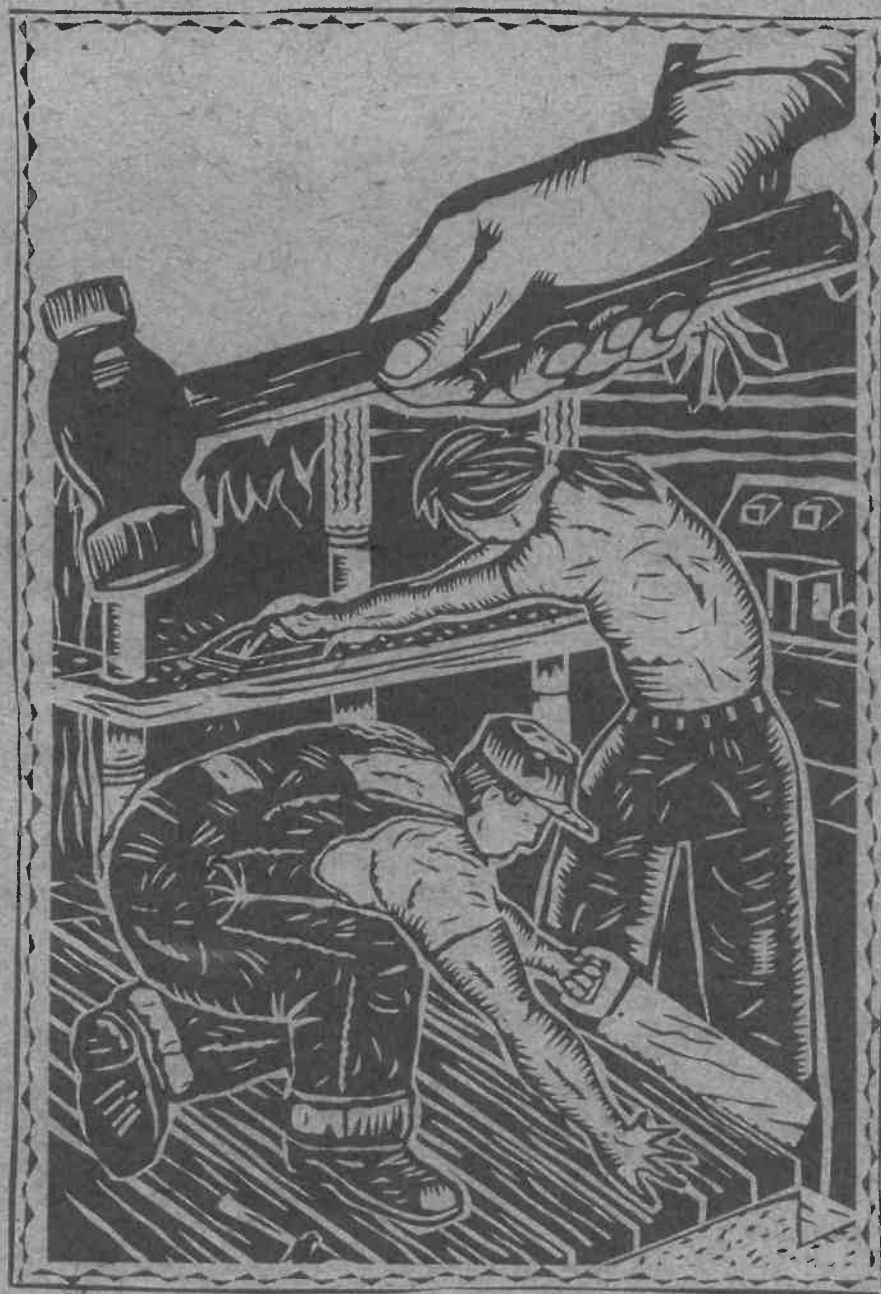


The Mansfield



Old Building Handbook

A Guide to Architectural Styles and Rehabilitation Techniques

About the HPCM

Preserving Mansfield's historic character and architectural legacy is the ongoing responsibility of the Historic Preservation Commission of Mansfield. A city-designated commission made up of volunteer members, the HPCM works to increase awareness of the city's architecture, encourage maintenance and reuse of its older buildings, and coordinate the city's preservation program.

An important duty assigned to the commission is the review of design proposals for buildings listed as Local Landmarks or included in Local Historic Districts of the city. The HPCM also maintains a library at the city's Community Development Department, including an inventory of Mansfield's historic buildings. Its educational programs include workshops, posters, walking tour brochures, and a half-hour slide show presented to community groups by commission members.

