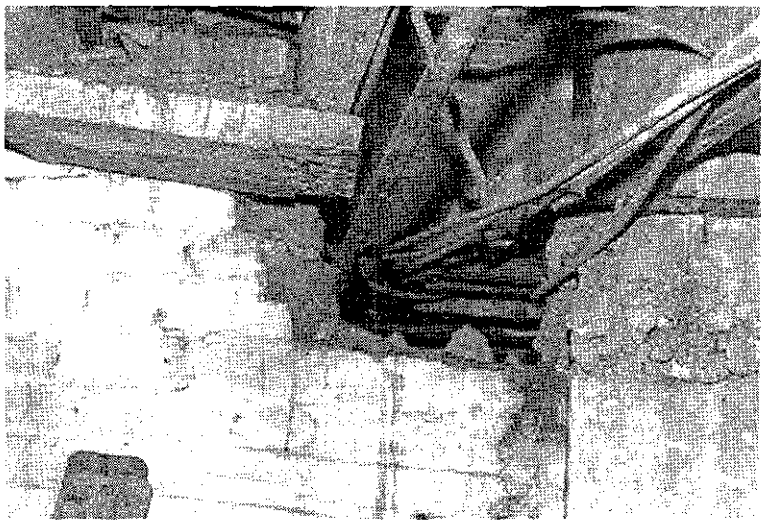

Figure 9 *Joist bearing at west wall mechanical opening just south of the fourth pier from the north; no headers (photo 2:16, Fitzpatrick Structural Engineering, P.C., October, 1996)*

The basement area is very damp and wet, which has structural repercussions for the masonry, as discussed previously. The high moisture also affects the condition of the wood joist floor structure as shown in Figures 10 and 11. Most wood species contain the fungus spores that promote wood rot. The moisture content of the wood need only reach 20%, and the spores become active and begin the wood rot process. Most wood which is protected in dry, well-ventilated, and heated spaces will stabilize at a moisture content well below 20% (as low as 8 to 10% mc in some environments). Unfortunately, the same conditions that promote wood rot also provide an attractive environment for destructive insect infestation. Evidence of termite access to the wood structure was discussed earlier in this report. Figure 10 is typical of the extensive and severe wood rot and termite attack observed in the southeast area of the first floor. This area is roughly defined on drawing EXS-101 included in the appendix. The structure in this area has deteriorated to a dangerous condition. Access to this area in the basement and at the first floor should be limited until emergency temporary shoring is provided to stabilize the floor. A system of closely spaced temporary post and beam shores should be used to support a plywood deck just below the first floor structure. The system should be adjusted or shimmed so that the plywood is tight against the underside of the existing joist structure.

Figure 11 shows a moderate wood rot condition at the north wall of the east basement. The smaller floor members are in various stages of failure in this area of the first floor. The affected areas are also defined on drawing EXS-101, and the deterioration is typical for all basement areas at the north wall. Access to these areas should also be restricted, and consideration should be given to installing temporary shoring below the floor. Additionally, some rot was observed at other locations within the first floor, but they are not a primary concern at this time. The wood cross bridging between joists shows wood rot at some locations, and is missing at other locations. Every effort should be made to prevent the migration of water into the basement area, by making the structure weather tight. Adequate ventilation of the space is important to reduce the deleterious moisture conditions. Moderate thermal tempering of the basement would help to ease the problem of masonry and wood deterioration. A qualified exterminator should verify if the termites are still active and take appropriate precautions to eliminate the insect problem. The effects of wood rot, insect infestation, and moisture related masonry deterioration are progressive and will accelerate over time.

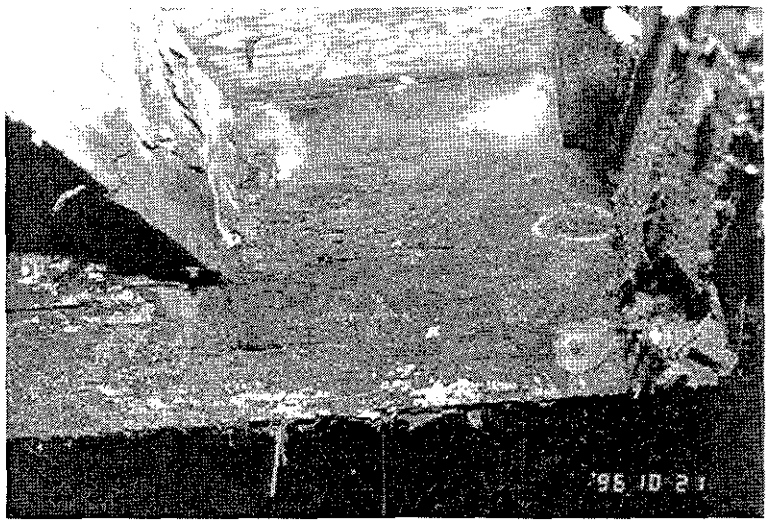

Figure 10 *Stair header at east basement south end; extensive water stain, wood rot, and insect damage (photo 2:4, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Figure 11 *Floor framing at north end of east basement; water stains and wood rot; note limestone threshold at upper left (photo 1:12, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Columns & Pier

Steel column alignments and sizes were measured at the first floor level. The steel columns and base plates all appeared to be in reasonably good condition. The column locations were triangulated and measured with metal tape, as were the wall locations in the basement. The locations were compared and calculated later in the office. This method has a limited accuracy, but only rough relative locations were desired at this time. A more accurate survey should be made to aid the development of restoration construction documents. The column diameter was measured at each location. Column alignments were found to reasonably reflect the locations observed in the basement. The alignments and spacings are shown on drawing EXS-101 and EXS-102. All first floor interior columns are steel columns having the following measured diameters shown in Table 2.

Table 2: First Floor Columns

Column Row	Diameter In Inches
East	5 $^1/_2$"
West	6 $^1/_2$"

A masonry load bearing pier was located at the north end of the west column row. The top of this pier can be seen in Figure 13. Some probing of the cement plaster parge covering this pier was required in order to determine that it was a solid brick pier. The north end of the second floor beam bears on this pier. The column spacings along the west row are all about 12-foot center to center, which is consistent with the approximate 12-foot spacing between the pier and the first column to the south of the pier. The column spacings along the east row are not uniform and vary between 11'-10" to about 14'-0". The columns of the east row do not align orthogonally with the columns of the west row.

Second Floor

Figure 12 shows a beam column connection at the second floor structure along the east column row. Wood joists spanning east and west are supported on the top flange of the steel beam. Floor joists frame at a skewed angle to the beam since they are parallel to the south wall of the building. The joists are lapped over the beam and have square cut ends. No solid blocking between joists was observed. Blocking is usually required by modern codes in order to prevent the natural end rotation of the relatively thin and deep joist members when subjected to load. All accessible wood joists were in very good condition, with no apparent cracking, checking, shakes, or knots. Two steel beams frame over the column shown in Figure 12. The beams are connected to each other and to the column with hex head nuts and bolts. Beam spans were determined to be a single simple span from the north wall to the first column to the south, and two span continuous beams for the balance of the east beam row. The beam was measured using a metal tape and digital calipers. Beam depth is 12", and the flange width is $6\,^{1}/_{2}$". The inside of the flange is relatively flat which indicates that the beam is a standard wide flange type member. The flange thickness was measured to be between 0.37" and 0.40". Red primer paint has been applied to the steel. All east row steel members appear to be in excellent condition.

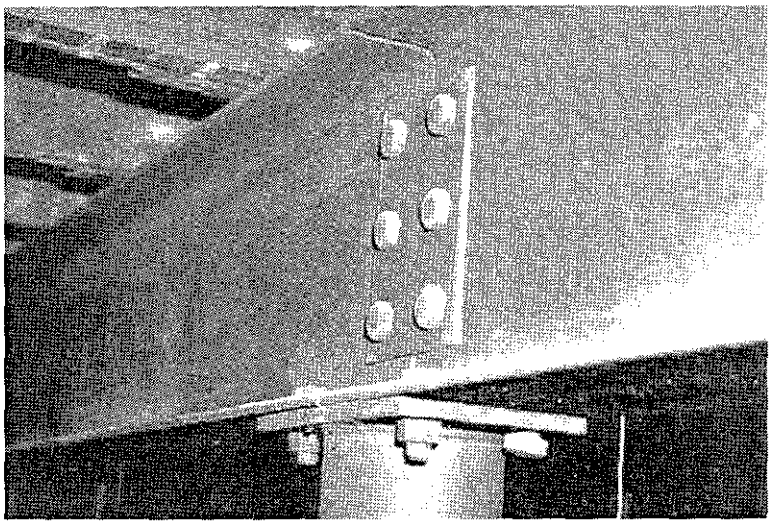

Figure 12 *Steel beam to column connection at east column row, third column from the north (photo 3:3, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Figure 13 shows the bottom of the west beam row at the north bearing. This beam row is encased with wood trim, which was removed at this location to provide access for close inspection. Attempts were made to expose the beam at another location further to the south, but these efforts were only marginally successful. Determination of span continuity was not possible due to limited access. The beam along this row is actually two steel members placed side by side. Two 'Red Iron' bottom flanges can be seen in Figure 13. Note that the bolts that fasten the wood nailers to the beam are older square head type connectors. The interior of the flange of both members slope, which classifies the beam as an 'American Standard' or I section. Accurate measurement of flange thickness is not possible for sloped flanges. Beam depth was found to be slightly over 10". Standard I sections are always non-fractional, full inches in actual depth (e.g. 8", 9", 10"). The variation of the measured depth can be attributed to mill rolling tolerances and/or the red primer coat of paint. The flange width of each member was measured at $4\,^{9}/_{16}$".

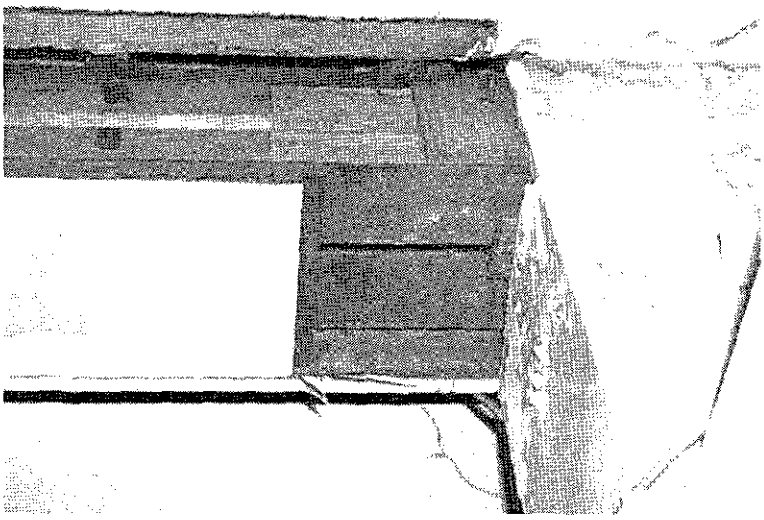

Figure 13 *Steel beam bearing at west column row, north end bearing on brick pier (photo 3:7, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Several publications[1] were researched to determine the member size and mechanical properties for each beam row. Determination of the structural properties is necessary in order to analyze the load capacity of the member. The east beam row was found to be a 12 WF 27 (historic designation) produced by various rolling mills or producers between the years of 1946 and 1967. The first number in the designation is the nominal depth of the member, and the last number is the nominal weight of the section in pounds per foot. A slightly lighter, but similar, section is being produced today with W12 x 26 designation, and another variation was produced prior to 1946. The west double beam was found to be two 10 I 25.4 sections. This member was produced by various mills from 1921 to 1946, and a similar section, with slightly differing properties, is currently rolled as an S 10 x 25.4. The first number of this designation is the actual out to out depth.

Additionally, an effort was made to determine the type of steel and the yield strength[2] of the material that was the standard for the era of each beam. Conservative low strength assumptions would have to be made in the absence of such information. This would lead to overly conservative load capacities for the floor system. The architectural episodes were used for the dating. The first episode involves the replacement of the west bearing wall in two stages from 1936 to 1957. The east wall was reported to be replaced in 1967. The east row beams conform to ASTM A9 and A7 steel which had a minimum tensile yield strength of 33,000 psi. The west row beam conforms to ASTM A36 steel having a minimum tensile yield strength of 36,000 psi.

Third Floor

Wood joist spans on the third floor parallel those of the second and first floors below. Some destructive access was necessary in order to inspect third floor joists and supporting elements. Access locations were localized to anticipated areas of support consistent with the structure below. Loose and failed plaster areas were selected at locations thought to produce the most revealing components of the structure. The third floor structure was found to be wood joist with heavy timber wood beam members. All exposed wood structural elements appeared to be sound material with no significant splits, checks, shakes or knots. Heavy timber beams span in the north-south direction and roughly align with the steel beam rows found in the second floor system. Floor joists frame into the beams at a skewed angle since the beams are skewed from the north to south axis. Figure 14 shows a joist framing into the beam along the east side. A similar joist to beam connection was exposed at the west beam row. The joists are notched to rest on a wood ledger which is fastened to the timber beam. The sketch shown in Figure 15 shows

the actual dimensions and arrangement of the beam, ledger, and joist members. Tops of joist members are about 1 $^1/_4$" higher than the top of the beam. The space between the top of beam and underside of the wood deck is unusual, but may have been provided to facilitate placement of piping.

Figure 14 *Third floor beam joist connection, east beam row toward south end (photo 3:23, Fitzpatrick Structural Engineering, P.C., October, 1996)*

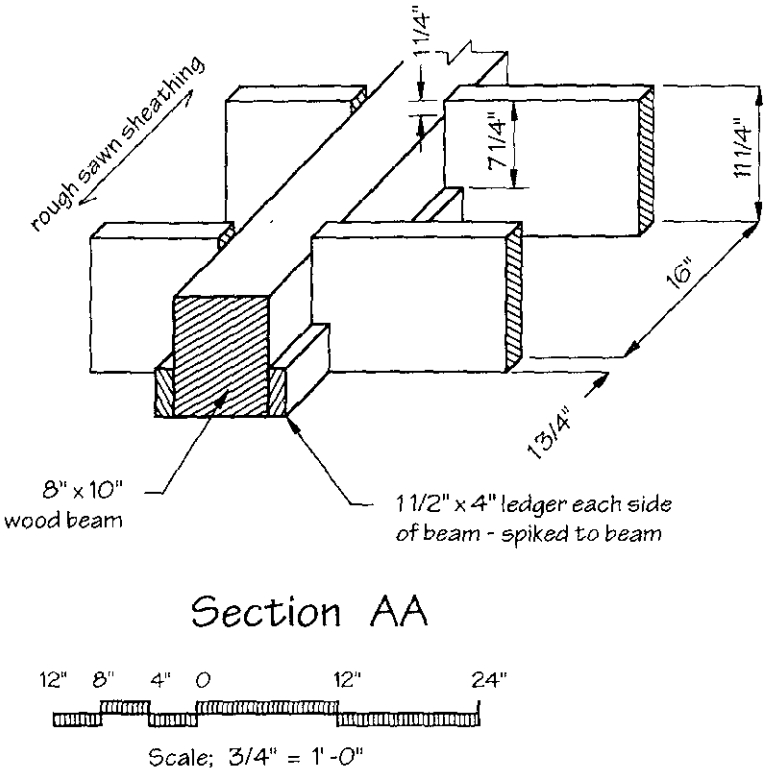

Figure 15 *Sketch illustrating third floor beams and joists at east and west beam rows; joists actually frame into beam at a skewed angle (see plans). (Drawn by Tom Fitzpatrick, P.E., Fitzpatrick Structural Engineering, P.C., February, 1997)*

Support for the heavy timber beams was not immediately apparent at the time of the first inspection. It was thought that some sort of column system must be enclosed by the many partitions between the second and third floor. Possible locations for columns were determined and limited access was obtained. Figure 16 shows a nominal 4 x 10 column that occurs at one of these locations. It is believed that all columns were eventually located. Plan dimensions were taken and the column locations were compared to the lower floor framing lines. All wood columns roughly align with the beam rows at the third and second floors, and with the walls of the basement. Some of the timber beam spans seem to be quite large between columns, but there are not any apparent additional partitions where columns could occur.

During the second physical investigation, the detailing of these wood columns bearing on the steel beams in the second floor structure was determined for the east bearing line. The west bearing line detailing could not be determined due to existing finishes around the second floor beam at the third floor column locations. The middle column in the west bearing line was investigated. As shown in Figure 17, the wood column bears on a wood plate which bears on a joist notched to accept the plate on the north end. There is no apparent connection between the wood plate and the floor joists at the south end of the plate. Oddly, the joists on either side of the plate for the east span are doubled. There may be spikes at the west span floor joists end-nailed into the wood plate. Nevertheless, this bearing condition results in an indirect load transfer between the column and the beam. Shimming directly below the column to the beam is a relatively easy fix for this location.

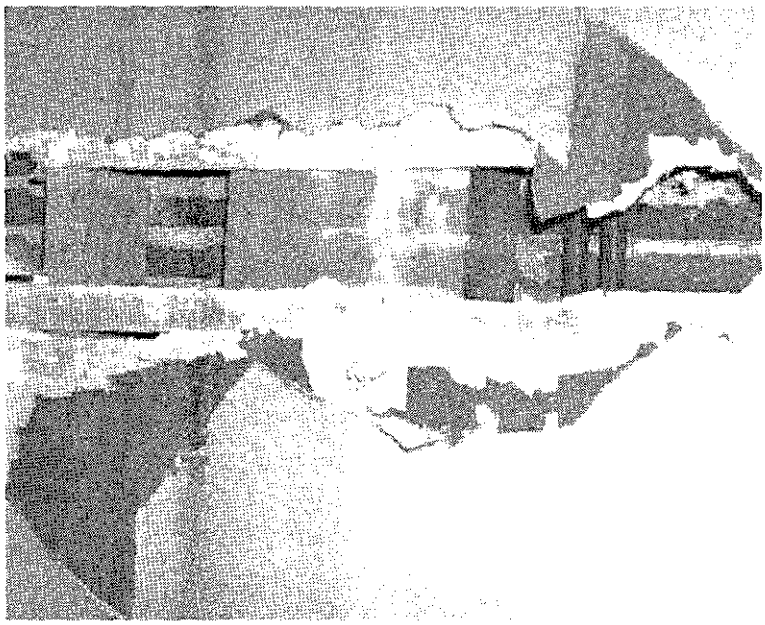

Figure 16 *4 x 10 wood column exposed along the west beam row (photo 4:14, Fitzpatrick Structural Engineering, P.C., October, 1996)*

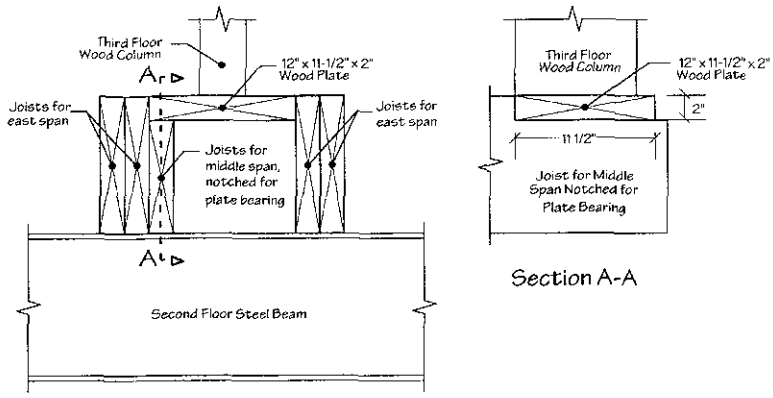

Figure 17 *Sketch illustrating middle column in the west bearing. (Drawn by Cheryl Kryscynski, Fitzpatrick Structural Engineering, P.C., April 2, 1998)*

An unexplained condition was exposed during the probing for the beam supports. Figure 18 shows a second floor ceiling area (third floor structure) at the west side of the west beam row. Plaster lath strips indicate the floor joists span left to right in the photograph. However, the joists appear to be interrupted within the joist span by a cementitious concrete-like material. The concrete material extends parallel to the joists at the right side of the Figure 18, as though a concrete beam has been placed between adjacent joists. The concrete member then makes a right angle turn and extends perpendicular to the joists. The concrete interrupts the wood joists, leaving the joists supported at the single header used to form the concrete. The location does not appear to align with any potential partition locations. Similar apparent concrete infill was noted at other locations in the westerly third floor area; there appeared to be one per apartment. Chipping away at the concrete exposed metal piping. The concrete casing may have been a type of fireproofing for the metal piping that was used as exhaust piping for the hot water tanks in each apartment.

Figure 18 *Apparent concrete infill at west side of third floor structure; note that concrete cuts across joist spans with no obvious support (photo 3:16, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Roof

The roof framing changes direction from the floors below. Three heavy timber trusses clear span the building from east to west between the exterior walls. The trusses were numbered as Truss 1 through Truss 3 for the purpose of this report. Truss 1 is the most northerly truss, Truss 2 is the middle truss, and Truss 3 is the southerly truss. Direct access was gained to the east ends of Truss 2 and 3 via a platform located in the attic space at the southeast corner of the building. Dimensions were taken at that location for the truss members and depths, the ceiling joist size and spacing, and the roof rafter size and spacing. Existing restoration drawings[3] were used to support the investigation data, and to extrapolate conditions beyond the direct access. Existing condition drawings EXS-104 and EXS-204 record the survey information, and provide a layout of roof ridge lines and slopes.

Figure 19 shows the east end of Truss 3 at the platform access location. Figure 20 shows the western end of the same truss. The ceiling joists span north and south and are notched over a ledger that is attached to the bottom chord of the truss. The roof rafters rest directly on, and are lapped over, the top chord of the truss. The rafters form a mansard type roof shape. The roof trusses are all the same depth from top chord to bottom chord. The main roof area would be 'dead' flat, with no drainage, between Truss 3 and Truss 2 if the rafters were supported directly on the top chord of Truss 2. Figure 21 shows that the rafters are supported on wood blocks at the top chord of Truss 2, which raises the roof line slightly, and provides some drainage slope toward the exterior.

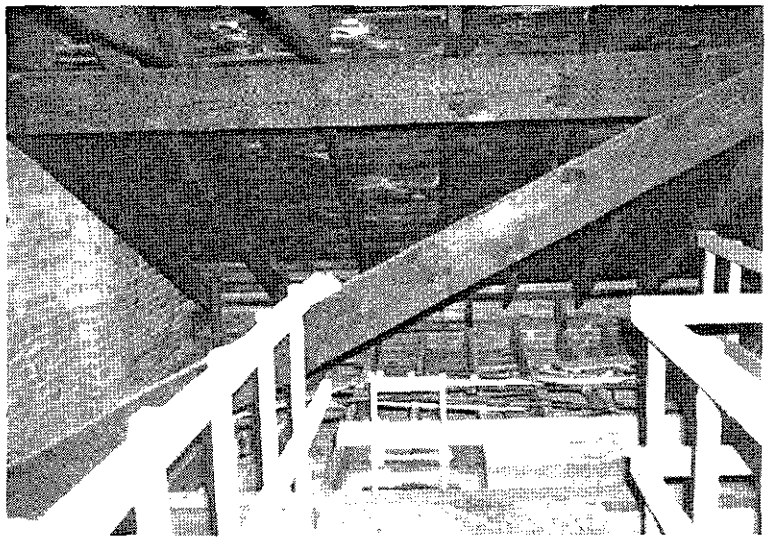

Figure 19 *East end of Truss 3; note charring fire damage on top member; fire damage and water staining at joists and sheathing (photo 3:27, Fitzpatrick Structural Engineering, P.C., October, 1996)*

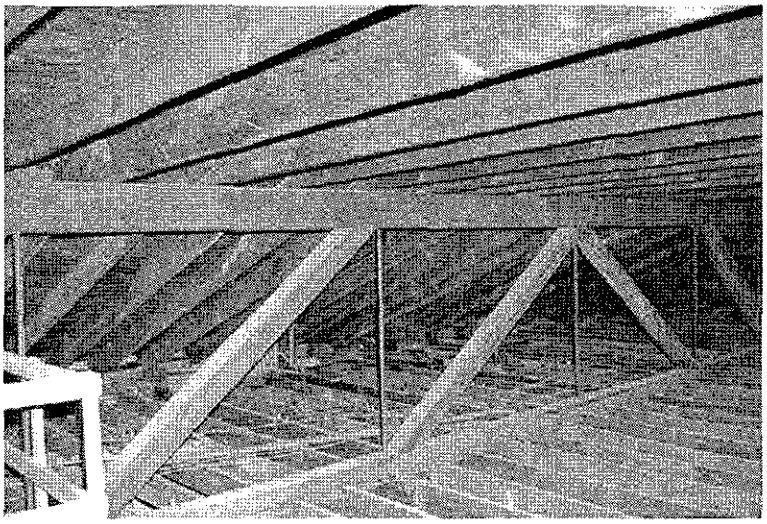

Figure 20 *Truss 3 looking toward the west end; roof rafters supported on top chord; ceiling joists supported on ledger (photo 3:29, Fitzpatrick Structural Engineering, P.C., October, 1996)*

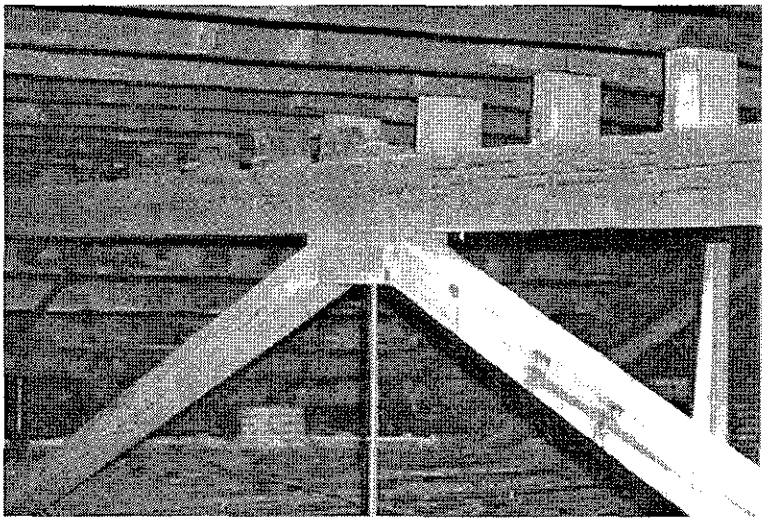

Figure 21 *Truss 2 at middle panel point looking to the northwest; roof rafters raised with blocking to create slight slope (photo 3:33, Fitzpatrick Structural Engineering, P.C., October, 1996)*

Structure fire charring was noted on some members of Truss 3 at the east end as shown in Figure 19. Similar charring was noted on the roof rafters in the same roof area. The depth of char was found to be about $^1/_{16}$" at probed locations. This shallow char should have little effect on the performance of the roof structure. Additionally, water staining was observed on some rafters and roof sheathing, but no evidence of serious wood rot was found.

Structural Analysis

Required floor load capacities should be in the range of 100 psf (pounds per square foot) for places of public access according to the BOCA code. At least parts of every floor may be used for public access for interpretive functions. That level of capacity can be considered at the low end of the range if heavy exhibits are to be supported on the floors. Another approach to floor capacity is to limit the number of persons having access at one time, as well as limiting the weight of exhibits. This approach is generally less desirable to providing adequate initial unrestricted capacity for the intended functions. The analysis of the first floor load capacities for the Hoover Block structure is complicated by the interrelationship of main beam and column support as discussed previously. The third floor columns load the second floor beams which must support that load in addition to the second floor load. The beams in at least some cases are structurally indeterminate continuous members, which require more complex analysis. Theoretically, there are a large number of third and second floor load combinations possible. Increasing the floor load on the third floor does not cause a corresponding proportional decrease in the second floor load capacity. In simple terms, the floor loads are not directly proportional, despite their physical interrelationship. The general simplifying approach used was to determine a realistic capacity for the third floor based on the existing conditions, and then to apply that as a load to the second floor. Then the net remaining capacity was determined for the second floor as the limiting capacity. It should be noted that the interrelationship only affects the beams and columns of the second floor. Additionally, items such as the concrete infill shown in Figure 17 were ignored in the analysis, since deficiencies caused by these anomalies can be corrected during the restoration process if all other factors are found to be acceptable. Supporting data and tabulations are also presented in Part I of this report.

Generally, all load values shown are net superimposed permitted safe loads. This is the live load that the area or member can safely support in addition the self weight of the member and any superimposed dead load due to ceilings, sheathing, piping, or partitions. A dead load of 20 psf was assumed for the first and third floors. This load should cover plaster ceilings and flooring as well as the self weight of the structure. A dead load of 40 psf was used for the second floor analysis. The higher level of dead load is justified for this floor to account for the many plaster partitions the occur over the second floor. The safe superimposed live load determined for the third floor is as follows.

Third Floor Joists	**Load**	**Limiting Factor**
West bay south end	41 psf	shear
West bay north end	69 psf	shear
Middle bay south end	47 psf	shear
Middle bay north end	76 psf	shear
East bay south end	51 psf	shear
East bay north end	99 psf	shear

Third Floor Beams	**Load**	**Limiting Factor**
West beam row	18 psf	bending
East beam row	24 psf	bending

Columns	**Load**	**Limiting Factor**
Both rows	41 psf	axial stress

The beams severely limit the capacity of the third floor. The second floor partitions must be aiding in the support of the floor system, since no apparent distress was observed along the beam lines. However, these members can be reinforced or replaced. The columns limit the existing capacity to 41 psf and will require reinforcement in order to achieve higher load levels. All floor joists will require reinforcing to obtain a 100 psf load capacity. The beams could be reinforced by introducing a new steel beam below the existing timber member. Columns could have steel plates or channels attached to increase their capacity. Floor joist capacity could be improved by the introduction of metal joist hangers at their ends. This would effectively eliminate shear as a limiting factor. However, the longer southern spans in all bays would have a limiting capacity of about 43 to 65 psf, but the shorter northern spans all would exceed 100 psf. The longer span capacity could be increased by doubling the joists with new manufactured lumber (e.g. Microlam, or Parallam). All joists would require doubling at the south end, but it would be possible to reduce that reinforcement to every second or third joist as the spans get shorter toward the north. The joists would not require reinforcing when the span becomes short enough to achieve 100 psf live load capacity.

A limiting load 41 psf in addition to a dead load of 20 psf for the third floor was applied to the third floor beams and columns. The reactions for each column were then applied as a concentrated load on the second floor beams. The following limits were determined for the second floor.

Second Floor Joists	**Load**	**Limiting Factor**
West bay south end	40 psf	bending
West bay north end	122 psf	bending
Middle bay south end	55 psf	bending
Middle bay north end	146 psf	bending
East bay south end	65 psf	bending
East bay north end	235 psf	bending

Second Floor Beams	**Load**	**Limiting Factor**
West double beam	95 psf	bending
East beam	103 psf	bending

The longer southern joist spans limit the floor load to around 40 psf. These joists could be reinforced similar to the system discussed for the third floor joists. An alternative would be to create a steel beam grillage beneath the second floor between interior columns and exterior walls. North to south beams could be supported on the beams at east west column lines in a manner and location that reduces the joist span, and obtains the required safe live load. It should be noted here that the steel beams limit the existing capacity to around 95 psf. Increasing the capacity/load requirement of the third floor will greatly decrease the load carrying capacity of the second floor beams. The third floor capacity should be increased to accommodate a 100 psf live load, if it is to be used as a interpretive space. That increase will require that the second floor beam capacity be increased. The steel beams could be reinforced by welding longitudinal steel tee sections to their bottom flanges. Any welding would have to be performed in a careful manner in order to protect adjacent wood structural elements from the threat of fire. The most obvious solution to increasing the capacity along the beam rows would be to rebuild the original 12" thick brick masonry walls in place of the beams and columns. This would effectively eliminate the beam members as a restrictive factor, while returning the structure in that area to its original configuration. Arch openings could be provided in the new walls for access between the adjoining spaces.

The first floor structure has the following safe live load limits.

First Floor Joists	Load	Limiting Factor
West bay south end	53 psf	deflection/bending
West bay north end	130 psf	deflection/bending
Middle bay south end	72 psf	deflection/bending
Middle bay north end	149 psf	bending
East bay south end	83 psf	deflection/bending
East bay north end	176 psf	shear

The west and middle bay load limit could be increased by placing a properly designed and founded beam column system in the basement that reduces the joist spans (similar to the rotting, existing system). The system need only extend from the south wall to the north to a point where the joist spans without shoring are short enough to support a 100 psf live load. The east bay is severely rotted at the south end where the load capacity is least. This floor should be replaced with a new floor system. It may be possible to replace the joists in that area with treated manufactured lumber members (CCA treated Parallams) that will not require intermediate support. The replacement could extend beyond the deteriorated area to a point where the existing joists are capable of supporting a 100 psf live load. Alternatively, the joists beyond the rotted area could be doubled with treated manufactured lumber members progressively at every joist, every other joist, and every third joist as applicable, until no longer needed.

Summary

The Hoover Block (HS-02) has undergone several significant structural modifications over the history of the building. Many of the modifications are typical of party wall separated retail spaces of the era. Some modifications were not sensitive to maintaining the integrity of the structural elements. Additionally, the structure has suffered from fire damage, water-induced wood rot, and termite infestation in some localized areas. The existing structure does not appear to have complete weather tightness, and water runoff is occurring in the basement. Ventilation and appropriate thermal tempering of the building does not exist, which is typical of abandoned or mothballed buildings. The effects of lack of moisture control are progressive and will expand the areas of wood rot, infestation, and freeze/thaw damage if left unattended.

Exterior Fabric Analysis

The exterior fabric, in general, is in poor condition, with evidence of spalling brick, cracked limestone, efflorescence, missing mortar, and inappropriate joint repairs. The spalling, cracking and efflorescence are generally the result of too much moisture in the masonry, most likely caused by water infiltrating at broken surfaces and missing mortar joints. As mentioned in the 1995 *Selective Exterior Recommendations* report by Quinn Evans/Architects, additional water infiltration has occurred at the upper floors through poor masonry infill at former window and door openings, and at the ground floor through the capillary action of rising damp. Water damage seems especially severe in areas below previous and current roof drainage problems and at former locations of building accessories (i.e., fire escapes, drain pipe fittings) where water was allowed to wash over the building's surface. Recent roof repairs have temporarily stopped further damage from that source, but the accumulated moisture is still finding damaging ways of working itself out of the masonry.

North Elevation

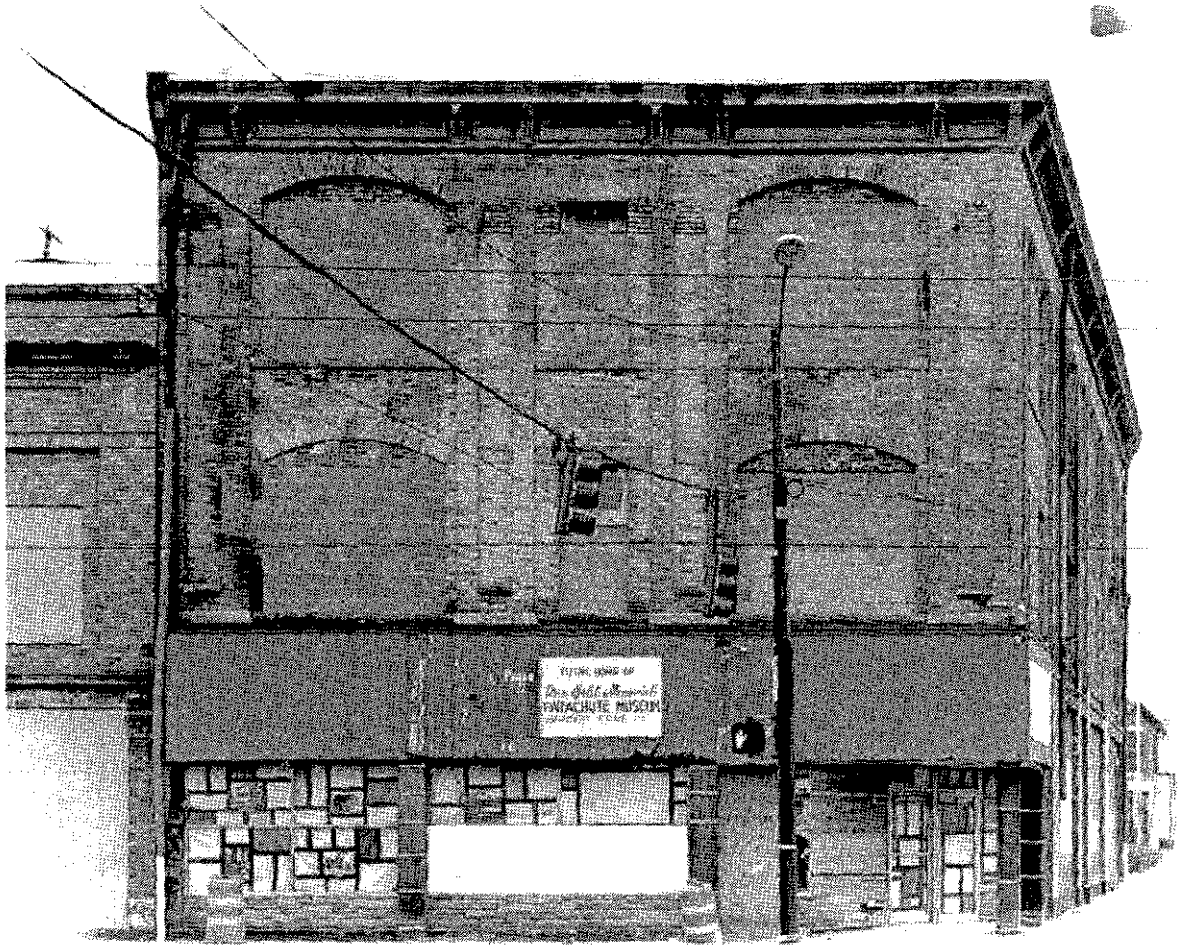

Figure 22 *View of the north elevation of the Hoover Block (J. Miles Wolf, 1995).*

At the north elevation (Figure 22), there is noticeable brick damage along the length of the downspout at the eastern edge of the elevation. There is also marked erosion of brick corners and mortar joints at the east edge of the second level's westernmost window opening. All of the arched window heads show open mortar joints from below. There are several open joints around the limestone in the central bay of the elevation. What paint finish the

brick seems to have had at one point has been weathered, and may itself have contributed to the trapped masonry moisture. The downspout to the east may be original near the roofline, but portions of it have been replaced; it seems in fair condition, though crooked. The cornice appears rusted and stained, but there are no readily visible holes. The only significant damage at the cornice seems to be an open seam at the northwest corner, where the two elevations meet.

The condition of the metal frieze is not completely known. Portions of the cornice which are visible above the wood paneling, and even behind portions of it, appear to have several layers of paint. Only one wrought iron column is visible, and it seems to have suffered some minimal damage from the faulty eastern downspout. The two column capitals, one on the north elevation and one on the west, that "book-ended" the frieze are missing. The plate window fronts and bases are not original and have been vandalized, though the glass doors and window frames seem in fair condition. The same can be said for the portion of the shop front that continues onto the west elevation at South Williams Street.

West Elevation

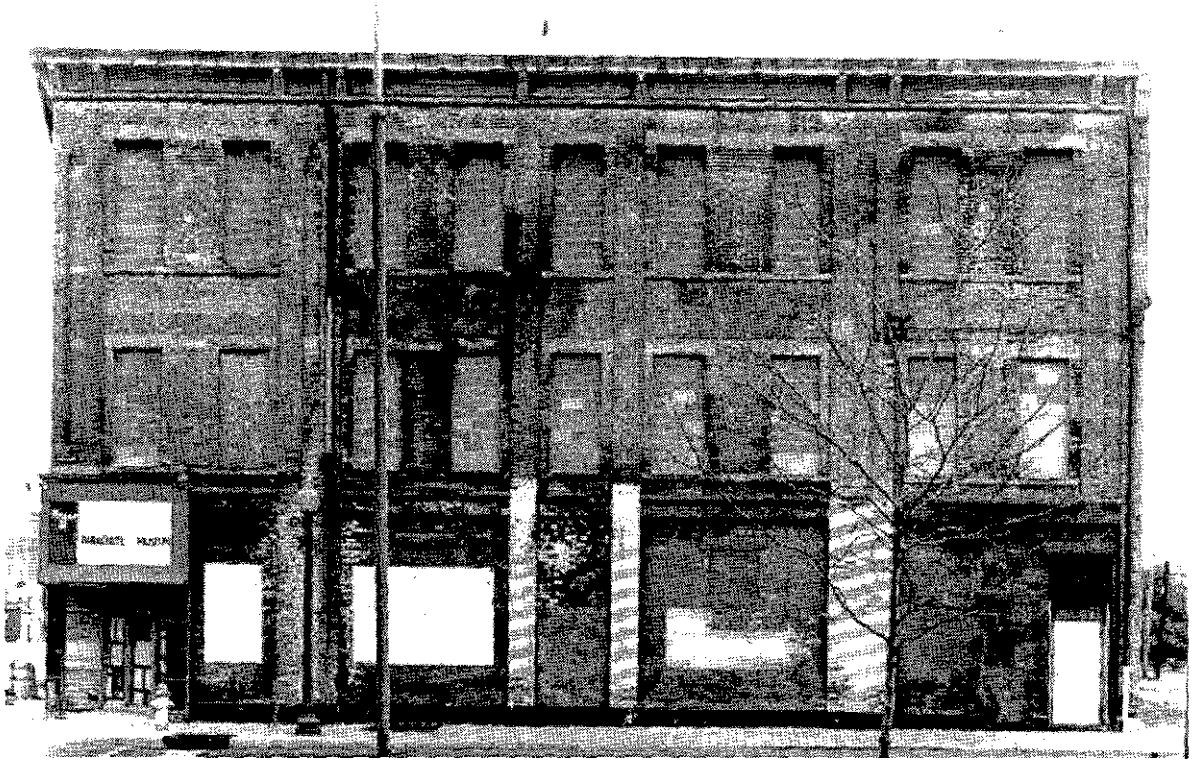

Figure 23 *View of the west elevation of the Hoover Block (J. Miles Wolf, 1995).*

The west elevation (Figure 23) appears to have endured more damage than the north, perhaps due to chimney stack damage, the presence of a fire escape, and a leaking gutter that may have washed portions of the elevation with runoff water. The entire face of the bay just north of center and half of the face of the center bay are extremely eroded; joints are missing for most of the second floor level, which would have been right under the third floor landing of the fire escape. These areas may have long been trouble spots, and may have been repointed, inappropriately; the mortar appears to be thick and discolored. Corners of brick and open joints are also visible between the windows of the bay just south of center. Bricks and portions of bricks are missing in nearly every bay; a piece of limestone is missing below the second floor window of the central bay. Of particular concern are the open joints between and around the brick cantilevering at the first floor ceiling line. There are telltale signs of efflorescence

at the heads and jambs of the windows in the southernmost bay. Often times it is hard to distinguish between brick salts, old paint and inappropriate repointing when viewed from the ground level. The damage at the ground level is masked by several coats of dark paint, but some more recent spalling and holes from the fire escape mountings are evident.

The two downspouts on this elevation appear to have had portions replaced, the northernmost of which seems to have suffered more weathering. The downspout to the south receives a tie-in from a downspout at the west edge of the south elevation. Portions of the cornice/gutter above the three central bays appear to have rusted through, when viewed from below. The gutter was relined with flexible sheet flashing by Aviation Trail, Inc. in 1993. In general, the cornice is riddled with rust.

South Elevation

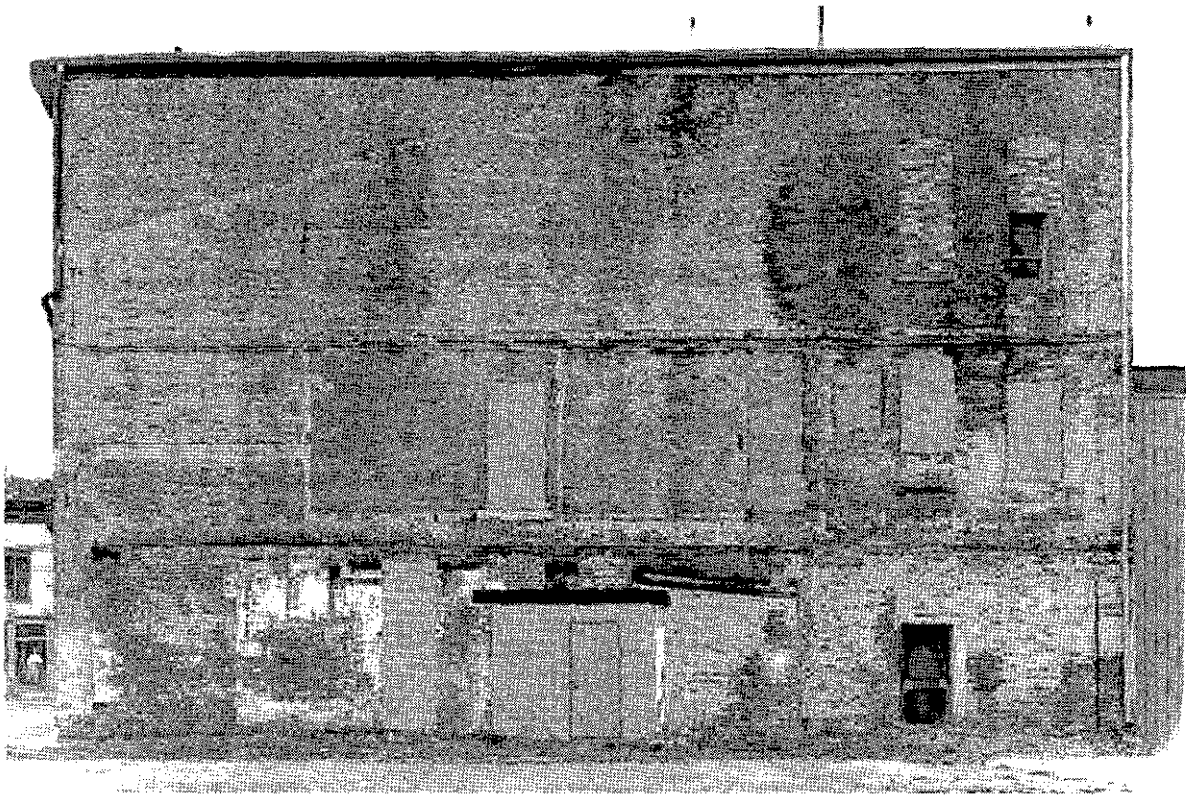

Figure 24 *View of the south elevation of the Hoover Block (J. Miles Wolf, 1995).*

The brick at the south elevation (Figure 24) has been most severely damaged at the eastern third of the elevation. Easily 60% of the brick in this area is spalling and suffering from efflorescence and open mortar joints. Other portions of the elevation appear to have been protected by their now missing additions. Great gaps in the brick fabric from missing and eroded brick are concentrated at this eastern third of the elevation. The damage to the rest of the elevation seems to be limited to efflorescence, some shallow joint erosion, and patches of paint and joist pockets for the additions. There have been extensive alterations to this elevation in terms of new openings being cut and older ones being filled in; the steel beam lintel, installed by a store owner in 1946, is still prominently visible in the fabric, over a cinder block filled opening. Of the two doors that appear in this elevation, one is metal and is located in this infilled opening, placed there by Aviation Trail, Inc. and the other is a two paneled wooden door that appears to be much older. Both are functional. The two downspouts at this elevation appear rather new, and it is known that the fascia board and gutter were installed by Aviation Trail, Inc. in 1993.

East Elevation

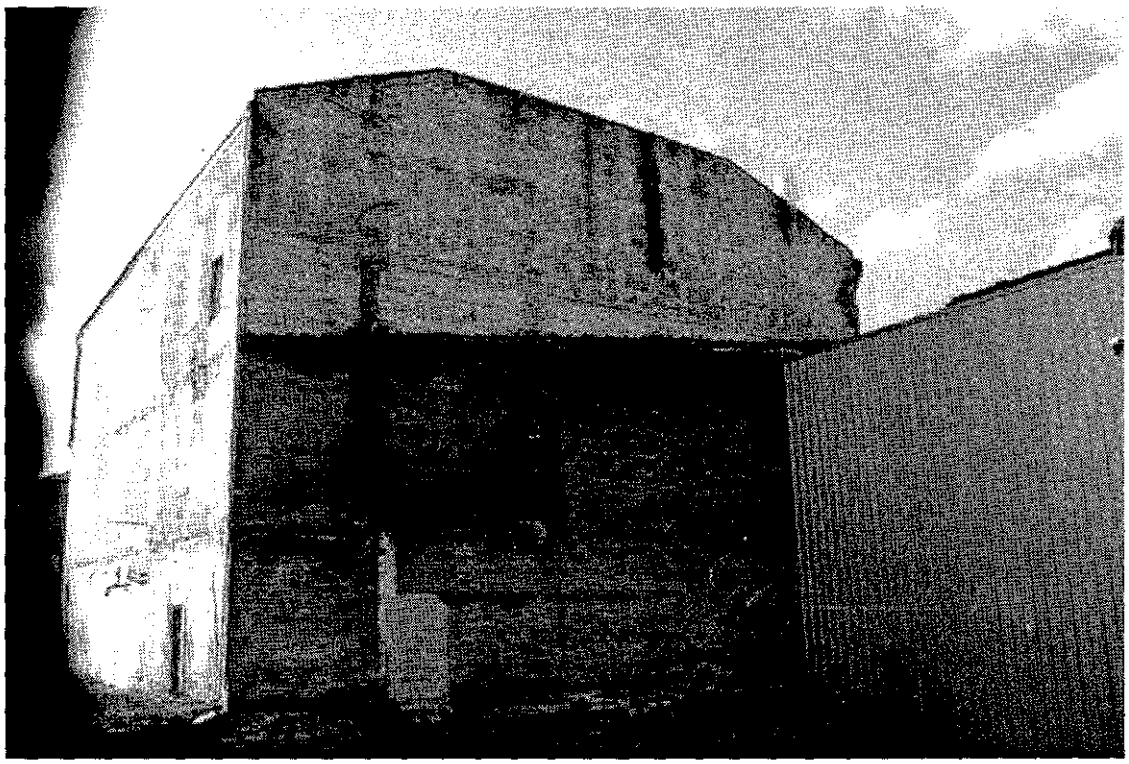

Figure 25 *View of the east elevation of the Hoover Block (Quinn Evans/Architects, 1995).*

The east elevation (Figure 25) is in relatively good condition, in part because Aviation Trail, Inc. repointed areas of damaged masonry in the fall of 1996. The lower two floors were protected by the former Setzer Building for most of the Hoover Block's life. The upper third of the elevation has had several advertisements painted across its elevation. Portions of the elevation were rebuilt when the chimney stacks of the neighboring Setzer Building were detached. The most damage appears to be at the north edge corresponding to the spalling and mortar erosion on the north elevation behind the downspout. There also appears to be another vertical area of spalling approximately one third of the elevation width from the south, which may correspond to one of the Hoover Block's chimneys. The only modification to this wall was an entrance to the south of the elevation that has since been filled in with cinder block.

Roof

The roofing should be in good condition, though it is only expected to perform well until the year 2000. It is a silicone/polyurethane roof system that was spray-applied to the entire roof in 1993 and intended to last only seven years. All nine chimneys were covered with flexible sheet membrane covers, the existing roof access hatch was replaced with one that has an integral curb, and two metal ventilators were removed.

Interior Fabric Analysis

The interior wall conditions reflect the damage occurring at the exterior. The same source of damage, namely excessive moisture within the masonry walls, is causing plaster to fail throughout the building.

First Floor

The ground floor can be treated as one volume, its damage due mostly to age and neglect. Moisture is causing paint to peel from several surfaces, and plaster to spall and crack at exterior walls. The north interior elevation is mostly storefront windows, which have been vandalized, broken, and boarded up in some locations. The interior faces of the wrought iron columns have been covered with painted plywood, and the window soffits and bases have been boxed out in a similar fashion. The wood in these locations appears to be moisture damaged beneath the paint. The upper portion of storefronts 1062 and 1060, above the suspended ceiling, appear to be etched glass panes, from the 1930s remodeling job. The same space above 1058 is framed out in 2x4 lumber. Some crown molding at the ceiling above one of the chimney chases is still in place at the east wall.

Five inch diameter steel columns now stand in place of the original walls that separated the three addresses. They pass through the existing suspended ceiling to support steel beams, which, in turn, support a plaster ceiling. The columns have only been painted and are otherwise in good condition. The western beam is encased in wood and seems to also rest on portions of the original western partition wall. Four feet of this original wall still exist behind one of the wrought iron columns at the north and about sixteen inches extend out from the south wall. Portions of the four foot remnant show a plaster finish giving way to a cementitious finish. The eastern ceiling beam is exposed above the suspended ceiling; no portion of the eastern partition wall still exists. The floor appears to be pale vinyl tile laid over a hardwood floor; areas of the tile are missing throughout the space.

The other three walls show signs of plaster damage (spalling and staining) from moisture damage. A soffit running along the length of the south elevation turns and continues three quarters the length of the east elevation. It is framed out in 2x4 construction and is finished with paint and wallpaper, both of which are flaking and peeling off. There are seven doorways visible from the interior: two are the glass entrance/exit doors at the northwest corner, which are in good condition; one is the door to the basement stair, which is in fair condition; another is at the east wall that is still framed, but has been cinder block filled; and there are three doorways at the south wall. Of the south wall doorways: the western has a door and frame in place, but has been cinder block filled; the center is a metal door set in cinder block that is functional and in good condition; and the eastern is a two panel, sliding, wooden door that is functional and is in fair condition. The only enclosures within the space are the enclosure of the basement stair, plaster on wood frame, and the enclosure of a triangular space at the north elevation, between the four foot section of original wall and the glass entry doors. This enclosure is made of thin paneling and peg board, and is not original.

Second Floor and Stair

From the west exterior elevation, another stair leads to the upper floors. The foyer floor at the base of the stairs is made of half inch ceramic tiles forming the letter "H". The stairway leading to the second floor landing is plaster finished, and has a painted wainscoting with applied wood stiles and a chair rail. Above the chair rail, the plaster is painted cream and the "wainscoting" is painted a dark green. The plaster is cracked along both walls and the wood stairs are in poor condition. A dark-stained, wood handrail runs along the south wall. At the top of the landing one style has been removed revealing white plaster scored to resemble horizontal tile or brick. The landing itself has been enclosed and has a door that leads to the hallway of the second floor suites. The hallways are painted similarly to the stairway, however, when the chair rail was removed, a green, blue, and red color scheme was revealed underneath. The only unpainted wood in the hallway is that which trims several small interroom windows that must have drawn ventilation from the hallway. The wood trim at these locations is stained/varnished very dark and has a low, beveled profile. In general, the plaster walls of the hallway are in poor condi-

tion, the ceilings are also plaster and failing, and the floor appears to be wood plank. The space has little light and very little intentional ventilation.

Across from the stairway door is the entrance into the southwest suite, made up of five rooms, two small closets, and a small hallway. To the east, along a perpendicular wall, is the entrance to the southeast suite, consisting of six rooms, two closets and a second entrance further down the hall to the north. This suite runs the length of the east wall, making it the largest, but it also has the least amount of windows. Across from this suite's second entrance is another door; immediately perpendicular to both of those is a third. These last two doors both lead to the northwest suite, which has six rooms and two small closets. Each suite has a bathroom and a kitchen, and while most rooms have at least partially papered walls, the bathroom and kitchen walls are painted plaster. The northwest room of the northwest suite has a scalloped troweled plaster ceiling; most other ceilings in the suites are papered. The wood plank floors occasionally have linoleum or vinyl coverings, but are sometimes hard to distinguish through all the debris that has fallen from the walls and ceilings. The western suites have the same dark stained wood trim that was found around the windows in the hallway, but the trim in the eastern suite is painted turquoise, though the profile is the same. Only a bathroom window in the south room of the east suite has trim with a clearly different size, shape, and profile.

Each suite shows water damage and ruined finishes, the hardest hit of which is the east suite, its northeast room in particular. For the most part, all exterior walls and ceilings show extensive moisture damage, and all window openings have been filled in with cinder block. Interior walls show water stains at their paper, or cracking and peeling at the plaster. Brick was exposed around the window openings when the original wood trim was torn out, though, at several windows, the head trim remains in place. There are three small, built-in china cabinets, one in the corner of each of what were probably family rooms, that match the styling and detailing around the doorways within the suites. In general, there seems to be a distinction between entrance doors and inter-suite doors. The entrance doors, like the hallway windows, have textured glass lights. There are also counter tops and overhead cabinets of a somewhat less sophisticated nature than the china cabinets and door ensemble, in each of the kitchen areas. Some iron bathtubs and kitchen sinks lie strewn around the apartments bearing the date stamps 1914 and 1917. Modern water heaters and not-so-modern commodes are in each of the three bathrooms.

Third Floor and Stair

The stair continues up to the third floor from the second floor landing. At the top of the stair, a doorway faces onto the third floor landing at the southeast corner of the building. A partition to the north and a partition at the top of the stairs to the west define this area as a foyer for the rest of the floor. The plaster and paint at these partitions is cracked and flaking; patches of plaster are completely missing from the exterior walls. It appears that a lower ceiling existed in this area at one time that was supported by the 2x4 sill that runs around this space just above the stairway door. The two windows in the south wall have been altered a number of times. The easternmost window is completely filled in with cinder block, but still retains its wood head. The westernmost window has been filled in also, but a small Plexiglas panel remains framed into the cinder block; this window retains both its wood head and the head trim. In the southeast corner is one commode, and scars on the floor that indicate there was a restroom in this corner. There is a segment of a partition in front of a chimney run at the east wall, behind which are remnants of what are believed to be the original chair rails and baseboards. A set of paneled double doors in fair condition swing into the foyer from the rest of the floor; neither they nor the wall they are a part of are believed to be original. The base trim that runs along the east wall continues past the end of the partition, as if the partition were built over it.

Beyond these doors, the third floor, like the first floor, is essentially a single volume with a few enclosures. The north wall seems to have suffered the most water damage, though moisture damage is extensive at all of the walls. All of the window openings have had their window frames and trim removed and have been infilled with cinder block, though several wood heads were left in place. The plaster around these windows was damaged in the

process. Moisture damage has caused the light blue paint on the plaster to blister and peel, and the plaster beneath to become soft and powdery. There are also signs of efflorescence. Ninety-five percent of the plaster and lathe on the ceiling is missing, leaving the joists and beams exposed, framed into the center of which is a three foot diameter form that would have originally supported a large lighting fixture. The floor is made of two layers of 2 1/2" tongue-and-groove wood flooring, portions of which are missing along the east wall. There are areas of only one layer of flooring, which reveal an unusual construction pattern in the floor.

The only other areas to be partitioned off are also along the southern end of the floor. The partition along the stairwell is believed to be original and is only in fair shape, with large patches of paint blistering away from the plaster beneath. There is an area in the southwest corner that was reportedly once used as a locker room, the north wall of which is made of 1" thick horsehair plaster over 2x4 wood framing. This partition, and the 5' wide framed doorway and double transom above, are believed to have been installed shortly after the building was opened. An inspection of the west exterior wall reveals that the base trim at that wall passes through, and is not interrupted by, the partition. The doorway and transom are in good condition, but are filled in with plywood. This partition is also in good condition, though the paint is beginning to crack and blister. In the southwest corner of this room is a bathroom with storage closets and around the room, above head height, are more storage closets, all made of narrow, vertical siding. The east wall of the "locker room" and the two partition walls of the "office" room just to the north are of later, 2x4 construction, and are only finished at the elevation facing out to the rest of the third floor. The exterior of the "office," the interior of the "locker room," and the wall between the two rooms are painted hot pink.

Two interesting finds at the third floor were two original window sashes. One is clearly the top sash of a second or third floor window; the other appears to be the bottom sash of one of the narrower windows on the north elevation. Both are in good condition, but only the second one has glass, which is broken.

Mechanical and Electrical Systems Analysis

There is no mechanical equipment, piping, or ductwork remaining at the site that has any significant historical value. Dayton utility company records do not go back more than 30 years, so no definitive information is available concerning the history of the building systems. However, the Wright Brothers' newspaper of 1890 mentions the local installation of gas lines and gas heat. A considerable amount of gas piping remains at the Hoover Block building. These remains indicate that, at one time, the entire building was completely illuminated by natural gas lamps. There is also strong evidence that gas heaters were the original form of heating for the building. There is no evidence of any form of heating for this building prior to the installation of gas heat. Some sanitary system piping remains in the building. Most piping is probably original.

There are no electrical fittings or connections of any historical significance.

Historic Paint Analysis

The following is a summary of the paint analysis performed by Steven C. Seebohm/SEEBOHM, Ltd. The complete report is contained in Appendix E. The existing conditions were noted during the on-site physical investigation carried out in conjunction with QUINN EVANS/ARCHITECTS on October 22 and 23, 1996. Sampling was executed with a flat-bladed Exacto knife, with samples being stored in individually-marked envelopes. The envelopes were then placed in storage bags marked for each area of the interior, labeled and dated. All samples were inspected under a 60X and 120X Meiji binocular microscope with a Stocker & Yale 7,000 degree K illuminator; this illumination insures a color match under conditions simulating natural light. Finish Colors were then matched to the Munsell Color Notation System (Glossy Collection). Existing wallpaper was noted, but not analyzed.

The first floor of the building has undergone a number of changes that have resulted in the removal of most of the original finished surfaces from Episode 1: 1890 - 1911. The only surface sampled on the first floor for interpreta-

tion of Episode 1 was a sample taken beneath a crown molding found on the East wall above a chimney chase. The second floor of the building also underwent a number of changes from the first Episode to the second. The only interior trim from the first Episode is that which surrounds several inter-room windows that were possibly used for ventilation. The windows do show evidence of period finishes. The ceilings and walls of the second floor rooms were treated, in most spaces, with wallpaper during the first finish campaign. Wallpaper was found to have been used during several subsequent campaigns, with occasional use of paint on the ceilings and/or walls. The third floor rooms have undergone several changes that have eliminated original fabric from Room 3046d - Ante Room as identified on the floor plan of Episode 1A: 1901 - 1911. All of the ceilings of the third floor have been removed, as well as the majority of the windows.

The exterior surfaces have seen several changes. All of the windows have been removed and the storefronts on the north side of the structure have been covered by a construction barrier for protection. Numerous painting campaigns have been applied to the remaining original exterior finished elements. Two boards were removed from the construction barrier to access the decorative cornice above the windows and the pilaster bases. Samples were taken and analyzed. One window sash from the second floor, identified as coming from the front or north side of the building, was also sampled and analyzed.

A cross-section of painted finishes was tested to determine the type, or base, of paint originally used. Solvent and chemical testing proved that all finishes were solvent (oil) based paints, with lead present.

As with most historic buildings that have fallen into a state of disrepair, the Hoover Block has experienced many changes, neglect, and subsequent damage to original fabric. Water has been the culprit that has caused the most damage to the third floor, and also to several ceilings and walls on the second floor. Physical changes have removed much of the original material to the southwest corner of the third floor, and throughout the entire first and second floors. Traces of the original wallpapers remain; these can be used to provide accurate, or historically appropriate, decorative treatments.

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1 *Iron and Steel Beams 1873 to 1952*, Tenth printing 1990, published by American Institute of Steel Construction (AISC), One East Wacker Drive, Suite 3100, Chicago, Illinois, pp. 24, 74.

Steel Construction Manual of the American Institute of Steel Construction, Fifth Edition 1961, published by the AISC.

Manual of Steel Construction, Sixth Edition 1967, published by AISC.

2 *Iron and Steel Beams 1873 to 1952*, Tenth printing 1990, published by American Institute of Steel Construction (AISC), One East Wacker Drive, Suite 3100, Chicago, Illinois, pp. 6 - 9.

Manual of Steel Construction, Sixth Edition 1967, published by AISC.

3 Stephan P. Brown AIA Architect, *Preservation of the Hoover Block*, produced for Aviation Trail, Inc., dated December 7, 1992, Drawings A1 through A5.

Part G:

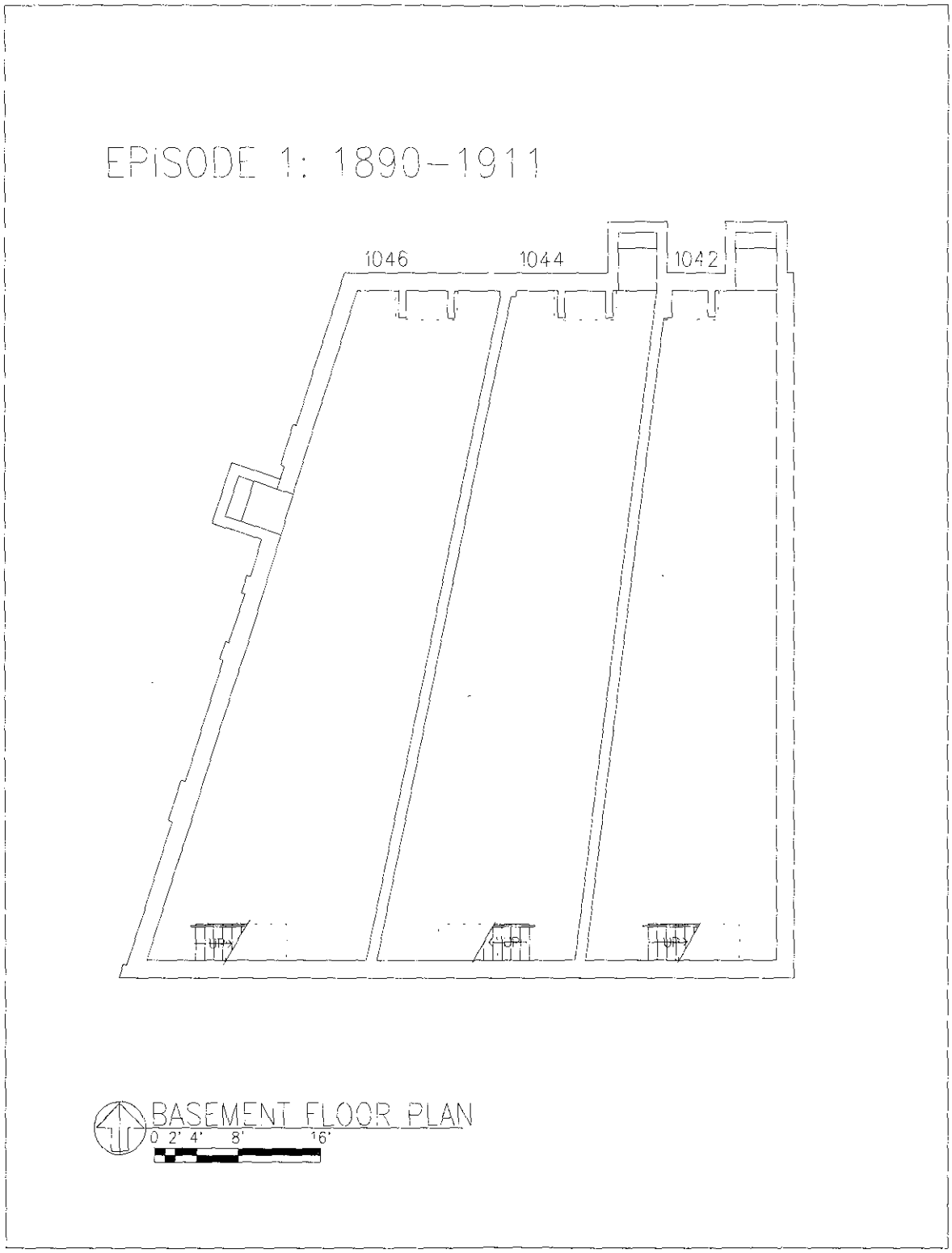
Building Chronology

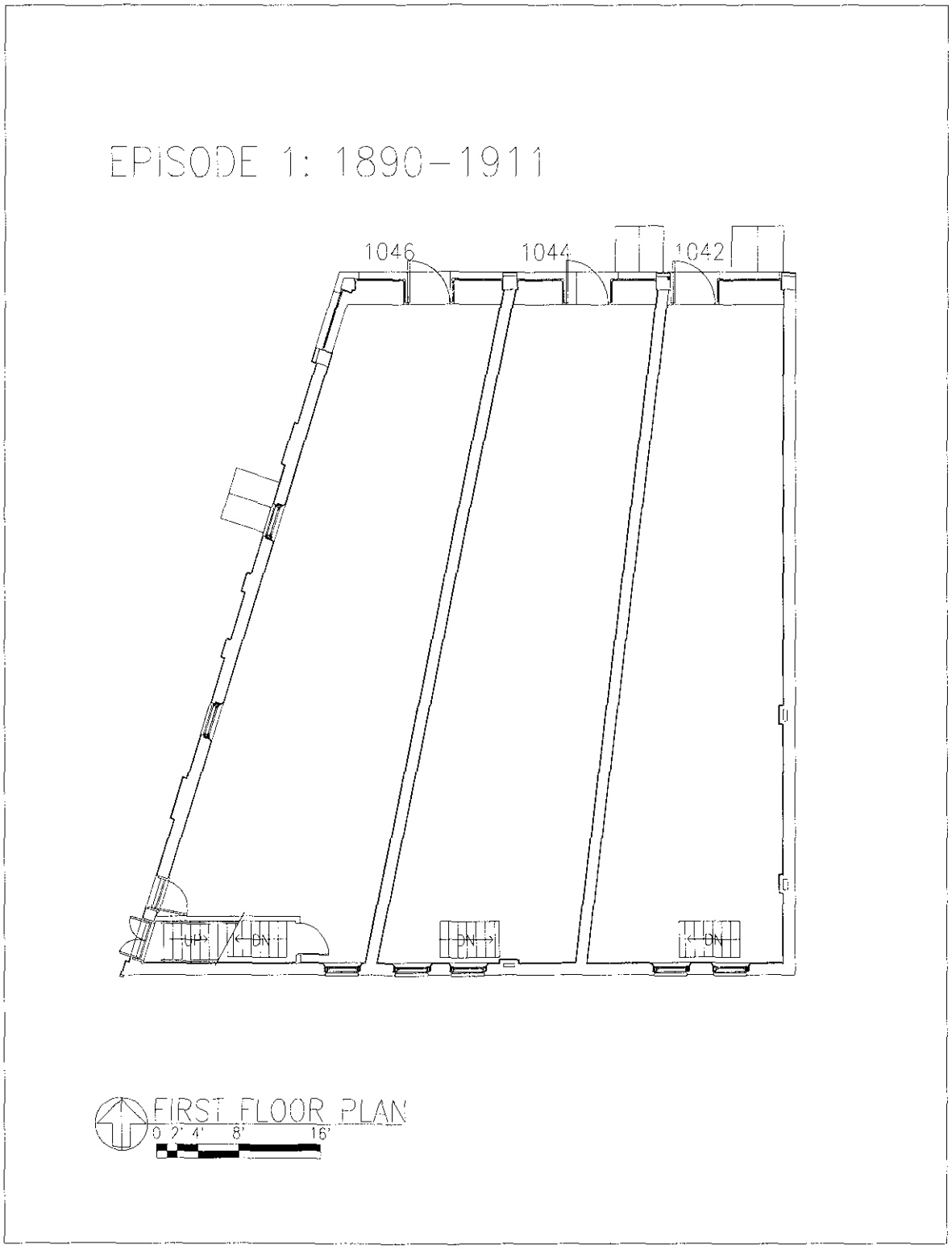
Part G: Building Chronology

Episode 1: 1890 - 1911

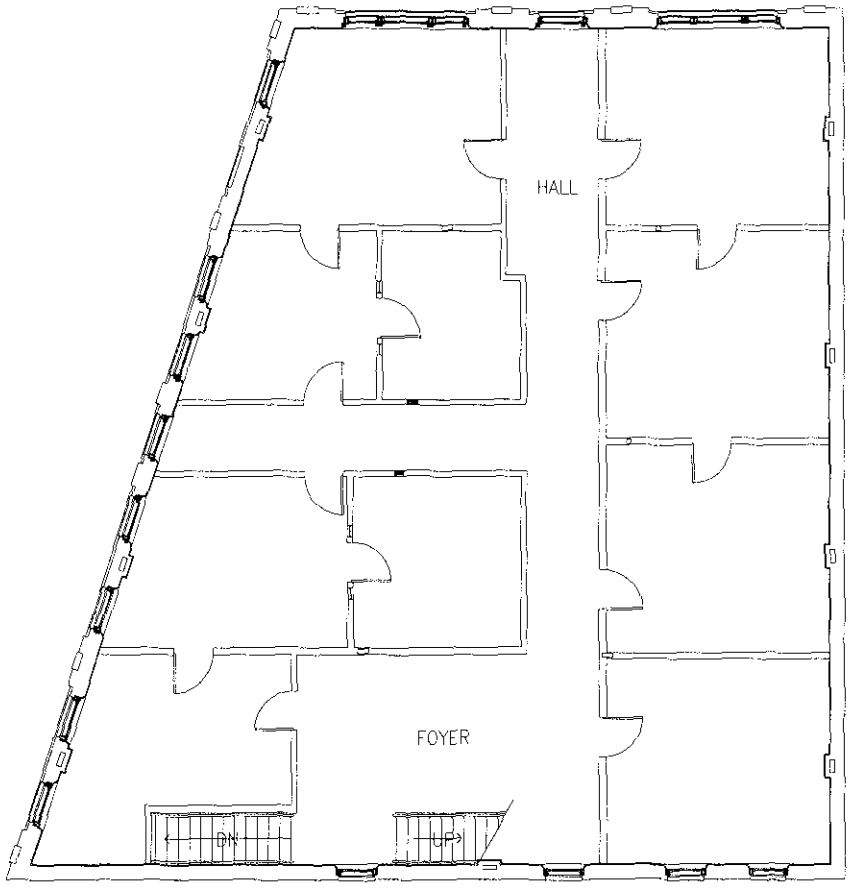
In 1890, Z.T. Hoover erected the Hoover Block on the southeast corner of West 3rd Street and South Williams Street. Dayton City Directories show that among his first tenants were Schaeffer & Gerwels, who owned the Cincinnati Grocery Company at 1046, and Chas. H. Smiley, who owned a barber shop at 1042, both at the ground floor. While the 1893 photo (Part B, Figure 2) shows 1044 as a billiards hall, city directories list an ice cream parlor owned by Charles C. Chaffee at the third storefront from approximately 1891-1894. The second floor suites were initially rented by a salesman named William Hughes, a clerk named F.C. Keller, a publishing agent for the Christian Conservator named Rev. M.F. Keiter, and two brothers running Wright and Wright Job Printers, named Orville and Wilbur Wright. The third floor was a large hall that hosted various civic groups such as the Knights & Ladies of Honor, Order of United American Mechanics, and the A.P.A. Knights of the Silver Star. Also listed as meeting at Hoover Hall during this period was Washington Camp No. 21, though the address given was 1042. This address appears twice more for meeting groups and for the Hall itself before 1895; perhaps this was the most accurate address at the time.

Most of the original tenants continued leasing for a number of years. At the ground floor, shop 1046 continued as the Cincinnati Grocery Company until 1900, when Frank B. Hale opened his own grocery store at that address. The barber shop may have traded hands to S. Ross Miller, in 1892, but was under the ownership of Chas. H. Smiley from 1894 until at least 1896. The second floor offices continued to be occupied by both William Hughes and the Wrights through 1892, when a clerk named Fred C. Keller joins the list of tenants. The first residential tenant on the second floor, at least listed as such in the city directories, was Mrs. Belle Woods, from the 1892-1893 directory. The Wrights continued their stay, joined occasionally by their brother Lorin and their father Milton, until their 1895 move to 22 South Williams Street. The third floor continued to host the Knights & Ladies of Honor, Order of United American Mechanics, and the Washington Camp No. 21, through 1895, joined by the Patriotic Order Sons of America, who were also listed at 1042, which is, again, assumed to mean Hoover Hall. Little information was found in the directories or maps for the remainder of this period other than an 1897 Sanborn Map, which shows the Hoover Block standing without any adjacent additions.

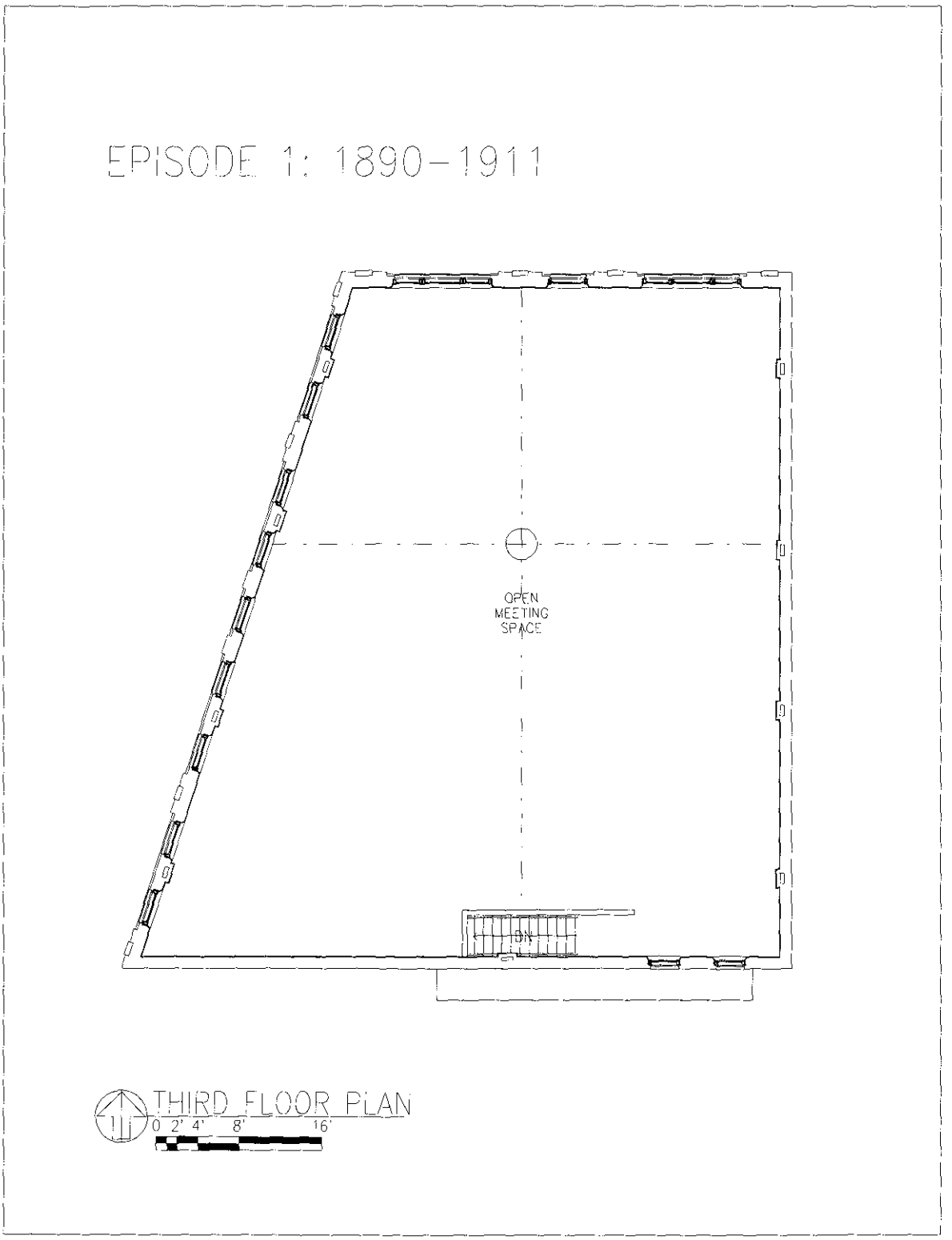

EPISODE 1: 1890–1911
1046
1044
1042
BASEMENT FLOOR PLAN
0 2' 4' 8' 16'


EPISODE 1: 1890–1911
1046
1044
1042
UP
DN
DN
DN
FIRST FLOOR PLAN
0 2' 4' 8' 16'

EPISODE 1: 1890-1911



SECOND FLOOR PLAN
0 2' 4' 8' 16'

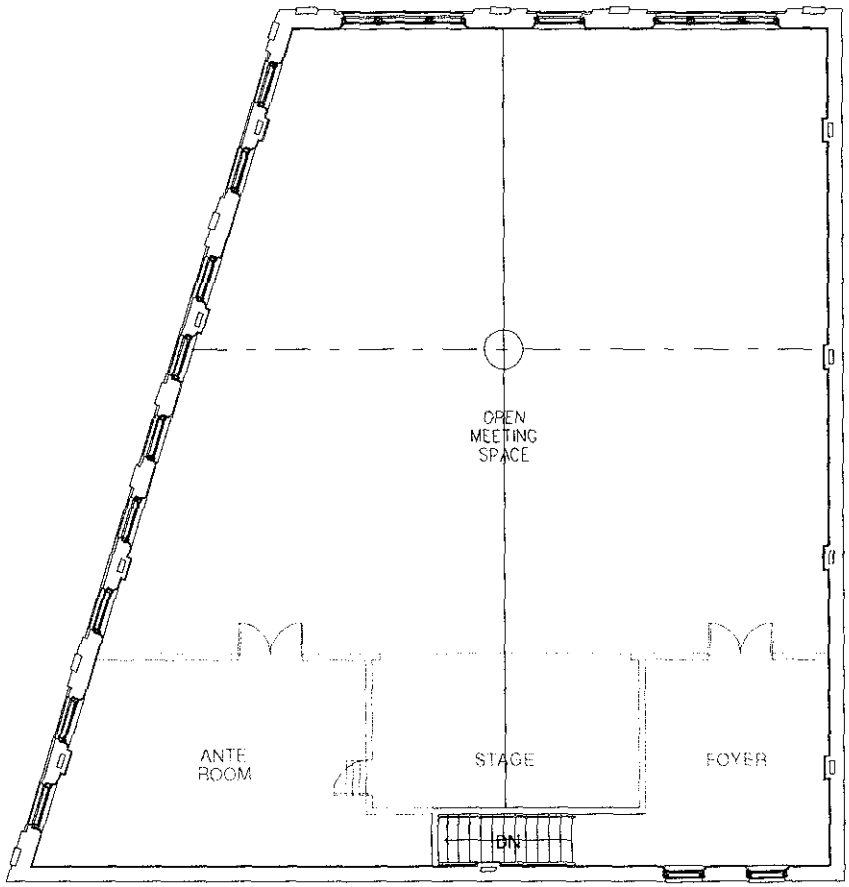

EPISODE 1: 1890–1911
OPEN
MEETING
SPACE
DN
THIRD FLOOR PLAN
0 2' 4' 8' 16'

Episode 1A: 1901 - 1911

The only detectable modifications to the Hoover Block during this time were the addition of a second finished floor layer at the third level, over the original finished floor, and the addition of a stage, an anteroom, and a foyer. The additional floor layer is typical of other meeting halls in the neighborhood; it probably helped insulate second floor tenants from noise. The changes occurred so early in the building's life that they are not considered to mark a completely separate episode. It is speculated that these change occurred in 1901 when deeds dated to March of that year show that Z.T. Hoover leased the entire third floor to the Honor Council for an annual fee. These additions were similar to standard features in contemporary meeting halls of that time, and it was customary to outfit the meeting hall to suit the tenant. Only portions of the anteroom and foyer walls, and expanses of the secondary floor, exist today.

The Dayton City Directories show that in the years immediately following the modifications to the third floor, there was some activity in the ownership of the businesses on the ground floor. 1042 became the business place of Jacob M. Price from 1901 until 1909; he may have also resided on the second floor. In 1909, Price began sharing his storefront with a jewelry store owned by Edward Sapp. In 1903, Frank Hale, grocery store owner at 1046, purchased portions of lots 6315 and 6316, both of which comprised the lot on which the Hoover Block was located, and became partners in the Shank & Hale Amusement Company, in addition to running his store. Soon after, he married Z.T. Hoover's daughter, Lura, and in 1922 he became mayor of Dayton.

EPISODE 1A: 1890-1911



THIRD FLOOR PLAN

0 2' 4' 8' 16'

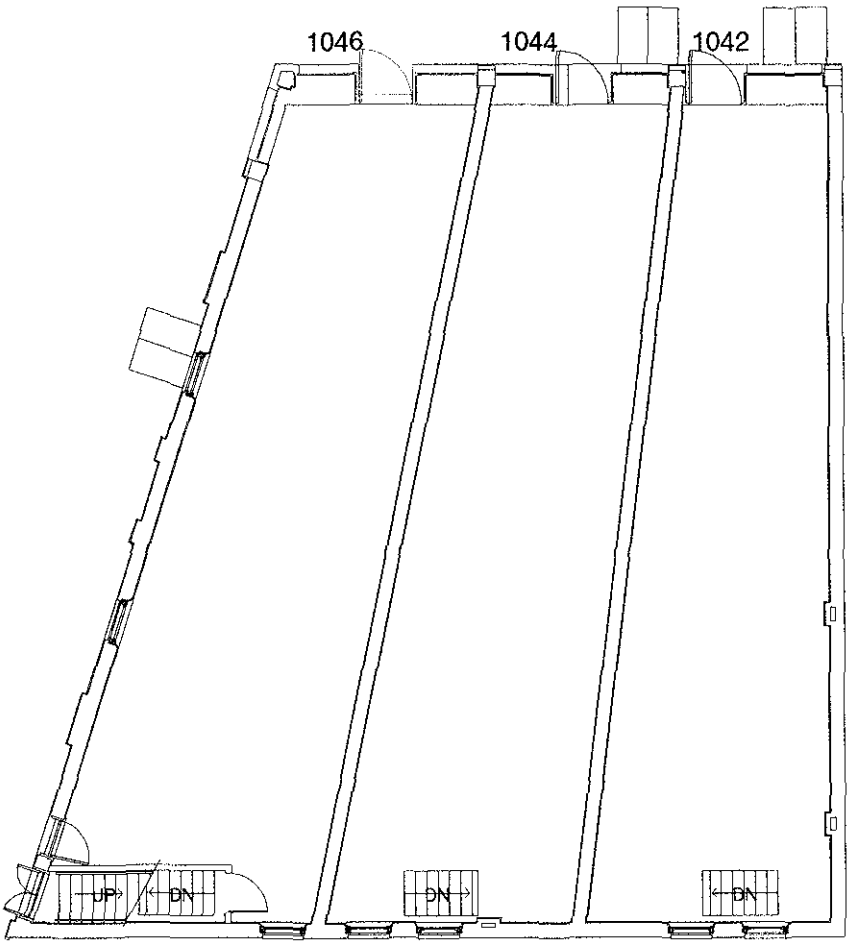
Episode 2: 1912 - 1930

This episode is defined by the first major renovation of a shop front and the second floor. The ground floor remodeling may have occurred soon after Hale purchased portions of lots 6315 and 6316, but there is no existing evidence of change until 1912. Two photos, dating to 1912 and 1915 (Figures 3 and 4, Part B), show the remodeling of Frank B. Hale's Fine Groceries and Fruits. The earlier photo only reveals the curb being cut down to street level in front of the 1046 store's entrance; the rest of the storefront is obscured by the canopies. The photo from 1915 clearly shows the new configuration of the shop front windows, their construction, and materials. Also evident in this photo is a confectionery shop at 1044 which, according to the Dayton City directories, was operated from 1913 to 1919 by George W. Walker, and Edward Sapp's jewelry store at 1042. Sapp shares the storefront with Jacob M. Price's shop until 1915. Neither of these storefronts have been remodeled in the 1915 photo. The remodeling may have been initiated by a flood in 1913; while water levels in this section of Dayton only reached the first floor ceiling, interior plaster damage would have been considerable. A new storefront may have been added at 1046 to complement interior upgrades.

The second floor remodeling can be traced to the dates of the plumbing fixtures (1914-1917) that were installed at that time to accommodate residential living. Paint schemes and construction materials further define the alterations. The Dayton city directory recorded the first resident of the newly remodeled floor as Chas. D. Hutchison, beginning in 1913. His address was listed at 1046, probably owing to the fact that the door to the stair leading to the second floor was at the south end of the west elevation, behind shop 1046. The following year he was joined by a salesman named Raymond E. Darby. A year later, when Darby moved out, two more gentlemen, one a sign painter named Wallace C. Millard, the other a clerk named Harry Smith, became fellow residents. The year 1925 marked the addition of the address 1046 ½ at the second floor. By 1926, all of the apartments at the second floor bore this address. At the most, there never seems to have been more than four occupants, usually only three.

In February of 1916, the Honor Council renewed its lease with Z.T. Hoover for the third floor meeting hall. Hale continued to operate his grocery store until 1917. During this time his wife inherited another part of lot 6315. The 1918 Sanborn Map (Figure 19, Part B) shows multiple, small, one- and two-story additions at the south wall of the Hoover Block building, some of them apparently built to support the grocery store at 1046. The next occupant of 1046 was Kroger's Grocery, which operated at that location until 1927, when H.E. Shifferman used the space as a seafood market for one year. It appears that these consecutive occupants leased from Hale, for in 1925 his name appeared on a permit to "alter mercantile" and to build an addition to 1044. In November of that same year, Hale sold part of lots 6315 and 6316 to Jesse Jacobs. The Great Atlantic and Pacific Grocery (A&P) became the next tenant in 1046 in 1928. Next door, store 1042 remained a confectionery from 1912 onward, passing through several hands; Robert Baker ran the shop for a year before it came under the ownership of the George Brothers in 1921. Their advertisement can be seen painted on the east elevation of the Hoover Block in a photo dated circa 1922 (Figure 5, Part B). Then, Spero G. Arone ran the shop from 1925 to 1927, and the shop survived for one last year under the supervision of William E. Jadwin. By 1930, the A&P expanded into that address, making it one large retail space; Jesse Jacobs' name is in the 1928 permit book for "altering mercantile," and the address "1044" is no longer used. Paralleling these developments was the retail development of 1042. From 1917 through 1921, Sapp enjoyed exclusive use of his retail space. Then, in 1918, he begins to share his address with another business, West Side Optical. In 1927, it appears that the two businesses combined under the name West Side Optical and Jewelry.

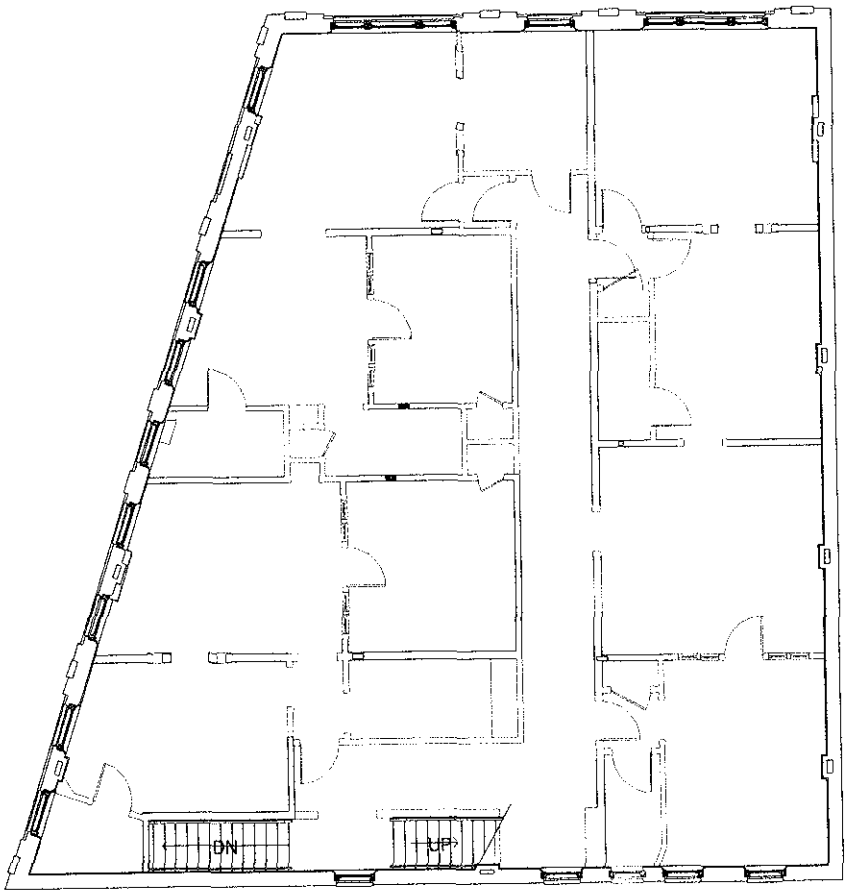
EPISODE 2: 1912-1930



FIRST FLOOR PLAN

0 2' 4' 8' 16'

EPISODE 2: 1912-1930



SECOND FLOOR PLAN

0 2' 4' 8' 16'

Episode 3: 1931 - 1956

Although it appears that 1046 and 1044 were combined into one retail space prior to 1930, there is no verifiable evidence until 1931, and this is what designates this period. The interior photograph from February 6, 1931, (Figure 13, Part B) clearly shows the combined interior space.

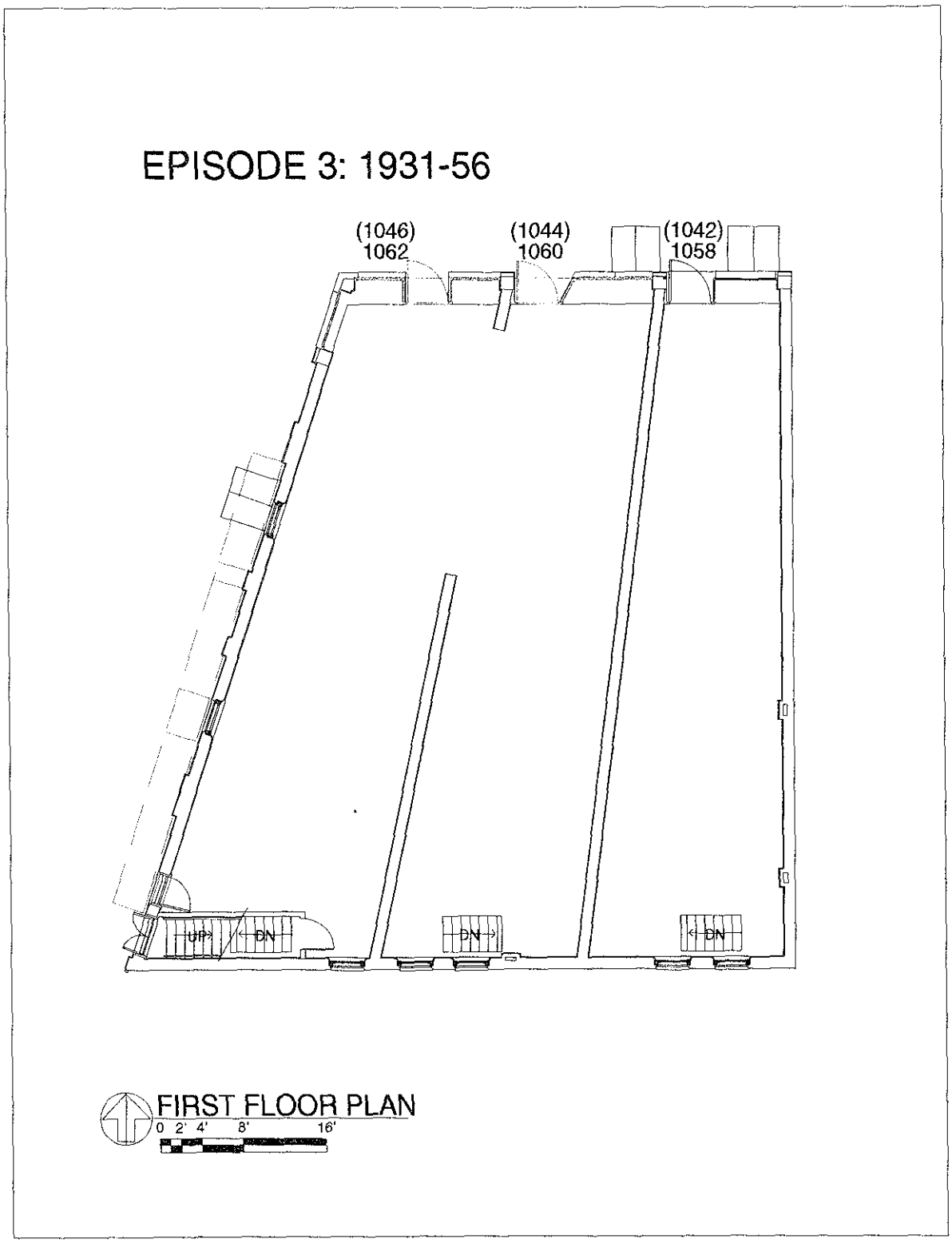
At some point, the shop front of 1044 had been remodeled: the entrance was moved to the west edge of its bay; its eastern glass side light angled; and the curb cut and sloped just in front of the entrance. An exterior photo, circa 1935 (Figure 6, Part B), shows that all of the brick at the Hoover Block had been painted a pale shade, and that the shop fronts of 1046 and 1044 were remodeled with dark tile window bases, etched glass clerestories, and white painted trim. The design of both storefronts has been unified by the new occupant, Geisler's Grocery Store/I.G.A.

West Side Optical and Jewelry remained active at 1042 until 1931. The storefront at 1042 remained in near original condition during this period; the tenant in 1935, based on a sign in the window (see Figure 6, Part B), was a restaurant.

A 1936 Sanborn Map (Figure 20, Part B) shows the Hoover Block divided into two major retail spaces. The wall between 1046 and 1044 is shown partially removed (at north), and the two spaces combined. The majority of the additions still existed at the south wall. By 1936, the addresses along West 3rd Street were renumbered: 1042 to 1058, 1044 to 1060, and 1046 to 1062.

In 1933, Jesse Jacobs sold lots 6315 and 6316 to The Cambridge Realty and Investment Company. However, he leased the ground floor or part of the ground floor back from Cambridge Realty and Investment at some point. After an absence of information from 1937 to 1940, the 1941 permit cards listed Jesse Jacobs as having performed "general repairs" to 1062 (1046). In 1943, Cambridge Realty and Investment Company sold lots 6315 & 6316 back to Jesse Jacobs and his wife, Lillie. In November 1945, the Jacobs leased the "double business room 1062" to Paul and Hyman Kantor. The deed notes that this space was still occupied at that time by "Geisler's Thrift-E-Market." In December 1945, the Jacobs sold lots 6315 & 6316 to Leah Budnick. Then, in 1946, the Jacobs' are again listed as having leased to the Kantor's, this time "business room and double business room 1062 West Third Street on lot 6315 for four years & 2 months."

It is unclear when Kantor's Supermarket opens at this location, but in May 1946, Paul Kantor received a building permit to alter 1062, and in October of the same year, he received a permit to "cut a 14' arch in party wall between buildings" and install a steel beam. This is believed to be the opening in the south wall at the back of 1060, which is still visible, cut to allow access to an addition at the rear.


EPISODE 3: 1931-56
(1046)
1062
(1044)
1060
(1042)
1058
UP
DN
DN
DN
FIRST FLOOR PLAN
0 2' 4' 8' 16'

Episode 4: 1957 - 1966

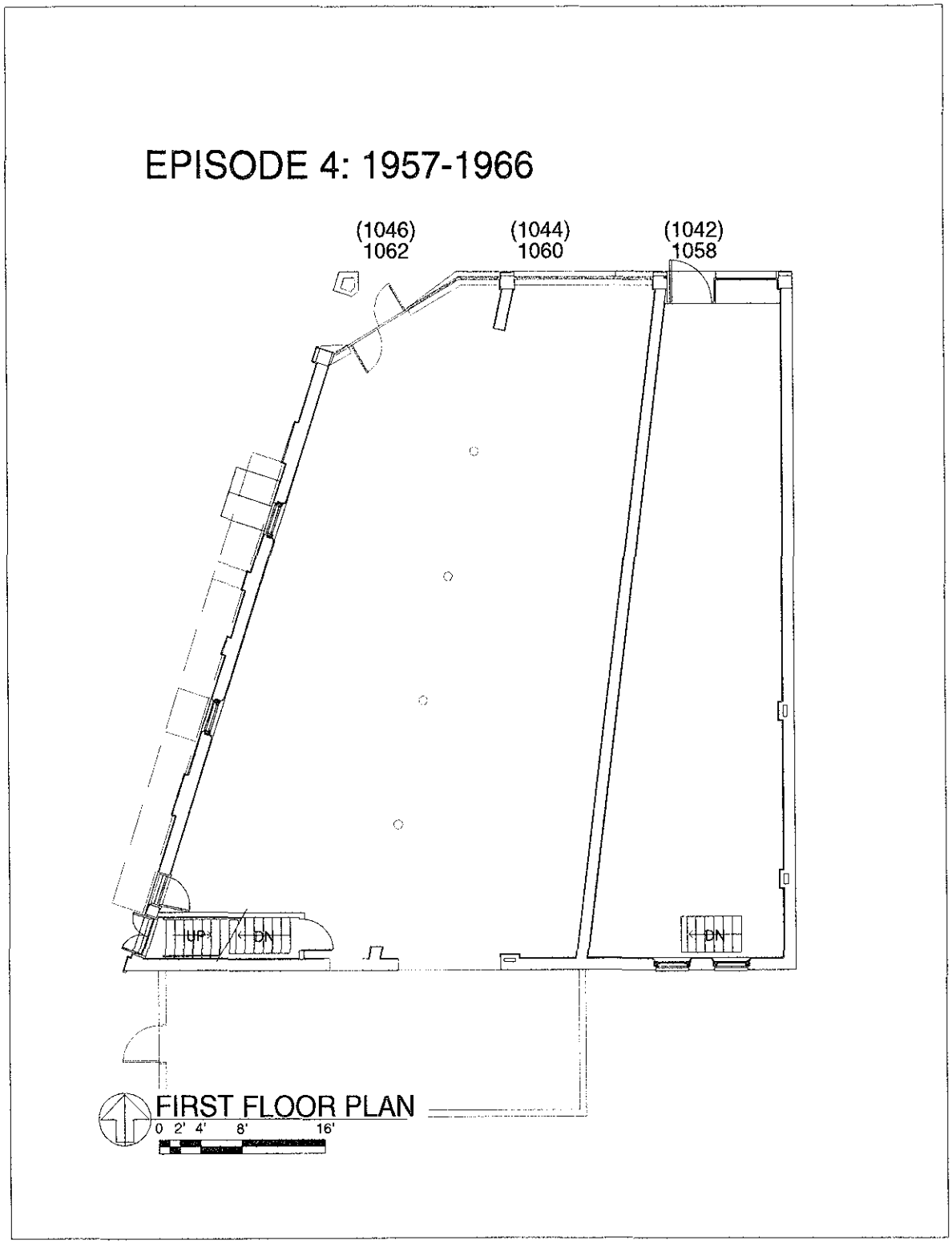
This period is distinguished by a fire and the remodeling of the 1062 storefront to the chamfered corner form that it has today.