The HPCM welcomes your interest in the preservation of Mansfield's buildings. For further information about the commission or its activities, please contact the Historic Preservation Officer, City of Mansfield, 30 North Diamond Street, Mansfield, Ohio, 44902; (419) 755-9793.

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Introduction

With this publication, the Historic Preservation Commission of Mansfield (HPCM) is achieving one of its long-term goals: to provide the community with a useful reference for maintaining and repairing older buildings. This handbook is designed to be used by property owners, building contractors, architects, building managers, and tenants — anyone who is responsible for the care and preservation of the city's older structures.

The handbook offers practical advice on maintaining and repairing older buildings, with the underlying premise that older properties can be successfully rehabilitated without changing their architectural style or character. The emphasis is on protecting what you have by doing preventive maintenance and making repairs when needed. This approach saves both time and money, while preserving Mansfield's buildings for the future.

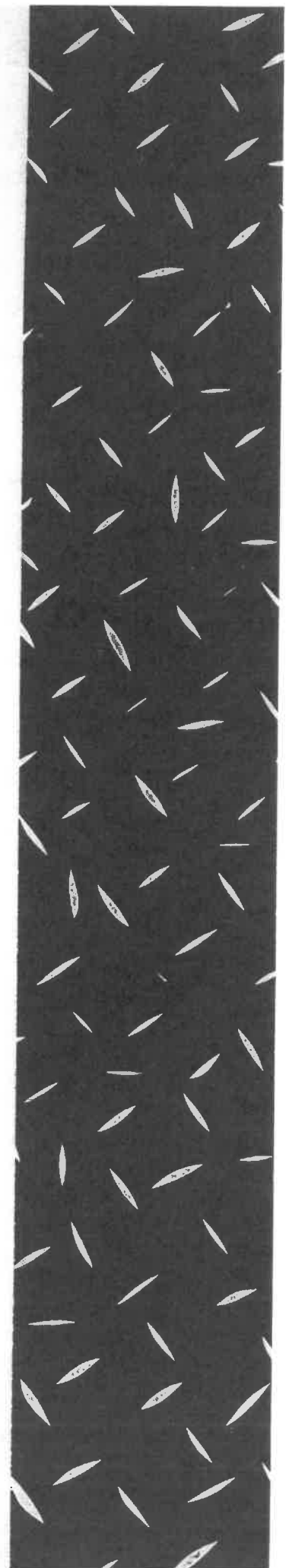
To encourage an awareness and appreciation of the city's older architecture, we've also included a section on the city's development and most common building styles. A building's design plays an

important role in its rehabilitation, since any work that is done should respect the original architecture and materials. The section on identifying architectural styles will help you to determine whether your building has a specific style and to recognize its important features.

While many of the most common problems and solutions for older buildings are addressed, there is much more that a do-it-yourselfer can learn about building rehabilitation than could be covered in this handbook. Several excellent publications are listed in the back and you are encouraged to order them yourself or visit the public library. The HPCM is also available to provide assistance, and welcomes your rehabilitation questions.

We know you'll agree that Mansfield's older buildings are important resources which we need to protect for coming generations to use and enjoy. Practicing preventive maintenance on older buildings today will secure them for our future.

*The Historic Preservation
Commission of Mansfield*



BRACKET

CORNICE

PANELED
FRIEZE

SEGMENTAL
ARCHED
HOODMOLD

SILL

BRICK FACADE

TWO-OVER-TWO
DOUBLE HUNG
WOOD WINDOW

STOREFRONT
CORNICE

TRANSOM WINDOW

STOREFRONT
PIERS

RECESSED
STOREFRONT
ENTRY

DISPLAY WINDOW

RECESSED
STOREFRONT ENTRY

BULKHEAD
PANEL

Parts of an 1870's
Commercial Building
(Italianate, 106-08
North Main Street)

DOOR TO UPPER FLOORS

FINIAL

EYEBROW DORMER
WINDOW

GABLE

CHIMNEY

SLATE ROOF

CHIMNEY

CORNER TOWER

PALLADIAN
WINDOW

PORCH BALCONY

CARVED SURFACE
DECORATION

BEVELED GLASS
WINDOW

LAPPED CLAPBOARD
SIDING

PORCH PEDIMENT
WITH CARVED
GABLE FACE

PORCH

TURNED POST

Parts of a House
(Queen Anne, The
Tappan House, 308
Park Avenue West)

BALUSTRADE

PORCH APRON

PORCH LATTICE

DOUBLE-LEAFED DOOR WITH TRANSOM

Architecture



Architectural Development in Mansfield:

Mansfield is a city with a rich and diverse history. The growth of the community, as it evolved from a self-sufficient agricultural center of the early 19th century to a prominent manufacturing and commercial center of the early 20th century, is reflected in its architectural development. For example, the city's prosperity in the late 19th century, the 1920s and post World War II is seen in the building booms and new housing developments which it produced.