On December 19, 1957 there was a fire on the southeast corner of West Third Street and South Williams. According to a newspaper account the next day, the fire began behind the two-story frame building at 10 South Williams.[1] From there the fire spread to the rear of Kantor's supermarket at 1062 and also to a wine shop then located in 1058. The rear storeroom (presumably, one of the south side frame additions) of Kantor's was heavily damaged by flame, as was the third floor meeting hall. At the time the fire broke out, the hall was in use by the Pilgrim Holiness Church. Smoke and water damaged the apartments on the second floor of the Hoover Block.

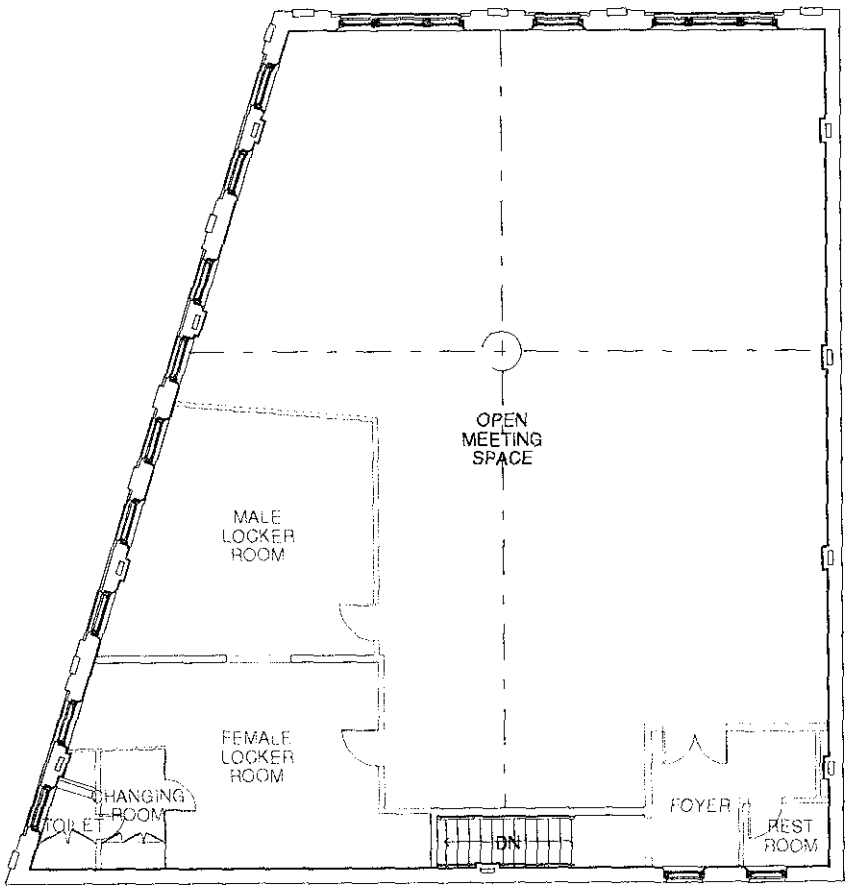
In January 1958, Paul Kantor received a permit to build a 16' by 40', 12'0" tall, single story addition to the rear of the building. This may be a new storeroom, as proposed in the 1957 plans, or a replacement for the storeroom damaged in the fire. Also that month, Jacobs' widow, Lillie, received a permit to replace portions of the roof and roof structure damaged by the fire, particularly in the foyer/bathroom area of the third floor, just at the top of the stairs. This may have also been the point at which the third floor was converted to a gymnasium, by adding locker rooms, and two bathrooms. Oral tradition has the has the third floor used as a gymnasium throughout the 1950s, but as reports of the fire indicate, the hall was being used at least three times a week for church meetings. The existing partitions on the third floor date from the gym conversion. Although the Master Plan for the Hoover Block prepared by Gaede-Serne-Zofein describes the two larger partitions as an office/kitchen and a locker room, there is no evidence of kitchen fixtures (i.e., plumbing). Due to the extant paint colors of pink and blue, the rooms may have been male and female locker rooms.

In June 1958, a permit was granted to reconfigure the storefront and install two entrances on West Third Street, based on 1957 plans showing an elevation remodeling and a mechanical system layout for Kantor's Supermarket. These drawings show the development of 1060 and 1062 as one volume. Only approximately four feet of the north end, and eighteen inches of the south end, of the wall that used to divide those spaces is shown on the drawings. This condition is similar to what exists today. The mechanical plans show that the stair at the back of 1060 is missing, and show a large (14' wide) opening to a 16' by 40' addition behind 1060 and 1062. These plans also clearly show door openings along that wall that were originally used as windows. 1058 remained its own entity at this time; the 1957-60 deed shows that Kantor's Super Markets, Inc. leased business room 1058, lot 6315 to Herbert Kaplan for 3 years.

In 1962, Gerald and Milton Kantor leased Lot 6315 to ARVA Foods, Incorporated for 5 years; ARVA is believed to have been comprised of Allen H., Raymond, Albert, and Vernon Pavlofsky (brothers), who, in September 1966, purchased lots 6315 & 6316 from Leah Budnick.


EPISODE 4: 1957-1966
(1046)
1062
(1044)
1060
(1042)
1058
UP
DN
DN
FIRST FLOOR PLAN
0 2' 4' 8' 16'

EPISODE 4: 1957-1966



THIRD FLOOR PLAN

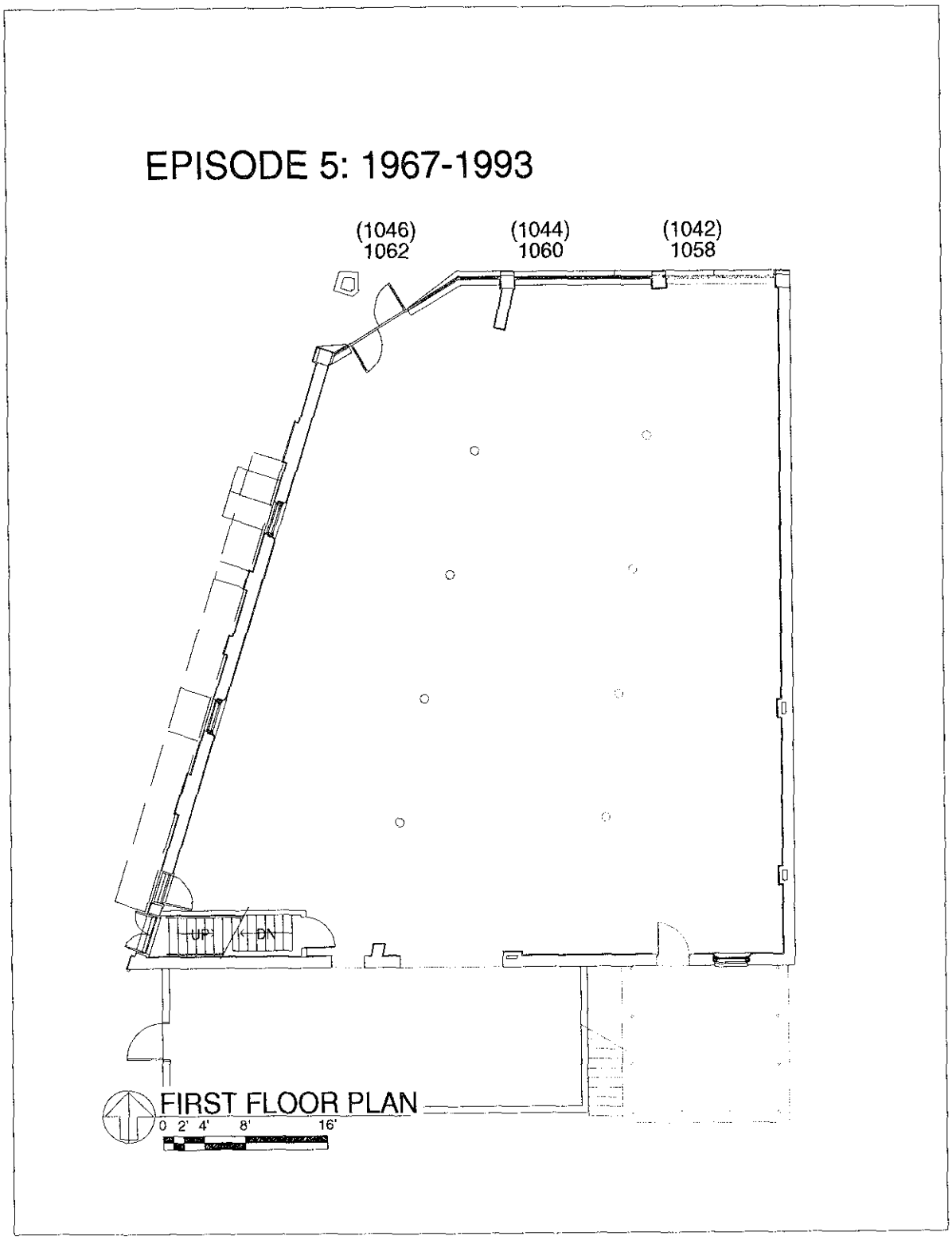
0 2' 4' 8' 16'

Episode 5: 1967 - 1993

This period is characterized by the combining of all three ground floor spaces into one retail venue, and the removal of all partition walls, replaced by 5" diameter pipe columns. In April 1967, a permit was granted to remove a longitudinal bearing wall at the 1st floor and install a 12" WF 27# beam with 5" pipe columns at 12'0" on center. Lillie Jacobs must have retained a portion of her real estate until her death, for in August 1968, her assets, including 6315 and 6316, are inherited by Jack Baer, Lillian Rosen, Helen Mayer, Elsie Lohman, and Jules Rosen. These four, in turn, sold the lots to Jules D. Rosen Realty, Incorporated, in October 1968.

In 1973, Albert, Raymond, Vernon, & Allen Pavlofsky sold a quarter of their ownership to Vernon Pavlofsky's widow, Carol Pavlofsky, effective December 9th. The next year, in December, 1974, Jules D. Rosen Realty, Inc. sold lots 6315 & 6316 to Mark Berliant. The following July, Carol Pavlofsky, in consideration of a promissory note grants her 1/4 share to Albert, Raymond, and Albert Pavlofsky. In October 1982, Albert & Raymond Pavlofsky as ARVA, purchased lots 6315 and 6316 as part of five tracts of land, then later that year sold the property to Aviation Trail, Incorporated.

Aviation Trail, Inc. took steps to stabilize the building as a historic resource. In 1993, the organization had the roof repaired and sealed with a sprayed foam sealant, the chimneys encased with hoods, the south gutter and fascia replaced, and new downspouts added. Prior to that, window and door openings at the north, west, and south walls were filled in with concrete masonry units.[2]


EPISODE 5: 1967-1993
(1046)
1062
(1044)
1060
(1042)
1058
UP
DN
FIRST FLOOR PLAN
0 2' 4' 8' 16'

Episode 6: 1993 - 1997 [Existing Condition]

This episode brings the building to its existing condition. In 1994, Aviation Trail, Inc. took possession of the Hoover Block and removed the cinder block addition at the south. They also sponsored the infill of the two entrances leading to the addition, and the installation of a lockable metal door for access and security. They also boarded up the broken plate glass windows of the shop fronts.[3] They may have also directed the removal of an iron fire escape that was attached along the west elevation. It is unclear what owner encased the wrought iron columns, though it is believed to have occurred in this episode. The National Park Service acquired ownership in 1995, and commissioned a Selective Exterior Recommendation Report from Quinn Evans/Architects in an attempt to further stabilize the building while this report was being prepared.

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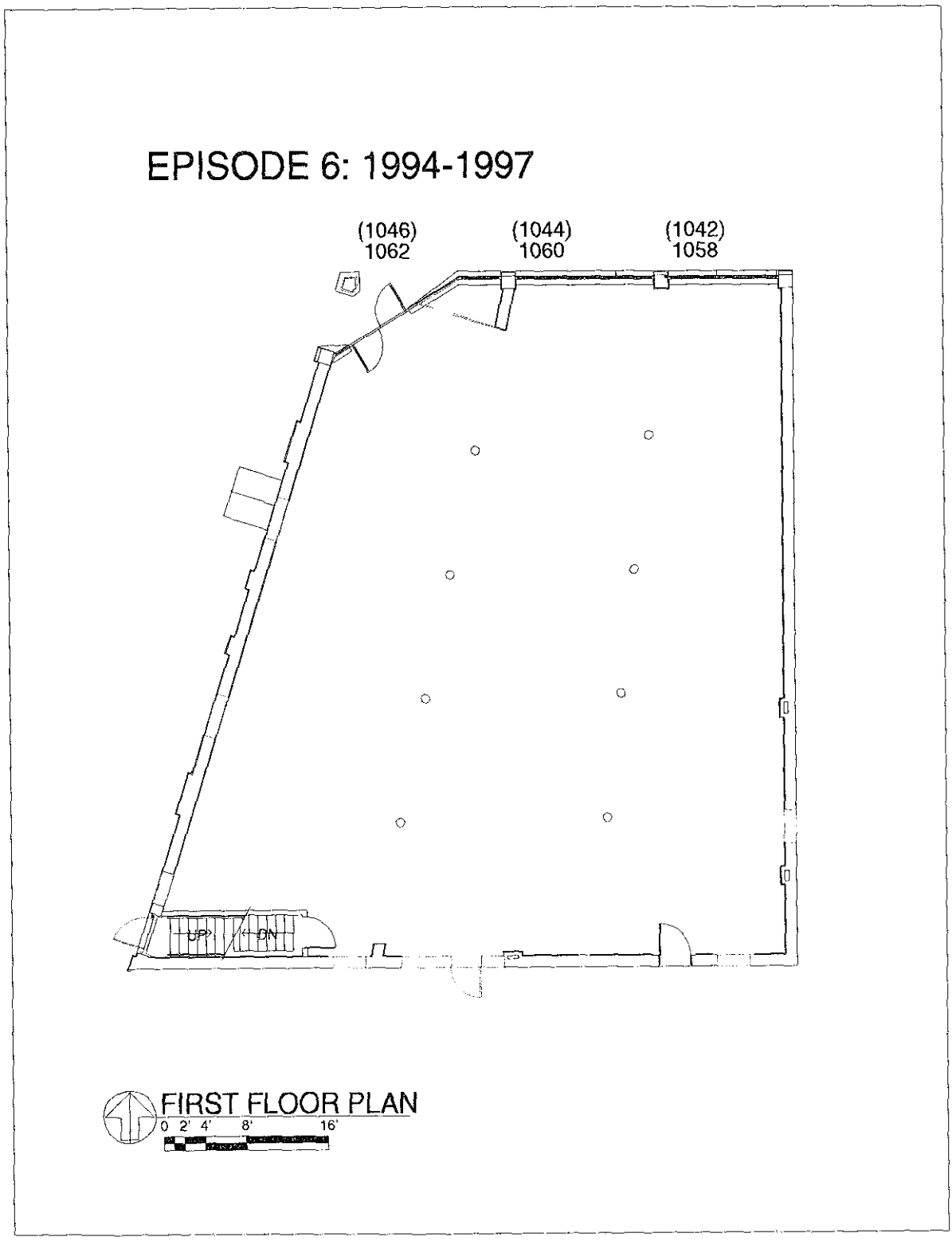
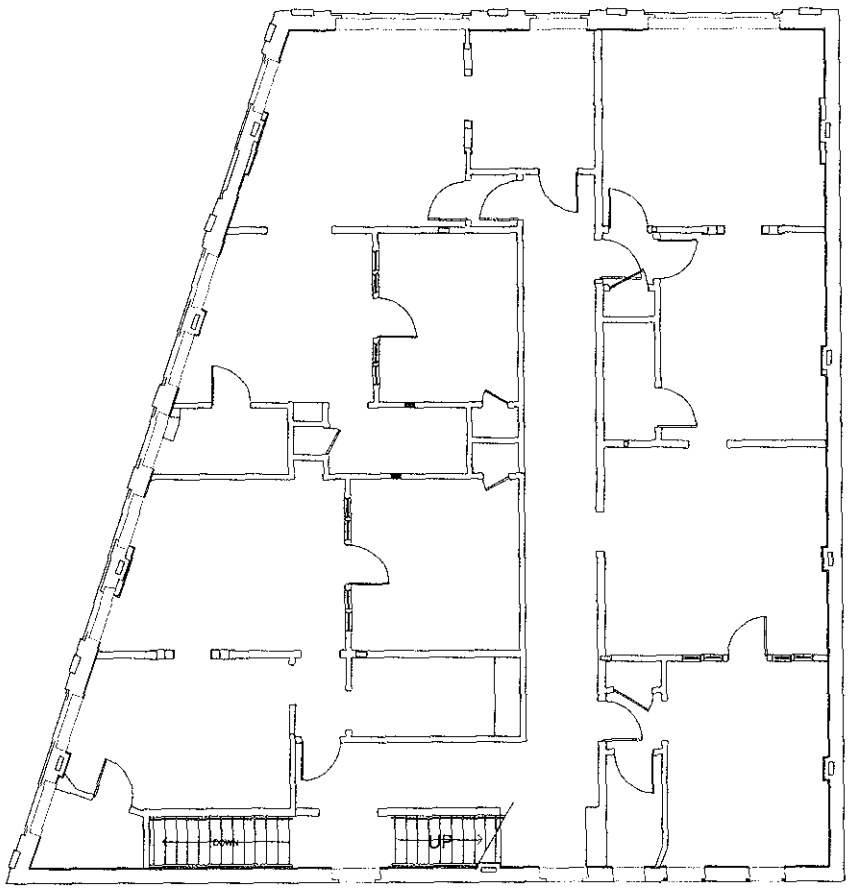
1 *Dayton Journal Herald* (Dayton, Ohio: Friday, December 20, 1957), 1.

2 U.S. Department of the Interior, National Park Service, Denver Service Center, *Draft General Management Plan/Environmental Assessment: Dayton Aviation Heritage National Historical Park • Ohio* (Denver, CO: November 1996), 127.

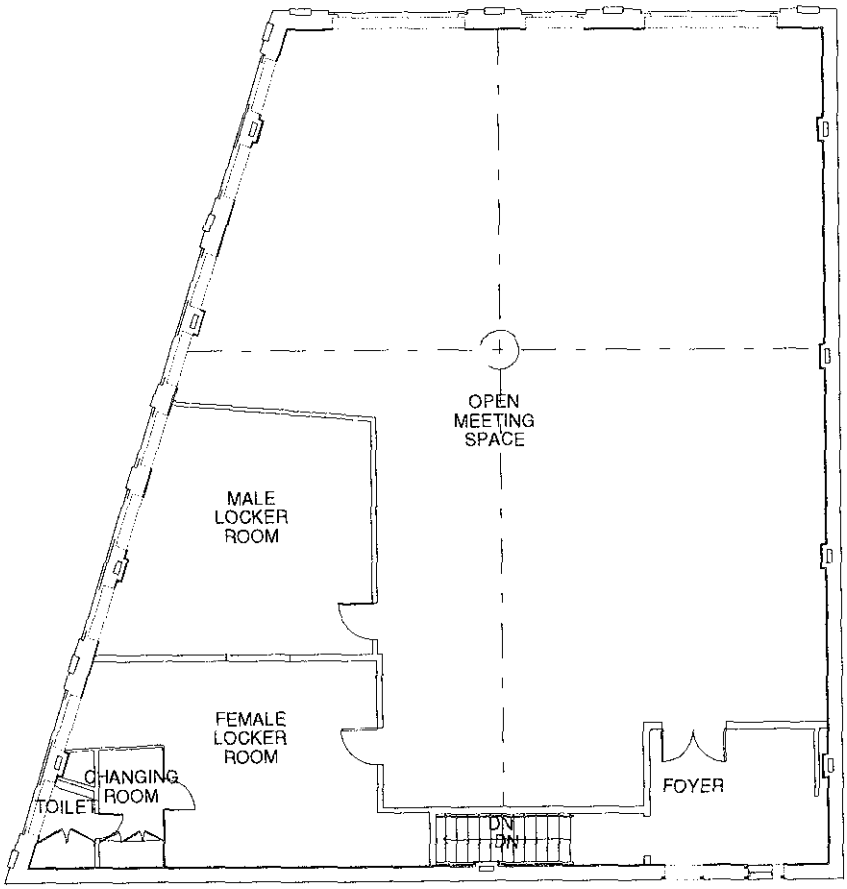
3 *Draft General Management Plan/Environmental Assessment*, 127.


EPISODE 6: 1994-1997
(1046)
1062
(1044)
1060
(1042)
1058
UP
DN
FIRST FLOOR PLAN
0 2' 4' 8' 16'

EPISODE 6: 1994-1997



EPISODE 6: 1994-1997



THIRD FLOOR PLAN

0 2' 4' 8' 16'

Part H:

Design Recommendations

Part H: Design Recommendations

Approach to Treatment of Historic Properties

The design recommendations for the Hoover Block include the restoration and rehabilitation of historic building material. Each approach will be used, where most appropriate, based on the amount and condition of existing material, the amount of existing historic documentation regarding that material, and the intended use of the portion of the building to which that material belongs. As directed, we are applying the Secretary of the Interior's Standards for the Treatment of Historic Properties to define the scope of these approaches.

The definition of rehabilitation, according to the Secretary of the Interior, is "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values." Rehabilitation is the treatment recommended for those areas of the Hoover Block which will be taking on new functions, such as the first floor interior and part of the second floor interior, and possibly the south elevation of the building.

Structural Recommendations

The following recommendations reflect work that should be performed as soon as possible in order to protect the structural elements and minimize any danger to personnel or the public (see EXS-101 for general location).

- Place plywood, post, and beam shoring in the basement below the severely rotted first floor structure at the southeast corner.
- Place plywood, post, and beam shoring in the basement below the moderately rotted first floor structure at the north entry areas (see EXS-101 for location).
- Contract an experienced and qualified exterminator to examine the structure for insect infestation, and to determine if termites are active. Exterminator should eliminate this destructive insect from the building. Follow up periodic inspections should be considered.
- Make the structure weather tight, and eliminate outside sources of rain runoff into the building.
- *Provide temporary natural ventilation to interior spaces (particularly the basement).*

The following items reflect recommendations directed toward restoring the structure to its turn-of-the-century configuration for public access, while preserving original existing historic fabric as much as possible. The recommendations are general in nature, and further in depth physical exploration will be required in order to develop the detailed restoration and reinforcing.

Basement

- The basement walls should be repointed as necessary where loose and crumbling mortar is found. A relatively soft modified 'Type S' mortar should be used.
- Bowed piers at the north end of the basement should be reconstructed.
- Mechanical openings between the basement sections should be filled in with brick masonry.
- *Provide positive ventilation and thermal tempering of all spaces.*

First Floor

- Metal joist hangers should be used at headers around the columns on the west interior wall.
- Properly support all joists at the east basement wall columns. New headers may be needed.
- Wood framing should be replaced at the north front between entry stones.

- Replace rotted wood framing in the southwest corner with CCA treated manufactured lumber.
- Replace any severely damaged, rotted, or missing wood members (e.g. bridging, etc.).
- Place shoring at middle of joists spanning each basement bay area starting at the north end and extending to the south. The shoring line may be terminated when the joist span is reduced sufficiently to safely support a 100 psf superimposed live load. Shoring may be treated wood or steel post and beam and should be installed on properly designed and constructed footings in the basement. The shoring is intended to be a permanent support system for the first floor.
- Restore original stair openings and reinforce or shore as conditions warrant consistent with the proposed restoration.

Second Floor

- Provide temporary shoring below second floor joists, and wood columns to the third floor, along the east and west beam lines. Remove steel columns between first and second floor and beams at second floor. Replace original historic brick masonry wall between the first floor and second floor. The walls can be designed and constructed with brick arch openings to provide access between adjoining spaces, while still maintaining the character of the era. The walls should be fully bedded, and bonded with header coursing. All collar joints should be filled solidly with mortar. The walls should be extended to the underside of the second floor joist bearings to provide full support for the second floor and the third floor wood columns. Tooth the new walls into the remaining masonry at the north and south walls.
- Reinforce the second floor system by one of several alternative methods.

  Double every joist, every second joist, and every third joist progressively starting from the south wall and working north to a point where the existing joist spans can support a safe uniform live load of 100 psf. This may require manufactured lumber such as Microlam or Parallam sections in order to achieve the required load at the south end. Additional analysis will be required to determine the exact extent of this solution. Preliminary calculations indicate that $2\,^{11}/_{16}$ x 12 Parallams will be required on the longest spans. Required sizes will reduce as the spans reduce.

  A steel beam system can be placed beneath the second floor. East to west beams can be located so that they bear on the new masonry walls and the exterior masonry walls. Short north south beams can be placed between the east west beams. The short beams can support the floor joists at or near the joist mid-span (or closer intervals if needed). This system could be done in a 10 to 12 inch depth of steel beam. Again, this system would only be required where the joists have less than 100 psf load capacity.

  A combination of the two systems outlined above may be employed. The advantage of the first solution is that it does not intrude on the historic space and can be enclosed within the floor interstice. The disadvantage is that it is more difficult to accomplish.

Third Floor

- Reinforce wood columns with steel channel sections in order to increase the safe live load capacity of the third floor to 100 psf. Additionally, place new columns at any locations that will fit into partitions of the restoration era where columns do not presently exist. The columns will have to occur below the east and west beam lines. The intent here is to reduce the third floor beam spans if possible.
- Place a new steel beam below the existing 8 x 10 wood beam at the east and west beam rows. The beam should be supported on the columns detailed above.
- Reinforce the floor joists as detailed for the second floor structure. The width of required Parallam members will be less since they will not have to carry partition load in addition to a 100 psf live load.

- The concrete infill areas should be removed, if possible, especially as it is a modification of the original structure. This requires some structural replacement or reinforcement of the joists that were cut to place the concrete fireproofing.

Roof

- Complete survey of roof trusses, rafters, and joists including all bearings. Complete analysis of roof structure.
- Roofing replacement is recommended.
- Replace/reinforce any damaged or deteriorated roof rafters or ceiling joists.

Conclusion

The Hoover Block (HS-02) has undergone several significant structural modifications over the history of the building. Many of the modifications are typical of party wall separated retail spaces of the era. Some modifications were not sensitive to maintaining the integrity of the structural elements. Additionally, the structure has suffered from fire damage, water-induced wood rot, and termite infestation in some localized areas. The existing structure does not appear to have complete weather tightness, and water runoff is occurring in the basement. Ventilation and appropriate thermal tempering of the building does not exist, which is typical of abandoned or mothballed buildings. The effects of lack of moisture control are progressive and will expand the areas of wood rot, infestation, and freeze/thaw damage if left unattended.

Temporary, emergency measures are recommended to arrest the natural decay of the building structure, and to provide protection for personnel and the public. Long term reinforcing and replacement measures are recommended in order to restore the integrity of the structure to its historic era, and to impart adequate strength and integrity to support public access and interpretive functions. Some additional survey will be required to determine the function of some of the modifications. An effort has been made to recommend solutions that will be least intrusive on the historic character of the building, and to preserve as much of the original fabric as possible. Final design and construction documentation will further refine the proposed solutions.

Design Recommendations

The period of significance for the Hoover Block in Dayton, Ohio are the years 1890 to 1895, the time during which Wilbur and Orville Wright leased a suite on the second floor to run their printing business. This is encompassed by the 1885-1924 period of significance for the West Third Street Historic District. It is recommended that applicable portions of the Hoover Block be restored to this time period, and other portions be rehabilitated to accommodate the functions of ADA accessibility, safety egress, Park Service offices, and a visitor center.

During the Hoover Block's period of significance, the ground floor was leased to three separate businesses: a grocery, a barber shop and what appears to be (from photographs) a billiards hall. To that end, the ground floor consisted of three glass shop fronts along West Third Street, one of which, the grocery, continued partially around the corner, onto South Williams Street. On the second floor were suites leased out to small businesses. On the third floor was a meeting hall used by several fraternal organizations.

It is recommended that the exterior of the building be restored to the period of significance, thereby stabilizing the shell of the building. Next, it is recommended that the first floor be rehabilitated for interpretive use, with a primary entrance to be created at the north (Third Street) elevation. An exit at the south elevation, to the plaza connecting the Hoover Block, the Aviation Trail building, and The Wright Cycle Company building, should be also be installed at the first floor level. If historical information is available, the print shop should be recreated in the Wrights' second floor suite; the rest of the second floor should be rehabilitated for use as exhibit space. The third floor should be rehabilitated for use as an open community space and archival storage.

Exterior Restoration

The exterior recommendations should incorporate the tenets set forth in the Selective Exterior Recommendation Report, prepared by Quinn Evans/Architects in 1995, which included methods for removing excess moisture from the masonry of the building and measures for preventing future moisture penetration. Specifications are included in the 1995 report for the following measures:

- repointing missing and damaged mortar joints
- replacing missing and damaged brick
- demolishing cinder block window infill
- repairing masonry openings
- repairing the cornice
- performing exterior stripping and cleaning of the masonry
- providing temporary ventilation to all four levels
- recreating and installing wood windows

The north elevation shop front entrances will be reconstructed using the historic photos of the Hoover Block. The columns, frieze, signs, drain pipes, and cornice will be cleaned and repaired to match existing original material. The window frames at the second and third floors will be rebuilt, based on original frame and trim pieces found stored in the building. The brick and limestone above the storefronts will be cleaned, stripped, and repaired or replaced where damaged or missing, and repointed where required. The only deviation from the historic appearance will be the new north entrance. This will be a double door in the center bay. The wider entrance is required for accessibility reasons and is not inappropriate for a commercial building of the period. The north entrance will encourage pedestrian traffic, which may, in turn, stimulate local storefront industry.

The west elevation will receive the same type of restoration treatment. The portion of the shop front at the north end will be recreated from historic photos; the columns, frieze, signs, drain pipes and cornice will be cleaned and repaired. The iron capitals at either end of the frieze will also be recreated from historic photos. The windows and door openings along the first floor will be reopened and restored. Only the transom and the transom head, over the northernmost doorway, will be removed. The window frames at the second and third floors will be rebuilt, based on original frame and trim pieces found stored in the building. The brick and limestone along this elevation will be cleaned, stripped, repaired or replaced where damaged or missing, and repointed where required. The four chimney stacks along this elevation will be restored. There will be no fire escape mounted to the west elevation, as this occurred after the period of significance.

The south elevation will be restored to its original, bare elevation, with the addition of a new exit at the first floor. This will be a primary entrance for visitors approaching from the Wright Cycle Company building and the south plaza. There will be an aluminum storefront with double doors and a canopy. None of the various building additions that had been added to the south wall will be recreated, as there is no record of which additions, if any, existed during the period of significance. The window openings will be restored and the frames recreated. The brick and limestone along this elevation will be cleaned, stripped, and repaired or replaced where damaged or missing, and repointed where required. The one chimney stack that was at the middle of this elevation will be restored. Only appropriate gutters and downspouts will remain; any anachronistic materials or shapes will be replaced.

The east elevation masonry will require some repointing, repair, and replacement. This side will be cleaned, but not stripped, as some of the original painted advertisements read through but cannot be definitively restored. The

elevator shaft of the Aviation Trail Building will be visible against this elevation. Aviation Trail, Inc. has agreed to develop their two-story museum in such a manner that the Hoover Block will be able to share some of their facilities; National Park Service offices will be located in the Aviation Trail Building. Their elevator shaft will extend upwards another story to accommodate the third floor of the Hoover Block. The four chimney stacks along this elevation will be restored.

The roof should also be included in this phase of work. The current roof was only designed to last until the year 2000, and will need to be replaced to protect the building's interior and shell. As nothing is currently known about the original roofing material, it is conjectured that the most likely late 1800 roofing material would have been layered coal tar, with sheet metal on the slopes. It is proposed that fully adhered EPDM rubber membrane roofing would be a comparable, modern substitute.

Circulation & Egress

The primary, formal, entrance will continue to be at the north elevation. A first-floor exit will be developed at the south elevation of the building, which, although not in keeping with the historic traffic pattern, will allow access directly to a plaza that is being developed between the Hoover Block, the Aviation Trail Building, and The Wright Cycle Company building. A staircase in the Aviation Trail Building will open into the Hoover Block from the first floor exhibit space, connecting all three floors of the Hoover Block. A doorway at each floor through the east wall between the Hoover Block and the Aviation Trail Building will allow access to Aviation Trail's elevators and visitor facilities.

The stairway to the basement will be rehabilitated for the Park Service's use only; the Aviation Trail Building elevator will also access the basement, again, for the Park Service's use only. The stair starting at the west exterior elevation, that leads to the upper floors, must be modified to meet emergency egress requirements. The finishes will be appropriate to the period of significance. The entry door and transom will be recreated and the tile floor at the entrance will be repaired. The second floor landing will be reduced in size and enclosed to provide a fire-protected means of egress. The second means of egress will exit through the Aviation Trail Building, at that building's south stair.

First Floor Interior Rehabilitation

The intention is to recreate the shop fronts as they would have appeared in 1890 to 1895, with openings in the party walls for circulation. Originally, the shops would have been separated by 12" thick, plaster-covered brick walls. Rebuilding the brick walls, with a large opening in the center of each, will best accommodate the use of this floor level. The goal is to allow the visitor the experience of three separate bays of plaster-on-masonry construction, yet still allow access, visually and physically, to all of the displays, information, and facilities.

Second Floor Interpretation and Rehabilitation

The northwest corner suite is believed to have been that used by the Wright brothers during the period of significance. Any reconstruction of the print shop will be dependent on available information. The company sign will be repainted in the window, according to historic photos. The ceiling will be plaster, the floor hardwood, the walls paper on plaster, and the trim will match that discovered in the southeast corner of the third floor. A small (non-functional) gas heater will be located at the chimney chase.

The rest of the second floor will be rehabilitated for additional exhibit space, in the character of the 1890 to 1895 office suites. Infill and alterations from the 1914 remodeling will be removed, and the original configuration of the suites will be reinstated. The ceilings will be plaster, the floor hardwood, the walls paper or decorative paint on plaster. The trim will match that discovered in the southeast corner of the third floor. The hallway system, a "T" shape, will be returned to the historic painted plaster scheme determined by Steve Seebohm, of Seebohm Limited.

Third Floor Rehabilitation

The third floor will be rehabilitated to serve as an open community space and archival library. The foyer will be recreated at the southeast corner. The former location of the stage will be used to build a new 213 sf workroom for the archives. The former location of the anteroom will be used to build a new 368 sf library. The walls will be painted plaster, the ceiling painted plaster, and the trim will match that discovered in the southeast corner. The floor will be returned to its double layer construction, and will serve to quiet the noise from the third floor in the second floor suites, just as it did 100 years ago. A light fixture for the foyer will be created to match those found in any of the similar period meeting halls in the area; the extant fixture in the Rubenstein building's third floor hall is recommended as a prototype. Emergency egress will be via the stair on the south wall and through the east wall into the Aviation Trail building.

Paint Recommendations

Due to the lack of original substrate and finishes of the first floor surfaces, pursuing an historically appropriate paint/paper campaign would be most practical. The only sample taken and analyzed was a wall sample that was originally papered, which would be recommended for an interpretive treatment. Much original wallpaper evidence still remains that can be used to interpret accurate, or historically appropriate decorative treatments.

Accurately interpreting the finishes of the second floor to Episode 1 or Episode 2 is very possible and recommended. In order to pursue such an interpretation, for either Episode, additional effort must be made to either accurately identify, date, and replicate or reproduce the wallpapers of the given surfaces.

It is apparent that wallpaper was the main decorative element for the interior spaces on the second floor, except for the public hallways and stairs, which received a simple decorative paint wall treatment in the form of stripping and banding.

Due to the lack of undamaged finishes on the third floor, an historically appropriate interpretation appears to be the most logical recommendation. First generation wallpaper and adhesive samples found on surfaces in what were originally Room 3046a and Room 3046b makes wallpaper the most appropriate wall finish to pursue replicating. The first wood trim finish was a varnish.

Testing of samples taken by Seebohm Ltd. confirmed the presence of lead in the paint finishes. This is to be expected in a building of this age. Proper abatement procedures should be implemented prior to any paint preparation or removal treatments. Final paint colors are to be selected based on the documented paint layers from the period of significance for each area, as discussed in Appendix F: Historic Paint Analysis.

Part I:

Research Recommendations

Part I: Research Recommendations

The opportunity exists to understand more about the chronology of the development and evolution of the Hoover Block. This can be further investigated by examining the city directories, particularly for the 1930s-1960s, if available. This can also be further investigated through continued archeological research. The 1996 Interpretive Plan for the Dayton Aviation Heritage National Historical Park identifies additional studies, plans, and pieces of research needed to complete implementation of the plan, including historic site archeological assessments. The goal of the archeological assessments is "to recover data, determine the size and location of missing structural elements and features, and increase the historical base of information for the park."[1] Toward that goal, assessments will be needed for the further development of "the Hoover Block, and the adjacent vacant lot behind the structure..."[2] Additionally, further artifact research needs to be undertaken in order to accurately interpret the Wrights' printing shop on the second floor.

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1 U.S. Department of the Interior, National Park Service, Division of Interpretive Planning, Harpers Ferry, *A Plan for the Interpretation of Dayton Aviation Heritage National Historical Park Ohio* (Harpers Ferry, West Virginia: October 22, 1996), 49.

2 *Ibid.*, 49.

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Appendix A

National Register Forms

NPS Form 10-900
(Rev. 6-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

National Historic Landmarks Nomination

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name: Hoover Block

other names/site number:

2. Location

street & number: 1060 West Third Street ☐ not for publication

city, town: Dayton ☐ vicinity

state: Ohio code: OH county: Montgomery code: 113 zip code: 45407

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property: Contributing	Noncontributing	
☒ private	☒ building(s)	1		buildings
☐ public-local	☐ district			sites
☐ public-State	☐ site			structures
☐ public-Federal	☐ structure			objects
	☐ object	1	0	Total

Name of related multiple property listing: Wright Brothers Associated Properties in the Dayton, Ohio, Area

Number of contributing resources previously listed in the National Register: 1

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ☐ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of certifying official — Date

State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

☐ entered in the National Register.
☐ See continuation sheet.

☐ determined eligible for the National Register. ☐ See continuation sheet.

☐ determined not eligible for the National Register.

☐ removed from the National Register.

☐ other (explain:)

unction or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
Industry: communications facility	Work in Progress
Commerce/Trade: business, specialty store	
Social: meeting hall	

7. Description

Architectural Classification (enter categories from instructions)	Materials (enter categories from instructions)
Late 19th and 20th Century Revivals: Renaissance	foundation Stone walls Brick Limestone roof Asphalt other

Describe present and historic physical appearance.

Zachary T. Hoover constructed this 3-story commercial block building with a basement in 1890. Situated on the corner of South Williams and West Third Streets, the Hoover Block shares its east wall with an adjoining building. A mixed-use building with an irregular plan, the first floor was designed to accommodate three shops; the second housed three suites; and the third was devoted to a large open meeting hall.

The main facade, which faces Third Street, is separated into three bays by brick load-bearing walls reflected by cast iron columns separating the three storefronts. The secondary facade, which faces Williams Street, measures five bays of similar size and symmetry. The roof is pitched on the north, west, and south; a parapet forming the top of the eastern party wall extends to the roof's flat top portion. The building has nine chimneys.

Historically, the first floor featured large storefront display windows punctuated by recessed entries for two of the shops; the third shop's entrance was on the west facade. As commonly found in late 19th century commercial buildings, the visually heavy masonry upper stories appear unsupported by the glass storefronts. The effect is exaggerated in the Hoover Block, where the first story iron columns are offset from the brick pilasters of the upper two stories.

The second and third floor fenestrations employed a symmetrical A-B-A pattern with single 1/1 double-hung sash windows in the central bay flanked by triple 1/1 double-hung windows separated by mullions with segmental relieving arches of radiating brick voussiors and metal panels over each set of windows. The arches' keystones are rusticated, as are the limestone sills and the central windows' stone lintels, which extend to form an ornamental band across the main facade. Each set of second and third story windows is set an a recessed wall panels, creating an effect of heavy pilasters between them. The recesses in the brickwork are brought forward with corbelling to create a flush brick surface beneath the metal cornice. An inscription stone between the second and third story central windows is carved with the name "Hoover

[X] See continuation sheet

Block." The cornice was assembled from standardized sheet metal components and includes a built-in gutter. The walls' brick pilasters are capped with pairs of simple brackets. Under the cornice between the brackets, the sheet metal trim band is decorated with rectangular panels formed of mouldings.

5 While the Williams Street facade is more austere, it retains the basic pattern of the building's front. Both the face bricks and the bands of rusticated limestone window sills and lintels continue from the main facade. In addition to the original store entry on the north end of the west facade, there were two entries on the south end of this face: one serving the shop, the other providing access to the upper floors. Windows on the Williams Street facade were 1/1 double hung sash, two windows per bay on each of the upper floors. An iron fire escape was installed on the west facade probably in the 1930s. The east and south facades, which serve(d) as party walls with adjoining buildings, are not ornamented. ???

6 The basement is divided into three irregularly shaped oblong rooms that match the original shop divisions on the first floor. All three rooms had direct access to the exterior sidewalks; those entries have since been filled in. The larger western two rooms each contain a central row of eleven columns to support the load of the first floor shops. original? side PSE

7 The first floor contained three shops, each one bay in width. A remaining four-foot section of the original load-bearing wall is all that remains of the historic partitions; I-beams to carry the load were erected when the partitions were removed sometime in the mid-20th century. Other alterations to the first floor include the removal of two entryways; reorientation of the north entry along a 45-degree angle relative to the intersection; covering the cast iron columns on the main facade with plywood; installation of smaller windows on the north facade; removal of two small windows on the west facade; and construction of a single-story concrete block addition on the south. The first floor has been vacant since 1980.

8 The second floor contained suites. A photograph taken between 1892 and 1895 shows a sign, "Wright and Wright," in the second floor corner window, indicating the Wright brothers occupied the prime corner space shortly after the building was constructed. Three post-Victorian style residential suites dating from before the conform date of suites

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

First World War now occupy the floor. They have survived largely intact, including a sophisticated system of interior windows and rooms to admit light into the interior portions of the building. Vacant since about 1972, windows were filled with concrete blocks to provide protection from the elements after water damaged the ceiling and some walls.

9 As in other buildings of this type in the Dayton area, the third floor is a large open hall used for meetings of various organizations. The room had an 18-foot-high ceiling, and was uninterrupted by columns. Sometime in the 1950s, the meeting room was converted into a gymnasium by adding a wooden floor over the original and partitions creating a 2-level locker room and an office area. The third floor has been vacant since 1972. Water damage from a hole in the roof caused damage to the walls and floor; the roof has since been repaired. There is also evidence of fire damage in the southwest corner of the third floor. In spite of the deterioration which followed years of disuse, the second and third floors retain a great amount of their historic integrity.

10 Aviation Trail, Inc., recently acquired the Hoover Block building and plans to restore it to its historic appearance. Once restored, the building will serve as a visitor center for the surrounding Wright Brothers/Paul Laurence Dunbar historic district; it will include office space for Aviation Trail, also. The south facade, created when the adjoining building was removed sometime in the middle 20th century, will receive additional windows facing the neighboring Wright Cycle Shop. The empty space between the historic structures will accommodate a parking lot and a small park.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

☐ nationally ☐ statewide ☐ locally

Applicable National Register Criteria ☐ A ☒ B ☐ C ☐ D

National Historic Landmark Criteria ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Invention	1890-1895	
Engineering	1909	
Literature		
Communications		

Cultural Affiliation

N/A

Significant Person	Architect/Builder
Wright, Wilbur and Orville;	Hoover, Zachary: Builder
Dunbar, Paul Laurence	

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Hoover Block is nationally significant because of its definitive connection with the printing careers of Wilbur and Orville Wright. Albeit the brothers amassed their world fame as the inventors of the airplane, the duo began their occupational pursuits as printers and publishers. From 1890 to 1895, the Wright brothers operated "Wright and Wright Job Printers" in a suite at the front of the second floor of the Hoover Block. The printing shop represented the first of Wilbur and Orville's three joint business ventures--printing, bicycles, and airplanes. It afforded them a significant opportunity to increase their mechanical and business skills and nurtured in them other abilities that would aid them in their later accomplishments. The years in the printing enterprise played an important role in the shaping of the young brothers' minds and stimulated their inventive and enterprising spirits. Ed Sines, boyhood friend and employee of the Wright printing firm, said of his experiences with the Wright brothers, "had they not invented the airplane the boys would have invented something else."[1] Moreover, the Hoover Block is a significant historical landmark because of its strong ties to Paul Laurence Dunbar, one of the first internationally recognized black poets, whose early writing was printed by the Wrights in the Hoover Block. The Hoover Block has additional importance as the meeting place of the first aeroplane club in the world which was organized in the building in 1909 to honor Wilbur and Orville Wright.

would his name be in Dayton Directory?

History

The Hoover Block was not the first nor only location of a Wright brothers printing shop, but it is one of only two properties intact

[1] Mary Ann Johnson, A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio (Dayton, Ohio: Landfall Press, 1986), p. 46.

☒ See continuation sheet

today associated with the brothers' printing careers. Wilbur and Orville operated a printing firm in four different locations and were associated with job printing in conjunction with their bicycle and aviation interests until 1899 when the printing business was sold.[2] Today, only the Hoover Block and the adjacent property of the Wright Cycle Company stand to attest to the brothers' original occupations as printers.

The first Wright brothers' job printing business began in 1889 in a rented room of a building which has since been demolished.[3] At that first location, the brothers issued two newspapers, the weekly West Side News and the daily Evening Item, both of which they printed on a press designed and constructed by the Wrights from an assemblage of scrap parts. The homemade press, consisting of junk iron, firewood, a gravestone, and a buggy top was such a sight that a pressman from Chicago after examining the contraption remarked, "Well it works, but I certainly don't see how it does the work."[4]

Orville served as the publisher of the newspapers, while Wilbur was contributing editor. However, these two papers both proved unsuccessful because of a lack of community support, and the brothers returned to filling traditional printing orders. As the Wrights remarked in their final editorial of the Evening Item:

> More money can be made with less work in other kinds of printing, such as job printing, etc. During the time the ITEM has been issued we have found that a daily paper can be published on the West Side, but the profit for the first year or two will be small. . . . The greatest difficulty we had to contend with is the fact that the people of the West Side will not believe that "any thing good can come out of Nazareth." They seem to have a way when something new is started up over here of standing back and saying they do not

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[2]Tom D. Crouch, The Bishop's Boys: A Life of Wilbur and Orville Wright (New York: W. W. Norton, 1989), p. 96.

[3]Johnson, Field Guide, p. 45.

[4]Crouch, Bishop's Boys, p. 96.

believe it can succeed, instead of at once doing something to support it.[5]

As the job printing business picked up, the brothers moved their business to the newly constructed commercial block built by Zachary Hoover in 1890. Here, at the Hoover Block, the firm of Wright and Wright prospered moderately by filling orders for calling cards, posters, annual reports, directories, letterheads, advertisements, and broadsides.[6] Likewise, the Wright brothers received considerable business from their father, Bishop Milton Wright, who served as publishing agent for the Old Constitution of the United Brethren Church and publisher of the Christian Conservator.[7] Supplementary income also came from the designing, building, and selling of Wright printing presses to other printing firms.

Shortly after moving to the Hoover Block, Wright and Wright became involved in yet another newspaper endeavor, the Dayton Tattler. This weekly paper, started in 1890, was the brainchild of the Wrights' friend and neighbor, Paul Laurence Dunbar. Dunbar, who went on to become a poet of international renown, conceived of the Tattler as a paper devoted to and for "every family of our race in the state. The price so low that all can afford it."[8]

The Wrights worked with Dunbar on the Tattler at the Hoover Block throughout its short-lived existence, Orville remarking, "We published it as long as our financial resources permitted of it, which was not for long!"[9] In all, only three issues of the Tattler were published.

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[5]Dayton Evening Item, 30 July 1890.

[6]Fred Howard, Wilbur and Orville: A Biography of the Wright Brothers (New York: A. Knopf, 1987), p. 8.

[7]Crouch, Bishop's Boys, p. 96.

[8]Dayton Tattler, 27 December 1890.

[9]Orville Wright to Edward Johnson, 2 January 1934, in The Papers of Wilbur and Orville Wright: Including the Chanute-Wright Letters and Other Papers of Octave Chanute, 2 vols., ed. Marvin W. McFarland (New York: McGraw-Hill, 1953), 2:1162.

However, Dunbar still appreciated the effort of the Wrights, especially the help of his high school classmate and chum Orville, for it was also through Orville's assistance that Dunbar was able to get the first copies of his collection of poems Oak and Ivy printed.[10] The Wrights had also helped Dunbar's literary career by publishing some of his earliest poems in the West Side News.[11] Perhaps to show his appreciation for all Orville's help, one evening, while working at the Hoover Block, Dunbar is reported to have penned the following verse on a wall:

> Orville Wright is out of sight
> In the printing business.
> No other mind is half as bright
> As his'n is.[12]

In 1894, the Wrights again embarked in a newspaper enterprise, commencing publication of Snap-Shots. However, with this publication the brothers had no intentions of seeking journalistic glory:

> It has been a long established custom, whenever a new paper is being launched into the sea of journalism, for the editor to make a stiff and ceremonious bow, and offer a fitting apology for thus intruding upon the public's attention: followed very often, with a number of declarations of unwavering fidelity and never ceasing vigilance for the public interests and welfare. But how often are these apologies followed by other and even greater insults to the public taste and intelligence! . . .It would undoubtedly appear, under these deplorable circumstances, viewing, as we do, the failures which have darkened the careers of most

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[10]Howard, Wilbur and Orville, pp. 8-9.

[11]Crouch, Bishop's Boys, p. 101.

[12]Arthur G. Renstrom, Wilbur and Orville Wright: A Chronology Commemorating the Hundredth Anniversary of the Birth of Orville Wright August 19, 1871 (Washington, D.C.: Library of Congress, 1975), p. 16.

> predecessors, little short of conceit in us to pretend to feats which all hitherto have promised but failed to perform.[13]

Instead, the brothers put forward a weekly publication directed toward Dayton cyclists. By February 1896, one year after the printing business had been combined with the bicycle business in the adjacent Wright Cycle Company of 22 South Williams Street, Snap-Shots was devoted to cycling news and the promotion of the Wright Cycle Company. Snap-Shots was the longest running of any of the Wrights' papers being first issued on October 20, 1894, and ceasing publication on April 17, 1896.

Although Wright and Wright Printers moved from the Hoover Block to 22 South Williams in the fall of 1895, the Hoover Block was later again associated with the Wright Brothers. The West Side neighborhood of Dayton, although showing no support or faith in the brothers' early newspaper efforts, finally showed overwhelming support of the Wright brothers and their invention of the airplane. In May 1909, upon the return of the Wrights to Dayton from an extended trip of successful flying demonstrations in Europe, a group of West Side businessmen organized the first aeroplane club in the world "to honor Wilbur and Orville Wright, two neighborhood sons who had conquered the air and just then returned from European laurels."[14] This club, incorporated as the International Dayton Aeroplane Club, held its club meetings and social functions at the Hoover Block.

Headquartered on the third floor hall of the Hoover Block, the International Aeroplane Club met monthly:

> For the purpose of stimulating and fostering research in the science of aeroplanautics and aeronautics in general, co-operating in the exploitation of aerial devices, collecting literature bearing thereon and

[13] Dayton Snap-Shots, 20 October 1894.

[14] Dayton Journal, 25 February 1934.

> recognizing meritorious contributions or achievements by the conferring of suitable honors.[15]

Dues were a dollar a year, and the club boasted a membership of more than two hundred. Among the members were Bishop Milton Wright and Wilbur and Orville's brother, Lorin. Also, Wilbur and Orville were made honorary lifetime members, and they "frequently sat in on confabs about airplanes, balloons, and aviation."[16]

Moreover, the Hoover Block is the property with the most integrity associated with the printing careers of the Wrights. As printers, the Wrights designed and built machinery to ease their work, an experience which would aid them in their later engineerings of machinery and mechanics to manufacture bicycles and build an airplane. The printing enterprise developed their business experience, which helped them later in founding the aviation industry. The printing shop was also the first common business of Wilbur and Orville, a business which nourished their intimate bond of friendship and fostered a harmonious working relationship between them. Consequently, the years in the printing business were an important precursor to the invention of the airplane.

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[15] Articles of Incorporation of the International Dayton Aeroplane Club, Dayton Room, Dayton and Montgomery County Public Library, Dayton, Ohio.

[16] Dayton Journal, 25 February 1934.

9. Major Bibliographical References

[x] See continuation sheet

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [x] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data:

- [ ] State historic preservation office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [x] Other

Specify repository:

Aviation Trail, Inc., Dayton, Ohio

10. Geographical Data

Acreage of property Less than one acre

UTM References

	Zone	Easting	Northing		Zone	Easting	Northing
A				B			
C				D			

[ ] See continuation sheet

Verbal Boundary Description

Part Lot 6315, City of Dayton, Ohio

[ ] See continuation sheet

Boundary Justification

The boundary includes the city lot historically associated with the property.

[ ] See continuation sheet

11. Form Prepared By

Jill York O'Bright, Regional Historian,

name/title David G. Richardson/Historian and William S. Harlow/Historical Architect

organization National Park Service, Midwest Regional Office date _____

street & number 1709 Jackson Street telephone (402) 221-3426

city or town Omaha state Nebraska zip code 68102

Major Bibliographical References

Crouch, Tom. D. The Bishop's Boys: A Life of Wilbur and Orville Wright. New York: W. W. Norton, 1989.

Dayton Evening Item, 30 July 1890.

Dayton Journal, 25 February 1934.

Dayton Snap-Shots, 20 October 1894.

Dayton Tattler, 27 December 1890.

Dayton, Ohio. Dayton and Montgomery County Public Library. Dayton Room Collection.

Howard, Fred. Wilbur and Orville: A Biography of the Wright Brothers. New York: A. Knopf, 1987.

Johnson, Mary Ann. A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio. Dayton, Ohio: Landfall Press, 1986.

McFarland, Marvin W., ed. The Papers of Wilbur and Orville Wright: Including the Chanute-Wright Letters and Other Papers of Octave Chanute. 2 vols. New York: McGraw-Hill, 1953.

Renstrom, Arthur G. Wilbur and Orville Wright: A Chronology Commemorating the Hundredth Anniversary of the Birth of Orville Wright, August 19, 1871. Washington, D.C.: Library of Congress, 1975.

Dayton North Quadrangle

7.5 Minute

WRIGHT FACTORY
16 736580 4403580

WRIGHT CYCLE SHOP and HOOVER BLOCK
16 738820 4404120

Mapped, edited, and published by the Geological Survey
in cooperation with the Army Map Service
Revised in cooperation with State of Ohio agencies

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1954. Field checked 1955. Revised from aerial photographs taken 1964. Field checked 1965

Polyconic projection. 10,000-foot grid ticks based on Ohio coordinate system, south zone. 1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue. 1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 2 meters south and 6 meters west as shown by dashed corner ticks

Red tint indicates areas in which only landmark buildings are shown

Area covered by dashed light-blue pattern is subject to controlled inundation to 818 feet

Area west of the Great Miami River lies within the Miami River Survey
Area east of the Great Miami River lies within the Between the Miamis Land Lines based on the Great Miami River Base

MN GN
3½° 62 MILS 1°48' 32 MILS

UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Revisions shown in purple and woodland compiled in cooperation with State of Ohio agencies from aerial photographs taken 1979 and other sources. This information not field checked. Map edited 1981

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURA
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON,
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS

Hoover Block facing southeast
Dayton, Ohio

Phot.: William Harlow
May 1989
Neg.: National Park Service
Midwest Regional Office

NPS Form 10-900
(Rev. 8-86)

From Ann

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

NR: 1-25-89

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by enterin the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name N/A

other names/site number West Third Street Historic District

2. Location

street & number W. Third St. between Shannon St. and Broadway N/A ☐ not for publication

city, town Dayton N/A ☐ vicinity

state Ohio code OH county Montgomery code 113 zip code 45407

3. Classification

Ownership of Property
- [X] private
- [ ] public-local
- [ ] public-State
- [ ] public-Federal

Category of Property
- [ ] building(s)
- [X] district
- [ ] site
- [ ] structure
- [ ] object

Number of Resources within Property

Contributing	Noncontributing	
28	4	buildings
		sites
		structures
		objects
28	4	Total

Name of related multiple property listing: N/A

Number of contributing resources previously listed in the National Register 1

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.

W. Ray Luce 12/8/88

Signature of certifying official Date

SHPO

State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.

Signature of commenting or other official Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- [ ] entered in the National Register.
  - [ ] See continuation sheet.
- [ ] determined eligible for the National Register. [ ] See continuation sheet.
- [ ] determined not eligible for the National Register.
- [ ] removed from the National Register.
- [ ] other, (explain:)

Signature of the Keeper Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
COMMERCE/TRADE - business	COMMERCE/TRADE - business

7. Description

Architectural Classification (enter categories from instructions)	Materials (enter categories from instructions)
Italianate	foundation stone
Romanesque	walls brick
Classical Revival	stone
	roof asphalt
	other

Describe present and historic physical appearance.

The West Third Street Historic District is a commercial district of two and three story brick buildings built between 1885 and 1924. The buildings have stores on the ground level with offices and apartments above. The facades are made primarily of brick, with stone and metal trim. The one stone facade belongs to a Neo-classical Revival bank building at 1154 West Third Street (photo 11). Styles are wide ranging from the outstanding High Victorian Italianate Walters Block at 1120 West Third Street (photo 10), through turn-of-the-century Italianate (photo 12) and commercial Romanesque Revival (photo 6), to the Neo-classical Revival theater and bank building (photos 3 & 11). The district is linear, only three blocks long. There is a short extension south on Williams Street that encompasses the historically related Wright Cycle Company building built in 1886 (NR: 2-13-86), and four residential structures that help convey the area's context. The district is surrounded by blighted residential lots heavily impacted by demolition. Located only ten blocks from the center of the city it was one of Dayton's earliest streetcar suburbs (1869). While the district has suffered demolition it fully conveys its character as an early suburban streetcar commercial block that evolved at the turn of the century.

Third Street is the city's main east-west thoroughfare. East of the river on Third Street is an Urban Renewal area that was once one of the most prestigious residential locations in Dayton. It is now a widely spaced starkly modern area, encompassing the urban campus of Sinclair Community College and the Montgomery County Administration Building both designed by Edward Durrell Stone. Near the district across the Great Miami River bridge is an area of extensive demolition and several industrial buildings. The center of the city is clearly visible from the edge of the district.

The first building at the southeast end of the district is the Gem City Ice Cream Building, an industrial building at 1005 West Third Street (photo 1). The present facade dates to 1914. The building actually consists of a series of additions wrapped around the structure (right center bay) that housed the first Wright bicycle shop in 1893. Gem City Ice Cream was the first manufactured ice cream in Dayton. On the opposite side of the street (south side) is the unique Mediterranean style three story building of 1914 (photo 4) that housed Dr. Alaman's offices on the second floor and apartments on the third floor. Past an adjacent vacant lot is the Nedham Building of 1897 (photo 5), a significant survival of the mixed residential and commercial facade, now rare in Dayton. Back on the north side there is a brick walled lot and a noncontributing, out-of-period building followed by the diminutive Neo-classical Revival Midget Theater (1019-1021) of 1912 (photo 3). Across the street is the fine commercial Romanesque Revival style Booth building of 1890 (photo 5).

☒ See continuation sheet

Next to the Midget Theater is Mory's Block built in 1884 (1023-1027), a pivotal early commercial structure. Mory's Block is a brick two story building with a stairway bay an three storefront bays on the street level. The original iron columns and metal store front cornice have all survived. Seven window bays with stone sills and a continuous lintel service Mory's Hall. Above the lintel are recessed panels with corbelled tops an a label panel. A stone string course supports a blind arcade just below the metal cornice. The store windows have been infilled with smaller windows and siding, however, the original storefront configuration is still apparent.

Adjacent to Mory's Block at the corner of Williams Street is the early twentieth century store and office block, the J. A. Prior Building built in 1924 (photo 2). The south side of the street has an important late nineteenth century collection of commercial Romanesqu buildings at the east end of the block (photo 6). The Enterprise Block built in 1890 (1026-1028) has a hall on the third floor. The one story stucco structure next door (1032) is clearly a survivor of the earlier low scale buildings present before annexatior by Dayton. Little else is known about this building in spite of extensive research. The Setzer Building built in 1906 is a fine early twentieth century commercial structure. Th Hoover Block is the location of the Wright Brothers' printing business built from 1890 to 1895. This building is to be rehabilitated as an aviation museum related to the Wright Cycle Company Building located to the rear of the Hoover Block at 22 Williams Street.

The Williams Street extension south is focused on the Wright Cycle Company Building. Thi is where the Wright Brother's aviation experiments began. It is a typical neighborhood grocery store type of the period. The four additional houses (23-25, 26, 29 & 30 South Williams Street) (photo 7 & 8) are all properties built as a part of the streetcar suburban development after 1869. They create a vital setting for the cycle shop. The district ends with modern structures and demolition sites on South William Street.

The 1100 block is in full urban scale resembling a small "main street". There is an unfortunate void on the southwest corner of Williams and West Third Streets. The Victorian Italianate commercial Gunkel Building built in 1898 (1101-1107) on the northwes corner is a significant contributor to the district architecturally and historically. It housed the Hamburger Hardware Store for many years and also Dayton's first branch post office (photo 12). The Gunkel Building has three storefront bays on West Third Street. The left store cornice is elaborately decorated while the right is quite plain. The apartments above have semicircular windows with stone head molds and on each side a Chicago type window with stone sill and decorated lintel. The metal cornice is lavishly decorated. The storefront bays have been badly renovated.

Adjacent to the Gunkel building are the Gunkel Block built in 1893 (1109) and the Webbert Flats built in 1908 (1117) both are fine three story examples of turn-of-the-century commercial architecture with first floor storefronts and apartments above. Unfortunately the building across the street at 1114-1118 West Third Street (photo 9) was badly renovated in the 1950's. It has been compatibly rehabilitated as part of the Walters Block project.

The Walters Block, built between 1885-1893 (photo 10), is the only remaining High Victorian commercial block left in Dayton that clearly represents its time in history. The Walters Block is a brick three story High Victorian Italianate commercial block built in three parts; circa 1885, 1888 and 1893. There are six storefront bays with cast iron pillars (several have been reconstructed) the left two bays have cast iron pillars (several have been reconstructed) and the right four bays have limestone pillars. A stairway bay leads to apartments on the second floor. The third floor has a lodge hall. Both second and third floor interiors are in excellent condition. There are seventeen bays of one-over-one double hung sash windows with metal pediments on the second level and cornices on the third. The facade has two open fire escapes. A sheet metal cornice defines the upper terminal.

Across from the Walters Block is a nonconforming modern building (1127) and vacant lot (photo 13) both which occupy the historic site of the last Wright Brother's bicycle shop were the first airplane was invented. The historic building was moved to Greenfield Village in Dearborn, Michigan. The adjacent Hale Building, circa 1923, is a contributing early twentieth century structure. The void next to the Walters Block is the result of a serious fire in 1986.

The Mariette Flats, built in 1913 (1146-1148), represents the influence of early twentieth century cultural expression in architecture. The Mariette Flats located on the north side is a three story pressed brick, mixed commercial and apartment building in Georgian Revival style. The margins have rusticated brick quoins. The center bay is an elaborate cast iron entrance with Doric pilasters, cornice with label and segmental pediment with foliated tympanum. The large door is heavily paneled and has a transom. Above the doorway on the second floor level is a bulls-eye window with swagged garlands. On each side, three bay storefronts have central doors. The right and left bays of the upper facade have a recessed mullion window that has a molded segmental head and paneled spandrels. The windows are six-over-six double hung sash. There is a strong dentiled cornice above the third floor level. Over the cornice is an attic with three-over-three double hung sash windows, rusticated brickwork and a secondary cornice.

Next on the south side is a nonconforming infill building constructed after the period of significance. Last at the corner is the Neo-classical Revival West Side Building and Loan Association Building of 1922. It has the district's only stone facade. The north-side, of the west-end of the block suffered a major fire in 1911 which seriously damaged or destroyed all of the buildings west of the alley (photo 15). The Hoersting-Holtman Building at 1131-1137 West Third Street was "rebuilt." The Hoersting-Holtman Building 1909 has four primary bays and two stairway bays. The storefront bays are mixed in pattern and appear to have considerable original fabric. Each stairway bay has a multiple light transom and stair light above. There are four 3-part polygonal oriels with elaborate scroll sawed Eastlake like detailing. The cornice is whimsical with panels, pendants, rosettes, variformed dentil like devices and modillions.

The twin Groneweg Building, built in 1913 (1139), and William Webbert Building, circa 1912, (1143-1145) with their second story oriels and metal cornice are excellent representatives of their time. The Sapp Building circa 1912 (photo 16), shows the influence of the Prairie style (1147). The Olney Flats (1153) (photo 16) anchors the district on the north side. The Olney Flats 1913 is a three story yellow brick building. Originally a grocery store, it was renovated into a restaurant in the 1940's. There are three recessed bays with corbelled tops on the upper stories. The center bay has a stairway window with stone surround and a blind segmental arch encompassing three round headed mullion windows. The side bays have paired rectangular windows with stone lintels and sills. Over each third story window is a brick panel. The metal cornice has brackets and attic windows. The west side has storefront bays, seven bays of apartment windows and a round arched recessed porch in the northwest corner.

The West Side has suffered serious economic decline since the violent race riot of 1966. The 1200 block of West Third Street has been excluded from the nomination because of extensive demolition (photo 17). While demolition has had an impact, the districts historic character is intact. The district as it stands represents a significant collection of related historic buildings worthy of preservation for its architecture and its local association with historic persons of national significance.
**

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

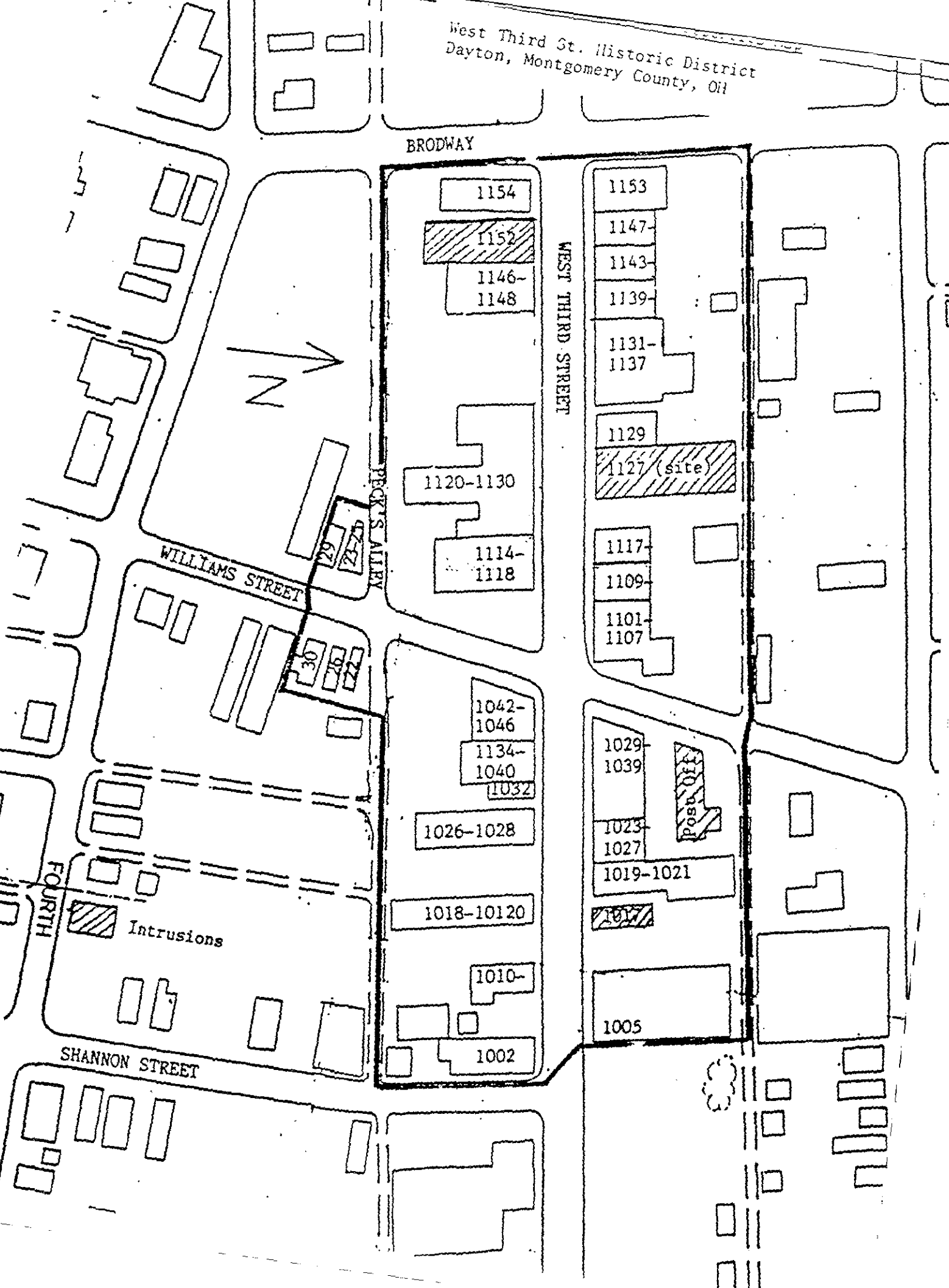
For NPS use only
received
date entered

West Third St. Historic District, Dayton, Montgomery County, Ohio

Continuation sheet Properties List Item number 7 & 10 Page 3

Address	Architectural Impression	Building Historic Name	Date of Const.
West Third Street			
1002	Mediterrean influence	Allaman Building	1914
1010-1012	mixed Residential commercial	Needham Building	1897
1005	industrial	Gem City Ice Cream Building	c1886-1914
1017	intrusion		
1018-1020	commercial Romanesque	Booth Building	1890
1019-1021	Neoclassic Theater	The Midget Theater n.	c1912
1023-1027	commercial Romanesque	Mory's Block and Hall	1884.
1026-1028	commercial Romanesque	Enterprise Building	1890
1029-1039	Early 20th Century commercial	J. A Prior Building n.	c1924
1032	vernacular		unknown
1034-1040	commercial Romanesque	Setzer Building	1906
1042-1046	commercial Romanesque	Hoover Block	1890
1101-1107	Victorian commercial	Gunkel Building	1898
1109-1111	commercial Romanesque	Gunkel Block	1891 was built by Webert.
1114-1118	intrusion		
1117-1119	commercial Romanesque	Webbert Flats	1908
1120-1130	High Victorian Italianate	Walters' Block	1885-1893
1127	intrusion	Wright Cycle company Site	
1129	early 20th Century commercial	Hale Building	c1923
1131-1137	Eastlake influence	Hoersting-Holtman Building	1909
1139-1141	Early 20th Century Commercial	Groneweg Building	1913
1143-1145	Early 20th Century Commercial	William Webbert Building	c1912
1146-1148	Georgian Revival	Mariette Flats	1913
1147-1151	Prairie influence	Sapp Building	c1912
1152	intrusion		
1153	commercial Romanesque	Olney Flats	1913
1154	Neoclassic Bank	West Side Building and Loan	.1922
South Williams Street			
22	Victorian shop	Wright Cycle company	1886
23-25	Queen Anne influence	residential	
26	Queen Anne influence	residential	
29	Victorian Vernacular	residence	
30	Victorian Vernacular	residence	
North Williams Street			
United States Post Office an intrusion (facility leased from private owner)			

West Third St. Historic District
Dayton, Montgomery County, OH



8. Statement of Significanc

Certifying official has considered the significance of this property in relation to other properties:

☐ nationally ☐ statewide ☒ locally

Applicable National Register Criteria ☐ A ☒ B ☒ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Invention	1885-1924	
Architecture		

Cultural Affiliation
N/A

Significant Person
Wilbur and Orville Wright

Architect/Builder
unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The West Third Street Historic District is significant under Criterion B for its association with Orville and Wilbur Wright, the inventors of the airplane. Several Wright Brothers' printing and bicycle shops were located in the district. For example, the printing shop in the Hoover Block and the Wright Cycle Company Builders located at 22 West Third Street. The district is also significant under Criterion C as a cohesive collection of late 19th century and early 20th century commercial buildings representing a suburban streetcar commercial block. It has a strong commercial Romanesque Revival character with dark red brick, corbelling and round arches. There are also excellent Victorian Italianate and Neo-Classical buildings dating from 1885 to 1924.

The Wrights lived near the district at 7 Hawthorne Street (demolished). Orville Wright's earliest enthusiasm was for printing and he set up his first printing shop at home. In 1889 he took the business to 1210 West Third Street (demolished) and in 1890 moved it to the second floor at the new Hoover Block. While mainly job printers, the brothers also published a weekly magazine and several newspapers including the Westside News. Wilbur Wright, though associated with the printing business, soon took an interest in the booming bicycle fad. In 1892 he opened the Wright Cycle Exchange at 1005 West Third Street which is now incorporated within the walls of the Gem City Ice Cream Building, present appearance dating to 1914. The shop moved next door and then across the street to 1034 West Third Street until 1894. In 1895 the printing and bicycle businesses were brought under the same roof at 22 South Williams Street. There, the Wright brothers began experimenting with aviation. The printing business was finally sold in 1899. In 1897 the Wrights moved to 1127 West Third Street where, in 1903, they invented the first airplane.

The Wright Cycle Company closed its doors in 1908, but the Wrights' office stayed at 1127 West Third Street until 1918. Henry Ford moved the building to Greenfield Village in 1936. Orville maintained an office and laboratory (demolished) at 15 North Broadway until his death in 1948.

☒ See continuation sheet

Apart from the Wrights, the district is associated with Paul Lawrence Dunbar (1872-1906) the internationally renown black poet. Dunbar was born in Dayton and grew up in and around the district. The Dunbar family home is located just outside the district. Although both his parents were illiterate, his mother was a former slave, they encourage Dunbar to learn to read and write and to get an education. He showed his literary talen early. In high school he became the president of the Literary Society and was also the chief editor of the school paper. He graduated from Dayton Central High School in 1890, the only black man in his class.

A mutual interest in printing and newspapers brought Dunbar and Orville Wright together and they collaborated on Dunbar's shortlived Tattler, a black neighborhood paper. Dunba: contributed frequently to local newspapers, including the Wrights' Westside News. Some of his early poetry was published by the Wrights at their presses located in the Hoover Block. Although no buildings in the district are associated specifically with Dunbar, th thriving commercial strip is representative of the neighborhood in which he grew up and worked.

The West Third Street Historic District is also significant architecturally as a suburbar streetcar commercial block of the late 19th and early 20th century. In 1869 W. P. Huffma and H. S. Williams established the Dayton Street Railway as a way of opening up to the real estate market the farms lying within a short distance of Dayton. The West End was already starting to blossom when the railway was put down on West Third Street. The street car added the needed impetus behind the West End development and shops sprung up along the line with residential areas growing up behind.

The architecture of this period has the mixed character of the turn-of-the-century. Commo unifying elements are the metal cornices, brick, and overall rhythm of the facades. The east end of the district decreases in scale and contains only the Gem City Ice Cream plant. Other unique buildings include the Mediterranean style Dr. Allaman Building built in 1914 (1002), the mixed residential commercial facade on the Nedham Building, built in 1897 (1010-1012) and the tiny Midget Theater, built in 1912 in Neo-Classical Revival styl (1019-1021). The middle cluster around the Williams Street intersection is more Victoria and Romanesque Revival. Here we have excellent examples in the Booth Building built in 1890 (1018-1020), the Enterprise Building built in 1890 (1026-1028) both Romanesque Revival, and the Gunkel Building built in 1898 in Victorian Italianate. The west terminu is 20th century in character. The north side has a series of buildings with oriel bays including the Hoersting-Hortman building of 1909, Groheweg Building of 1913, and William Webbert Building, circa 1912 (1137-1143). The Sapp Building is the districts one Prairie style building built circa 1912. On the south side of the west end of the district There is a Georgian Revival apartment, the Mariette Flats built in 1913 (1146) and a Neo-Classical Revival style bank, built in 1924 (1154).

This streetcar commercial block is considerably different from the other examples in Dayton. It is more urban, compact and architecturally distinguished, and is on a greater scale than others found in Dayton, dominated by two and three story buildings. Those structures that have survived in similar areas are one and two story strips, primarily at intersections and are interspersed with residential buildings. One of these is part of the Huffman Historic District (NR: 8-24-82) on East Third Street. The other west side streetcar commercial block is on the West Fifth Street. It is small and nearly demolished.

Williams to the south lot line of parcel 32 lot 6353 and on to the back lot line, thence northerly along the back lot line to the north side of Peck's Alley, thence westward to intersection with Broadway, thence northward along the east side of Broadway to the start point.

9. Major Bibliographical References

Conover, Charlotte Reeve. Dayton and Montgomery County Resources and People. New York; Lewis Historical Publishing Co. Inc. 1932.

Crouch, Thomas. Unpublished draft biography of the Wright Brothers.

Fisk, Fred C. "The Wright Brothers from Bicycle to Biplane." The Wheelmen. No. 29; November 1986.

Howard, Fred. Wilbur and Orville. New York; Alfred A. Knopf, 1987.

Johnson, Mary Ann. A Field Guide to Flight. Dayton, Ohio; Landfall Press, 1986,

Montgomery County Register of Deeds and Tax Duplicates

☐ See continuation sheet

Previous documentation on file (NPS): N/A

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # _____
- ☐ recorded by Historic American Engineering Record # _____

Primary location of additional data:

- ☒ State historic preservation office
- ☐ Other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Specify repository: _____

10. Geographical Data

Acreage of property 10.1

UTM References

	Zone	Easting	Northing		Zone	Easting	Northing
A	16	738990	440480	B			
C	16	737320	440410	D			

☐ See continuation sheet

Verbal Boundary Description Broadway and the alley between W. 2nd St. and W. 3rd St., thence easterly along the south side of the alley past Williams to the vacated alley east side lot 6308, thence southerly along lot 6308 and diagonally across W. 3rd St. to the corner o Shannon, thence southerly west side Shannon to Peck's Alley thence westerly along the north side of Peck's A-ley to the back lot line of lot 7794, thence southerly along the back lot line to the south line of lot 7793, thence westward along the lot line crossing

☒ See continuation sheet

Boundary Justification The W. Third Street Historic District's boundaries were defined to incorporate the best examples of the area's commercial buildings, and with a short extensi south along Williams St., to include the Wright Cycle Company building. To the east of Sh St. and west of Broadway are extensive areas of demolition. What buildings remain outside the district are of insufficient integrity for inclusion in the nomination.

☐ See continuation sheet

11. Form Prepared By

name/title Loren S. Gannon Jr./Historian

organization Gannon Historical Services date 2 September 1987

street & number 20 Park Avenue, Oakland telephone (513) 298-1110

city or town Dayton state Ohio zip code 45419

Wright/Dunbar Historic District
Dayton, Montgomery County, Ohio
USGS Quad. Dayton North, Ohio
Scale 1:24,000
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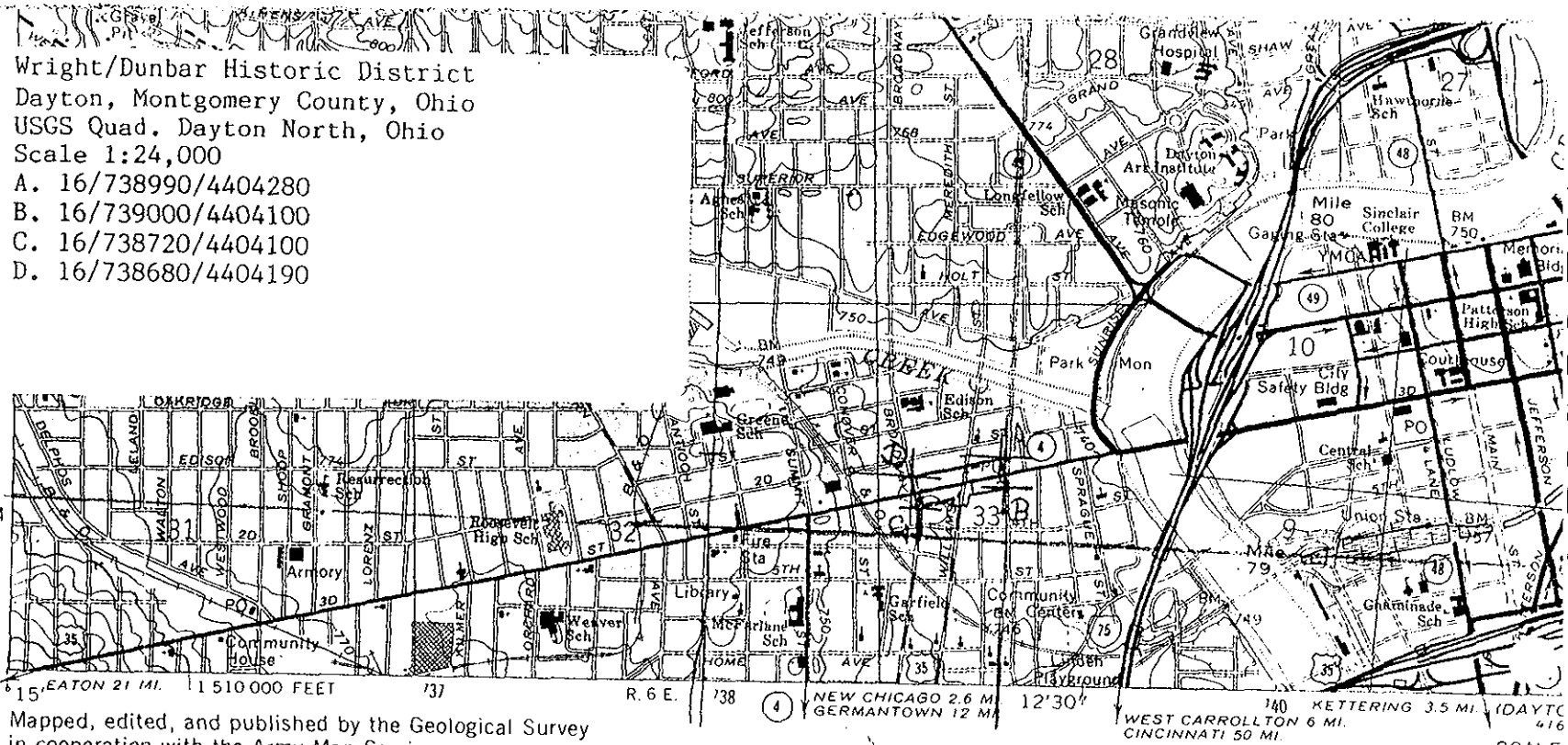
B. 16/739000/4404100
C. 16/738720/4404100
D. 16/738680/4404190



(MIAMISBURG) 4163 III NE

Mapped, edited, and published by the Geological Survey in cooperation with the Army Map Service
Revised in cooperation with State of Ohio agencies

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1954. Field checked 1955. Revised from aerial photographs taken 1964. Field checked 1965

Polyconic projection. 10,000-foot grid ticks based on Ohio coordinate system, south zone. 1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue. 1927 North American Datum
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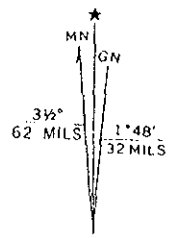
Area east of the Great Miami River lies within the Between the Miamis Land lines based on the Great Miami River Base

There may be private inhabitants



UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Revisions shown in purple and woodland compiled in cooperation with State of Ohio agencies from aerial photographs taken 1979 and other sources. This information not field checked. Map not 1 1001

SCALE

1000 0 1000 2000

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THIS MAP COMPLIES WITH NATIC
FOR SALE BY U. S. GEOLOGICAL
A FOLDER DESCRIBING TOPOGRAPHIC MAPS

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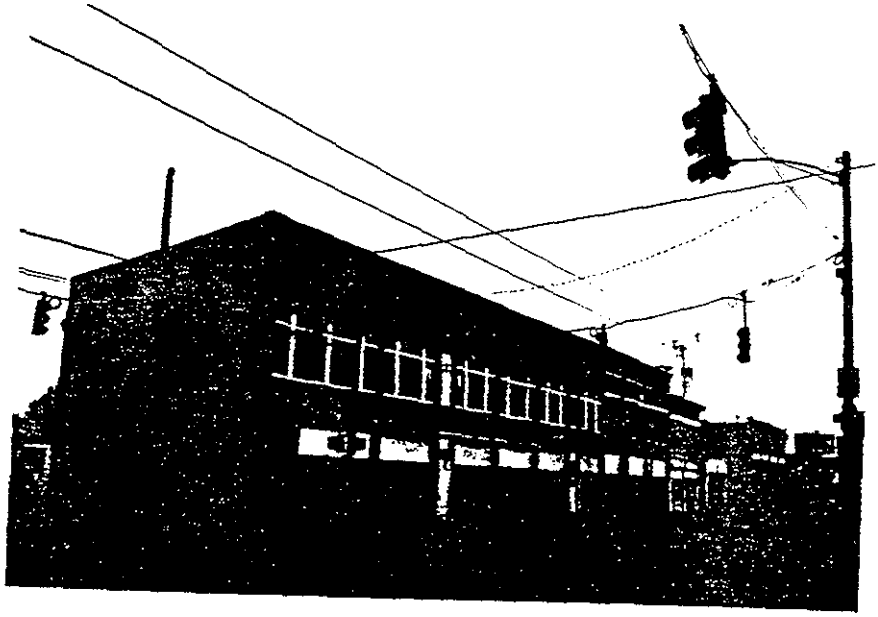

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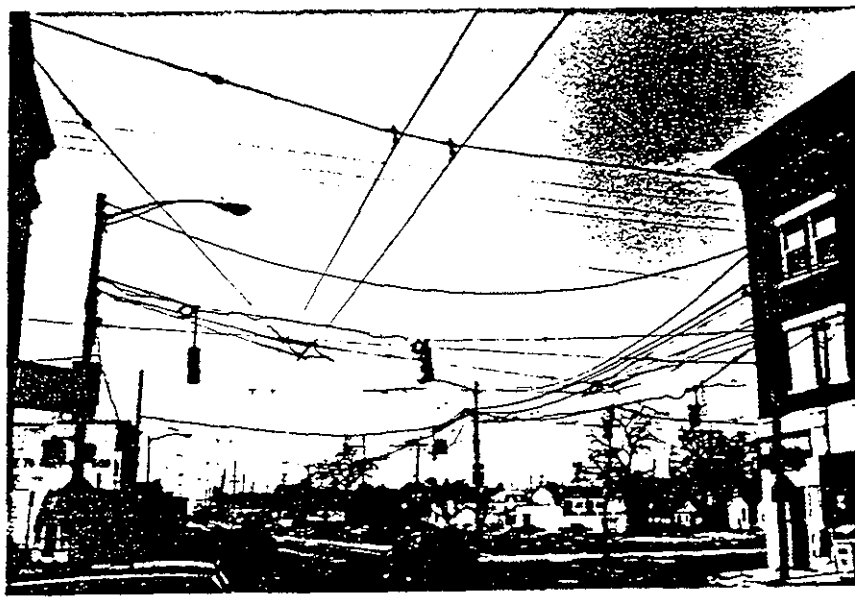


SEP 1 7 1987

DEPARTMENT OF THE AIR FORCE
UNITED STATES AIR FORCE MUSEUM
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6518

SEP 16

Mr W Ray Luce, SHPO
Ohio State Preservation Advisory Board
Ohio Historical Society
1985 Velma Ave
Columbus, OH 43211

Dear Mr Luce

I understand the Wright-Dunbar area of West Dayton Ohio has been nominated as an historic district. This area is one of the stops of the popular Dayton Aviation Trail, and as a fellow member of the Trail, the United States Air Force Museum heartily endorses this nomination.

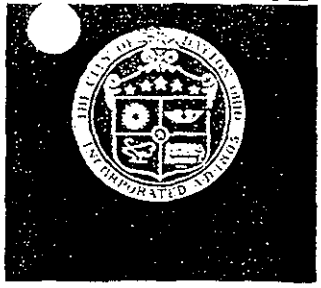
The neighborhood is rich in local history and contains much of what remains in Dayton from the era of Orville and Wilbur Wright and Paul Dunbar. Efforts of the Aviation Trail Association directed toward the Wright Cycle Shop and of other historically inclined Daytonians toward the Dunbar House are keys to bringing the district back to its turn-of-the-century form. This enthusiastic and vigorious program will be enhanced by this designation as an historic district and will do much to spur the supporters of the West Dayton complex to continue their commendable work to restore this portion of the city to its former configuration.

West Dayton certainly deserves the designation as an historic district and I earnestly solicite your support to this end.

Sincerely

RICHARD L. UPPSTROM
Director

RICHARD CLAY DIXON
Mayor



CITY of DAYTON, OH
OFFICE OF THE CITY COMMISS
MUNICIPAL BUILDING • THIRD & LUDLOW STS. • PHONE 4

RECEIVED SEP 25 1987

September 16, 1987

Mr. Ray Luce
Ohio State Preservation
Advisory Board
Ohio Historical Society
1985 Velma Avenue
Columbus, Ohio 43211

Dear Mr. Luce:

I am writing to express the City of Dayton's interest in supporting the nomination of the Wright-Dunbar area of West Dayton as a historic district on the National Register.

As you are aware from the documentation, the Wright-Dunbar area of Dayton is rich in historic significance.

We support the efforts of those individuals who believe in preserving an important part of our City's past. Many of the landmarks remain and we can appreciate the preservation of those structures suitable as such.

Thank you for your time and consideration in this matter.

Sincerely,

Richard Clay Dixon
Mayor

RCD:smc

WRIGHT STATE

Wright State University
Dayton, Ohio 45435

RECEIVED SEP 1 7 1987

University Library
513/873-2380

September 11, 1987

Mr. W. Ray Luce
State Preservation Advisory Board
Ohio Historical Society
1985 Velma Avenue
Columbus, OH 43211

Dear Ray:

I am writing in support of the nomination of the Wright-Dunbar area of West Dayton as a historic district. I have served for a number of years as Head of Archives at Wright State, where I have worked especially closely with the Wright Brothers Collection in our archives. As an historian with an research interest in local history, I have also studied the West Side neighborhood which was a home to both Paul Laurence Dunbar and Wilbur and Orville Wright.

Beneath a sometimes altered surface appearances, much of that neighborhood and its landmarks remain intact today. Buildings that housed the Wright Cycle company and Wright and Wright Printers still stand, as does the home of Paul Dunbar. Blocks of houses and business buildings familiar to these men remain to allow the visitor to recreate the early turn of the century streetscape. The neighborhood became a good example of the street-car suburb, providing decent housing and urban services to the working men and their families who were building Dayton into the "Gem City of the Miami Valley."

The West Side was not a fancy place. The shops were small scaled to meet the needs of local residents. The houses were small as well, and usually very plain. But is largely remains intact, a sort of 19th century survivor in late 20th century city. In my opinion it would make an ideal historic district and I strongly support its nominations.

Sincerely,

Patrick B. Nolan

Patrick B. Nolan
Head of Archives & Special Collections
Associate Professor

cc: Jerry Sharkey

PBN:bpc

NATIONAL MUSEUM OF AMERICAN HISTORY

SCIENCE, TECHNOLOGY, AND CULTURE

September 1, 1987

Ohio State Preservation Advisory Board
Ohio Historical Society
1985 Velma Ave.
Columbus, Ohio 43211

Attn: Mr. W. Ray Luce, SHPO

Dear Mr. Luce:

I am writing in support of the nomination of the Wright-Dunbar area of West Dayton as a historic district. As a historian I have developed some familiarity with the area over the years. This includes walking the streets of West Dayton with Sanborn insurance maps in one hand and sheets of late-nineteenth century census records in the other, identifying buildings that have survived from the Wright era and matching them to their occupants at that time.

The neighborhood began as a classic street car suburb, a fact that remains in evidence today. Both along the major thoroughfares of the commercial district and in the residential areas set a block or two back from Third Street, you can still see many elements of the neighborhood that would have been familiar to the Wrights. Although there have been major changes and alterations over the years, much of the architecture is representative of their era.

There are other factors that make West Dayton especially interesting. As I noted above, the pattern of a typical first generation street car suburb; the rich racial, cultural and ethnic mix; and the fact that residential and commercial buildings have survived from the late nineteenth century combine to make West Dayton an ideal candidate for recognition as a historic district.

Sincerely,

Tom Crouch

Tom D. Crouch
Chairman
Department of Social and
Cultural History

TDC:aMc
cc: Jerry Shankey

RECEIVED SEP 1 6 1987

the montgomery county historical society

The Old Court House
Dayton, Ohio 45402
Phone 513/228-6271

September 14, 1987

Mr. W. Ray Luce, SHPO
Ohio State Preservation Advisory Board
Ohio Historical Society
1985 Velma Ave.
Columbus, Ohio 43211

Dear Mr. Luce:

On behalf of the Society, I wish to support nominating the Wright-Dunbar area of West Dayton to the National Register of Historic Places. This neighborhood, the original home of the Wright Brothers, is a classic street car suburb that has retained much of the architecture, both residential and commerical, of the late 19th and early 20th centuries. We feel that both for its architectural integrity and its historical association with the Wright Brothers that the Wright-Dunbar area deserves listng on the National Register as an historic district.

Sincerely,

Kirby Turner
Executive Director

KT/jmp

Appendix B:

Timeline of Owners & Tenants

HOOVER BLOCK TIMELINE OF OWNERS AND TENANTS

1042, 1044, and 1046 West Third Street, First Floor

1845	William and Margaret Baxter sold Hoover Block (6315) lot to James Williams. (Deed recorded 1846)
1846-1855	Missing Information
1856	Jacob and Elizabeth Hughes sell an equal undivided half of lots 6315 & 6316 (lot adjacent to Hoover Block) to Stephen Moores
1857-1870	Missing Information
1871-72	W.M. Murray, Hardware & Groceries J.W. Booth, Grocer W.S. Kemp John W. Miltenberger
1873-1879	Missing Information
1880	Executors of Estate of Joseph Wagoner sold lots 6315 & 6316 to Lewis Pfoutz. Executors of Estate of Joseph Wagoner sold part of lot 6315 to John Namuth
1881	John Namuth sold lot 6315 to John Wolfe
1882	John and Cora Wolfe sold lot 6315 to K.D. Kimmel
1883	David Kimmel sold lot 6315 to H.S. Kimmel (recorded Feb.1) H.S. amd Mary Kimmel sold lot 6315 to John Shank (recorded April 19) John Shank sold lot 6315 to Mary Kimmel (also recorded April 19) Emeline Wagoner sold part of lots 6315 & 6316 to M.J. MacKey
1884	Mary Kimmel sold part of lots 6315 & 6316 to **Zachariah T. Hoover**
1884-85	Wm. H. Miller and Co. "Daily Markets" (1044)
1885-86	John Kalter, "Daily Markets" (1044) R & H Garst "Grocers"
1887-1889	Missing Information
1890-1891	**HOOVER BLOCK BUILT** Cincinnati Grocery Co. Knights & Ladies of Honor (Gem City Lodge No. 1484) Order of United Amer. Mechanics (Putnam Council No. 30) - A.P.A. Knights of the Silver Star Washington Camp No. 21 William Hughes, Salesman (his residence is shown at another location) Rev. M.F. Keiter, Publishing Agent Christian Conservator F.C. Keller, Clerk (his residence is shown at another location) Wright & Wright Job Printers (1042)

	Chas. H. Smiley, Barber (1042 - MS)
1891-1892	S. Ross Miller, Barbershop Cincinnati Grocery Co. Hoover Hall (1042) Wm. A. Hughes, Clerk Fred C. Keller, Clerk Wright & Wright Job Printers (1042)
1892-93	Wright & Wright Job Printers (1042) Mrs. Belle Woods (Residence)
1893	Sidney Pfoutz sold part of lots 6315 & 6316 to Milton Pfoutz (recorded Feb. 1893)
1893-94	Wright & Wright Job Printers (1042)
1894-95	Wright and Wright Job Printers move out of Hoover Block and into 22 S. Williams St. Cincinnati Grocery Co. Knights & Ladies of Honor (Gem City Lodge No. 1484) Order of United Amer. Mechanics (Putnam Council No. 30) Schaeffer & Gerwels, Grocery Wm. A. Hughes, Clerk Emma Lenz, Clerk Chas. T. Jones, Harness Maker Ella Kenrick, Millinery Patriotic Order Sons of America Chas. H. Smiley, Barber Shop
1895-96	Chas. H. Smiley, Barbershop Cincinnati Grocery Co.
1897-1899	Missing Information
1899-1900	Hoover Block Hall (1042) Hoover Bock
1900-1901	Frank B. Hale, Fine Groceries and Fruits Hoover Block Hoover Hall
1901	Z.T. Hoover leases the entire third floor of the Hoover Block to the Honor Council for a set fee per year (recorded March 1901) William Kelley sold part of lots 6315 & 6316 to Charles Mackey (recorded Sept.)
1901-1902	Frank B. Hale, Grocery Hoover Block and Hall Jacob M. Price, Carpenter (residence listed in another location)
1902-03	Frank B. Hale, Fine Groceries and Fruits Hoover Block and Hall Jacob M. Price, Carpenter (now listed as residence)
1903	Charles & Ida Mackey sell part of lots 6315 &6316 to Frank Hale (recorded Nov.)