For many years after Mansfield was platted in 1808 it remained a small village, isolated by poor transportation routes and relying on the agricultural base provided by surrounding farms. The original town plat was bounded by Fourth Street on the north, First Street on the south, Adams Street on the east, and Mulberry Street on the west. By the 1840s, most of the village's commercial and residential buildings were concentrated in the downtown area, as it was a prestigious central location. On the outskirts of town were the large farms and land holdings of prominent citizens — land that would one day be developed and incorporated into the city.

Very few buildings remain in Mansfield from the first half of the 19th century, when the community was still a village. Among those which have survived, however, are some notable examples which provide a glimpse into the city's architectural history. Built in 1813 and reconstructed in 1908, the Mansfield Block House is an important remnant of the town's role in the War of 1812. Another rare survivor from Mansfield's first decade is the Old Stage Coach Inn on South Main Street, built in 1814. Oak Hill Cottage, built in 1847, is one of the city's best known buildings. An example of the Gothic

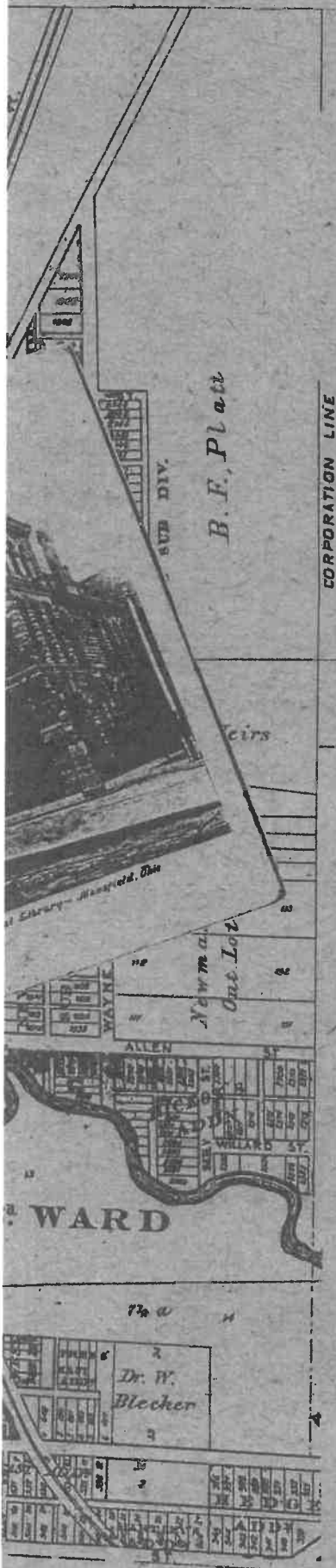
Revival style, this house reflects the interest in the pastoral, country house in mid-19th century America.

The arrival of railroad lines during the 1840s and 1850s brought stirrings of growth to the community by opening up Mansfield's trade and shipping routes. The first growth spurt occurred following the Civil War when the major industries of Aultman Taylor (farm implement manufacturer) and Tappan Stove Company were established. In the second half of the 19th century, the agricultural economy was displaced by a new industrial age which would bring prosperity to the city.

Commercial development continued, as large business blocks were built on Central Park and North Main Street during the 1860s and 1870s. Prosperous residents built homes in the areas close to the downtown, including residential areas to the north, east and south. New additions were platted by property owners with names such as Hedges, Sturges, Sherman, Johns and Bentley. Large numbers of middle and working class houses were built in these additions, meeting the demand created by industrial growth. Immigrants arrived from Germany and Eastern European countries to work in the factories, settling in neighborhoods close by.

The Italianate style found expression during this early period of Mansfield's growth in homes built for wealthy, middle class and working class occupants. In addition, Italianate was easily adapted to commercial buildings of the 1860s, 70s and 80s. Many excellent examples of commercial Italianate architecture still stand on North and South Main Streets.

Manufacturers which located in Mansfield tended to build their factories to the north and northeast



An Overview

of the downtown, in the vicinity of the three railroad lines. This area still has a number of late 19th and early 20th century brick industrial buildings and warehouses. By the turn of the century, the growth of industry had encroached upon the formerly-prosperous near north side residential area, sparking its decline.