1903-04	Frank B. Hale, Grocery Hoover Block and Hall Jacob M. Price, Carpenter (Residence)
1904-05	Frank B. Hale, Groceries Hoover Block Jacob M. Price (Residence, 1042)
1905-06	Frank B. Hale, Groceries and Fruits Hoover Block and Hall Jacob M. Price, Carpenter (Residence, 1042)
1907-08	Frank B. Hale, Shank & Hale Amusement Co. (Also Grocer) (1046) Hoover Block and Hall Jacob M. Price, Carpenter (Residence, 1042)
1909-10	Frank B. Hale, Fine Groceries, Fruits and Vegetables Hoover Block and Hall Jacob M. Price, Carpenter (Residence) (1042) U.E. Sapp, Jewelry (1042)
1910-11	Frank B. Hale, Grocery Hoover Block and Hall Jacob M. Price, Carpenter (Residence, 1042) U. Edward Sapp, Jewelry (1042)
1911-12	Frank B. Hale, Fine Groceries and Fruits Jacob M. Price, Carpenter (Residence, 1042) U. Edward Sapp, Jewelry (1042)
1912-13	Frank B. Hale, Fine Groceries and Fruits Jacob M. Price, Carpenter (Residence, 1042) U. Edward Sapp, Jewelry (1042)
1913-14	Frank B. Hale, Fine Groceries and Fruits Jacob M. Price, Carpenter (Residence, 1042) U. Edward Sapp, Jewelry (1042) Geo. W. Walker, Confr. (1044) Chas. D. Hutchison (Residence, 1046)
1914-15	Frank B. Hale, Grocery Jacob M. Price, Carpenter (Residence, 1042) U. Edward Sapp, Jewelry (1042) Geo. W. Walker (1044) Chas. D. Hutchison (Residence, 1046) Raymond E. Darby, Salesman (Residence, 1046)
1916	Z.T. Hoover leases entire third floor of Hoover to the Honor Council (recorded Feb.)
1916-17	Hoover Block U. Edward Sapp, Jewelry (1042)

	Jos. F. Millard (Residence, 1042) Geo. W. Walker (1044) Frank B. Hale, Grocery (1046) Chas. D. Hutchison (Residence, 1046) Wallace C. Millard, Sign Painter (Residence, 1046) Harry Smith, Clerk (Residence, 1046)
1917	Part of lot 6315 inherited by Lura Hale, daughter of Z.T. Hoover (recorded November)
1917-18	Hoover Block U. Edward Sapp, Jewelry (1042) Geo. W. Walker (1044) Kroger (1046) Wm. Schwarting (Residence, 1046)
1918-19	Hoover Block U. Edward Sapp, Jewelry (1042) Geo. W. Walker (1044) Kroger (1046) Frank B. Campbell, Salesman (Residence, 1046) Philip M. Hans, Mstr. Mech (Residence, 1046) Ernst E. Nehls, Delicatessen (Residence, 1046)
1920	Hoover Block U. Edward Sapp, Jewelry (1042) Robert Baker (1044) Geo. W. Walker (1044) Kroger (1046) Maude J. Cole, Saleslady (Residence, 1046) Philip M. Hans, Mstr. Mech. (Residence, 1046) Russel K. Walker (Residence, 1046)
1921	Hoover Block (SEC 3rd and Williams) U. Edward Sapp, Jewelry (1042) George Bros. (1044) Kroger (1046) Maude J. Cole, Saleslady (Residence, 1046) Philip M. Hans, Mstr. Mech (Residence, 1046) Wilbur E. Midlam, Jr. Secy (Residence, 1046)
1922	U. Edward Sapp, Jewelry (1042) West Side Optical (1042) George Bros. (1044) Kroger (1046) Maude J. Cole (Residence, 1046) Philip Hans (Residence, 1046) Florida (dressmaker) and Joseph Tankersley (Residence, 1046-DR)
1923	U. Edward Sapp, Jewelry (1042) West Side Optical (1042) George Bros. (1044)

Kroger (1046)
Ralph R. Fisher (Residence, 1046)
Ralph Hildebrant (Residence, 1046)

1924 U. Edward Sapp, Jewelry (1042)
West Side Optical (1042)
George Bros. (1044)
Kroger (1046)
Chester L. Ames (Residence, 1046)
Mae Daley (Residence, 1046)
Ralph Fisher (Residence, 1046)

1925 U. Edward Sapp, Jewelry (1042)
West Side Optical (1042)
Spero G. Arone, Confr. (1044)
(Frank Hale's name is in permit log book May 11, 1925 for altering mercantile and adding an addition for 1044 W. 3rd)
Kroger (1046R)
Chester L. Ames (Residence, 1046)
Lloyd Jennings (Residence, 1046)
Alvaro Conklin (Residence) (1046 1/2)
Josh Wirtz (Residence) (1046 1/2)

1925 Frank Hale sold part of lots 6315 & 6316 to Jesse Jacobs (recorded November)

1926 U. Edward Sapp, Jewelry (1042)
West Side Optical (1042)
Spero G. Arone, Confr. (1044)
Kroger (1046)
Chester L. Ames (Residence, 1046 1/2)
Julia Dye (Residence, 1046 1/2)
Mae A. Jenkins (Residence, 1046 1/2)

1927 West Side Optical (1042)
Spero G. Arone, Confr. (1044)
H.E. Sifferman, Fish (1046)
Julia Dye (Residence) (1046 1/2)
Ward Robinson (Residence) (1046 1/2)
W.C. Salmon (Residence) (1046 1/2)

1928 West Side Optical & Jewelry (1042)
William E. Jadwin, Confr. (1044)
Great A & P (1046)
Fred C. Miller (Residence) (1046 1/2)
Julia Dye (Residence) (1046 1/2)
Mary Stewart (Residence) (1046 1/2)
(May 26, 1928 James Jacobs in permit log book for altering mercantile (SEC 3rd and Williams)

1929 Missing Information

1930 West Side Optical & Jewelry (1042)

	Great A & P (1046) Edward G. Evans (Residence, 1046 1/2) Mary Stewart (Residence, 1046 1/2) Thomas Brighwell (Residence, 1046 1/2)
1931	1042 = Vacant Great Atlantic & Pacific Tea Co. (1046) Edward Evans (Residence, 1046 1/2)
1931	Michael Setzer sold lots 6315 & 6316 to Bertha Setzer
1932	Michael & Bertha Setzer sold lots 6315 & 6316 to John Setzer
1933	Jesse Jacobs sold lots 6315 & 6316 to The Cambridge Realty and Investment Co.
1934-1935	Missing Information
1936	Sanborn Map Shows Address Changes for Hoover 1042 = 1058 1044 = 1060 1046 = 1062
1937-1940	Missing Information
Jan. 2, 1941	Jessie Jacobs (1062 -JG Permit Cards) - General Repairs, New Front
1942	Missing Information
1943	Cambridge Realty & Investment Co. sold lots 6315 & 6316 back to Jesse Jacobs
1944	In Probate Court - John Setzer (deceased) to Carrie Setzer (widow) lots 6315 & 6316
1945	Carrie Setzer sold lots 6315 & 6316 to Leah Budnick (recorded October)
	Jesse Jacobs & Lillie Jacobs lessor & Paul Kantor & Hyman Kantor lessee double business room 1062 West Third Street on lot 6315 and is the same premises occupied by Geisler's Thrift-E-Market (November)
	Jesse Jacobs sold lots 6315 & 6316 to Leah Budnick (December)
1946	Jesse Jacobs & his wife lessors - Paul Kantor and Hyman Kantor lessee's grant business room 1058 & double business room 1062 West Third Street on lot 6315 for four years & 2 months
May 15, 1946 Oct. 8, 1946	Paul Kantor (1062 - JG Permit Cards) - Building Alteration Cut 14' arch in party wall between buildings, installed steel beam
1947	Missing Information
1948	Jesse Jacobs (deceased) to Lillie Jacobs (Widow) inherits entire estate to include lots 6315 & 6316.
1949-1956	Missing Information

Jan. 15, 1958	L. Jacobs (1062 - JG Permit Cards) - Replace Fire Loss - 3rd Floor - Fire Burned through roof
January 1958	16' x 40' single story addition to rear of building - shows west brick partition removed - 12'0" tall - Paul Kantor (Demolished by 2000 Cte or Park Service)
January 1958	Repair Fire Damage
June 26, 1958	Revamp front and install two entrances
1957-60	Kantor's Super Markets, Inc., lessor & Herbert Kaplan lessee business room 1058 lot 6315 for 3 years
1961	Missing Information
1962	Gerald Kantor & Milton Kantor lessor & Arva Foods, Inc., lessee. Lot 6315 is leased for 5 years
1963	Missing Information
June 26, 1964	Allen Paulofsky (JG Permit Cards)
Jan. 21, 1965 Feb. 10, 1965	Blacktop Parking Lot (JG Permit Cards) A.H. Paulofsky (1058A, B - 60A, B - 1062) - Install 11/2 hour fire-rated
1966	Leah Budnick sold lots 6315 & 6316 to Allen H., Raymond, Albert, and Vernon Pavlofsky (brothers) (Sept.)
April 3, 1967	Remove Longitudinal Bearing Wall @ 1st floor, install 12" wf 27# Beam with 5" pipe columns @ 12'0" o.c. (JG Permit Cards)
1968	Probate Court - Lillie Jacobs (deceased) grants all assets to include lots 6315 & 6316 to Jack Baer, Lillian Rosen, Helen Mayer, Elsie Lohman, and Jules Rosen (August)
1968	Jack Baer, Elsie Lehman, Lillian Rosen, Helen Mayer, and Jules Rosen sold lots 6315 & 6316 to Jules D. Rosen Realty, Inc. (October)
1969-1972	Missing Information
1973	Albert, Raymond, Vernon, & Allen Pavlofsky sold 1/4 of their ownership to Vernon Pavlofsky's widow Carol Pavlofsky effective December 9th.
1974	Jules D. Rosen Realty, Inc. sold lots 6315 & 6316 to Mark Berliant (Dec.)
1975	Carol Pavlofsky in consideration of promissory note grants her 1/4 share to Albert, Raymond, and Albert Pavlofsky (July)
1976-1981	Missing Information
1982	Albert & Raymond Pavlofsky sold lots 6315 & 6316 as a part of 5 tracts of land to Arva Realty (October)

Appendix C:

Structural Report

Structural Report: Credits and Calculations

Figure Credits

Figures 1 through 14, and 18 through 21

Photographed by Tom Fitzpatrick, P.E., and Cheryl Kryscynski of Fitzpatrick Structural Engineering, P.C., October, 1996

Figure 15

Drawn by Tom Fitzpatrick, P.E., Fitzpatrick Structural Engineering, P.C., February, 1997

Figure 16, Figure 17

Drawn by Cheryl Kryscynski, Fitzpatrick Structural Engineering, P.C., April 2, 1998

Bibliography

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Supporting Calculation Load Summary

The following pages summarize the load calculations discussed in the structural report, and are a replication of the spreadsheets used in the calculations. The general criteria and parameters are presented with each sheet of values. Each page represents a particular type of member (e.g. joist or beam) and floor level. Load limits for the various stress conditions including a live load limited by a deflection of $^{1}/_{360}$th of the member span are presented in tabular form. Joist members are recorded for each of the three bays of the structure. Additionally, each bay is broken down into an average load for the shorter northerly joists and for the longer southerly joists for that bay.

Fitzpatrick Structural Engineering, P.C.
219-1/2 N. Main • Ann Arbor • MI • 48104
313-769-0320 • FAX 313-769-3015

Hoover Block, Dayton, OH

1st floor joists existing

Fb	1400 psi	unit dl	20	psf
Fv	120 psi	b	1.9	in
E	1.80E+06 psi	d	11.56	in
		dn	9.75	in at east bay only
Δ criteria	360	spacing	16.19	in
		I	244.59	in^4

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
West	south at stairs	20.92	117	57	53	53
	north end	15.00	179	130	143	130
					limits for bay	53

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
Middle	south at stairs	18.83	134	75	72	72
	north end	14.10	194	149	172	149
					limits for bay	72

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
East	at stairs	18.00	93	84	83	83
	north end	11.10	176	253	353	176
					limits for bay	83

Assumes that proper headers and lintels are provided.
This is not true at some locations, but could be added.
Joist in east bay at east wall was notched.
The balance of joists were analyzed for full depth at bearing.

Fitzpatrick Structural Engineering, P.C.
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313-769-0320 • FAX 313-769-3015

Hoover Block, Dayton, OH

2nd floor joists existing

Fb	1500 psi	unit dl	40 psf
Fv	150 psi	b	2 in
E	1.80E+06 psi	d	11.25 in
		dn	11.25 in
Δ criteria	360	spacing	16 in
		I	237.30 in^4

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
West	south at stairs	21.33	133	40	49	40
	north end	15.00	217	122	141	122
					limits for bay	40

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
Middle	south at stairs	19.58	151	55	63	55
	north end	14.00	238	146	173	146
					limits for bay	55

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
East	at south wall	18.58	162	65	74	65
	at stairs	18.25	166	69	78	69
	north end	11.50	311	235	312	235
					limits for bay	65

Fitzpatrick Structural Engineering, P.C.
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Hoover Block, Dayton, OH

2nd floor beams existing

West double beam

Wall removal begun in 1936, A7 steel era Fy = 33 ksi

10 I 25.4 beam was produced between 1921 and 1967, a version is still produced today.

The bearing at the north pier was inspected; assume the rest of beam line is the same.

Moment capacity is limited by the unbraced length of beam to a compact beam with no bracing

Per combination analysis performed with Multiframe;

assumes 20 psf dead load and 41 psf live load on the third floor.
20 psf dead load + 20 psf partition load on second floor

Total Load limits	Net Live load
Bending limit is 135 psf for all spans as simple spans.	95 psf
Bending limit is 150 psf for any combination of 2 spans.	110 psf
Shear limits exceed bending limits.	not critical
Deflection limit exceeds 200 psf assuming one simple end span.	200 psf

East Beam

Wall removal reported to be in 1967, A36 steel era Fy = 36 ksi

12 WF 27 beam produced from 1946 to 1967 with similar beam produced today.

All span arrangements were verified in field.

Moment capacity can take advantage of braced compact section criteria.

per combination analysis performed with Multiframe.

assumes 20 psf dead load and 41 psf live load on third floor.

	Total Load limits	Net Live load
Bending	143 psf	103 psf
Shear	> 143 psf	not critical
Defelection	200 psf	200 psf

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Hoover Block, Dayton, OH

3rd floor joists existing

Fb	1500 psi	unit dl	20 psf
Fv	150 psi	b	1.75 in
E	1.80E+06 psi	d	11.25 in
		dn	7.25 in
Δ criteria	360	spacing	16 in
		I	207.64 in^4

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
West	south at stairs	21.33	41	50	43	41
	north end	15.00	69	122	123	69
					limits for bay	41

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
Middle	south at stairs	19.58	47	63	55	47
	north end	14.00	76	142	151	76
					limits for bay	47

Bay	location	span ft.	shear cap psf	bending cap psf	Δ cap psf	limiting live load psf
East	at south wall	18.58	51	72	65	51
	at stairs	18.25	52	76	68	52
	north end	11.50	99	221	273	99
					limits for bay	51

Fitzpatrick Structural Engineering, P.C.
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Hoover Block, Dayton, OH

3rd floor beams existing

bb	8			
db	12.5			
Ab	100	Vcap	10000	lb
Sb	208.3	Mcap	26037.5	lb-ft
Ib	1302.1			

Beam row	span from north	north width ft.	south width ft.	load adjustment for skew	north width	south width
west	15.67	14.71	16.21	0.978	14.39	15.85
	13.67	16.21	17.58	0.978	15.85	17.19
	5.50	17.58	18.13	0.978	17.19	17.73
	13.83	18.13	19.50	0.978	17.73	19.07
	16.50	19.50	21.20	0.978	19.07	20.73
east	15.33	12.92	14.56	0.993	12.83	14.46
	16.50	14.56	16.29	0.993	14.46	16.18
	16.42	16.29	18.04	0.993	16.18	17.91
	15.87	18.04	19.75	0.993	17.91	19.61

Beam row	span from north	Values from multiframe moment @ 10	crit shear @ 10	Δ at 10	Δ max
west	15.67	5250	1123	0.11211	0.522
	13.67	3309	890	0.04075	0.456
	5.50	660	308	0.00153	0.183
	13.83	4398	1098	0.06463	0.461
	16.50	6770	1461	0.14162	0.550
east	15.33	4007	921	0.07236	0.511
	16.50	5212	1120	0.10903	0.550
	16.42	5743	1239	0.11897	0.547
	15.87	5904	1316	0.11426	0.529

Beam row	span from north	bending limit psf	shear limit psf	Δ limit psf
west	15.67	30	69	47
	13.67	59	92	112
	5.50	375	305	1198
	13.83	39	71	71
	16.50	18	48	39
	least	18	48	39
east	15.33	45	89	71
	16.50	30	69	50
	16.42	25	61	46
	15.87	24	56	46
	least	24	56	46

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Hoover Block, Dayton, OH

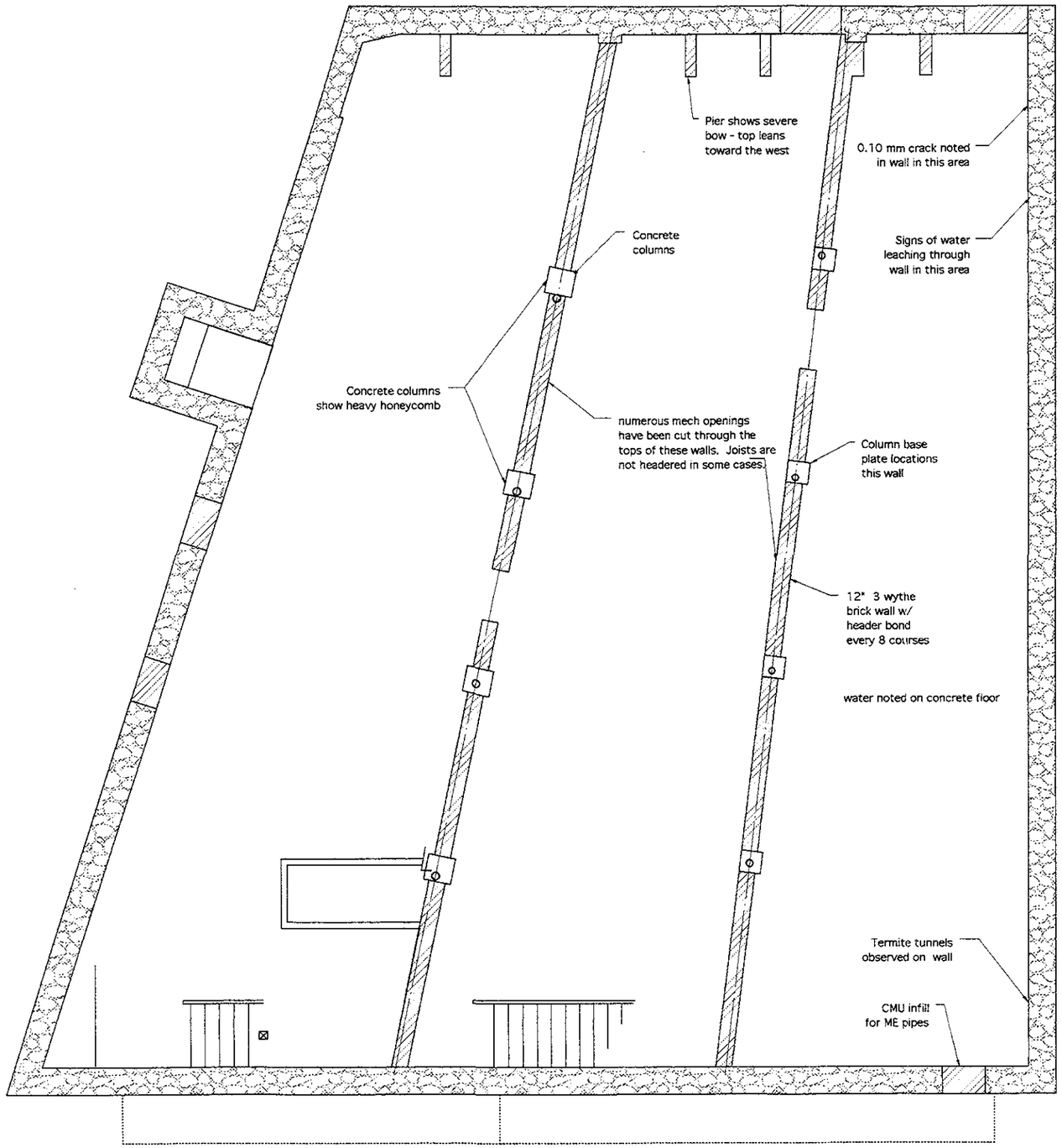
3rd to 2nd floor cols

Ec =	1.80E+06	psi	l/dc=	33	OK
Fc=	1200	psi	Fce =	495.9	psi
bc=	4	in	Fce/Fc=	0.4132	
dc=	10	in	Cp=	0.3698	
c=	0.8		Fc' =	444	psi
Kce=	0.3		Ncap=	17760	lbs

Height = 11 ft estimated verify
DL used = 20 psf

West beam line		Load area sf	Column DL Lbs	Net LL available Lb	Uniform LL psf
	2	231.21	4624	13136	57
	3	153.75	3075	14685	96
	4	173.95	3479	14281	82
	5	290.67	5813	11947	41
East Beam Line	2	230.70	4614	13146	57
	3	266.33	5327	12433	47
	4	288.92	5778	11982	41

Least load = 41 psf



North
West East
4 2 0 4 8
Scale; 1/4" = 1' -0"

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QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 663 8285

REVISED	
DATE	INITIAL

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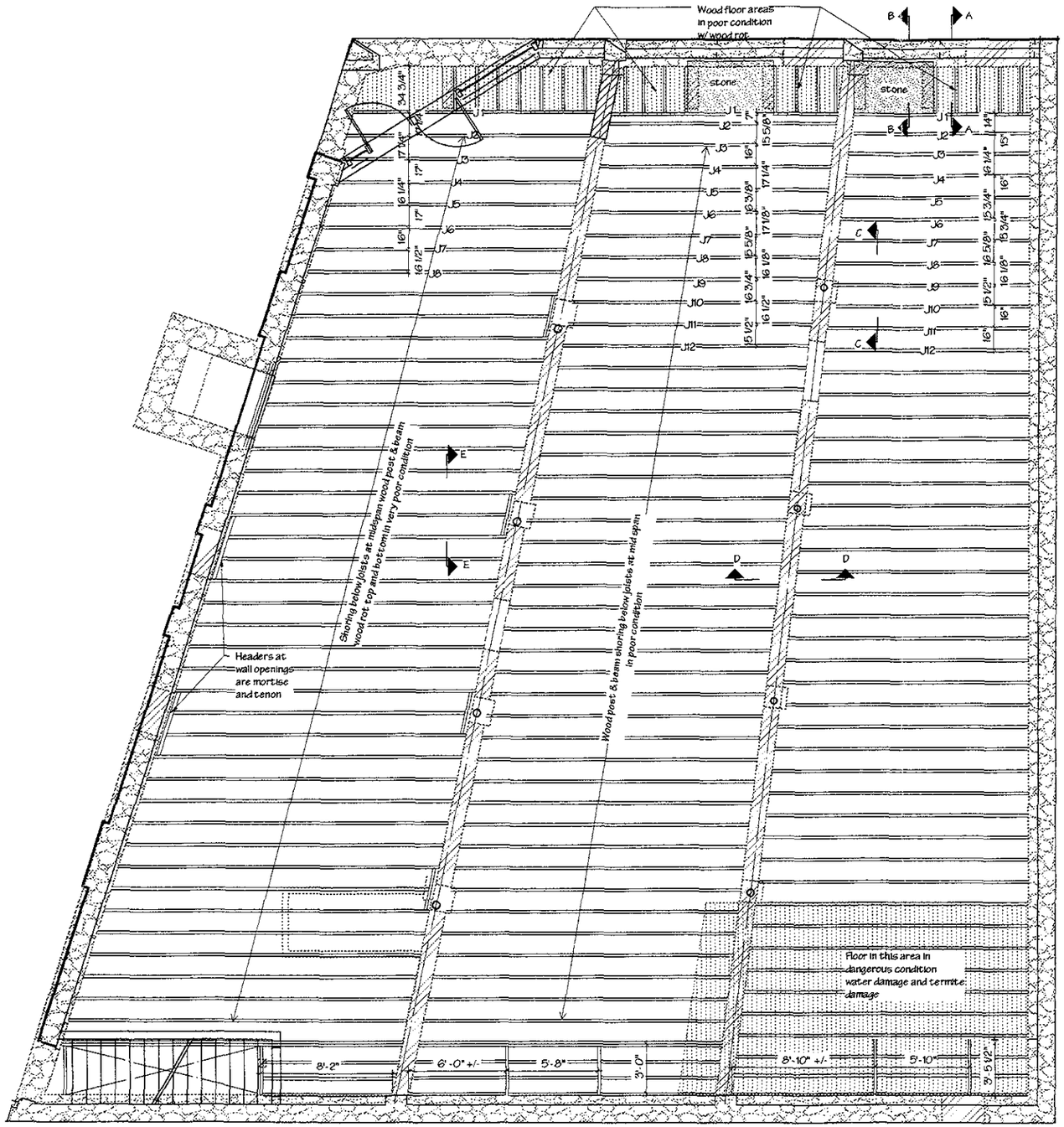
DESIGNED
TRF/CLK
DRAWN
TRF/CLK
CHECKED
02 - 26 - 97
DATE

TITLE OF SHEET
Basement Plan

Existing Conditions of Hoover Block
Dayton Aviation Heritage National Historic Park
Dayton, Ohio
United States of America
Department of the Interior
National Park Service

AUTOCAD FILE NO.
SUB SHEET NO.
EXS - 100

DRAWING NO.
362
20013
SHEET 1 OF 6

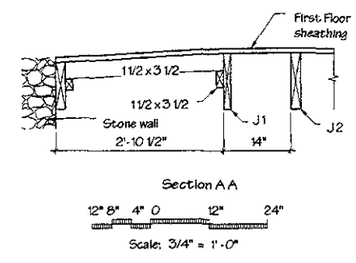


Joists: West Side of Basement		
Mark	Width inch	Depth inch
J1	17/8	12
J2	2	11 3/8
J3	17/8	11 1/8
J4	13/4	11 1/2
J5	13/4	11 5/8
J6	17/8	11 3/4
J7	17/8	11 1/2
J8	13/4	11 3/4

Joists: Middle of Basement		
Mark	Width inch	Depth inch
J1	17/8	11 1/4
J2	2	11 1/2
J3	13/4	11 1/2
J4	17/8	11 7/8
J5	2	11 3/4
J6	15/8	11 3/4
J7	13/4	11 1/2
J8	2 1/4	11 1/2
J9	2	11 3/4
J10	17/8	11 3/4
J11	2	11 3/4
J12	17/8	11 3/4

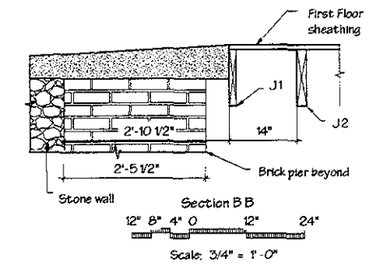
Joists: East Side of Basement		
Mark	Width inch	Depth inch
J1	11 1/2	11 1/4
J2	2	11
J3	17/8	11 1/4
J4	17/8	11 1/4
J5	2	11 1/2
J6	2 1/8	11 5/8
J7	2	11 3/4
J8	17/8	11 5/8
J9	2	11 1/2
J10	2	11 3/4
J11	2	11 5/8
J12	2	11 5/8

Joists have a 2" deep notch at bottom of joist at east wall bearing



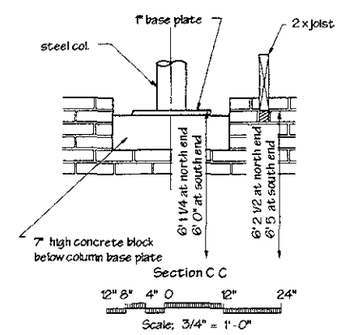
Section A A

Scale: 3/4" = 1'-0"



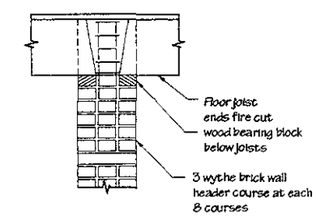
Section B B

Scale: 3/4" = 1'-0"



Section C C

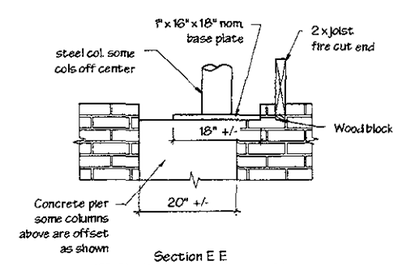
Scale: 3/4" = 1'-0"



Section D D

12" 8" 4" 0 12" 24"

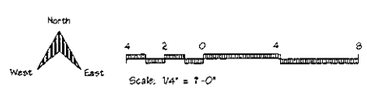
Scale: 3/4" = 1'-0"



Section E E

12" 8" 4" 0 12" 24"

Scale: 3/4" = 1'-0"



Scale: 1/4" = 1'-0"

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QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313-663-3195

REVISED	
DATE	REVISION

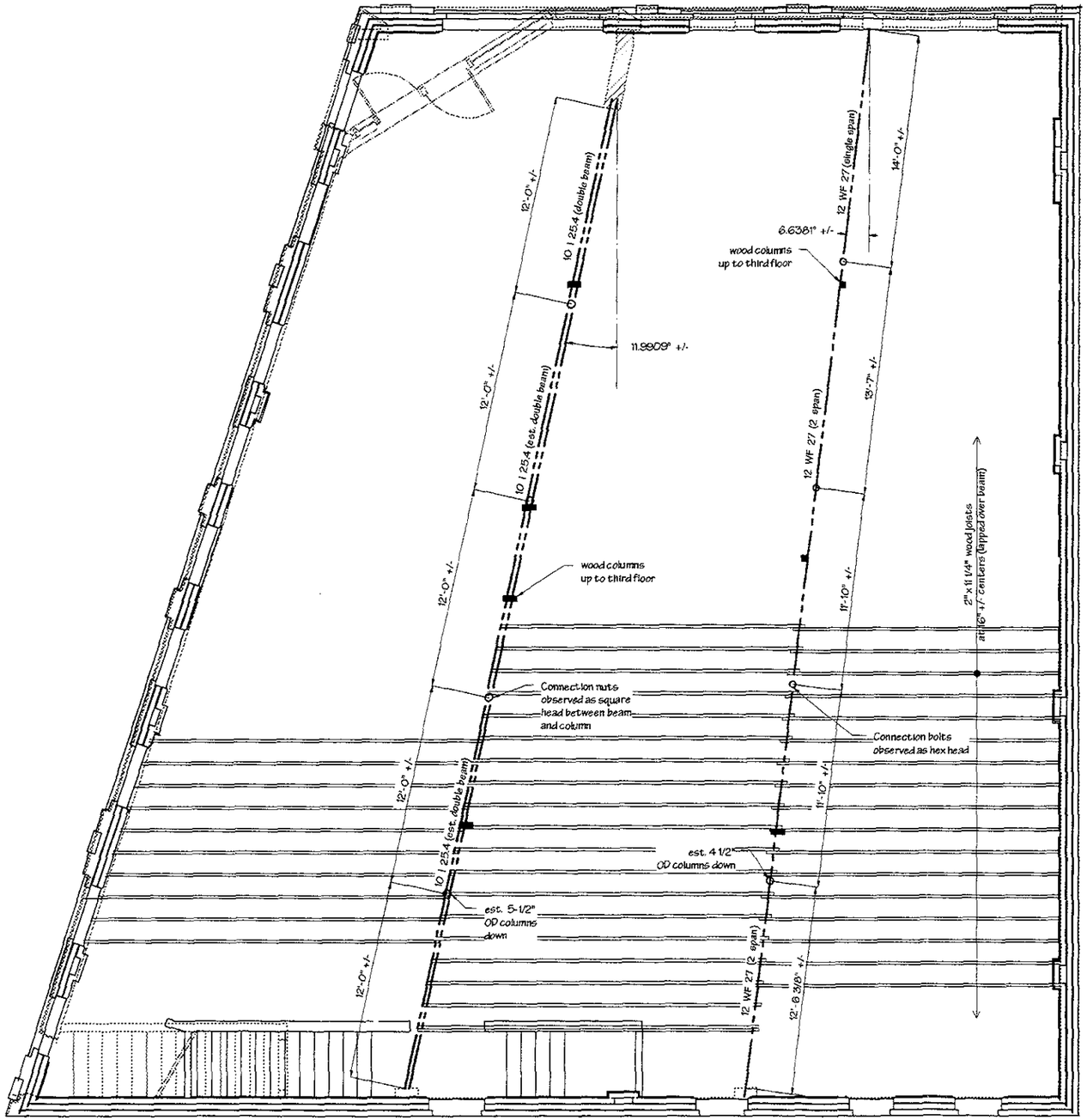
PREPARED: TRF
DESIGNED
TRF/CLK
DRAWN
TRF/CLK
CHECKED
02-26-97
DATE

TITLE OF SHEET: **First Floor Framing Plan**

Existing Conditions of Hoover Block
Dayton Aviation Heritage National Historic Park
Dayton, Ohio
United States of America
Department of the Interior
National Park Service

AUTOCAD FILE NO.
SUB SHEET NO.
EXS - 101

DRAWING NO. 362 / 20013
SHEET 2 OF 6



Steel Beam Notes:

West beam line measured at north end near masonry pier. Double side by side beam was observed. Depth was measured on east side and was found to be slightly more than 10". The flange width was measured at about 4 9/16". The inside of flanged sloped making it an I or "American Standard" section. Bolts were older square head type. *Iron and Steel Beams 1873 to 1952*, by AISC indicates that the section is a 10 I 25.4 rolled by various mills from 1931 through 1950.

Easterly beam line was measured to be 12" deep with a 6 1/2" flange width. Flange was flat indicating a wide flange type beam. Flange thickness measured 0.37". *Iron and Steel Beams 1873 to 1952*, by AISC, yields a 12 WF 28 rolled by various mills around 1931 to 1934, or a 12 WF 27 rolled by various mills around 1946 to 1967.

North
West East
4 2 0 4 8
Scale: 1/4" = 1'-0"

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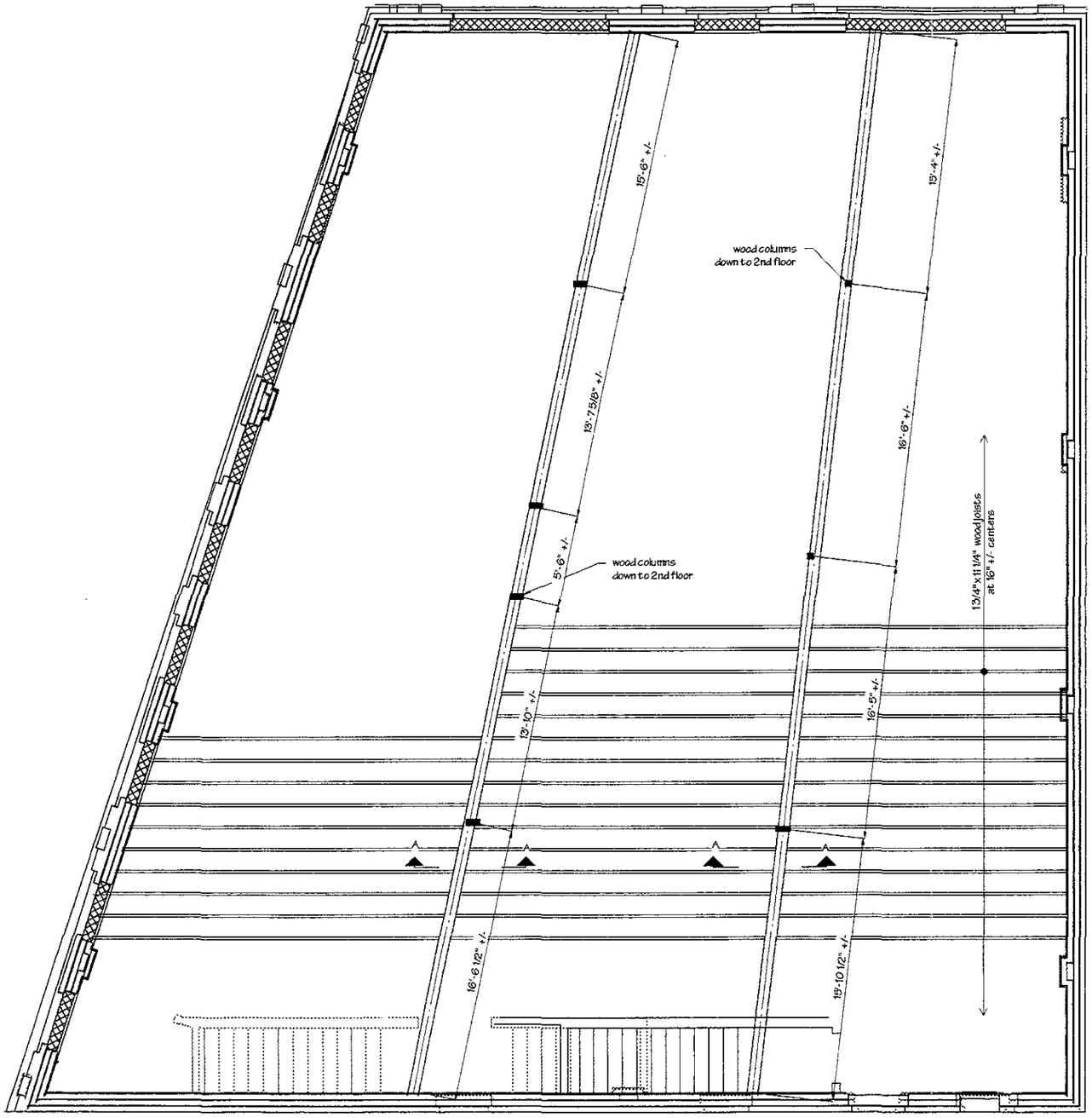
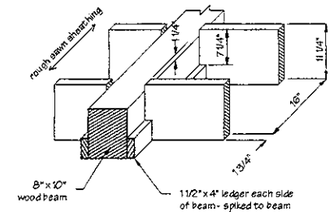
QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 663 8888

REVISED		PREPARED	TITLE OF SHEET		AUTOCAD FILE NO.	DRAWING NO.
DATE	REVISE	TRF	Second Floor Framing Plan	Existing Conditions of Hoover Block Dayton Aviation Heritage National Historic Park Dayton, Ohio United States of America Department of the Interior National Park Service	SUB SHEET NO.	362 / 20013
		DESIGNED TRF/CLK				SHEET 3
		DRAWN TRF/CLK			EXS - 102	OF 6
		CHECKED 02 - 26 - 97				
		DATE				





Section AA

12" 8" 4" 0 12" 24"

Scale: 3/4" = 1'-0"

North
West East

4 2 0 4 8

Scale: 1/4" = 1'-0"

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ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 665 5866

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DATE	INITIAL

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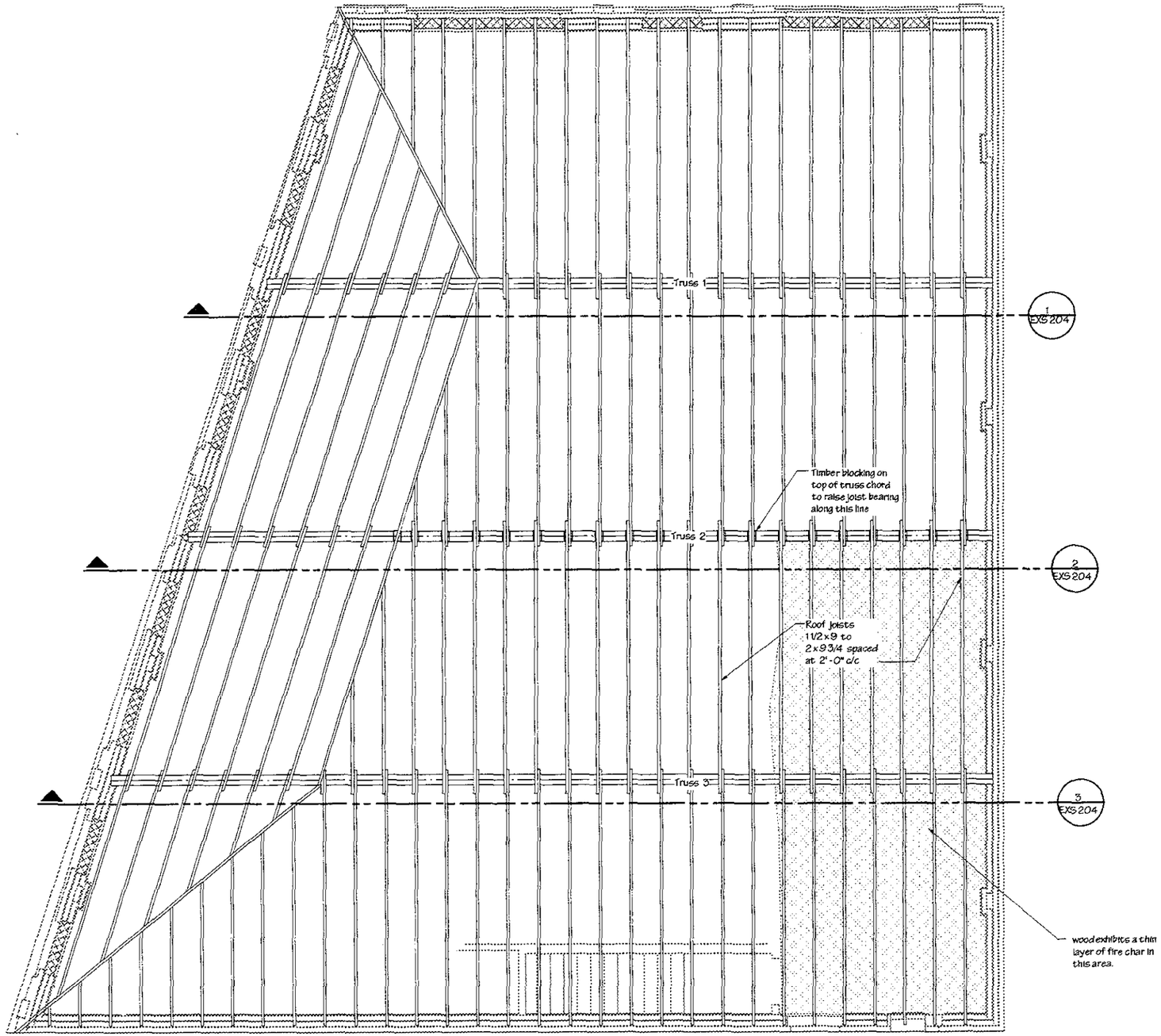
TRF
DESIGNED
TRF/CLK
DRAWN
TRF/CLK
CHECKED
02-26-97
DATE

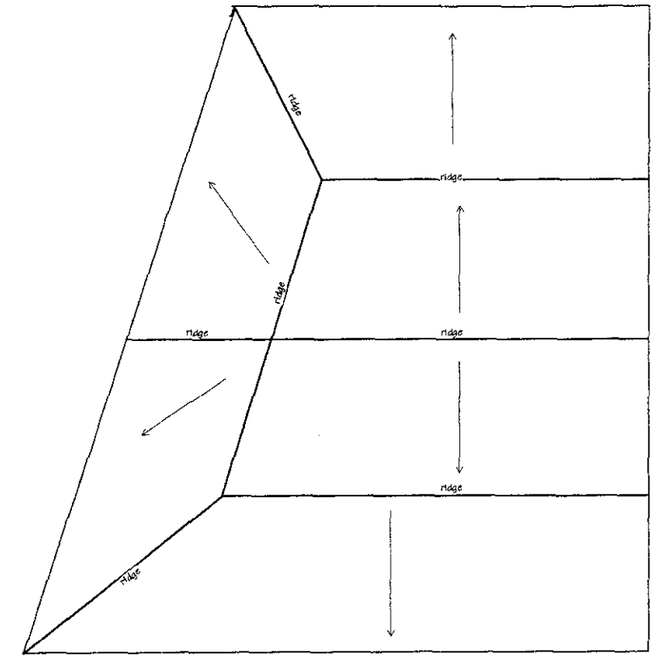
TITLE OF SHEET
Third Floor Framing Plan

Existing Conditions of Hoover Block
Dayton Aviation Heritage National Historic Park
Dayton, Ohio
United States of America
Department of the Interior
National Park Service

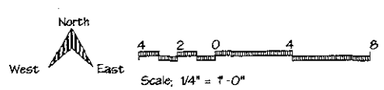
AUTOCAD FILE NO.
SUB SHEET NO.
EXS - 103

DRAWING NO.
362
20013
SHEET 5 OF 6

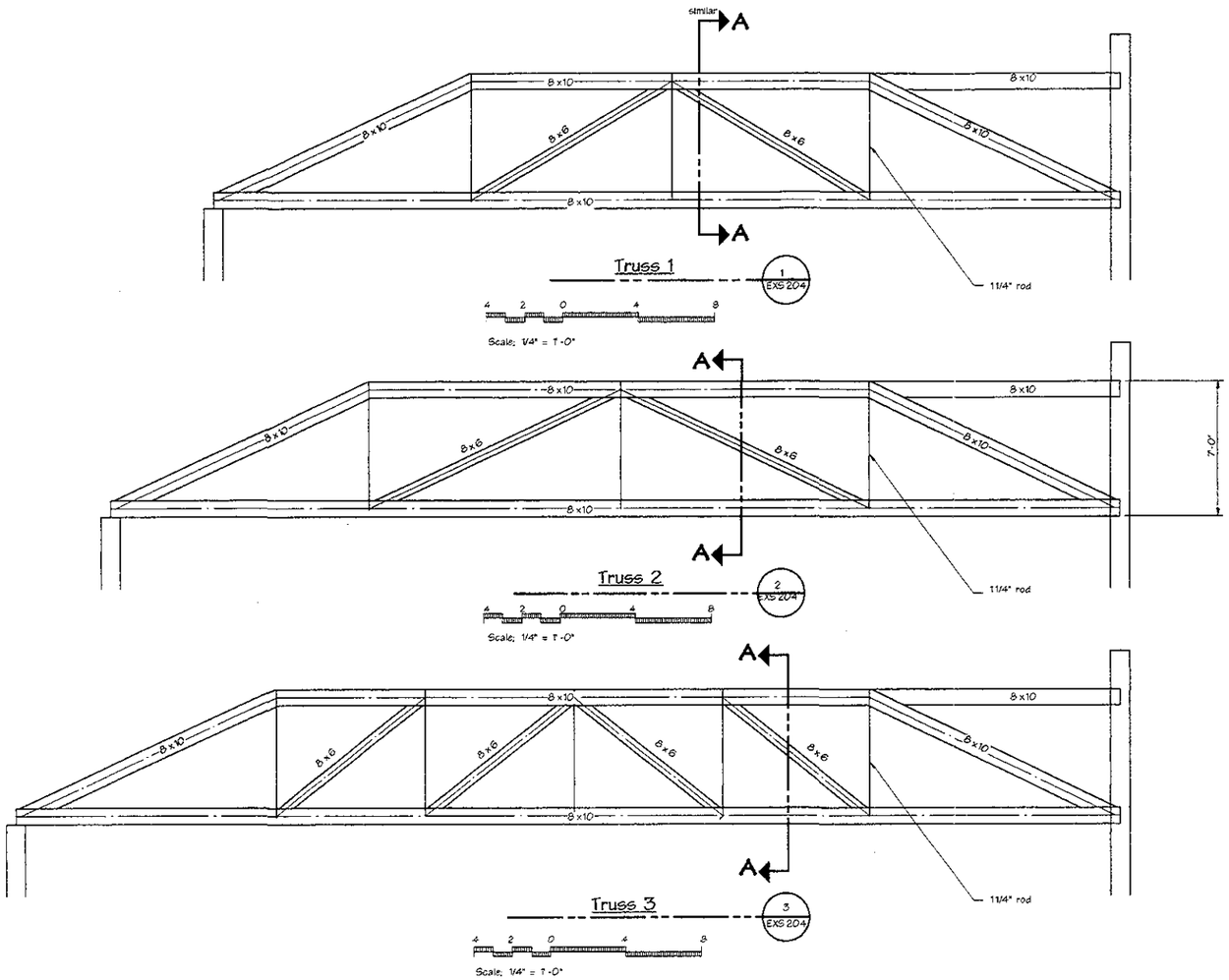


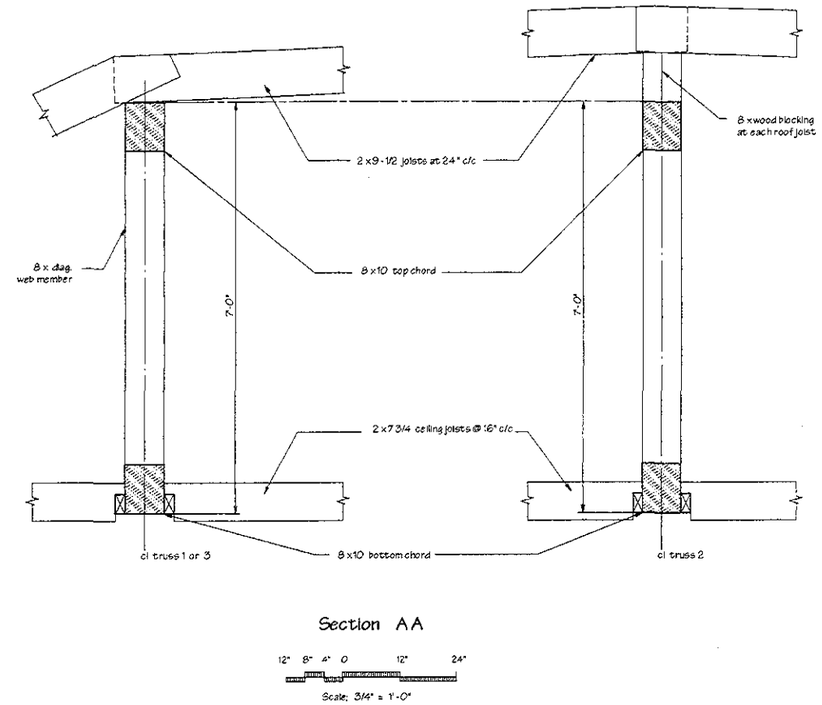


Schematic Roof Slope Plan



Fitzpatrick Structural Engineering, P.C. 219-1/2 N. Main • Ann Arbor • MI • 48104 313-769-0320 Fax 313-769-3015	QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	REVISED DATE / INITIAL	PREPARED TRF DESIGNED TRF/CLK DRAWN TRF/CLK CHECKED 02-26-97 DATE	TITLE OF SHEET Roof Framing Plan	Existing Conditions of Hoover Block Dayton Aviation Heritage National Historic Park Dayton, Ohio United States of America Department of the Interior National Park Service	AUTOCAD FILE NO. SUB SHEET NO. EXS - 104	DRAWING NO. 362 20043 SHEET 5 OF 6





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QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 663 8888

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DESIGNED: TRF/CLK
DRAWN: TRF/CLK
CHECKED: 02-26-97
DATE

TITLE OF SHEET: Roof Truss Sections

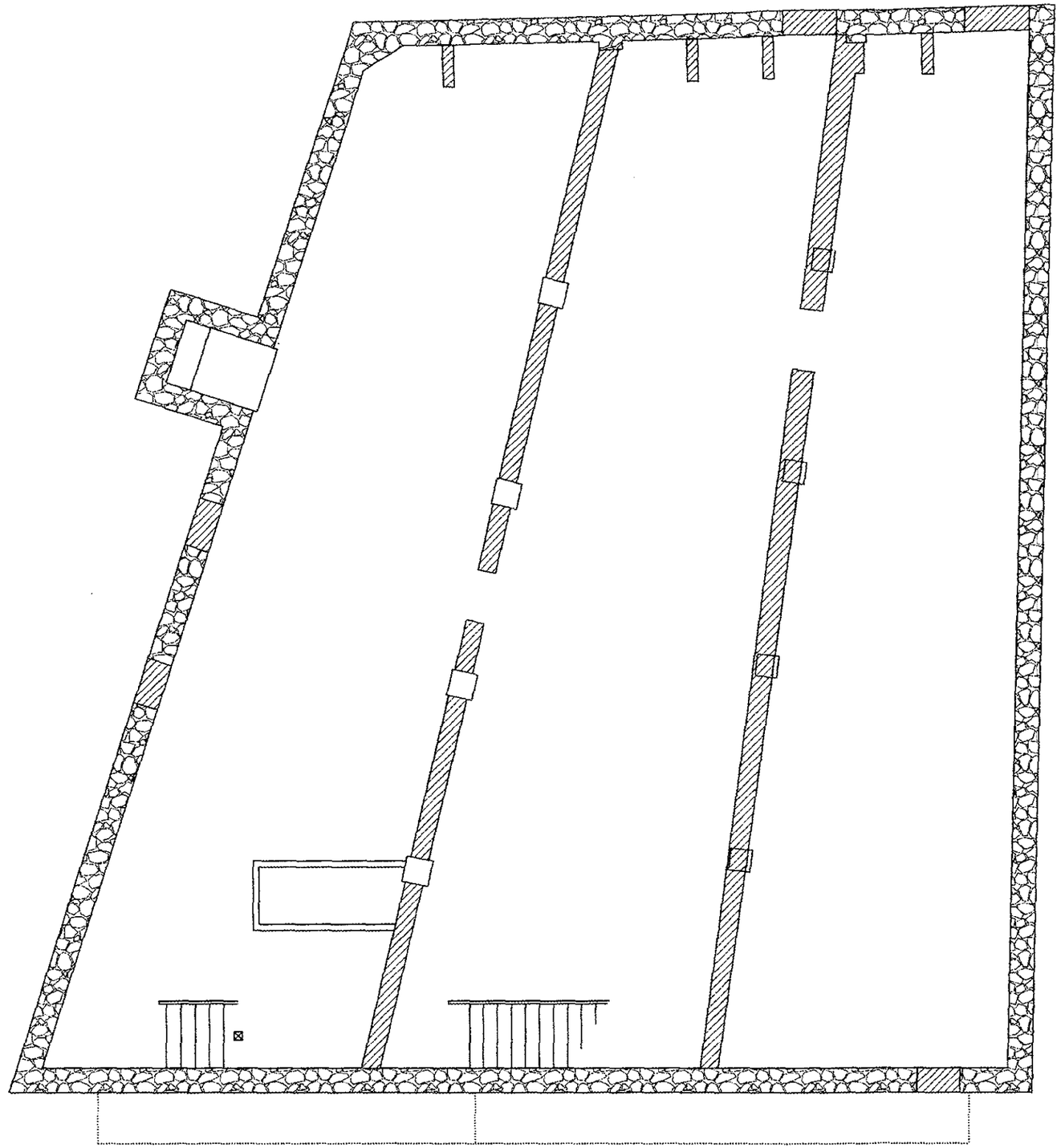
Existing Conditions of Hoover Block
Dayton Aviation Heritage National Historic Park
Dayton, Ohio
United States of America
Department of the Interior
National Park Service

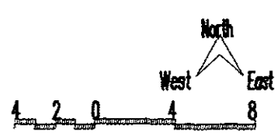
AUTOCAD FILE NO.
SUB SHEET NO.
EXS - 204

DRAWING NO. 362 / 20013
SHEET 6 OF 6

Appendix D

Existing Condition Drawings





Scale: 1/4" = 1'-0"

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QUINN EVANS ARCHITECTS
Ann Arbor, Michigan 48104

REVISED	
9/9/97	CLK

PREPARED
DESIGNED TRF
DRAWN TRF/CLK
CHECKED TRF/CLK
DATE 07-26-97

TITLE OF SHEET

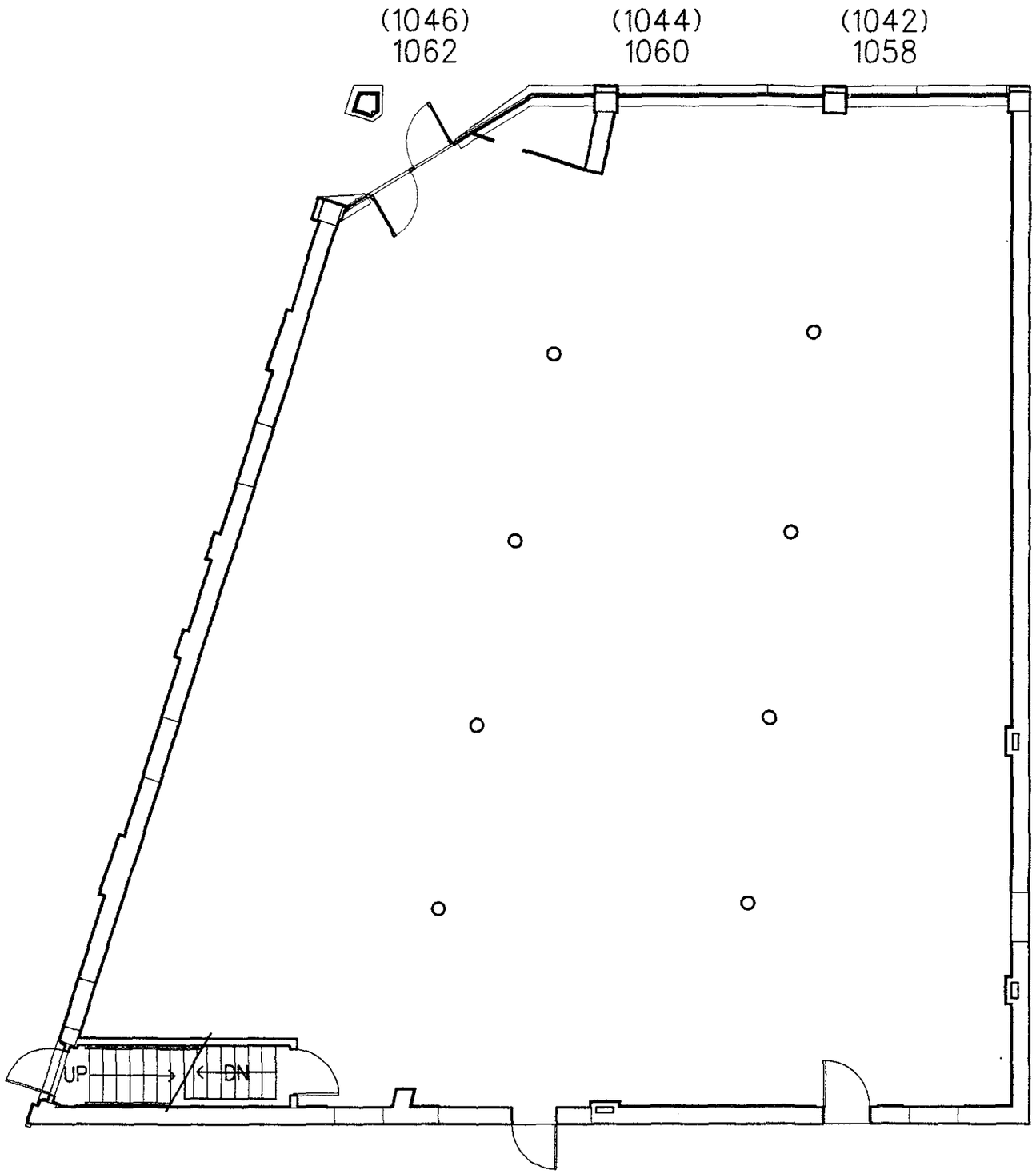
EXISTING CONDITIONS BASEMENT FLOOR PLAN

HOOVER BLOCK
DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK

SUB SHEET NO.

DRAWING NO. 362 20014

SHEET 1 OF 8



QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 663 5888

DESIGNED:
DRAWN:
TECH REVIEW:
DATE:

SUB SHEET NO.

TITLE OF SHEET

EXISTING CONDITIONS FIRST FLOOR PLAN

HOOVER BLOCK
DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK

DRAWING NO. 362 90C74

PKG. NO. —

SHEET 2 OF 8

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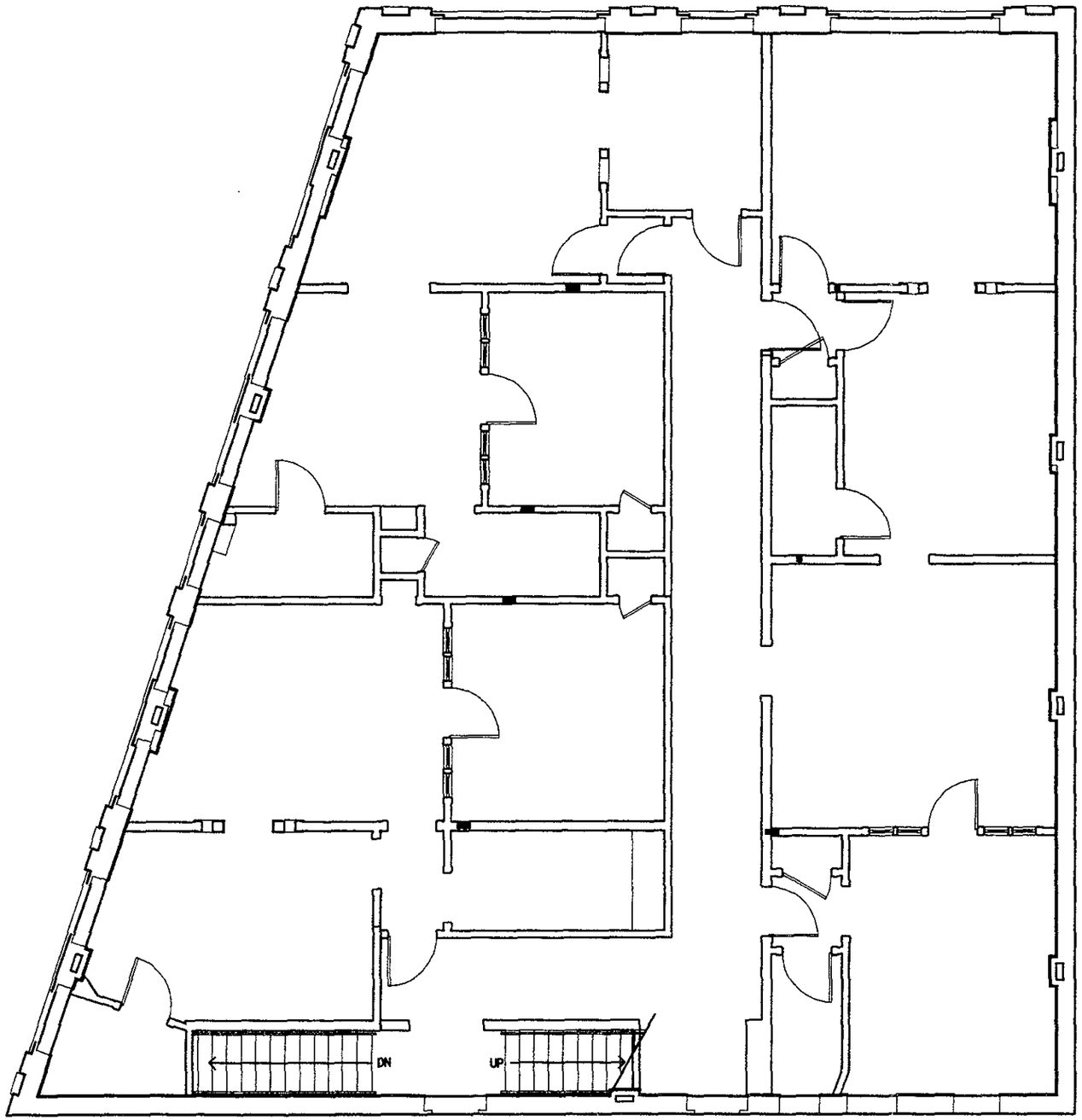

QUINN EVANS ARCHITECTS
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Ann Arbor, Michigan 48104
313 663 5888

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DRAWN:
TECH REVIEW:
DATE:

SUB SHEET NO.

TITLE OF SHEET

EXISTING CONDITIONS SECOND FLOOR PLAN

HOOVER BLOCK
DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK

DRAWING NO. 362 20014

PKG. NO.

SHEET 3 OF 8

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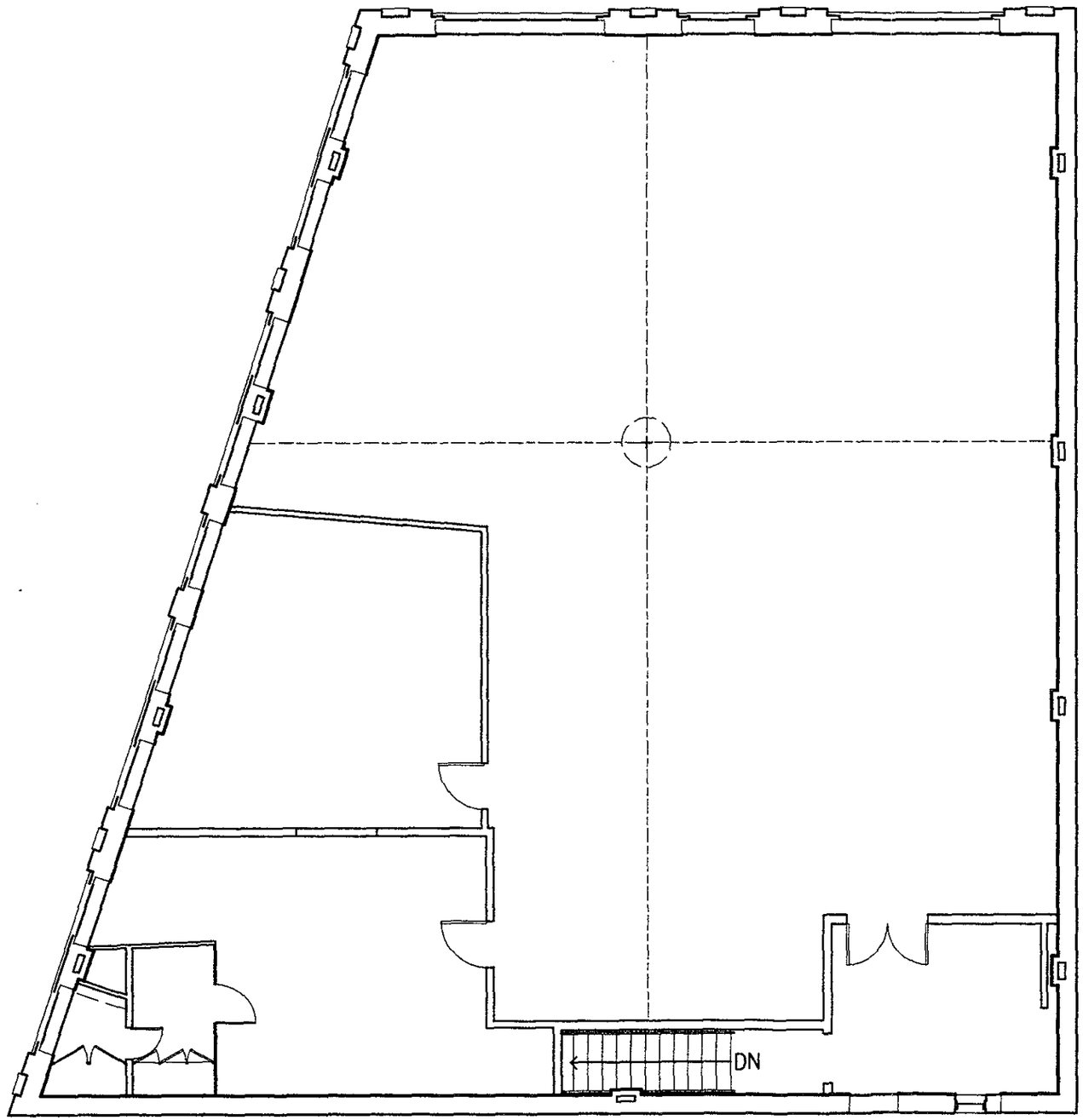

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Ann Arbor, Michigan 48104
313 663 5888

DESIGNED:
DRAWN:
TECH REVIEW:
DATE:

SUB SHEET NO.

TITLE OF SHEET

EXISTING CONDITIONS THIRD FLOOR PLAN

HOOVER BLOCK
DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK

DRAWING NO. 362 2001 4

PKG. NO. —

SHEET 4 OF 8

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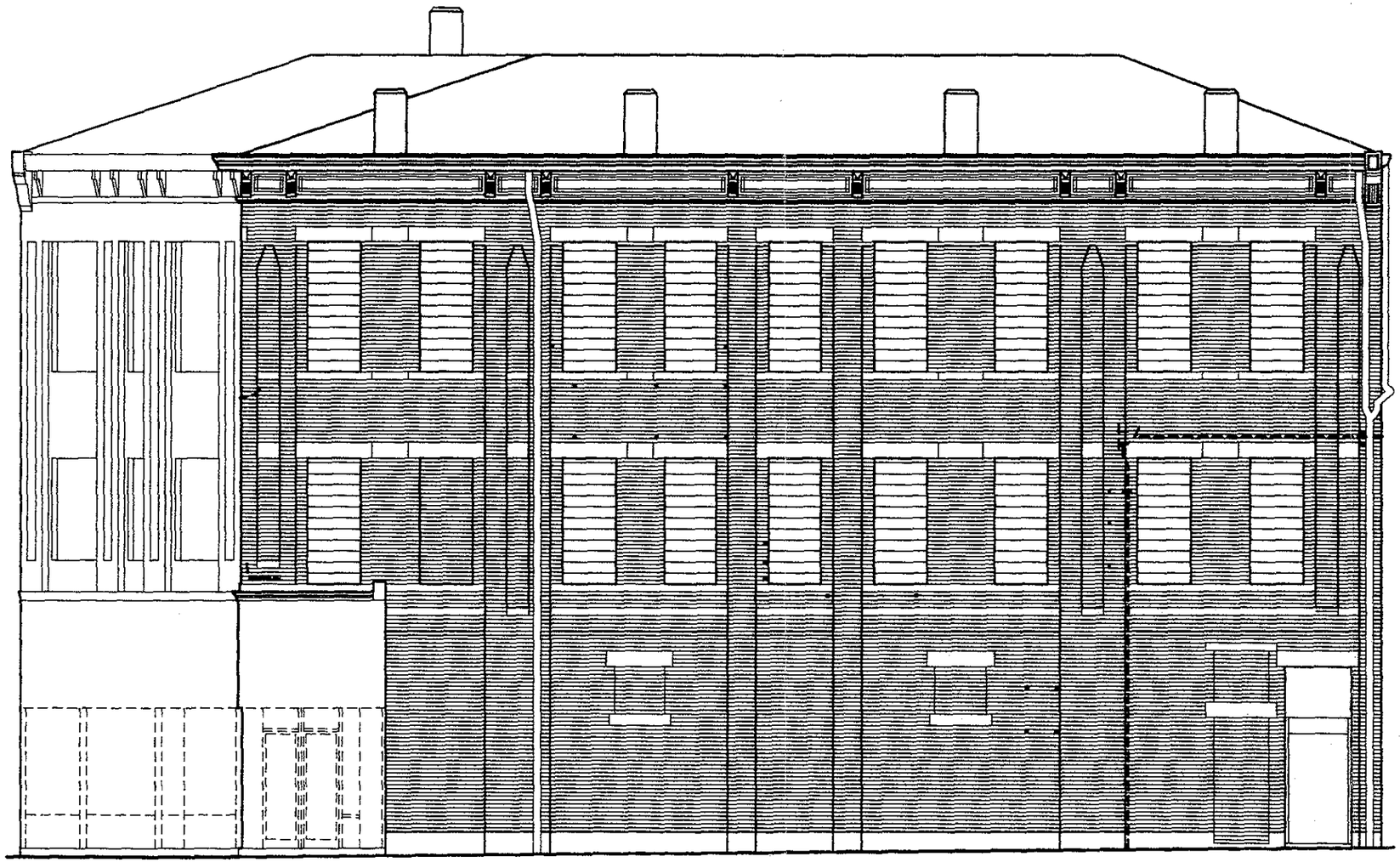


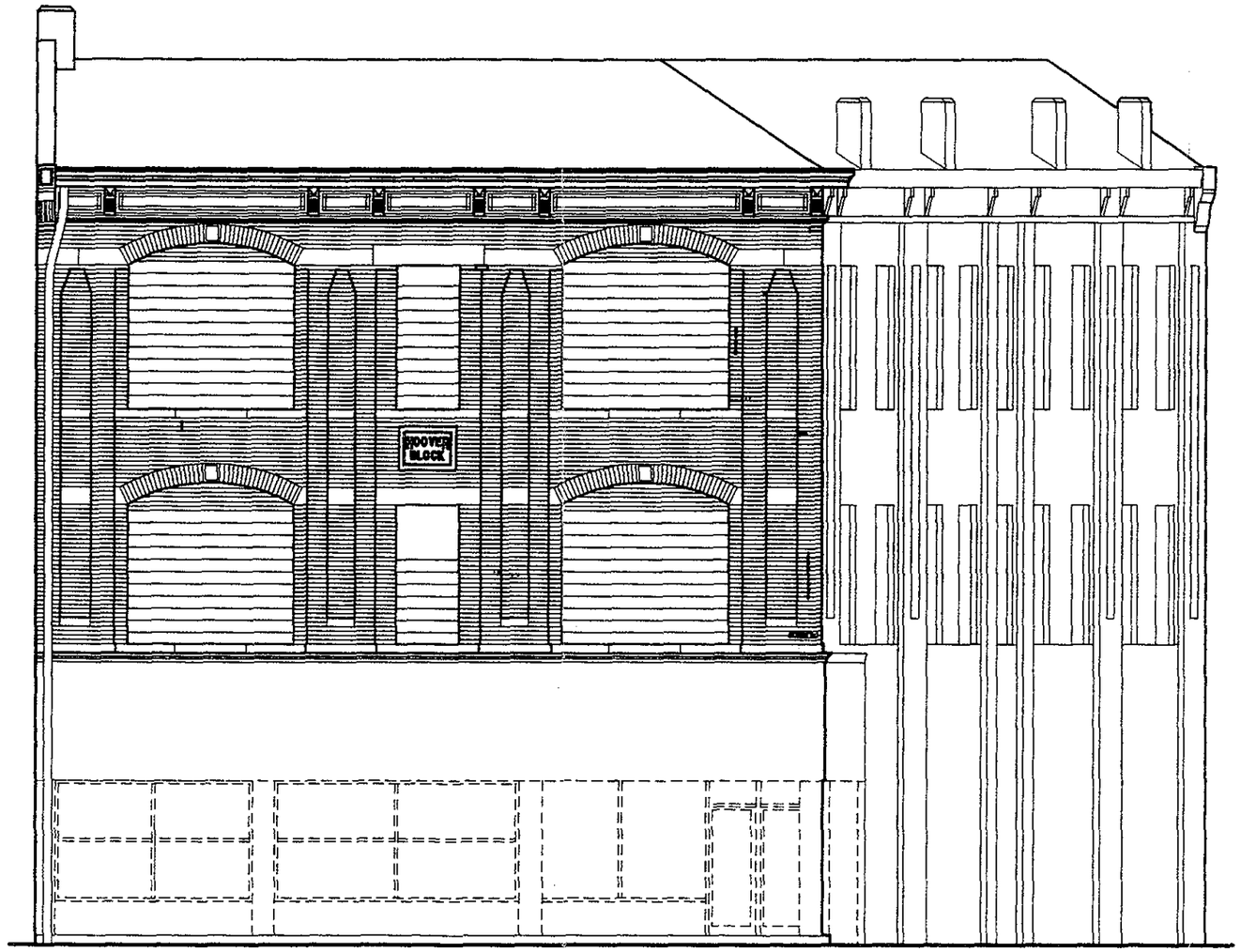
WEST ELEVATION

SCALE: 1/4"= 1'-0"

1
A201 | A201

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO.	TITLE OF SHEET **WEST ELEVATION EXISTING CONDITIONS** HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20074 PKG. NO. SHEET 5 OF 8



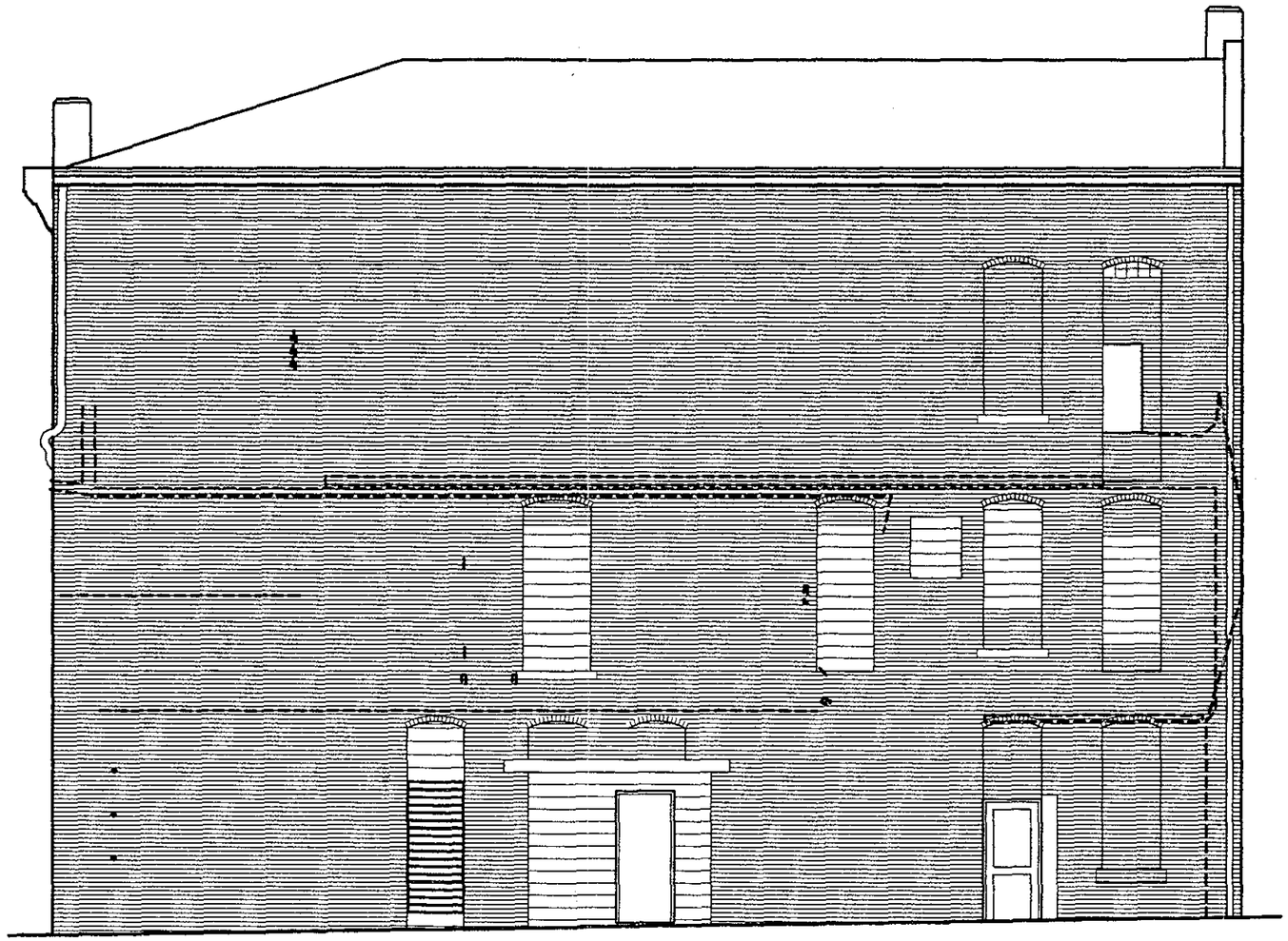
NORTH ELEVATION

SCALE: 1/4"= 1'-0"

1
A200 | A200

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO.	TITLE OF SHEET EXISTING CONDITIONS NORTH ELEVATION HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20074 PKG. NO. — SHEET 6 OF 8



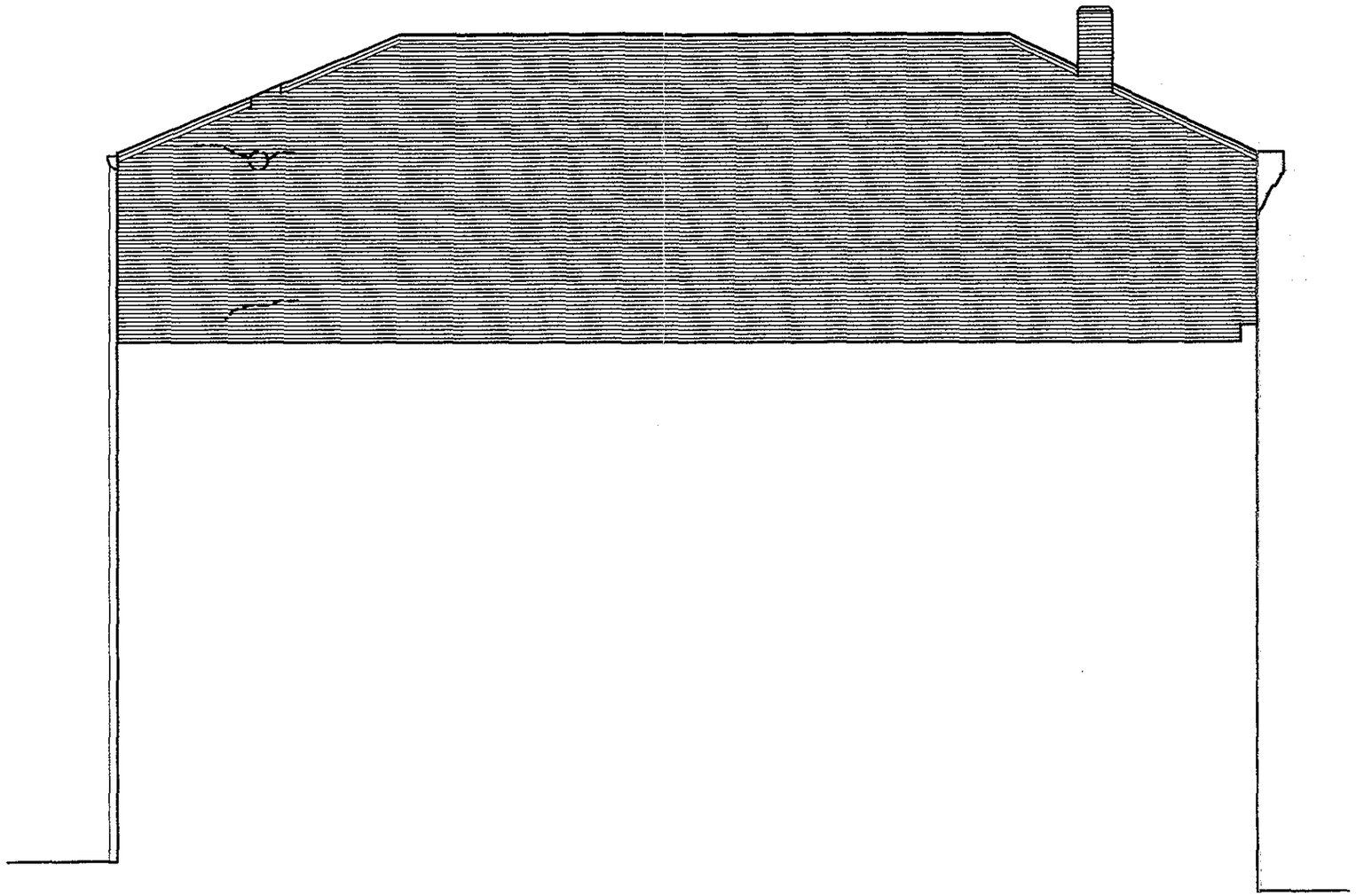
SOUTH ELEVATION

SCALE: 1/4"= 1'-0"

1
A202 | A202

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO.	TITLE OF SHEET SOUTH ELEVATION EXISTING CONDITIONS HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20014 PKG. NO. SHEET 7 OF 8



EAST ELEVATION

SCALE: 1/4"= 1'-0"

1
A203 | A203

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS
219 1/2 N. Main Street
Ann Arbor, Michigan 48104
313 663 5888

DESIGNED:
DRAWN:
TECH REVIEW:
DATE:

SUB SHEET NO.

TITLE OF SHEET

EXISTING CONDITIONS EAST ELEVATION

HOOVER BLOCK
DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK

DRAWING NO. 362 20014

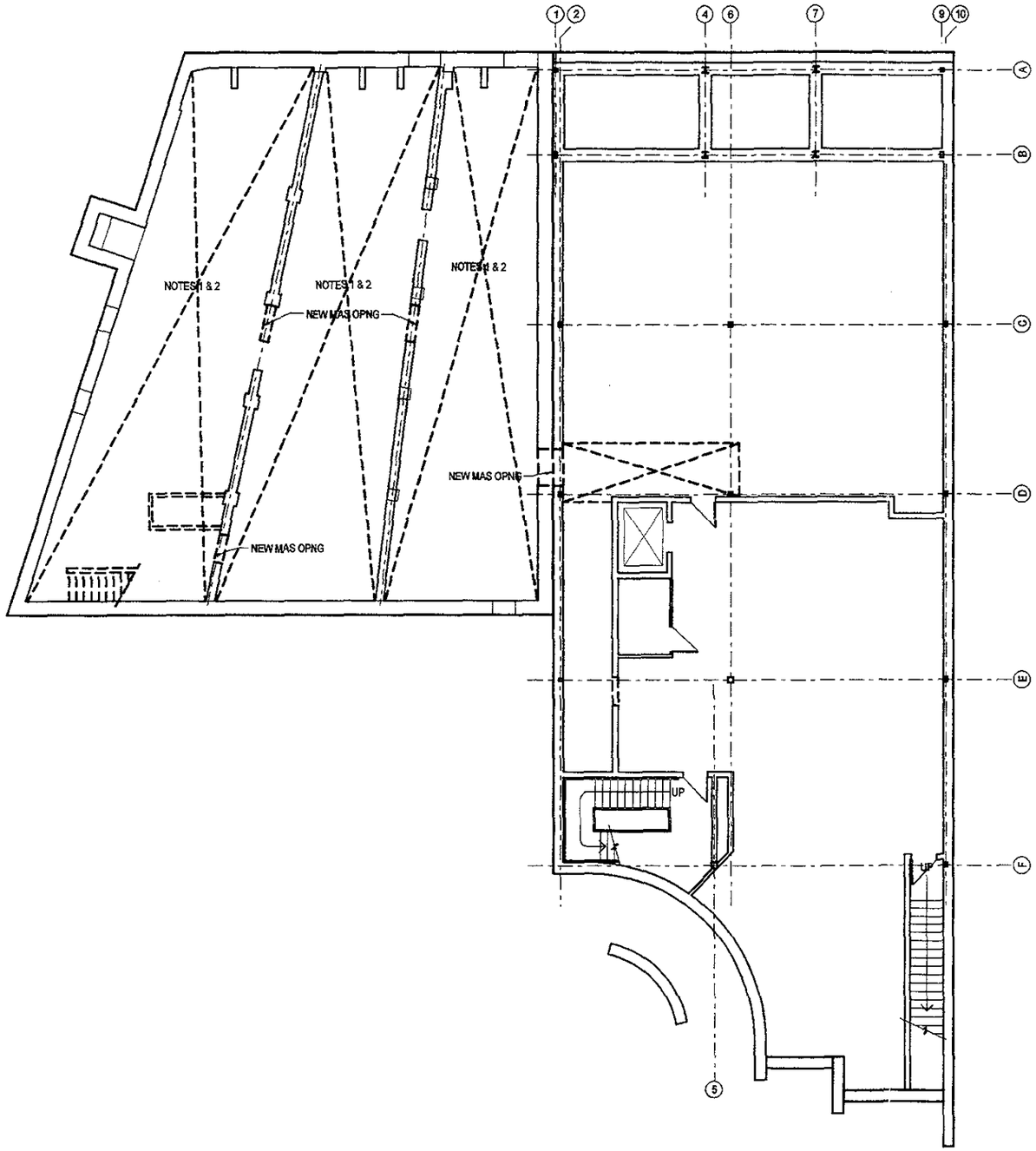
PKG. NO. —

SHEET 8 OF 8

...\drawings\existcond\east.dgn Apr. 08, 1998 10:28:41

Appendix E

Preliminary Design Drawings



BASEMENT DEMO PLAN

SCALE: 1/16"=1'-0"

1 D100 | D100

KEYED NOTES

WORK NOTES - SHEET D100

1. REMOVE CONC FLOOR SLAB.
2. EXCAVATE FLOOR 4'-0" DEEP. SEE A100 FOR UNDERPINNING REQ'TS.
3. REMOVE ALL CONDUIT, PIPING AND DEBRIS.

LEGEND - SHEET D100

ITEM TO REMAIN.

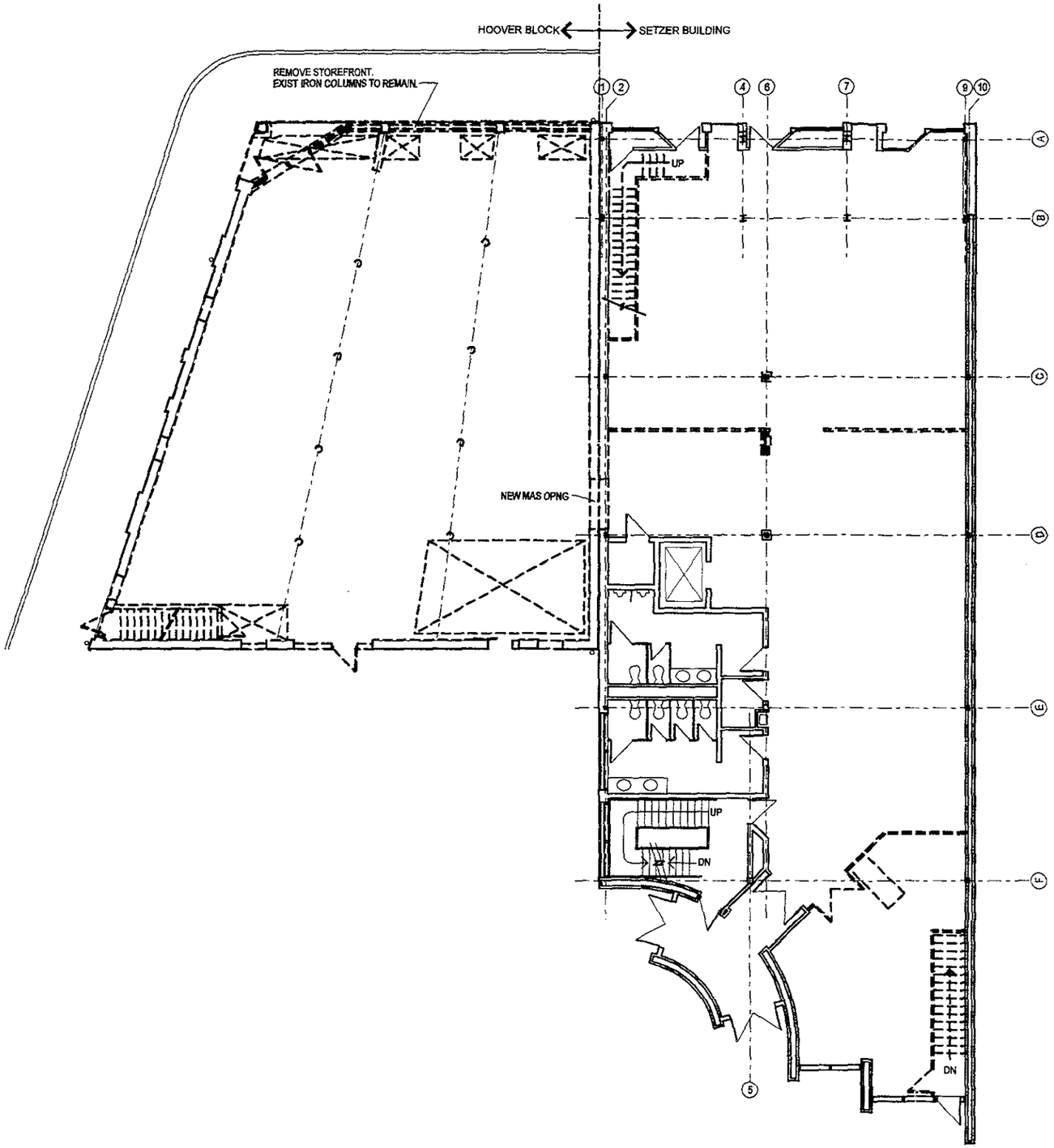
ITEM TO BE REMOVED.

NORTH

8 0 8 16

SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. D100	TITLE OF SHEET BASEMENT DEMOLITION PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 342 / 20013 PKG. NO. SHEET 1 OF 2



FIRST FLOOR DEMO PLAN

SCALE: 1/8"=1'0"

1 D101 | D101

KEYED NOTES

WORK NOTES - SHEET D101

1. REMOVE MASONRY INFILL AT EXIST WINDOWS. SEE ELEVATIONS FOR NEW WINDOW LOCATIONS.
2. REMOVE INTERIOR FINISHES TO SUBFLOOR AT FLOOR, TO MASONRY AT WALLS AND TO JOISTS AT CEILING.
3. REMOVE STEEL POST AND BEAM FRAMING FOR SECOND FLOOR.
4. SALVAGE WOOD STRIP FLOORING FOR REUSE.

LEGEND - SHEET D101

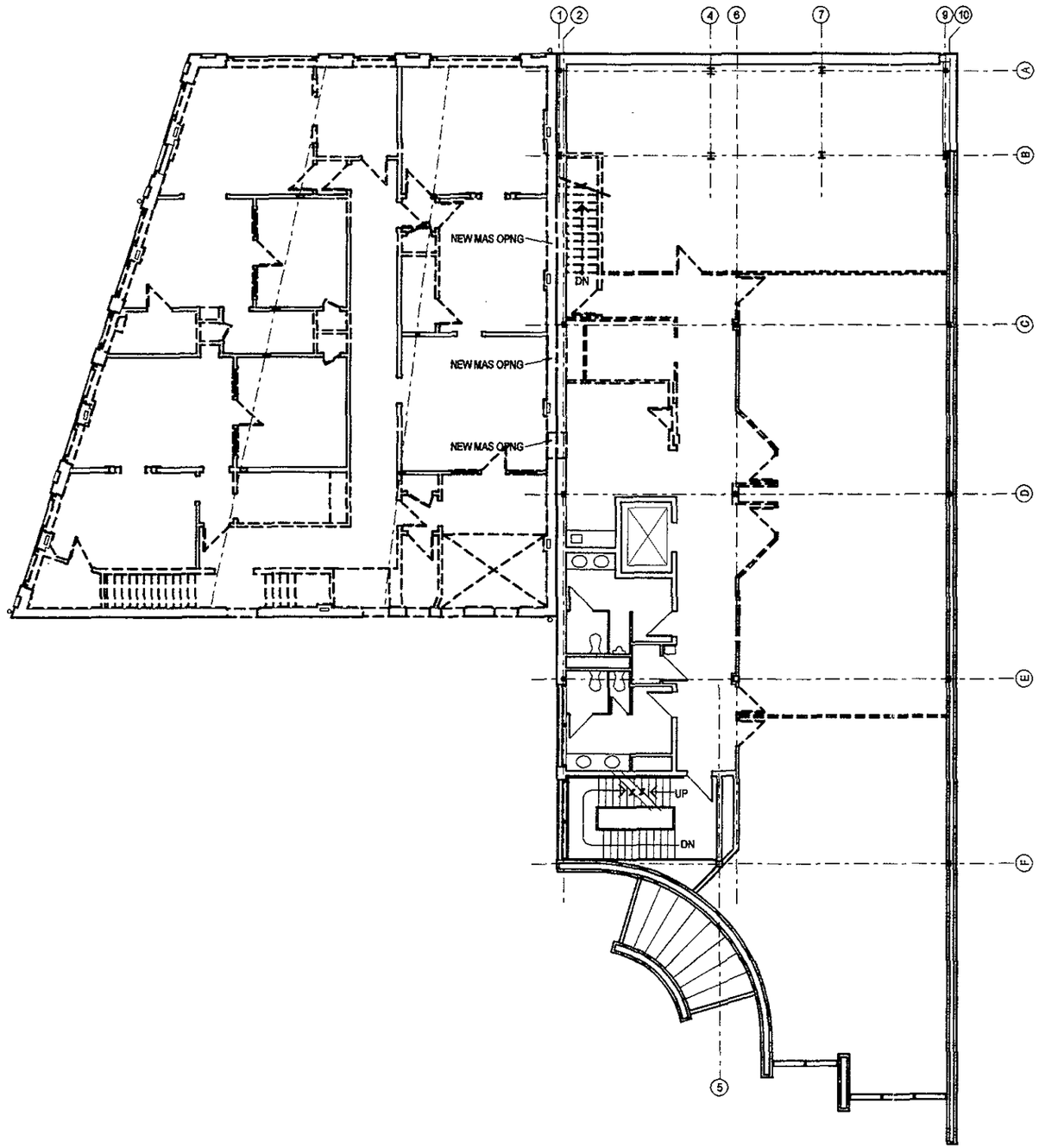
ITEM TO REMAIN.

ITEM TO BE REMOVED.

NORTH

8 0 8 16
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. D101	TITLE OF SHEET FIRST FLOOR DEMOLITION PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20014 PKG. NO. — SHEET 2 OF 12



2ND FLOOR DEMO PLAN

SCALE: 1/16"=1'-0"

1
D102 | D102

KEYED NOTES

WORK NOTES - SHEET D102

1. REMOVE MASONRY INFILL AT EXIST WINDOWS. SEE ELEVATIONS FOR NEW WINDOW LOCATIONS.
2. REMOVE INTERIOR FINISHES TO SUBFLOOR AT FLOOR, TO MASONRY AT EXTERIOR WALLS, TO STUDS AT INTERIOR WALLS AND TO JOISTS AT CEILING.
3. SALVAGE WOOD STRIP FLOORING FOR REUSE.

LEGEND - SHEET D102

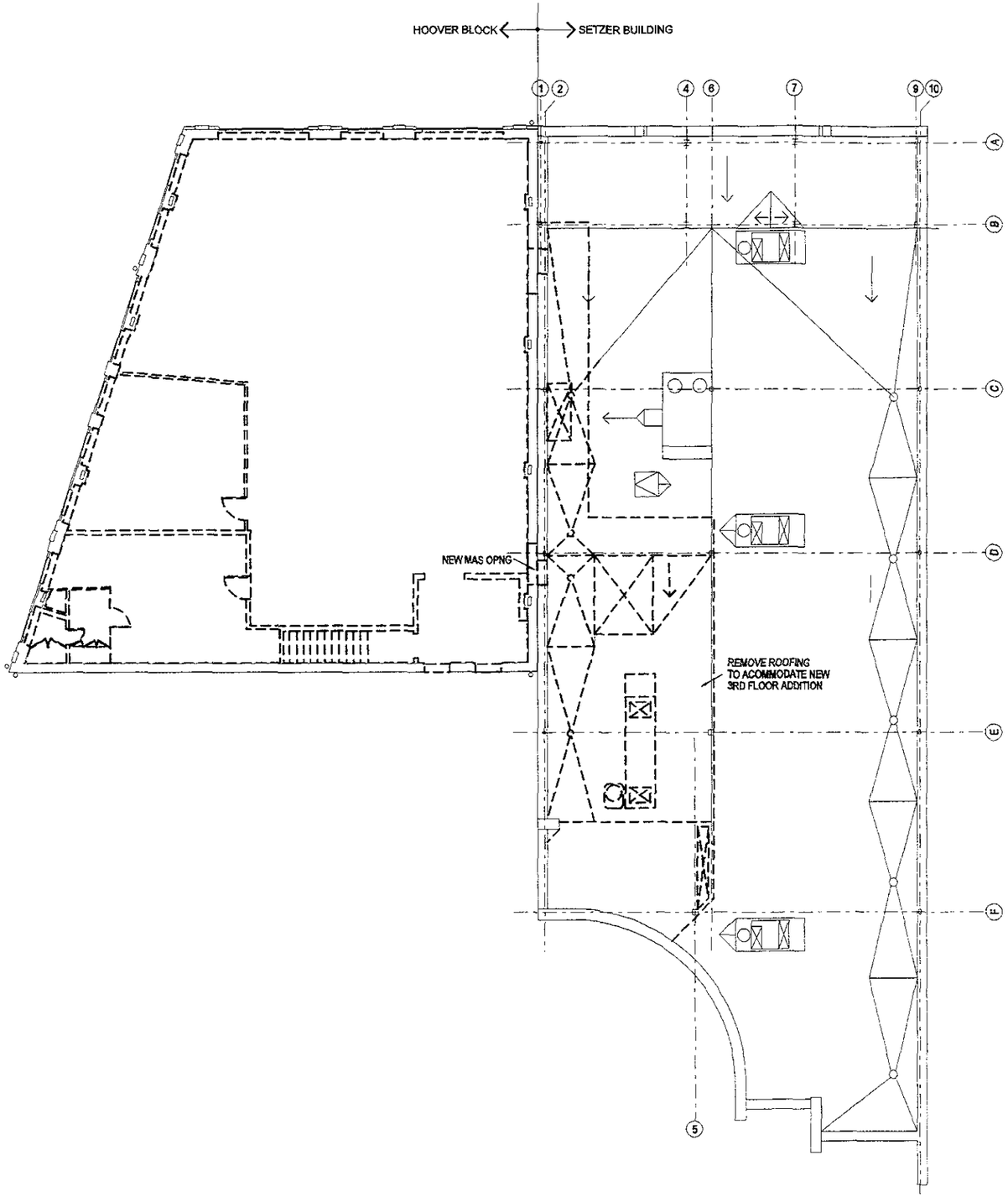
ITEM TO REMAIN.

ITEM TO BE REMOVED.

NORTH

8 0 8 16
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. D102	TITLE OF SHEET SECOND FLOOR DEMOLITION PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20.015 PKG. NO. SHEET 3 OF 12



3RD FLOOR DEMO PLAN

SCALE: 1/16"=1-0"

1
D103 D103

KEYED NOTES

WORK NOTES - SHEET D103

1. REMOVE MASONRY INFILL AT EXIST WINDOWS. SEE ELEVATIONS FOR NEW WINDOW LOCATIONS.
2. REMOVE INTERIOR FINISHES TO SUBFLOOR AT FLOOR, TO MASONRY AT EXTERIOR WALLS, TO STUDS AT INTERIOR WALLS AND TO JOISTS AT CEILING.
3. SALVAGE WOOD STRIP FLOORING FOR REUSE.
4. SALVAGE WOOD TRIM FOR REUSE.

LEGEND - SHEET D103

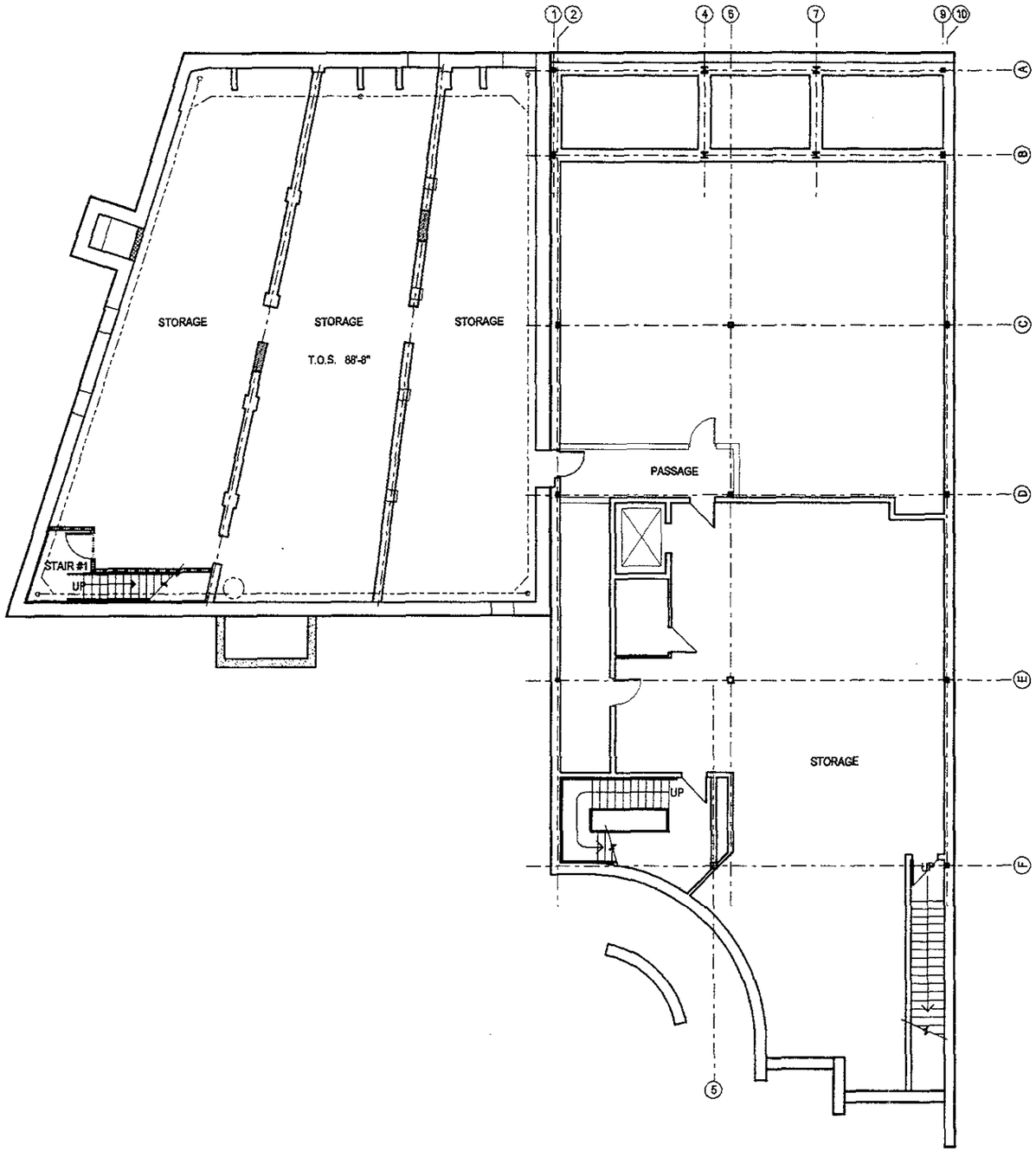
ITEM TO REMAIN.

ITEM TO BE REMOVED.