During the late 1800s, the more prosperous Mansfield residents had begun to move away from these areas, building homes in more desirable locations to the west and southwest of downtown. The advent of electric streetcar transportation in 1887 contributed to this trend, opening up outlying residential areas to large numbers of people. Park Avenue West developed during the late 19th century as the city's premier residential street. Sturges Avenue, First and Second Streets were also quite fashionable residential locations and attracted many of the city's prominent residents.

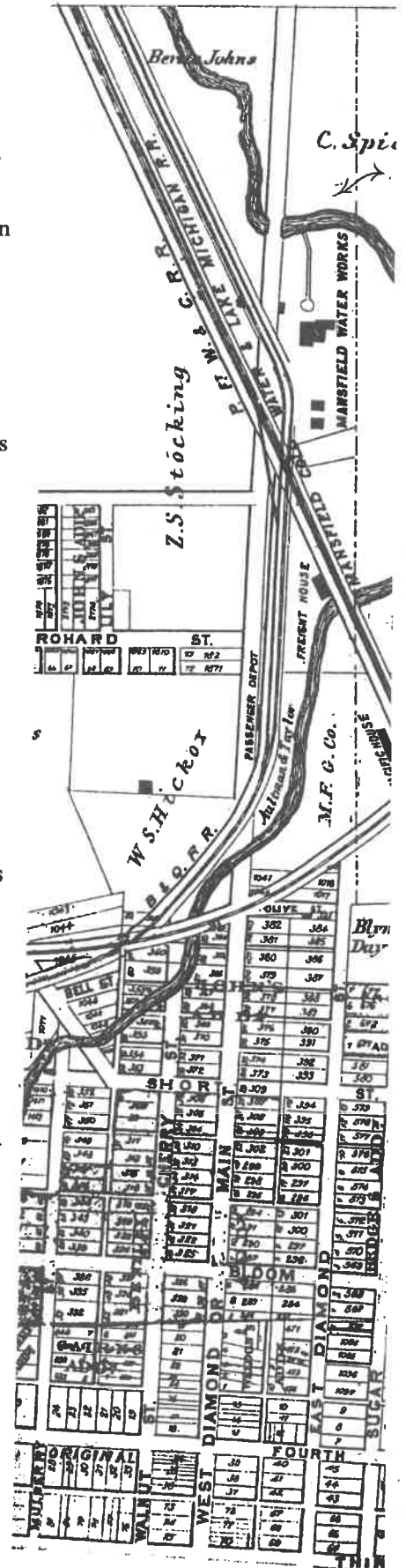
Queen Anne architecture, which became popular during the 1880s and 1890s, was clearly the style of choice for Mansfield's wealthier late 19th century residents. The city has an outstanding collection of high style Queen Anne houses on Park Avenue West, plus several other notable examples on West First, Second and Fourth Streets.

The downtown and western neighborhoods were the locations for new churches which were built during the late 19th and early 20th centuries. Many of the city's historic churches display a quality of design and construction which reflects their prominence in the community. Important civic and public buildings of the late 19th century included the Mansfield Reformatory, the Soldiers and Sailors Memorial Building, and the Masonic Temple (demolished 1987).

In the early years of the 20th century, continued growth meant the charting of new areas for residential development. Expansion to the west and southwest continued, as undeveloped tracts of land were subdivided. The Park Avenue West estate of Senator John Sherman was sold, spawning new developments that included The Boulevards, a unique residential neighborhood of some 100 homes developed between 1904 and 1930. To the south of downtown, Prospect Heights (platted in 1905) is an example of a middle class residential development.

Development of these neighborhoods was helped by the streetcar (and later the automobile) which enabled families to live outside of the central city where land was less expensive and more healthful. The dream of home ownership was important to the growing middle class of the early 20th century. House designs in a variety of styles were readily available through magazines such as *The Craftsman*, *Ladies' Home Journal*, and *The House Beautiful*, as well as through large mail-order houses like Sears Roebuck & Co.

During the 1920s and 30s, Mansfield was stretching further to the south with the platting and development of the Marion Avenue and Woodland areas. The impact of the automobile and the desire for a suburban lifestyle were most clearly felt with the Woodland development. Its curvilinear street layout and large-sized lots indicated that the suburb would become a prestigious residential neighborhood of single-family homes. Many of the large homes built in Woodland during this period were designed in the Colonial Revival and English Revival styles.





The early 20th century also brought about dramatic changes in the downtown area. New commercial buildings were designed in revival styles that included Spanish Colonial Revival (May Building on South Park) and Neo-Classical Revival (Mansfield Savings Bank at Fourth and Main Streets). A post-WWI commercial building boom in Mansfield resulted in the construction of the Leland Hotel (now demolished), Walpark Building (Stewart Tower), Richland Bank, and Farmer's Bank (now Bank One), changing the city's skyline dramatically.