NORTH

8 0 8 16
SCALE OF FEET

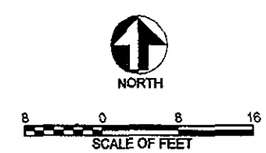
QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. D103	TITLE OF SHEET THIRD FLOOR DEMOLITION PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 2001b PKG. NO. — SHEET 4 OF 12



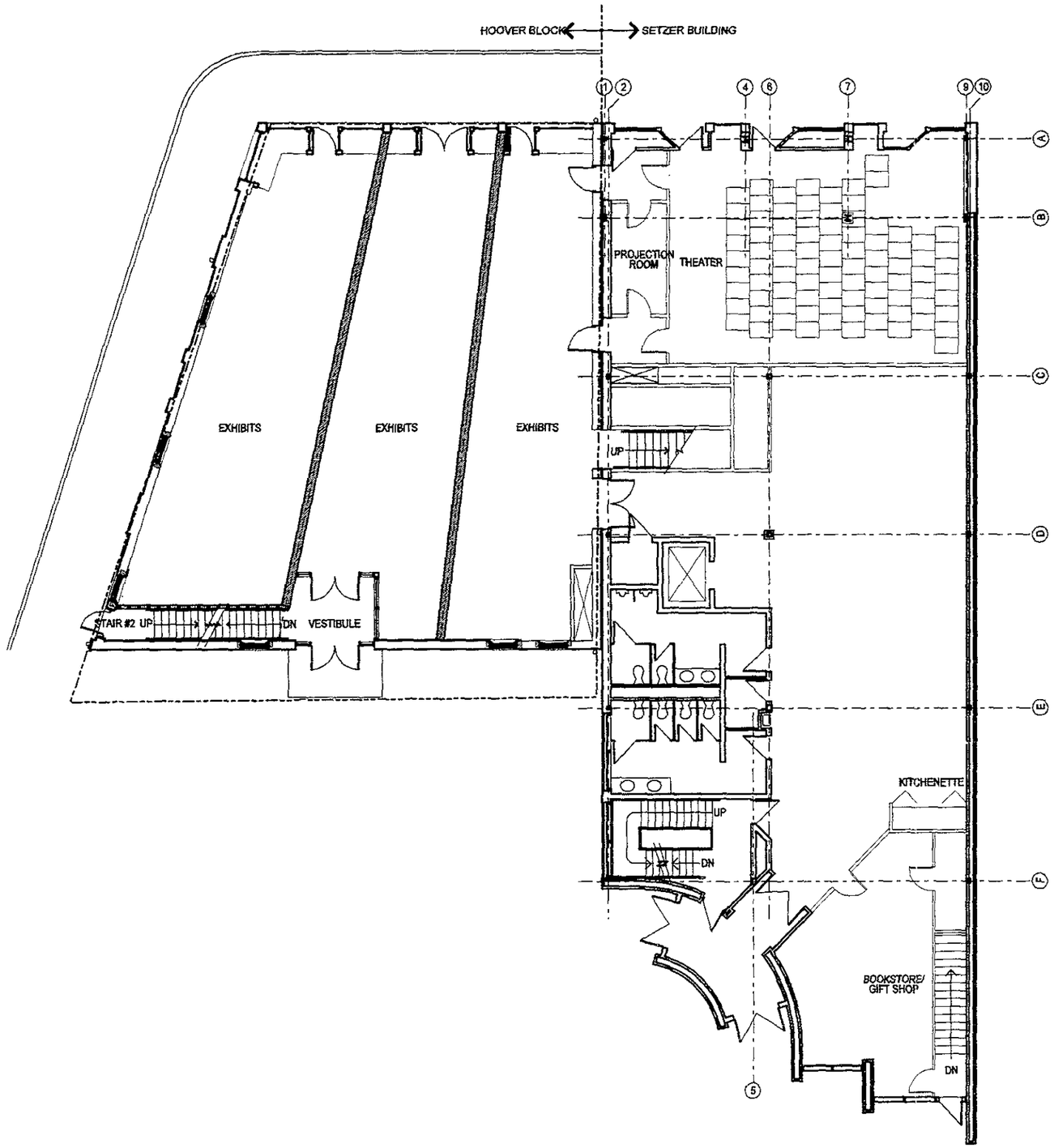
BASEMENT FLOOR PLAN

SCALE: 1/16"=1'-0"

1
A101 A101



QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE: 1/14/99	SUB SHEET NO. A100	TITLE OF SHEET BASEMENT FLOOR PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 302 2001 5 PKG. NO. SHEET 5 OF 12



NORTH

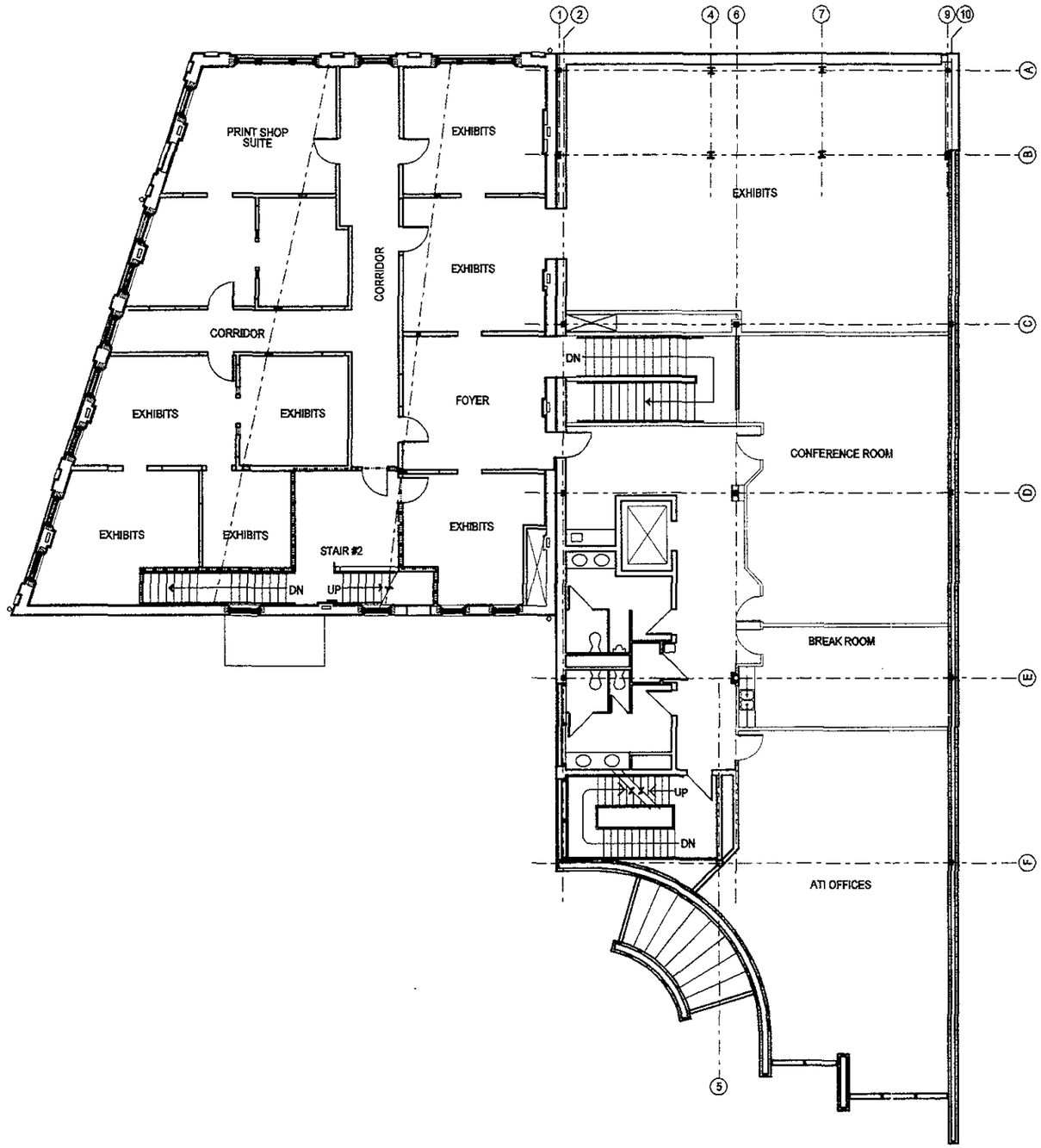
8 0 8 16
SCALE OF FEET

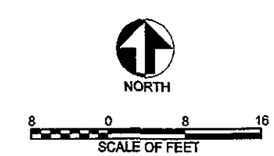
FIRST FLOOR PLAN

SCALE: 1/16"=1'-0"

1
A101 A101

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE: 1/14/99	SUB SHEET NO. A101	TITLE OF SHEET FIRST FLOOR PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 342 24015 PKG. NO. — SHEET 6 OF 12



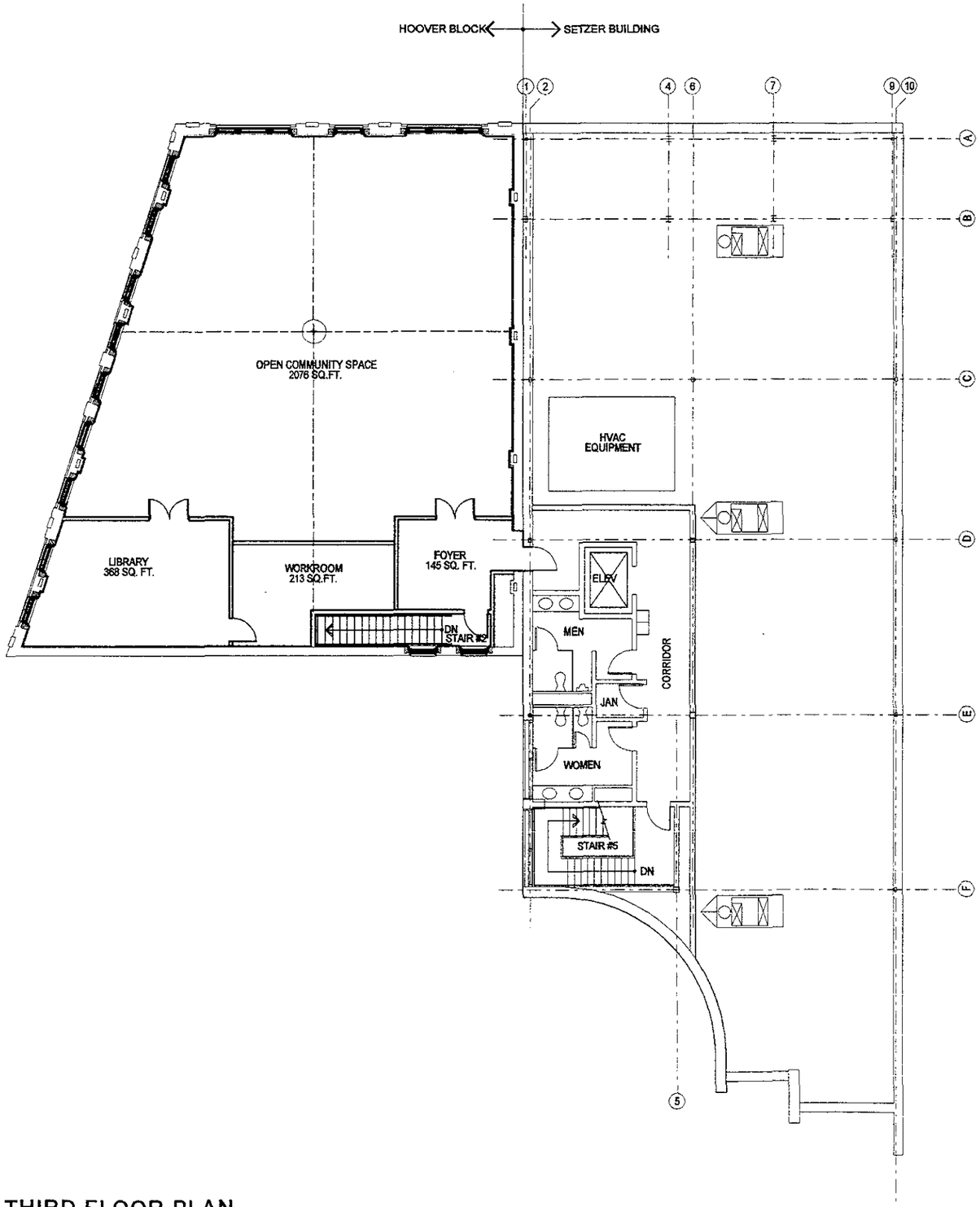


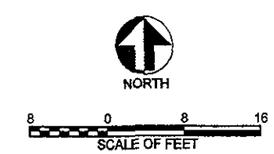
SECOND FLOOR PLAN

SCALE: 1/16"=1'-0"

1
A102 A102

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE: 1/14/99	SUB SHEET NO. A102	TITLE OF SHEET SECOND FLOOR PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 50015 PKG. NO. SHEET 7 OF 12





THIRD FLOOR PLAN

SCALE: 1/16"=1'-0"

1
A103 | A103

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE: 1/14/99	SUB SHEET NO. A103	TITLE OF SHEET THIRD FLOOR PLAN HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 / 20015 PKG. NO. — SHEET 8 OF 12

NORTH ELEVATION

SCALE: 1/8"=1'-0"

1
A200 | A200

KEYED NOTES

02070 - SELECTIVE DEMOLITION

B.) *EXISTING STREET SIGN TO REMAIN.*

07600 - SHEET METAL RESTORATION AND CLEANING

A.) REPOSITION RAIN CONDUCTOR TO TRUE VERTICAL *ALIGNMENT.*

GENERAL WORK NOTES - SHEET A200

02070 - SELECTIVE DEMOLITION

1.) DEMOLISH CMU AND BRICK INFILL AT WINDOW OPENINGS.
2.) DEMOLISH ALL MISCELLANEOUS WOOD AND METAL ATTACHMENTS.

04525 - MASONRY RESTORATION AND CLEANING

1.) REPOINT 100% OF MASONRY JOINTS.
2.) REPLACE ALL MISSING, SPALLED, CRACKED AND SEVERELY WEATHERED MASONRY. *(AREAS OF MOST SEVERE* DAMAGE INDICATED ON DRAWING).
3.) REPAIR ALL HOLES IN MASONRY INCLUDING THOSE RESULTING FROM REMOVAL OF MISCELLANEOUS WOOD AND METAL.
4.) *STRIP PAINT AND CLEAN MASONRY SURFACE.*

07600 - SHEET METAL RESTORATION AND CLEANING

1.) REPAIR CORNICE, FRIEZE, AND BRACKETS - REPAIR *ALL AREAS OF CORROSION AND RUST PERFORATION* (AREAS OF MOST SEVERE DAMAGE INDICATED ON DRAWING), REPAIR OPEN SEAMS AND JOINTS, CLEAN AND PREPARE FOR PAINTING PER PAINT MANUFACTURER'S RECOMMENDATIONS.
2.) *REPAIR RAIN CONDUCTORS - REPLACE MISSING OR* DAMAGED SECTIONS, REPAIR HANGERS AND SUPPORTS AS NECCESSARY, CLEAN AND PREPARE FOR PAINTING PER PAINT MANUFACTURER'S RECOMMENDATIONS. VERIFY OPERATION OF UNDERGROUND DRAIN LINES, ROD AND *CLEAN IF REQUIRED.*

09900 - PAINTING

1.) PAINT CORNICE, FRIEZE AND BRACKETS AND RAIN CONDUCTORS.
2.) PAINT WOOD WINDOWS AND TRIM.

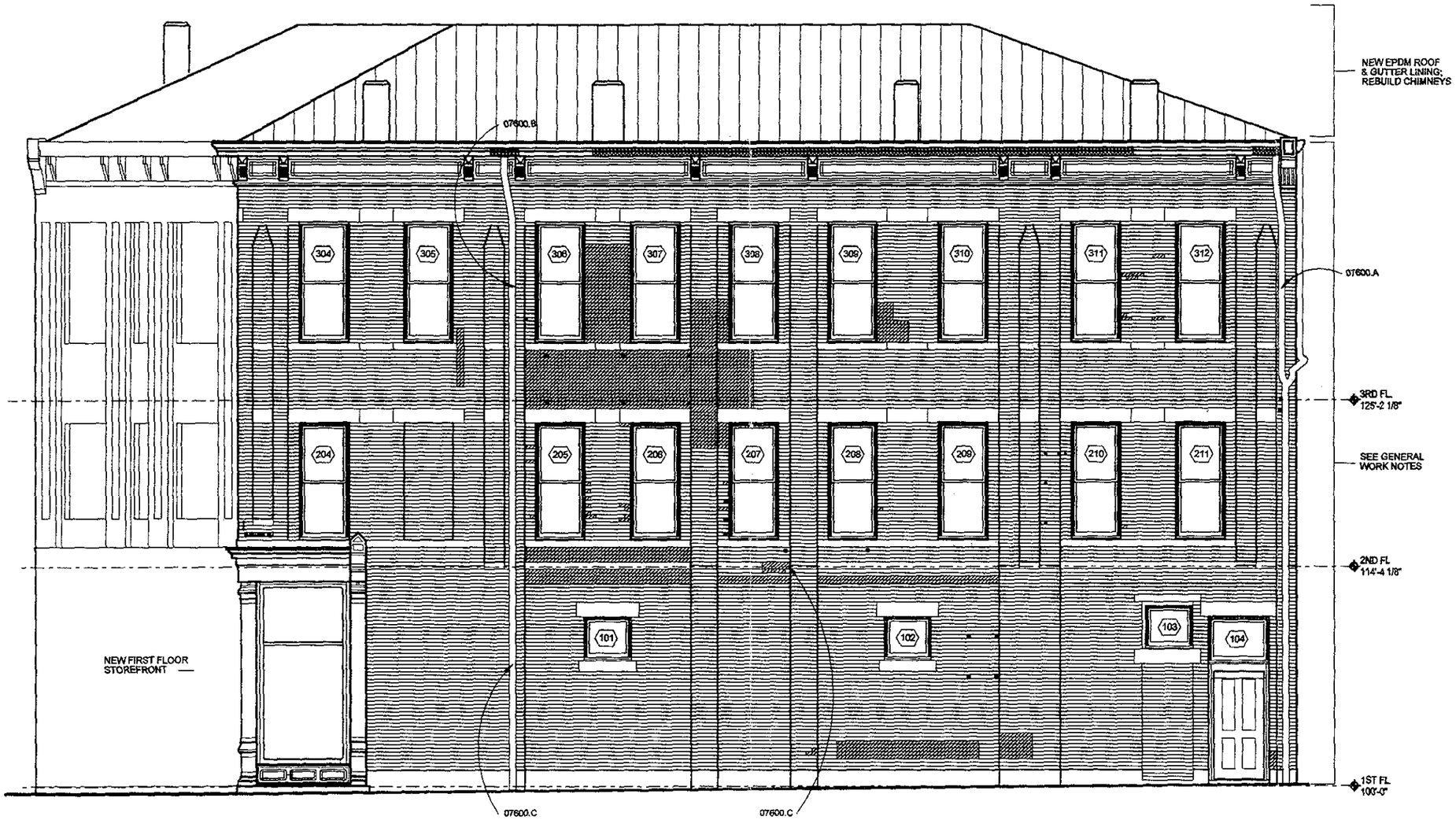
NOTE: DRAWINGS INDICATE ITEMS OBSERVED FROM *GROUND DURING SURVEY. CONTRACTOR SHALL BE* RESPONSIBLE FOR FIELD VERIFYING QUANTITIES OF DEMOLITION AND REPAIR WORK PRIOR TO BIDDING.

LEGEND

- AREAS OF SEVERELY SPALLED OR DAMAGED MASONRY(RE: SEC. 04525).
- OPEN HOLE IN MASONRY (RE: SEC. 04525).
- MISCELLANEOUS WOOD, METAL OR EMBEDDED FLASHING (RE: SEC. 02070).
- DAMAGED CORNICE, BRACKET OR FRIEZE (RE: SEC. 05600).
- (300) WINDOW NUMBER, SEE SCHEDULE SHEET A001.

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. A200	TITLE OF SHEET NORTH ELEVATION HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20075 PKG. NO. SHEET 9 OF 12



WEST ELEVATION

SCALE: 1/8"=1'-0"

1 A201 A201

KEYED NOTES

02070 - SELECTIVE DEMOLITION

B.) EXISTING STREET SIGN TO REMAIN.

04525 - MASONRY RESTORATION AND CLEANING

B.) PROVIDE STONE TO REPLACE MISSING PIECE.

07600 - SHEET METAL RESTORATION AND CLEANING

A.) REPOSITION RAIN CONDUCTOR TO TRUE VERTICAL ALIGNMENT.
B.) PROVIDE RAIN CONDUCTOR TO REPLACE DAMAGED SECTION.
C.) PROVIDE RAIN CONDUCTOR TO REPLACE MISSING SECTION.

GENERAL WORK NOTES - SHEET A201

02070 - SELECTIVE DEMOLITION

1.) DEMOLISH CMU AND BRICK INFILL AT WINDOW OPENINGS.
2.) DEMOLISH MISCELLANEOUS WOOD AND METAL ATTACHMENTS.

04525 - MASONRY RESTORATION AND CLEANING

1.) REPOINT 100% OF MASONRY JOINTS.
2.) REPLACE ALL MISSING, SPALLED, CRACKED AND SEVERELY WEATHERED MASONRY. (AREAS OF MOST SEVERE DAMAGE INDICATED ON DRAWING).
3.) REPAIR ALL HOLES IN MASONRY INCLUDING THOSE RESULTING FROM REMOVAL OF MISCELLANEOUS WOOD AND METAL.
4.) STRIP PAINT AND CLEAN MASONRY SURFACE.

07600 - SHEET METAL RESTORATION AND CLEANING

1.) REPAIR CORNICE, FRIEZE, AND BRACKETS - REPAIR ALL AREAS OF CORROSION AND RUST PERFORATION (AREAS OF MOST SEVERE DAMAGE INDICATED ON DRAWING), REPAIR OPEN SEAMS AND JOINTS, CLEAN AND PREPARE FOR PAINTING PER PAINT MANUFACTURER'S RECOMMENDATIONS.
2.) REPAIR RAIN CONDUCTORS - REPLACE MISSING OR DAMAGED SECTIONS, REPAIR HANGERS AND SUPPORTS AS NECCESSARY, CLEAN AND PREPARE FOR PAINTING PER PAINT MANUFACTURER'S RECOMMENDATIONS. VERIFY OPERATION OF UNDERGROUND DRAIN LINES, ROD AND CLEAN IF REQUIRED.

09900 - PAINTING

1.) PAINT CORNICE, FRIEZE AND BRACKETS AND RAIN CONDUCTORS.
2.) PAINT WOOD WINDOWS AND TRIM.

NOTE: DRAWINGS INDICATE ITEMS OBSERVED FROM GROUND DURING SURVEY. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING QUANTITIES OF DEMOLITION AND REPAIR WORK PRIOR TO BIDDING.

LEGEND

AREAS OF SEVERELY SPALLED OR DAMAGED MASONRY(RE: SEC. 04525).

OPEN HOLE IN MASONRY (RE: SEC. 04525).

MISCELLANEOUS WOOD, METAL OR EMBEDDED FLASHING (RE: SEC. 02070).

DAMAGED CORNICE, BRACKET OR FRIEZE (RE: SEC. 05600).

303 WINDOW NUMBER, SEE SCHEDULE SHEET A001.

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. A201	TITLE OF SHEET WEST ELEVATION HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 / 20013 PKG. NO. SHEET 10 OF 12

SOUTH ELEVATION

SCALE: 1/8"=1'-0"

1
A202 | A202

KEYED NOTES

04525 - MASONRY RESTORATION AND CLEANING

C.) BRICK INFILL AT EXISTING WINDOW/DOOR OPENING.

09900 - PAINTING

A.) PAINT WEST RAIN CONDUCTOR ONLY.

GENERAL WORK NOTES - SHEET A202

02070 - SELECTIVE DEMOLITION

1.) DEMOLISH ALL MISCELLANEOUS WOOD AND METAL ATTACHMENTS AND EMBEDDED FLASHING.

04525 - MASONRY RESTORATION AND CLEANING

1.) REPOINT 100% OF MASONRY JOINTS.
2.) REPLACE ALL MISSING, SPALLED, CRACKED AND SEVERELY WEATHERED MASONRY. (AREAS OF MOST SEVERE DAMAGE INDICATED ON DRAWING).
3.) REPAIR ALL HOLES IN MASONRY INCLUDING THOSE RESULTING FROM REMOVAL OF MISCELLANEOUS WOOD, METAL AND EMBEDDED FLASHING.
4.) STRIP PAINT AND CLEAN MASONRY SURFACE.

07600 - SHEET METAL RESTORATION AND CLEANING

1.) REPAIR RAIN CONDUCTORS - REPLACE MISSING OR DAMAGED SECTIONS, REPAIR HANGERS AND SUPPORTS AS NECCESSARY, CLEAN AND PREPARE FOR PAINTING PER PAINT MANUFACTURER'S RECOMMENDATIONS. VERIFY OPERATION OF UNDERGROUND DRAIN LINES, ROD AND CLEAN IF REQUIRED.

NOTE: DRAWINGS INDICATE ITEMS OBSERVED FROM GROUND DURING SURVEY. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING QUANTITIES OF DEMOLITION AND REPAIR WORK PRIOR TO BIDDING.

LEGEND

AREAS OF SEVERELY SPALLED OR DAMAGED MASONRY(RE: SEC. 04525).

OPEN HOLE IN MASONRY (RE: SEC. 04525).

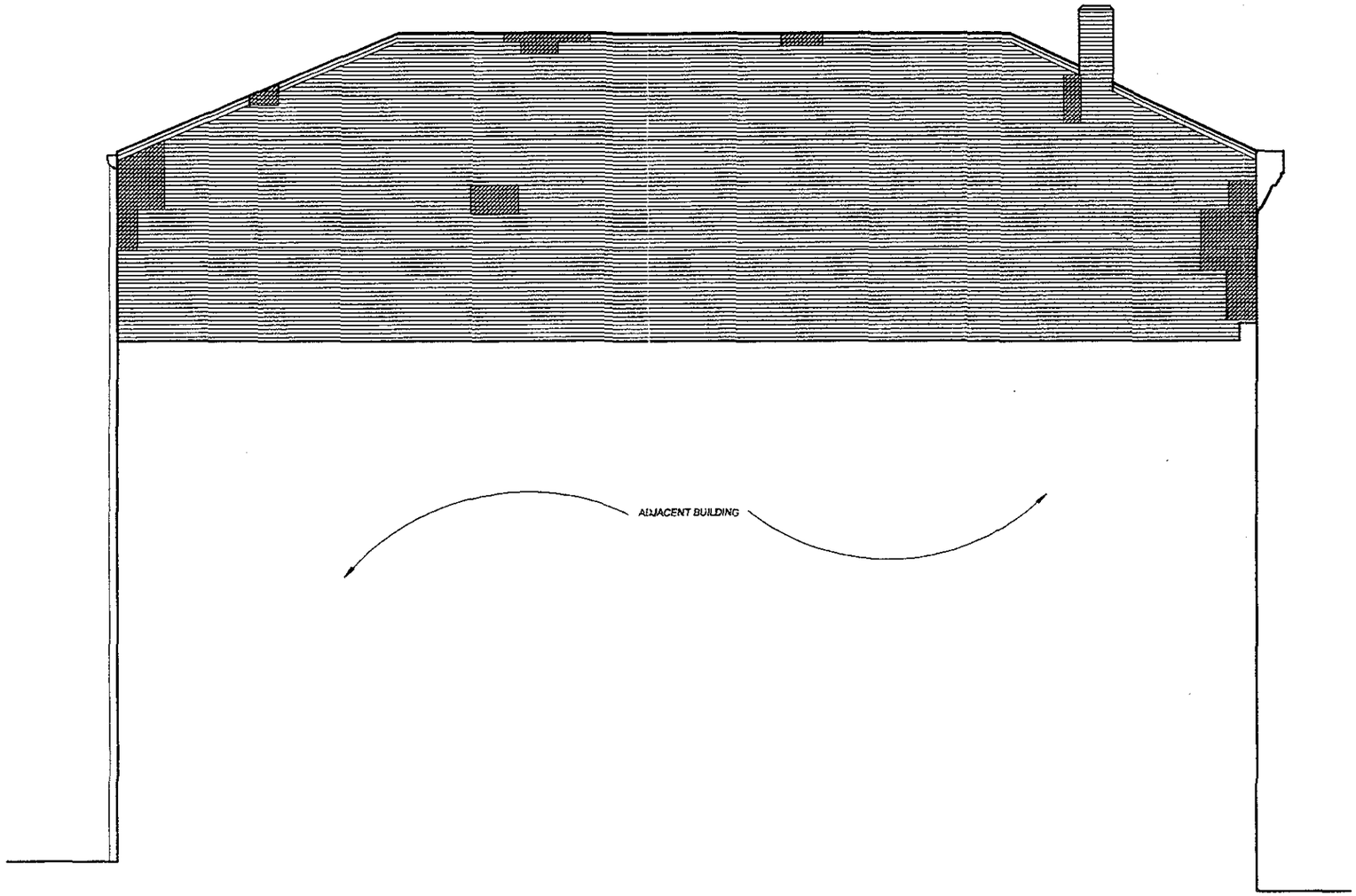
MISCELLANEOUS WOOD, METAL OR EMBEDDED FLASHING (RE: SEC. 02070).

DAMAGED CORNICE, BRACKET OR FRIEZE (RE: SEC. 05600).

300 WINDOW NUMBER, SEE SCHEDULE SHEET A001.

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. A202	TITLE OF SHEET SOUTH ELEVATION HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 20015 PKG. NO. — SHEET 11 OF 12



KEYED NOTES

GENERAL WORK NOTES - SHEET A203

02070 - SELECTIVE DEMOLITION

1.) DEMOLISH ALL MISCELLANEOUS WOOD AND METAL ATTACHMENTS AND EMBEDDED FLASHING.

04525 - MASONRY RESTORATION AND CLEANING

NO WORK SHALL PROCEED ON THIS ELEVATION UNTIL OWNER HAS PHOTO DOCUMENTED PAINTED SIGN AND PROCURED PAINT SAMPLES FOR HISTORIC DOCUMENTATION.

1.) REPOINT 100% OF MASONRY JOINTS.
2.) REPLACE ALL MISSING, SPALLED, CRACKED AND SEVERELY WEATHERED MASONRY. (AREAS OF MOST SEVERE DAMAGE INDICATED ON DRAWING).
3.) REPAIR ALL HOLES IN MASONRY INCLUDING THOSE RESULTING FROM REMOVAL OF MISCELLANEOUS WOOD, METAL AND EMBEDDED FLASHING.
4.) CLEAN MASONRY SURFACE.

NOTE: DRAWINGS INDICATE ITEMS OBSERVED FROM GROUND DURING SURVEY. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING QUANTITIES OF DEMOLITION AND REPAIR WORK PRIOR TO BIDDING.

LEGEND - SHEET A203

- AREAS OF SEVERELY SPALLED OR DAMAGED MASONRY(RE: SEC. 04525).
- OPEN HOLE IN MASONRY (RE: SEC. 04525).
- MISCELLANEOUS WOOD, METAL OR EMBEDDED FLASHING (RE: SEC. 02070).
- DAMAGED CORNICE, BRACKET OR FRIEZE (RE: SEC. 05600).
- (300) WINDOW NUMBER, SEE SCHEDULE SHEET A001.

EAST ELEVATION

SCALE: 1/8"=1'-0"

1 A203 | A203

4 0 4 8
SCALE OF FEET

QUINN EVANS ARCHITECTS 219 1/2 N. Main Street Ann Arbor, Michigan 48104 313 663 5888	DESIGNED: DRAWN: TECH REVIEW: DATE:	SUB SHEET NO. A203	TITLE OF SHEET EAST ELEVATION HOOVER BLOCK DAYTON AVIATION HERITAGE NATIONAL HISTORIC PARK	DRAWING NO. 362 / 20015 PKG. NO. SHEET 12 OF 12

Appendix F

Historic Paint Analysis

Historic Paint Analysis

Executed by
Steven C. Seebohm/SEEBOHM, Ltd.
P.O. Box 616
Petoskey, Michigan 49770

A. Introduction and Description

The purpose of this report is to document the chromachronology of interior and limited exterior finishes of the Hoover Block Building, or HS 02, in the Dayton Aviation Heritage National Historic Park, Dayton, Ohio.

The report includes the following sections:

Part A: Introduction and Description

Part B: Methods and Analysis

Part C: Existing Conditions and Physical Investigation

Part D: Finishes Analysis

Part E: Sample Location Record

Part F: Recommendations

Part G: Summary & Conclusion

B. Methods and Analysis

Sampling was executed with a flat-bladed Exacto knife, with samples being stored in individually-marked envelopes. Envelopes were then placed in storage bags marked for each area of the interior, labeled and dated.

All samples were inspected under a 60X and 120X Meiji binocular microscope with a Stocker & Yale 7,000 degree K illuminator; this illumination insures a color match under conditions simulating natural light.

Finish Colors were then matched to The Munsell Color Notation System (Glossy Collection).

Wallpaper existing was noted, but not analyzed.

C. Existing Conditions and Physical Investigation

The existing conditions were noted during the on site physical investigation carried out in conjunction with QUINN EVANS/ARCHITECTS on October 22 and 23, 1996.

The first floor of the building has undergone a number of changes that have removed most of the original finished surfaces from Episode 1: 1890 - 1911. The current configuration of the first floor can be seen in Episode 6: 1994 - 1997. The only surface sampled on the first floor for interpretation of Episode 1 was a sample taken beneath a crown molding found on the East wall above a chimney chase.

The second floor of the building has also undergone a number of changes from the first Episode to the second. The only interior trim from the first Episode is that which surrounds several inter-room windows that were possibly used for ventilation. The existing trim was installed during Episode 2, and was stained and varnished. All windows have been removed, although window sash remain in the building and are identified below. The windows do show evidence of period finishes.

The ceilings and walls of the second floor rooms were treated in most spaces with wallpaper during the first finish campaign. Wallpaper was found to be used during several subsequent campaigns, with occasional use of paint on the ceilings and/or walls.

Extensive water damage has caused loss to plaster substrate, wood and wallpaper. Most wallpapered surfaces have remains of what appears to be original fabric. Soiling and water staining is prevalent throughout the second floor.

The original painted finishes of the Stair Hall, Foyer and Hall are present beneath Episode 2 woodwork, wainscoting and overpainting.

The third floor rooms have undergone several changes that have eliminated original fabric from Room 3046d - Ante Room as identified on the floor plan of Episode 1A: 1901 - 1911. All of the ceilings of the third floor have been removed, as well as the majority of the windows.

Room 3046b - Open Meeting Space as identified on the floor plan of Episode 1A retained more original fabric than other spaces on the third floor. Wall and baseboard samples were taken and analyzed, in addition to two Artifact/Window Frames found in the Attic above the third floor.

The exterior surfaces have seen several changes. All windows have been removed and the store-fronts on the north side of the structure have been covered by a construction barrier for protection. Numerous painting campaigns have been applied to the remaining original exterior finished elements.

Two boards were removed from the construction barrier to access the decorative cornice above the windows and the pilaster bases. Samples were taken and analyzed. One window sash from the second floor, identified as coming from the front or north side of the building was sampled and analyzed.

D. *Finishes Analysis*

The following Finishes Analysis Listing is a record of the chromachronology of the samples taken from the interior and exterior of the Hoover Block Building on October 22 and 23, 1996. A cross-section of painted finishes was tested to determine the type, or base, of paint originally used. Solvent and chemical testing proved that all finishes were solvent (oil) based paints, with lead present.

The list below records the Room/Location first, followed by the Surface name, then listing the Chromachronology of the finishes for the given surface. Under Chromachronology the substrate is listed first (i.e.: Wood, Plaster, etc.), followed by the subsequent layering of wallpaper or paint, with the painted finishes matched to The Munsell Color Notation System/Glossy Collection.

Immediately following each Munsell Color Notation a letter, or series of letters, may be identified as listed below to describe the closest sheen, and whether or not the finish was a primer:

P	Primer
f	flat finish
e	eggshell finish
sa	satin finish
se	semigloss finish
g	gloss finish
a	underline denotes first probable finish

Room/Location	Surface	Chromachronology
	BUILDING INTERIOR	
Lease 1042	Wall	Plaster Wallpaper
	Comments:	
	Due to the amount of renovation and reconstruction of the 1st floor of the Hoover Block building, only one reliable sample was removed and inspected. This wall sample was taken from beneath the simple molding found at the juncture of the ceiling and wall surfaces of the East Wall. Only one layer of wallpaper was found, applied directly to bare plaster.	
Lease 1044	No samples were removed for analysis.	
	Physical changes during subsequent Episodes have eliminated the identifiable presence of Episode 1 surfaces in this Lease.	
Lease 1046	No samples were removed for analysis.	
	Physical changes during subsequent Episodes have eliminated the identifiable presence of Episode 1 surfaces in this Lease.	

D. Finishes Analysis - continued.

Room/Location	Surface	Chromachronology
Lease 2042a	Ceiling	Plaster Wallpaper
	Walls	Plaster Wallpaper - 2 consecutive layers

Comments:

The Ceiling sample has one layer of wallpaper present which has no adhesive on its' surface. This wallpaper was applied directly onto bare, sized plaster and no traces of paint are present. Unless this plastered ceiling has been dramatically altered, the surface was either stripped of earlier wallpaper prior to its being re-papered, or retains it original treatment.

The Wall sample has two layers of wallpaper, applied over bare, sized plaster; no traces of paint are present.

Lease 2042b	Ceiling	Plaster Wallpaper Wallpaper
	Walls	Plaster Wallpaper Adhesive

Comments:

The Ceiling sample shows that two layers of dark brown wallpaper were applied over bare, sized, fine finish plaster.

The Wall sample shows that although only one layer of wallpaper survived on this sample - applied over bare, sized plaster - it has traces of adhesive over its exposed surface. Hence, other layer(s) of wallpaper were once applied over it. No traces of paint are present.

Lease 2042c	Ceiling	Plaster Wallpaper 5Y 9/2 - f
	Walls	Plaster Wallpaper Wallpaper Dirt layer Wallpaper Dirt layer Wallpaper

D. Finishes Analysis - continued.

Room/Location	Surface	Chromachronology
2042c	Lower Walls	5Y 9/4 (size?) 5G 9/1 - e 2.5YR 5/6 - e/sa 2.5Y 8.5/2 - e/sa Dirt layer 5YR 9/2 - e/sa 10BG 7/6 - e/sa 7.5Y 9/2 - sa/se 5G 9/2 - sa/se Dirt layer 7.5R 8/4 - e/sa

Comments:

The Ceiling sample shows one layer of wallpaper with a coat of paint over it. The paper was applied over bare, sized plaster.

The Wall sample shows that four layers of wallpaper were applied over bare, sized plaster. The 2nd & 3rd layers of paper are heavily soiled, suggesting they were exposed for a longer period that the other layers, or that a dirty heating system was utilized during the years of their tenure. No paint materials are present.

The Lower Wall sample contains nine color strata. The 1st layer appears as a very thin, almost transparent yellow coating; this may be the remains of a distemper finish, or may be size. The original intention may well have been to wallpaper this space, and the size was a preparatory treatment for this papering that simply never took place. There are no traces of wallpaper adhesive. This first layer does not appear to be a stable stratum for adhesion of the layer above it, as this layer easily fractures away from it. The remaining strata are clearly differentiated and have heavy dirt layers between the 4th & 5th and between the 8th & 9th strata.

Lease 2042d	Ceiling	Plaster 5Y 8.5/4 - f 5G 9/2 - f/e
	Walls	Plaster 5Y 8.5/4 - e/sa Dirt layer 5Y 8.5/4 - e/sa 5G 9/2 - e/sa

D. Finishes Analysis - continued.

Lease 2042d

Comments:

The Ceiling sample shows a textured finish coat of plaster that suggests that this surface was never intended to be wallpapered. Two layers of paint are intact, though friable. Although the 1st paint layer is an off-white, and could thus be interpreted as a primer coat, the same color is present on adjacent walls, and there is covered with heavy soiling. This soiling makes it clear the layer was exposed for a considerable time, and thus was not originally a preparation for the paint over it.

The Wall sample shows the presence of three paint layers. The 1st off-white layer has a layer of dirt over it, and is thus a finish coat. The same color, however, is again repeated above the dirt layer, and was then immediately coated with the next coating; leaving no dirt layer between.

Lease 2042e

No samples were removed for analysis.

The existence of this room was during Episode 2: 1912-1934 only.

Lease 2042f

No samples were removed for analysis.

The existence of this room was during Episode 2: 1912-1934 only.

Lease 2042g

No samples were removed for analysis.

The existence of this room was during Episode 2: 1912-1934 only.

Lease 2042h

Ceiling	Plaster Adhesive 5Y 8.5/4 - f 10R 7/2 - f/e

Comments:

The existence of this room was during Episode 2: 1912-1934 only.

The Bath Ceiling sample shows that two layers of finish were applied over a surface that retains traces of wallpaper adhesive. It appears that this ceiling was papered, then stripped of paper, but the adhesive was not fully removed. The two layers of paint were applied at a later date. No dirt layer appears between the two coatings strongly suggesting that the first layer was a primer coating. This later chromachronology is closely related to that found on the later strata in adjacent Room 216.

D. Finishes Analysis - continued.

Room/Location	Surface	Chromachronology
Lease 2044a	Ceiling	Plaster Wallpaper Wallpaper 5Y 9/2 - f 7.5YR 9/2 - f 2.5BG 7/2 - f/e Skim-coat Wallpaper
	Walls	Plaster Wallpaper Wallpaper 2.5YR 6/6 - e/sa Wallpaper 7.5GY 7/2 - e/sa Wallpaper - 3 consecutive layers 10Y 6/1 - sa/se

Comments:

The Ceiling sample shows that three generations of wallpaper were applied with three paint layers applied between the 2nd & 3rd layers of paper, a skim-coat of finish plaster was applied to achieve a more uniform surface. The first papering campaign was executed over sized plaster.

The Wall sample shows that six wallpapering campaigns were carried out, with paint being applied between the 2nd & 3rd strata, the 3rd & 4th strata, and at the upper-most layer.

Lease 2044b	Ceiling	Plaster Wallpaper - 4 consecutive layers
	Walls	Plaster Wallpaper Dirt layer Wallpaper - 3 consecutive layers 7.5YR 8/4 - e/sa Wallpaper 7.5BG 9/2 - P - e 5G 3/4 - e/sa Wallpaper

Room/Location	Surface	Chromachronology
Lease 2044b	Comments:	

The Ceiling sample revealed four layers of wallpaper applied over bare, sized plaster. No painting campaigns were present.

The Wall samples revealed six strata of wallpaper, with traces of paint appearing between the 4th & 5th layers, and the 5th & 6th layers. A heavy layer of dirt was deposited on top of the 1st layer of paper, suggesting that a heating source (wood stove, register, etc.) was located in the vicinity of where the sample was taken. The 1st layer of paper was applied over bare, sized plaster.

Lease 2044c	*Ceiling*	Plaster Adhesive (wallpaper) Dirt layer
	Walls	Plaster Wallpaper - 3 consecutive layers

Comments:

The Ceiling sample, although appearing to the naked eye to retain paint materials, upon microscopic examination these materials proved to be wallpaper adhesive that had darkened and had, because of its hydrophilic nature, attracted dirt and grime. This surface was originally wallpapered, with the paper applied over sized, bare plaster. No traces of this wallpaper are present of the sample.

Three wallpapering campaigns were found on the Wall samples, with no paint materials present.

Lease 2044d

No samples removed for analysis.

The existence of this room was during Episode 2: 1912-1934 only.

Lease 2044e	Ceiling	Plaster 5Y 8.5/2 - P - e 5GY 7/4 - f/e Dirt layer 10R 6/6 - f/e 7.5YR 9/2 - P - e 7.5G 8/4 - f/e 5Y 8/4 - e

Room/Location	Surface	Chromachronology
Lease 2044e	Walls	Plaster Wallpaper ? 10R 6/6 - e/sa 7.5G 8/4 - sa/se 5Y 8/4 - sa/se

Comments:

The existence of this room was during Episode 2: 1912-1934 only.

The Ceiling sample shows a complex and brilliant chromachronology. The diversly bright palette strongly indicates the space's continued public use. The heavy soiling over the first layer suggests: 1) it was exposed for a great length of time, or 2) the original source for the room's heating system (wood stove, coal-fired furnace, etc.) was located near the sample site.

The Wall sample has two finish layers present which are also present late in the chromachronology of the Ceiling sample. This surface was likely originally wallpapered. The paper was later removed, the adhesive thoroughly cleaned off, and the surface painted the same color as the ceiling. While the Ceiling was primed between colors 10R 6/6 and 7.5G 8/4, no primer coats are present in this sample.

Lease 2046a	Ceiling	NA
	Walls	Wallpaper

Comments:

The original plaster ceiling has been replaced with drywall.

The original finish of the walls in the room was wallpaper on sized plaster surface.

Lease 2046b	Ceiling	Plaster Wallpaper 5GY 7/2 - f Wallpaper Wallpaper
	Walls	Plaster 5Y 8/4 - f Adhesive

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
Lease 2046b	Comments:	

The Ceiling sample shows the first treatment as wallpaper, followed by a grayed light yellow-green, then followed by two consecutive layers of wallpaper. The paint between the 1st & 2nd layers of paper is probably of the early 1900's.

The Wall sample showed traces of wallpaper adhesive over first painted layer. It is possible that there was wallpaper on the ceiling and that the walls were painted, but not likely. It is probable that the Walls were first papered along with the ceiling, although more likely that the ceiling was first not papered but left bare, with painted walls.

Lease 2046c	Ceiling	Plaster Wallpaper - 4 consecutive layers 5Y 9/2 - f Wallpaper - 3 consecutive layers 5G 3/4 - f Wallpaper
	Walls	Plaster Wallpaper - 4 consecutive layers 5Y 8.5/10 - f/e 5Y 9/2 - f/e Wallpaper

Comments:

The Ceiling sample shows eight generations of wallpaper, as well as two layers of paint - one between the 4th & 5th and one between the 7th & 8th layers of paper. Originally wallpaper was applied to bare plaster.

The Wall sample shows five generations of wallpaper applied directly over bare plaster. At the intercese of the 4th & 5th layers of paper were applied 2 paint layers; the first chrome-yellow, and the second off-white.

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
Hall 2046d/e/f	Ceiling	Plaster 5Y 9/2 - P - e 10Y 3/4 - f Dirt layer 7.5Y 8/2 - f Adhesive - ? 2.5Y 8/6 - f/e Dirt layer N8.75 - f/e 5Y 8/4 - f/e
	Upper Wall Field	Plaster N8.75 - P - f/e 10Y 3/4 - f/e Dirt layer 7.5Y 8/2 - f/e Adhesive - ? 2.5Y 8/6 - e/sa Dirt layer 7.5R 9/2 - e/sa 5Y 8/4 - e/sa
	Upper Decorative Band	Plaster 10Y 3/4 - f/e 5PB 2/4 - f/e 7.5Y 8/2 - f/e Adhesive - ? 2.5Y 8/6 - e/sa Dirt layer 7.5R 9/2 - e/sa 5Y 8/4 - e/sa
	Middle Decorative Band	Plaster 7.5R 2/6 - f/e
	Decorative Pinstripe	Plaster 7.5R 2/6 - f/e N0.5 - f/e
	Lower Wall Field	Plaster 7.5R 2/6 - f/e 7.5Y 8/6 - f/e Adhesive - ? 2.5Y 8/6 - f/e 7.5R 9/2 - f/e 7.5B 4/6 - f/e 7.5GY 5/2 - e/sa

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
Hall 2046d/e/f	Comments:	

Six paint layers are present of the Ceiling, with the earliest scheme being the most dramatic - a deep green. Marked dirt layers are present between the 2nd & 3rd strata, and between the 4th & 5th layers. A yellowish residue also appears between the 3rd & 4th strata; this may be the remnants of wallpaper adhesive from a papering campaign.

The Upper Wall Field has a chromachronology that follows very closely that of the ceiling. A few exceptions are the lack of an off-white strata just below the penultimate layer, and the addition here of a pink layer, and the substitution of a white primer for the beige primer of the first finish that was applied.

The Upper Decorative Band in this painting scheme was originally painted a very deep, highly saturated blue, which was applied over the green also found on the Ceiling and Upper Wall Field. No dirt layer is visible between the green strata and dark blue, indicating that they were applied during the same painting campaign. Further, this layer is not present in the chromachronology of samples taken above this location. The remaining strata are identical to the chromachronology of samples taken above this area.

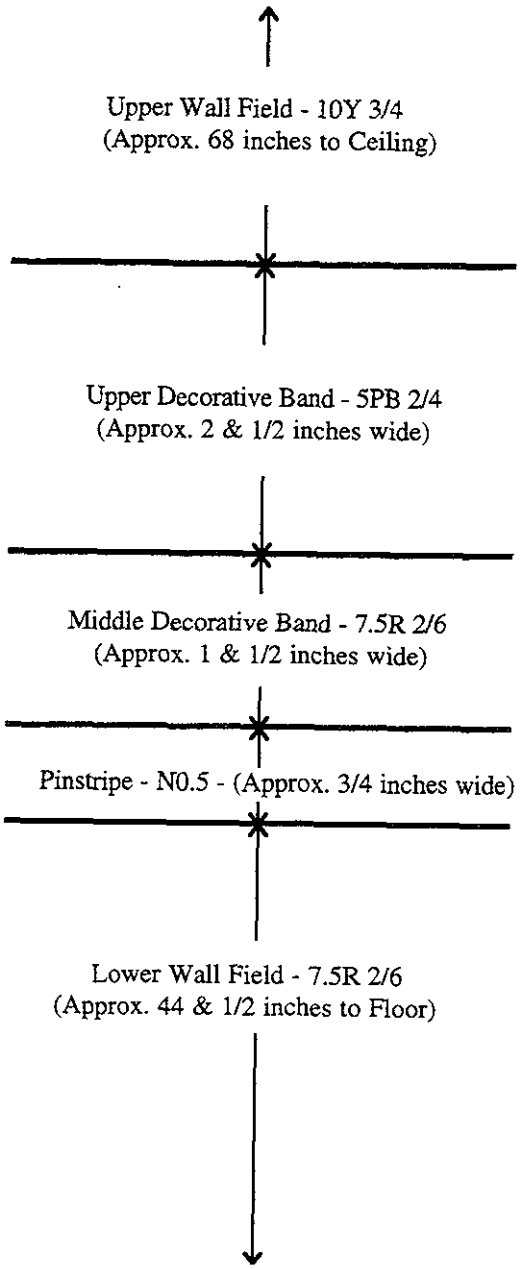
The color of the Middle Decorative Band in this decorative painting scheme is and extremely dark red. This band appears to have been painted and the other colors above put in separately - rather than the color being applied over the green as was the case in the samples above. Due to the lack of adhesion between this layer and the strata above, no other paint evidence survived the sampling process. No primer is in evidence.

The 3/4 in Decorative Pinstripe is black. It was applied over the dark red found in the Middle Decorative Band. Due to the application of a chair rail no additional painting campaigns were applied to the area sampled.

The 1st finish layer for the Lower Wall Field was a deep red. This was followed by an off-white which was probably later covered by wallpaper; as traces of what appear to be adhesive are present. In the upper sector of the sample are a pink, a deep blue, and a green. This deep blue was not present in other samples from this elevation, and so may be evidence of a more recent decorative scheme.

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
Hall 2046d/e/f	Wall Decoration Diagram:	



D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
Window Sashes	Interior	Wood Varnish - g N0.75 - sa/se

Comments:

The second floor wood window sashes were originally varnished; from the depth of penetration of the resin, it is likely that a spirit varnish was used. At a later date these surfaces were covered with a high-gloss black paint.

Third Floor Interior

3046a	Sample 1 - East Wall	Plaster Adhesive (wallpaper) 5GY 7/2 - f/e Adhesive 2.5Y 8.5/8 - f/e 7.5YR 4/4 - e/sa 5Y 8/2 - e/sa Soot/dirt layer

Comments: Taken from the East Wall behind the Bath Partition at the Southeast corner (five inches from the floor). The 1st treatment for this area was probably wallpaper, as traces of adhesive are still present. Traces of oxidized, yellow adhesive is also visible between the 1st & 2nd paint layers. A total of four layers of paint are present in this sample. A heavy layer of soiling is present over the most recent coat of paint.

Sample 2 - East Wall	Plaster Adhesive (wallpaper) 2.5Y 8.5/8 - f/e 5YR 4/4 - e/sa 5Y 8/2 - e/sa Skim coat

Comments: Taken from the East Wall, above the Chair Rail at the Southeast corner of the room and three paint layers have survived. Traces of darkened adhesive, however, suggest that the 1st treatment for this surface may have been wallpaper. The first painted coating was a bright yellow. Above the upper-most paint layer, a skim coat appears to have been applied to lend a smooth surface to this area of the wall.

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
3046b	Sample 3 - East Wall	Plaster Wallpaper 2.5BG 7/2 - f/e Adhesive Fibers

Comments: Removed from the East Wall, behind the Chair Rail at the Southeast corner of the room. Caught within the paint matrix, are tattered remains of wallpaper fibers, from which we can conclude the room's earliest treatment included wallpaper. One layer of light blue paint is present, which may have been the paint color of the Chair Rail. Although the remains of the wallpaper are not extensive enough to give a sense of its' pattern, traces of color in the fibers suggest that it was a reddish-orange (10R 6/8) pattern on a neutral field.

Sample 4 - East Wall	Plaster Adhesive (wallpaper) 7.5R 2/2 - f/e 5Y 8/2 - f/e 2.5BG 7/2 - f/e 2.5Y 8/6 - f/e Dirt layer

Comments: Removed from the East Wall, behind the Chair Rail at the Southeast corner of the room. It contains four paint layers, which were applied over a resinous adhesive. There is a heavy coating of dirt over the top layer.

Sample 5 - Baseboard	Wood Varnish 10YR 5/8 - sa/se 7.5Y 8/2 - sa/se N9.5 - se 5Y 8.5/2 - se Dirt layer

Comments: Removed from the Baseboard, was originally varnished, and was later painted on four separate occasions. The first paint layer was a dark mustard yellow.

Sample 6 - Baseboard	Same as above.

Comments: Sample 6 had the same Chromachronology.

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
	Sample 7 - East Wall	Plaster N9.5 - f 2.5Y 8/8 - f 2.5Y 7/2 - f/e 5Y 9/4 - e 7.5Y 8/2 - f/e Skim coat 7.5GY 7/4 - f/e 7.5B 8/4 - e

Comments: Removed from the East Wall, and has a complex and rather confusing stratigraphy; having often been repaired and repainted. It seems logical that if the other walls of the room were originally wallpapered, this wall would have received a like treatment. The disruption of the stratigraphy, however, has caused the loss of a clear chromachronology. Eight discreet paint strata are present, with a thick skim coat having been applied between the 6th & 7th layers. The wall has suffered from water damaged.

Sample 8 - East Wall	Plaster N9.5 - f/e Skim coat 7.5GY 7/4 - f/e 7.5B 8/4 - f/e

Comments: Removed from the lower sector of the East Wall, appear to have been damaged severely; only the uppermost portion of the stratigraphy found survives intact. Water is the likely culprit to have caused this damage. Water damage is more often found in the upper floor of buildings, where the proximity of leaking roofs can quickly bring great harm.

Sample 9 - West Wall	Plaster 10YR 5/8 - f/e 7.5R 2/2 - f/e Skim coat 2.5Y 8/6 - f/e 7.5GY 7/4 - e 7.5B 8/4 - f/e

Comments: Taken from the upper part of the West Wall, between the 2nd & 3rd windows. As with the East Wall, a skim coat was applied. Presumably to cover cracks and to create a smooth surface in preparation for one of its layers of paint. Five layers of paint are present.

Sample 10 - West Wall	Same as above.

Comments: Sample has the same chromachronology as Sample 9.

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
	Sample 11 - Baseboard	Wood Varnish - g 10YR 7/4 - se 5GY 9/2 - sa/se 2.5BG 7/2 - sa/se N3.5 - se/g
	Comments: Taken from the Baseboard along the West Wall in the middle of the building, was originally varnished.	
Attic	Artifact/Window Frame 1	Wood Varnish - g 7.5Y 9/2 - se/g 10YR 6/4 - se/g 7.5Y 9/2 - sa/se 10BG 8/4 - sa/se
	Artifact/Window Frame 2	Same as Artifact/Window Frame 1
	Comments:	
	Artifact/Window Frame 1 was a smaller, single sash found in the Attic of the Hoover Block building. Artifact/Window Frame 2 was a larger single sash also found in the Attic. Both window sashes in the Attic space were originally varnished.	

BUILDING EXTERIOR

North Side	Pilaster Base	10R 4/6 - P - sa/se 5Y 8.5/2 - P - se/g 5G 3/4 - se/g 7.5YR 7/12 - se/g 5G 3/2 - se/g Dirt 2.5GY 5/4 - se/g 10YR 8/4 - se 7.5GY 7/4 - se/g 7.5G 6/2 - se/g Aluminum Leaf N9.25 - sa/se 5Y 9/4 - se/g Dirt 2.5Y 8/6 - sa/se 10GY 5/6 - se/g

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
North Side	Pilaster Base	

Comments:

The sample from the Pilaster Base contains fifteen(15) different coatings. The earliest layer is a deep red, which is likely the first primer, possibly applied at the factory. The second paint layer is an off-white, which is thin and was likely the second primer. The third paint layer is a deep green, which is the first finish layer. This stratigraphy also includes a very bright orange at the 5th layer, as well as aluminum leaf at the 11th strata.

North Side	Window Sash/2nd Floor	Wood 7.5R 3/4 - se/g 7.5G 3/2 - se/g 5Y 8.5/2 - se/g N2 - sa/se

Comments:

The exterior of the 2nd Floor Window Sashes have retained evidence of four paint applications. The 1st layer of paint was a brick-red, possibly a primer, followed by a deep green. The uppermost layers were an off-white, and black.

Attic Window/Single Frame - Small

Same stratigraphy as the 2nd Floor Window Sash above.

Attic Window/Single Frame - Large

Same stratigraphy as the 2nd Floor Window Sash above.

North Side	Cornice Fascia	7.5R 3/4 - sa/se 7.5G 3/4 - se/g 7.5YR 7/12 - se/g 5G 3/2 - se/g Dirt 10Y 4/2 - se/g 10YR 7/4 - se 10GY 8/4 - se/g Aluminum Leaf 2.5Y 7/4 - se/g Aluminum Leaf N9.25 - sa/se 2.5Y 8/2 - se/g Dirt layer N9.25 - sa/se 5Y 8.5/2 - sa/se

D. Finishes Analysis - Continued.

Room/Location	Surface	Chromachronology
	Cornice Fascia - cont.	N9.25 - sa/se 5Y 8.5/4 - sa/se 10GY 4/4 - se/g
	Comments: The Cornice Fascia samples contains seventeen(17) different coatings. As with the exterior of the windows, the 1st finish was a deep red. At the 8th & 10th strata aluminum leaf was applied. This is atypical as an exterior treatment. For much of this element's history it has shared a similar treatment with the Front Pilasters.	
North Side	Cornice Dentil	Same stratigraphy as the Cornice Fascia.

D. Sample Location Record

The following pages contain floor plans and a north elevation drawing of the Hoover Block Building indicating the locations of paint samples removed and analyzed for this paint study. Below is a glossary of abbreviations for identification of the given element sampled in each room, as identified on the first and second floors.

Most interior surfaces have a letter designation assigned to the location of the sample for the surface sampled. On the third floor however, the samples are listed by number, and correspond to the sample numbers for the third floor as listed in Part D: Finishes Analysis. The exterior samples are labeled with full written descriptions for the surfaces where they were taken.

Glossary of Abbreviations

C	Ceiling sample
W	Wall sample (or Upper Wall sample when lower wall is listed)
LW	Lower wall sample
D	Decorative samples

Third Floor Samples	Sample Number
Wall Samples	1 - 4, & 7 - 11
Baseboard Samples	5, 6 & 11

Exterior Samples

Pilaster Base Sample

Window Sash/2nd Floor Sample (artifact from second floor - not shown on elevation)

Cornice Fascia Sample

F. Recommendations

Due to the lack of original substrate and finishes of the first floor surfaces, pursuing an historically appropriate paint/paper campaign would be most practical. The only sample taken and analyzed was a wall sample that was originally papered, which would be recommended for an interpretive treatment.

Accurately interpreting the finishes of the second floor to Episode 1 or Episode 2 is very possible and recommended. In order to pursue such an interpretation, for either Episode, additional effort must be made to either accurately identify, date and replicate; or reproduce; the wallpapers of the given surfaces.

It is apparent that wallpaper was the main decorative element for the interior spaces on the second floor, except for the public hallways and stairs, which received a simple decorative paint wall treatment in the form of stripping and banding.

Due to the lack of undamaged finishes on the third floor, an historically appropriate interpretation appears to be the most logical recommendation. First generation wallpaper and adhesive samples found on surfaces in what were originally Room 3046a and Room 3046b makes wallpaper the most appropriate wall finish to pursue replicating. The first wood finish was a varnish.

G. Summary and Conclusion

As with most historic buildings that have fallen into a state of disrepair, the Hoover Block Building has experienced many changes, neglect and subsequent damage to original fabric.

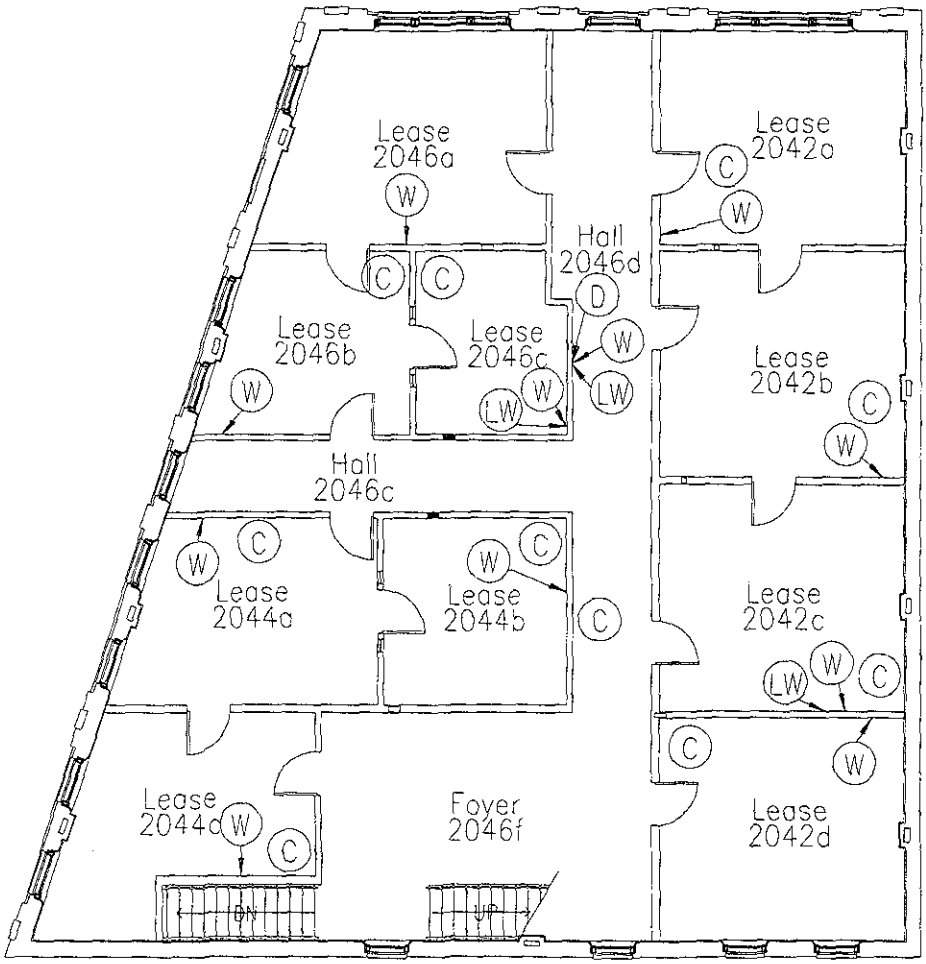
Water has been the culprit that has caused the most damage to the third floor, and also to several ceilings and walls on the second floor. Physical changes have removed much original material to the southwest corner of the third floor, and throughout the entire first and second floors.

Much original wallpaper evidence still remains that can be used to interpret accurate, or historically appropriate decorative treatments.
It appears that in conclusion, the first floor surfaces will best be treated as historic interpretations of finishes. The second floor surfaces can be closely accurate if interpreted for Episode 1, while Episode 2 can be much more accurate with the given knowledge of the existing trim finish.

The third floor, as with the first floor, should stand as an historically accurate interpretation.

Historic Paint Analysis: Sample Locations

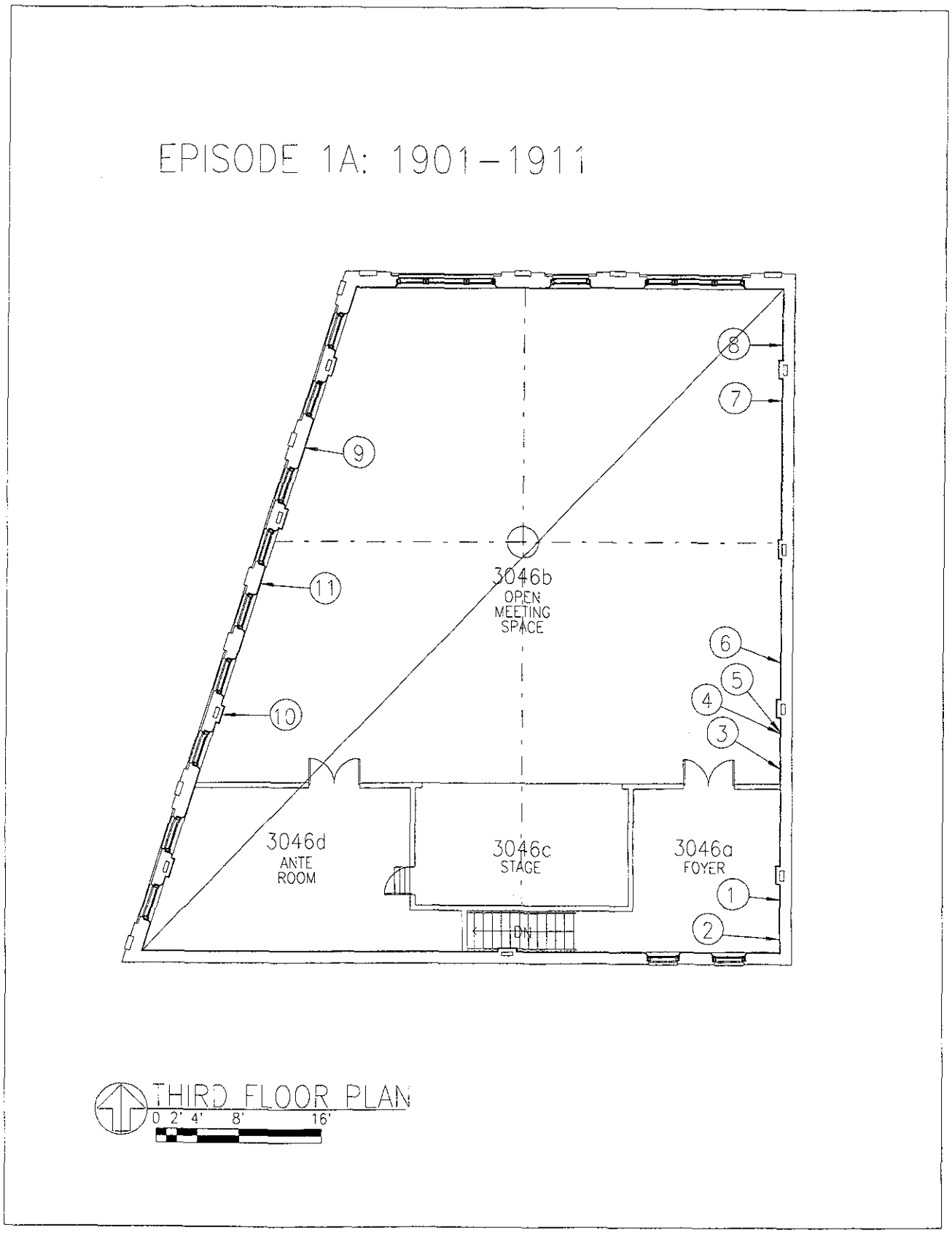
EPISODE 1 : 1890–1911



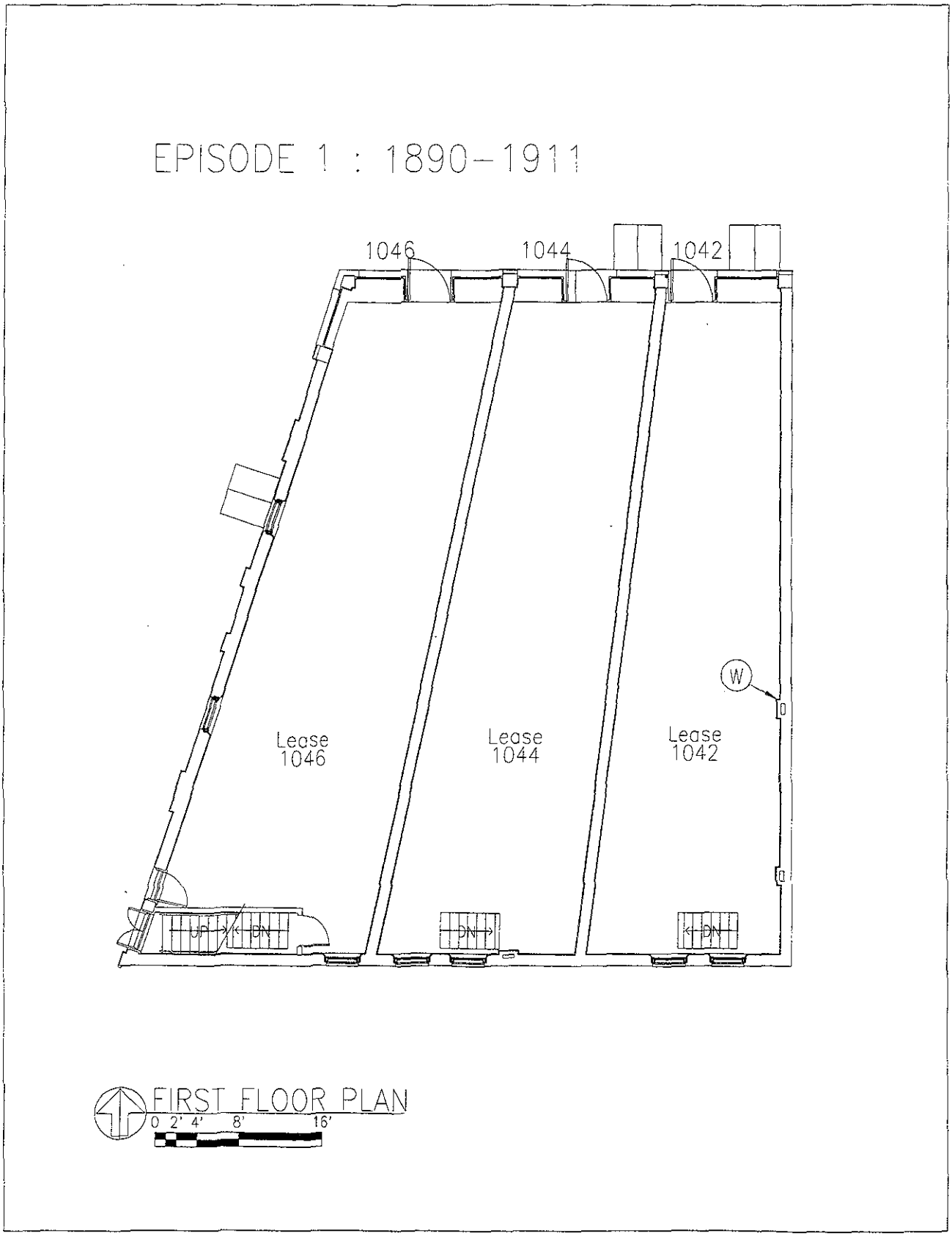
SECOND FLOOR PLAN

0 2' 4' 8' 16'

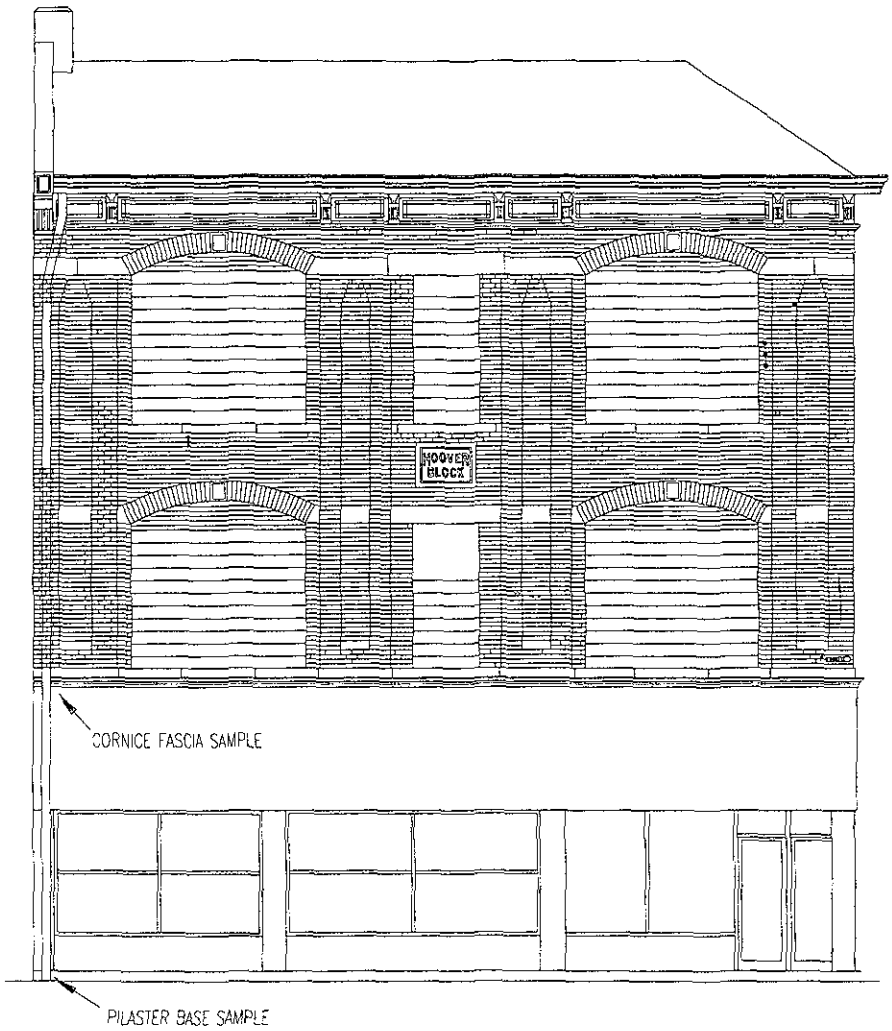
Historic Paint Analysis: Sample Locations



Historic Paint Analysis: Sample Locations



Historic Paint Analysis: Sample Locations



NORTH ELEVATION

0 2' 4' 8' 16'

Historic Paint Analysis: Sample Colors

The following pages contain color photocopies of Munsell Color Notation chips. These chips have been selected by Seebohm, Ltd. as the best color matches for the historic finish samples taken from the Wright Cycle Company building (HS-01) and the Hoover Block (HS-02). Due to the limitations of the color photocopy process, the colors are approximate and are for informational use only. The Munsell Book of Color or the notebook of Munsell Color chips provided to the Dayton Aviation Heritage National Park by Seebohm, Ltd. should be consulted for the exact colors. Color samples marked with a red dot are the colors found only at the Wright Cycle Company building. All other colors were found only at the Hoover Block. The historic buildings had only two colors in common: 7.5R 8/4 and N 0.5.

The Munsell Book of Color

2.5Y 7/2

2.5Y 8/2

2.5Y 8.5/2

2.5Y 5/4

2.5Y 7/4

2.5Y 8/6

2.5Y 8/8

2.5Y 8.5/8

5Y 8/2

5Y 8.5/2

5Y 9/2

5Y 8/4

5Y 8.5/4

5Y 9/4

5Y 9/6

5Y 8.5/10

7.5Y 8/2

7.5Y 9/2

7.5Y 8/6

10Y 4/2

10Y 3/4

10Y 6/1

o denotes (HS-01)

The Munsell Book of Color

7.5R 2/2

7.5R 9/2

7.5R 3/4

7.5R 8/4

7.5R 2/6

7.5YR 9/2

7.5YR 4/4

7.5YR 8/4

7.5YR 7/12

10R 7/2

10R 4/4

10R 4/6

10R 6/6

10YR 6/4

10YR 7/4

10YR 8/4

10YR 5/6

10YR 5/8

2.5YR 5/6

2.5YR 6/6

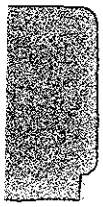
5YR 4/2

5YR 9/2

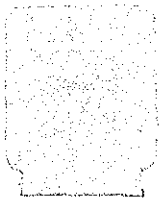
5YR 4/4

denotes (HS-01)

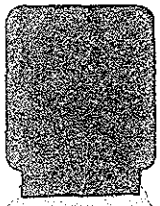
The Munsell Book of Color



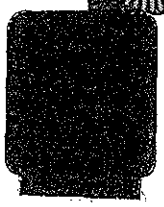
2.5GY 5/4



5GY 7/2

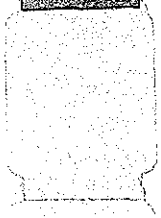


7.5GY 5/2



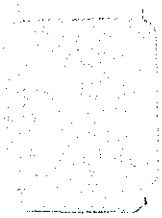
10GY 4/4

5GY 9/2

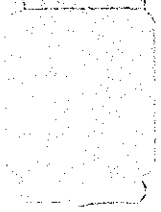


7.5GY 7/2

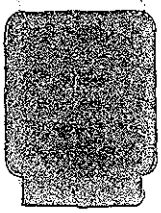
10GY 8/4



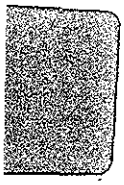
5GY 7/4



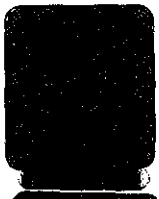
7.5GY 7/4



10GY 5/6



2.5G 5/2 ⊙

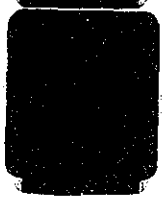


5G 3/2

5G 9/1

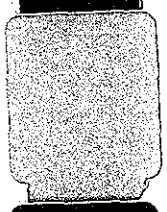
7.5G 3/2

2.5G 8/4 ⊙



5G 3/4

5G 9/2



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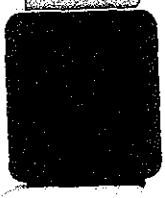

7.5G 3/4

7.5G 8/4

⊙ denotes (HS-01)

2.5BG 7/2

7.5BG 9/2

10BG 8/4

10BG 7/6

7.5B 8/4

5PB 2/4

7.5B 4/6

N 0.5
o

N 0.75

N 2

N 3.5

N 8.75

N 9.25

N 9.5

o denotes (HS-01)

Appendix G

Lead Paint Analysis

ATC ASSOCIATES INC.

1121 Canal Road
Cincinnati, Ohio
45241
513.771.2112
Fax 513.782.6908

RECEIVED APR 0 6 1998

April 1, 1998

Mr. Steven Jones
QUINN EVANS ARCHITECTS
219 1/2 North Main Street
Ann Arbor, Michigan 48104

Re: Wright Cycle Shop & Hoover Building
Lead-Based Paint Testing
ATC Project No. 17960.0001

Dear Mr. Jones:

Paint testing was conducted at the Wright Cycle Shop and the Hoover Building on January 26 and 28, 1998 by ATC Associates Inc. (ATC). The survey was performed at the Wright Cycle Shop located at 22 South Williams Street and at the Hoover Building located at 1060 West Third Street, both sites located in Dayton, Ohio. The purpose of this inspection was the measuring of lead concentrations in paints in preparation for upcoming renovation projects. Mr. Todd Taylor, Ohio Department of Health Certified Risk Assessor #OH000137 conducted field operations at the site.

The testing for lead-based paint was conducted using a Radiation Monitoring Device; LPA-1 RMD Spectrum Analyzer, and the "XRF Performance Characteristics Sheet" for the RMD LPA-1 Spectrum Analyzer.

At the beginning and end of the day, ATC performed three calibration checks using the calibration standard provided by the manufacturer. The average of the three calibration readings were between 0.6 and 1.6 mg/cm2, within the acceptable range for unit operation.

Fixed, painted and varnished surfaces on the interior, as well as any exterior painted wood surfaces were randomly sampled using the RMD LPA-1 XRF Spectrum Analyzer (Serial No. 1221). Materials were classified to be negative, inconclusive or positive for lead-based paint by each XRF measurement per component. The XRF Data Summary is presented in Appendix A. The level of 1.0 mg/cm2 for the XRF, and 0.5% by weight (5,000 ppm) in paint chip samples has been established by the Department of Housing and Urban Development (HUD) "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" and Ohio Department of Health (ODH) regulations as lead-based paint.

Initial testing of the painted surfaces by the XRF was performed using the "Quick" Mode which has a varied inconclusive range depending upon the substrate (see below). Occasionally, a change of substrates will interfere with an XRF screen. In these cases, if the inspector suspects that the screen could be in error, he may disregard the first screen and collect a second.

If a material was determined inconclusive, a paint chip sample was collected and analyzed by an Ohio Department of Health Accredited Laboratory that participates in the Environmental Lead Proficiency Analytical Testing Program (ELPAT). The Environmental Protection Agency (EPA) Method SW846-7420 was utilized for the analysis of the paint chip samples. The results of the analysis was then compared to the 0.5% by weight (5,000 ppm) HUD Guidelines to determine if the paint was positive for lead. No paint chip samples were collected at either site.

The levels to classify a material as containing lead-based paint, as provided in the RMD LPA-1 Performance Characteristics Sheet, are as follows:

Substrate	XRF Mode	Threshold (mg/cm2)	Inconclusive Range (mg/cm2)
Brick	Quick	1.0	None
Concrete	Quick	1.0	None
Drywall	Quick	1.0	None
Metal	Quick	None	0.9 to 1.3
Plaster	Quick	None	0.9 to 1.3
Wood	Quick	1.0	None

Conclusions

Numerous components at both buildings were found to contain lead greater than 1.0 mg/cm2. See attached XRF field sheets for components and locations. ATC did not accomplish a lead-based paint inspection in compliance with the Housing of Urban Development "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" or the Ohio Department of Health "Ohio Childhood Lead Poisoning Prevention Rules". The results of the XRF testing can only be applied to the exact area that the XRF was placed and cannot be considered representative of other locations.

The Occupational Safety and Health Administration (OSHA) regulates workplace exposures to lead; however, OSHA does not define lead-containing materials, or specify a lead content for materials involved in construction/demolition activities that could cause occupational exposures to lead above the permissible exposure limits specified in the OSHA Lead Construction Standard (29 CFR 1926.62). Therefore, because the XRF cannot accurately detect lead in paint at concentrations below the HUD action level, lead must be assumed to be present, in low levels (<1.0 mg/cm2) on all painted surfaces which tested "negative" by the XRF. Maintenance renovation or demolition work with any lead-containing material has the potential to cause occupational exposures to lead. OSHA requires that any manual activities which has the potential for causing lead exposures be conducted by specially trained and equipped workers utilizing controlled work practices in accordance with the OSHA lead construction standard. Worker exposures must be measured during work activities. The Wright Cycle Shop and the Hoover Building do not meet the Ohio Department of Health definition of a "structure", therefore, lead related work does not need to be accomplished by a Ohio Licensed Lead Abatement Contractor.

ATC appreciates the opportunity to assisting Quinn Evans Architects during this upcoming renovation project. Please feel free to call us if you have any questions regarding this project or any other project at (513) 771-2112.

Sincerely,

ATC Associates, Inc.

Todd Taylor
Project Manager

attachments

APPENDIX A

Wright Cycle Shop

ATC Associates Inc. Lead Based Paint Survey Data Record

Date:1/26/98 Client: Quinn Evans Architects Inspector: Todd Taylor
Client # 17960.0001 Project Name/Location: 22 South Williams Street
Survey Site: The Wright Cycle Shop RMD; LPA-1- #1221

Room Type	Wall	Component	Substrate	Condition	Color	Initial K.Shell	POSITIVE NEGATIVE
Calibration	N/A	N/A	N/A	N/A	N/A	2.6	****
Calibration	N/A	N/A	N/A	N/A	N/A	2.1	****
Calibration	N/A	N/A	N/A	N/A	N/A	2.1	****
Calibration	N/A	N/A	N/A	N/A	N/A	2.4	****
Calibration	N/A	N/A	N/A	N/A	N/A	2.2	****
Basement	C	Support Column	Wood	Poor	White	0.5	N
Basement	C	Wall	Concrete	Fair	Green	0.0	N
Basement	C	Floor	Concrete	Poor	Green	-0.3	N
Basement	A	Support Column	Wood	Poor	White	-0.1	N
Basement	C	Joist	Wood	Poor	White	-0.3	N
Basement Stairwell	A	Wall	Plaster	Poor	Green	-0.5	N
Basement Stairwell	A	Door Jamb	Wood	Fair	Gray	-0.3	N
Basement Stairwell	A	Door	Wood	Good	Gray	-0.2	N
Basement Stairwell	A	Ceiling	Plaster	Poor	Green	0.3	N
Basement Stairwell	A	Ceiling	Wood	Fair	White	-0.2	N
Main Room First Floor	A	Door	Wood	Good	Gray	0.0	N
Main Room First Floor	A	Door Casing	Wood	Good	Gray	-0.1	N
Main Room First Floor	D	Floor	Wood	Fair	Green	-0.1	N
Main Room First Floor	D	Floor	Wood	Poor	Yellow	1.8	P
Main Room First Floor	D	Floor	Wood	Fair	Red	-0.1	N
Main Room First Floor	A	Wall	Plaster	Fair	Yellow	>9.9	N
Main Room First Floor	B	Wall	Plaster	Fair	Yellow	-0.1	N
Main Room First Floor	C	Wall	Plaster	Fair	Yellow	-0.1	N
Main Room First Floor	D	Wall	Plaster	Poor	Yellow	0.0	N
Main Room First Floor	A	Ceiling	Wood	Good	Yellow	-0.1	N
Main Room First Floor	C	Floor	Wood	Fair	Brown	1.2	P
Main Room First Floor	C	Door Casing	Wood	Good	Gray	0	N
Main Room First Floor	C	Door Jamb	Wood	Good	Gray	-0.1	N
Main Room First Floor	B	Floor	Wood	Poor	White	2.6	P
Main Room First Floor	B	Door	Wood	Good	Gray	0.0	N
Main Room First Floor	D	Baseboard	Wood	Good	Gray	-0.3	N
Main Room First Floor	D	Window Sill	Wood	Good	Gray	-0.2	N
Main Room First Floor	D	Window Casing	Wood	Good	Gray	-.1	N
Main Room First Floor	D	Window Sash	Wood	Good	Gray	-0.1	N
Main Room First Floor	D	Window Well	Wood	Good	Gray	No Access	****
Main Room First Floor	D	Wall Divider	Wood	Good	White	0	N
Main Room First Floor	D	Wall Divider Trim	Wood	Good	Gray	-0.1	N
Main Room First Floor	D	Window From Wall Divider	Wood	Good	White	-.2	N
First Floor R.R.	A	Wall	Drywall	Good	Cream	0.0	N
First Floor R.R.	D	Wall	Drywall	Good	Cream	-0.4	N
First Floor R.R.	C	Wall	Drywall	Good	Cream	-0.3	N

ATC Associates Inc. Lead Based Paint Survey Data Record

te:1/26/98 Client: Quinn Evans Architects Inspector: Todd Taylor
Client # 17960.0001 Project Name/Location: 22 South Williams Street
rvey Site: The Wright Cycle Shop RMD; LPA-1- #1221

om Type	Wall	Component	Substrate	Condition	Color	Initial K.Shell	POSITIVE NEGATIVE
st Floor R.R.	D	Wall	Drywall	Good	Cream	-0.5	N
st Floor R.R.	C	Window Sill	Wood	Good	Gray	-0.1	N
st Floor R.R.	C	Window Casing	Wood	Good	Gray	-0.4	N
st Floor R.R.	C	Window Sash	Wood	Good	Gray	0.0	N
st Floor R.R.	D	Door	Wood	Good	Gray	0.3	N
st Floor R.R.	D	Door Casing	Wood	Good	Gray	-0.1	N
st Floor R.R.	A	Ceiling	Wood	Good	Cream	-0.1	N
ice First Floor	A	Wall	Drywall	Good	Cream	-0.2	N
ice First Floor	B	Wall	Drywall	Good	Cream	0.0	N
ice First Floor	C	Wall	Drywall	Good	Cream	0.0	N
ice First Floor	D	Wall	Drywall	Good	Cream	0.0	N
ice First Floor	D	Ceiling	Drywall	Good	Gray	0.0	N
ice First Floor	B	Baseboard	Wood	Good	Gray	-0.4	N
ice First Floor	B	Window Casing	Wood	Good	Gray	-0.1	N
ice First Floor	B	Window Sash	Wood	Good	Gray	-0.1	N
ice First Floor	B	Window Sill	Wood	Good	Gray	No Access	****
ice First Floor	D	Door	Wood	Good	Gray	0.0	N
ice First Floor	D	Door Casing	Wood	Good	Gray	0.1	N
ice First Floor	A	Lower Wall	Wood	Good	Gray	-0.2	N
ice First Floor	A	Lower Wall Trim	Wood	Good	Gray	-0.1	N
irwell to Second Floor	B	Wall	Drywall	Good	Cream	-0.3	N
irwell to Second Floor	D	Wall	Plaster	Poor	Cream	-0.3	N
irwell to Second Floor	B	Stair Stringer	Wood	Good	Tan	0.1	N
irwell to Second Floor	B	Door	Metal	Good	Tan	-0.1	N
irwell to Second Floor	B	Door Frame	Metal	Good	Tan	-0.1	N
irwell to Second Floor	B	Handrail Support	Wood	Fair	Cream	-0.1	N
irwell to Second Floor	D	Wall Divider	Wood	Good	Tan	-0.1	N
irwell to Second Floor	D	Baseboard	Wood	Food	Tan	-0.2	N
irwell to Second Floor	D	Wall	Plaster	Fair	White	-0.1	N
irwell to Second Floor	B	Wall	Plaster	Fair	White	-0.4	N
irwell to Second Floor	D	Window Sill	Wood	Good	Tan	0.2	N
irwell to Second Floor	D	Window Apron	Wood	Good	Tan	-0.1	N
irwell to Second Floor	D	Window Sash	Wood	Good	Tan	-0.6	N
irwell to Second Floor	D	Window Well	Wood	Poor	Tan	-0.1	N
nt Room Second Floor	B	Window Sill	Wood	Fair	Tan	0.2	N
nt Room Second Floor	B	Window Casing	Wood	Good	Tan	-0.1	N
nt Room Second Floor	A	Wall	Plaster	Good	Cream	0.0	N
nt Room Second Floor	B	Wall	Plaster	Good	Cream	0.0	N
nt Room Second Floor	C	Wall	Drywall	Good	Cream	0.0	N
nt Room Second Floor	D	Wall	Plaster	Good	Cream	-0.1	N
nt Room Second Floor	B	Ceiling	Drywall	Good	White	-0.2	N

ATC Associates Inc. Lead Based Paint Survey Data Record

Date:1/26/98 Client: Quinn Evans Architects Inspector: Todd Taylor
Client # 17960.0001 Project Name/Location: 22 South Williams Street
Survey Site: The Wright Cycle Shop RMD; LPA-1- #1221

Room Type	Wall	Component	Substrate	Condition	Color	Initial K.Shell	POSITIVE NEGATIVE
Front Room Second Floor	C	Baseboard	Wood	Good	Tan	0.1	N
Front Room Second Floor	B	Window Well	Wood	Fair	Red	>9.9	P
Front Room Second Floor	B	Window Track (exterior)	Wood	Fair	Red	>9.9	P
Front Room Second Floor	B	Exterior Shutter	Wood	Fair	Red	-0.2	N
Center Offices 2nd Floor	A	Ceiling	Drywall	Good	White	-0.1	N
Center Offices 2nd Floor	A	Wall	Drywall	Good	Cream	-0.1	N
Center Offices 2nd Floor	B	Wall	Plaster	Good	Cream	-0.3	N
Center Offices 2nd Floor	C	Wall	Plaster	Good	Cream	-0.2	N
Center Offices 2nd Floor	D	Wall	Plaster	Good	Cream	0.0	N
Center Offices 2nd Floor	B	Window Sill	Wood	Good	Tan	-0.1	N
Center Offices 2nd Floor	B	Window Casing	Wood	Good	Tan	0.0	N
Center Offices 2nd Floor	A	Window Sash	Wood	Good	Tan	-0.1	N
Center Offices 2nd Floor	B	Window Well	Wood	Good	Red	0.1	N
Center Offices 2nd Floor	B	Window Track	Wood	Fair	Red	>9.9	P
Center Offices 2nd Floor	C	Baseboard	Wood	Good	Tan	0.0	N
Center Offices 2nd Floor	B	Door	Wood	Good	Tan	-0.1	N
Center Offices 2nd Floor	B	Door Jamb	Wood	Good	Tan	0.2	N
Exterior Balcony	B	Exterior Door	Wood	Good	Red	-0.2	N
Exterior Balcony	B	Exterior Handrail	Wood	Good	Red	0.0	N
Second Floor, Rear Offices	A	Wall	Drywall	Good	Cream	0.0	N
Second Floor, Rear Offices	B	Wall	Drywall	Good	Cream	0.2	N
Second Floor, Rear Offices	C	Wall	Drywall	Good	Cream	-0.1	N
Second Floor, Rear Offices	D	Wall	Drywall	Good	Cream	0.0	N
Second Floor, Rear Offices	A	Ceiling	Drywall	Good	White	0.0	N
Second Floor, Rear Offices	C	Door	Wood	Good	Tan	0.1	N
Second Floor, Rear Offices	C	Door Casing	Wood	Good	Tan	0.0	N
Second Floor, Rear Offices	A	Ceiling	Drywall	Good	White	-0.1	N
Second Floor, Rear Offices	A	Wall	Drywall	Good	Cream	0.0	N
Second Floor, Rear Offices	B	Wall	Plaster	Good	Cream	0.0	N
Second Floor, Rear Offices	C	Wall	Plaster	Good	Cream	0.0	N
Second Floor, Rear Offices	D	Wall	Plaster	Good	Cream	-0.1	N
Second Floor, Rear Offices	A	Door	Wood	Fair	Tan	-0.1	N
Second Floor, Rear Offices	A	Door Jamb	Wood	Fair	Tan	-0.2	N
Second Floor, Rear Offices	B	Window Sill	Wood	Fair	Tan	-0.3	N
Second Floor, Rear Offices	B	Window Casing	Wood	Good	Tan	0.3	N
Second Floor, Rear Offices	B	Window Sash	Wood	Good	Tan	0.3	N
Second Floor, Rear Offices	B	Exterior Window Well	Wood	Fair	Red	-0.5	N
Second Floor, Rear Offices	B	Exterior Window Track	Wood	Fair	Red	>9.9	P
Exterior	A	Exterior Front Door	Wood	Good	Red	-0.2	N
Exterior	A	Exterior Window Sill	Wood	Fair	Red	0.3	N
Exterior	A	Exterior Posts	Wood	Fair	Red	0.0	N

ATC Associates Inc. Lead Based Paint Survey Data Record

:1/26/98 Client: Quinn Evans Architects Inspector: Todd Taylor
Client # 17960.0001 Project Name/Location: 22 South Williams Street
ey Site: The Wright Cycle Shop RMD; LPA-1- #1221

						Initial	POSITIVE
m Type	Wall	Component	Substrate	Condition	Color	K.Shell	NEGATIVE
rior	A	Stair Riser	Wood	Fair	Red	-0.2	N
rior	B	Porch Ceiling Support	Wood	Fair	Red	>9.9	P
rior	B	Porch Ceiling	Wood	Fair	White	>9.9	P
rior	B	Ceiling	Wood	Fair	Red	>9.9	P
rior	B	Threshold	Wood	Poor	Red	>9.9	P
rior	B	Corner Board	Wood	Good	Red	0.0	N
rior	B	Exterior Window Casing	Wood	Fair	Red	0.2	N
rior	B	Exterior Window Sash	Wood	Fair	Red	0.2	N
rior	B	Exterior Window Sill	Wood	Fair	Red	-0.1	N
bration	N/A	N/A	N/A	N/A	N/A	2.5	****
bration	N/A	N/A	N/A	N/A	N/A	1.9	****
bration	N/A	N/A	N/A	N/A	N/A	2.0	****

Hoover Building

ATC Associates Inc. Lead Based Paint Survey Data Record

te:1/28/98 Client: Quinn Evans Architects Inspector: Todd Taylor
Client # 17960.0001 *Project Name/Location: 1060 West Third Street*
rvey Site: Hoover Building RMD; LPA-1- #1221

						Initial	POSITIVE
om Type	**Wall**	**Component**	**Substrate**	***Condition***	***Color***	**K.Shell**	**NEGATIVE**
ibration	N/A	N/A	N/A	N/A	N/A	2.1	****
ibration	N/A	N/A	N/A	N/A	N/A	2.3	****
ibration	N/A	N/A	N/A	N/A	N/A	1.8	****
ibration	N/A	N/A	N/A	N/A	N/A	1.8	****
ibration	N/A	N/A	N/A	N/A	N/A	2.1	****
st Floor	C	Wall	Plaster	Poor	Green	0.6	N
st Floor	D	Wall	Plaster	Poor	Yellow	-0.4	N
st Floor	D	Ceiling	Plaster	Poor	Yellow	-0.1	N
st Floor	A	Wall	Plaster	Poor	Yellow	-0.1	N
st Floor	B	Wall	Plaster	Poor	Green	-0.1	N
st Floor	A	Baseboard	Wood	Poor	Green	-0.3	N
st Floor	B	Support Post	Metal	Poor	Green	0.0	N
st Floor	D	Door	Wood	Poor	Varnish	0.0	N
cond Floor	D	Door	Wood	Fair	Varnish	0.1	N
cond Floor	D	Door Casing	Wood	Fair	Varnish	-0.2	N
cond Floor	B	Chair Rail	Wood	Fair	Green	0.3	N
cond Floor	B	Wall	Plaster	Fair	Yellow	-0.3	N
cond Floor	B	Wall	Plaster	Poor	Yellow	0.0	N
cond Floor	C	Cupboard	Wood	Fair	Yellow	-0.1	N
cond Floor	D	Window Casing	Wood	Fair	Varnish	-0.1	N
cond Floor	B	Shelf Support	Wood	Fair	Varnish	0.2	N
ond Floor	A	Floor	Wood	Fair	Brown	-0.2	N
ond Floor	D	Baseboard	Wood	Fair	Varnish	0.0	N
ond Floor	D	Pillar	Wood	Fair	Varnish	-0.1	N
ond Floor	D	Wall	Plaster	Poor	Yellow	2.2	P
ond Floor	D	Bathroom Chair Rail	Wood	Fair	Yellow	0.7	N
ond Floor	C	Wall	Plaster	Poor	Green	0.5	N
ond Floor	C	Baseboard	Wood	Poor	White	-0.4	N
ond Floor	C	Cupboard	Wood	Fair	White	1.4	P
ond Floor	B	Wall	Plaster	Poor	Pink	-0.1	N
ond Floor	D	Door	Wood	Poor	Green	0.0	N
ond Floor	B	Pillar	Wood	Fair	Varnish	-0.1	N
ond Floor	D	Shelf Support	Wood	Fair	Varnish	-0.4	N
ond Floor	C	Door Casing	Wood	Fair	Varnish	0.0	N
ond Floor	D	Ceiling	Plaster	Poor	Yellow	-0.3	N
d Floor	D	Door Casing	Wood	Poor	Green/Blue	-0.1	N
d Floor	D	Door	Wood	Fair	Green/Blue	0.0	N
d Floor	A	Wall	Plaster	Poor	Pink	2.6	P
d Floor	C	Wall	Plaster	Fair	Tan	>9.9	P
d Floor	B	Wall	Plaster	Poor	Blue	1.6	P
d Floor	B	Baseboard	Wood	Fair	Blue	-0.1	N

ATC Associates Inc. Lead Based Paint Survey Data Record

Date:1/28/98 Client: Quinn Evans Architects Inspector: Todd Taylor

Client # 17960.0001 Project Name/Location: 1060 West Third Street

Survey Site: Hoover Building RMD; LPA-1-#1221

Room Type	Wall	Component	Substrate	Condition	Color	Initial K.Shell	POSITIVE NEGATIVE
Third Floor	A	Door Casing	Wood	Fair	Brown	-0.2	N
Third Floor	D	Chair Rail	Wood	Fair	Blue	-0.2	N
Third Floor	D	Wall	Plaster	Poor	Pink	0.5	N
Third Floor	D	Cupboard	Wood	Fair	Green	0.0	N
Third Floor	C	Door	Wood	Fair	Brown	0.3	N
Third Floor	A	Stairwell Ceiling	Plaster	Poor	Yellow	0.0	N
Third Floor	D	Stairwell Wall	Plaster	Poor	Yellow	1.3	P
Third Floor	D	Handrail	Wood	Fair	Varnish	-0.1	N
Third Floor	D	Chair Rail	Wood	Fair	Varnish	0.2	N
Third Floor	D	Stair Tread	Wood	Fair	Tan	-0.2	N
Third Floor	D	Stair Riser	Wood	Fair	Tan	-0.1	N
Third Floor	D	Stair Stringer	Wood	Fair	Tan	0.0	N
Third Floor	B	Stairwell Wall	Plaster	Fair	Yellow	0.0	N
Exterior	A	Mural Picture	Wood	Fair	All Colors	0.3	N
Exterior	D	Wall	Brick	Poor	White	-0.2	N
Calibration	N/A	N/A	N/A	N/A	N/A	2.0	****
Calibration	N/A	N/A	N/A	N/A	N/A	1.9	****
Calibration	N/A	N/A	N/A	N/A	N/A	2.1	****

Inspectors Certifications

GEORGIA INSTITUTE OF TECHNOLOGY

This is to certify that

Todd Taylor

has successfully completed

Lead-Based Paint
Detection and Abatement

conducted by
GEORGIA TECH
CONTINUING EDUCATION
Atlanta, Georgia
June 22-26, 1992

John P. Crecine
President

W. Denney Freeston
Director, Continuing Education

The Georgia Institute of Technology

This is to certify that

Todd Taylor

has attended and satisfactorily passed an examination covering the contents of a continuing education course entitled:

LEAD-BASED PAINT DETECTION AND ABATEMENT

676

Certificate Number

June 22-26, 1992

Dates of Attendance

Georgia Tech Research Institute
Environmental Science and Technology Laboratory
Training Programs Office
Atlanta, GA 30332
Phone: (404) 894-7430; FAX: (404) 894-8281

Course Director

Margie Brown

Exam Administrator

Certificate of Achievement

This is to certify that

Todd Taylor
of Lead Safe Home, Inc.

on the 11th day of February 1997 successfully completed the factory training for

RMD's LPA-1 Lead Paint Inspection System

including, but not limited to, the topics of Radiation Safety and the Proper Use of the Instrument.

Jacob Paster, Vice-President of RMD
44 Hunt St., Watertown, Massachusetts

State of Ohio

Department of Health
Lead Poisoning Prevention Program

BE IT KNOWN THAT

TODD TAYLOR

has successfully completed the requirements to be licensed as a
Lead Risk Assessor in the State of Ohio

License No.
OH 000137

Issue Date
November 24, 1997

Expiration Date
October 2, 1999

PROGRAM ADMINISTRATOR, OH DEPT. OF HEALTH

VOID IF ALTERED NON-TRANSFERABLE