While Mansfield's development was slowed by the Depression, the city had a highly-diversified industrial base and was identified in one contemporary publication as a relatively depression-proof city. As a result, the city has an apparent higher-than-normal number of buildings constructed during the 1930s. Mansfield also benefited from a post-WWII building boom. During the 1950s, continued suburban growth resulted in the construction of the popular low-level ranch houses which are still common today.

An appreciation of Mansfield's architectural heritage and the need for its preservation has grown in recent years. The city has a wide range of architectural resources which illustrate its development and character from the early 19th century to the present day. As its neighborhoods and buildings have grown older, however, many have been allowed to deteriorate. Park Avenue West is probably the most dramatic example of a once-grand Mansfield street which has been changed by commercial adaptations of older property. Other areas, such as the downtown and West Third Street, have lost historic buildings

through neglect or new development. Understanding the importance of the city's older architecture and techniques for its rehabilitation will go a long way toward preserving Mansfield's past for its future.

Identifying Architectural Styles

Many people are curious about the architectural style which their house or building represents. A building's style can reveal a great deal about the person who originally built it and the period in which it was built. In addition to telling us about the income level, stature, and personal preferences of its owners or builders, Mansfield's architecture also reflects important local, regional and national trends in construction and design.

The city has many outstanding high style buildings which are examples of a single architectural style. Many other buildings can't be placed into a stylistic category because their architecture represents a blending of different styles and influences. Still others are vernacular, meaning that they do not display strong characteristics of any style. These buildings are much simpler in design and ornamentation than their high style counterparts.

The following pages illustrate the architectural styles common to Mansfield. Your house or building may not be a clear example of a style, but you may be able to identify particular stylistic features which are present. Remember too, that your building may have been altered over the years and the defining features removed or covered over. In some cases, these changes are important too, as when a 19th century house gained an early 20th-century front porch, or a 1920s storefront was added to a turn-of-the-century commercial building.



Stage Coach Inn
60 S. Main Street (1814)

Federal (1810-1835)

The Federal style was brought to the U.S. from England and makes use of classical elements. Mansfield has an early vernacular example in the Stage Coach Inn on South Main Street. The Federal style is characterized here by smooth wall surfaces, the bridged chimneys at each gable end, multi-paned windows, and a small oval window (not pictured) on the north side.



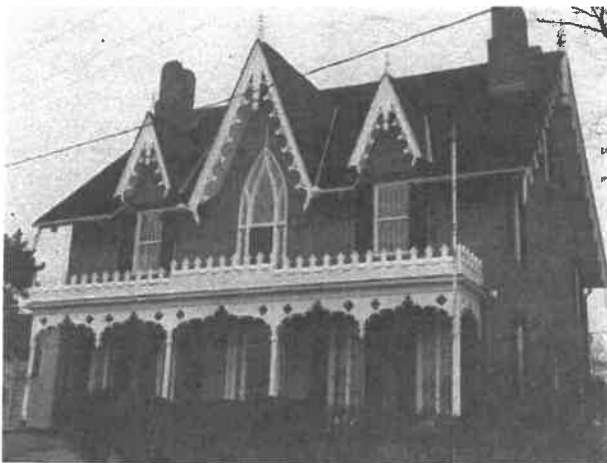
194 South Main Street
(c.1850)



194 South Main Street
Porch & Door Detail

Greek Revival (1825-1860)

A popular national style in the early 19th century, Greek Revival was inspired by the classical architecture of Greece. This South Main Street house has typical features, including a low-pitched gable roof with cornice returns, a classical portico with fluted columns, and a recessed entry with transom and sidelights. White was the universal color for Greek Revival, especially frame examples.



Oak Hill Cottage
310 Springmill Street (1847)

Gothic Revival (1840-1860)

*The Gothic Revival style was made popular in the U.S. by Andrew Jackson Downing and Alexander Jackson Davis through their pattern books, **Cottage Residences** (1842) and **The Architecture of Country Houses** (1850). Its picturesque effect was especially appropriate to rural settings. Mansfield's own Oak Hill Cottage (1847) is one of the premier examples of the style in Ohio. The characteristic feature of Gothic Revival is the pointed arch. In Oak Hill, a cottage-like effect is created by the steeply-pitched roof, dominant central gable and wide front porch. Also typical are the gingerbread porch detail and bargeboard in the gables.*

Italianate (1865-1890)

Italianate was a very popular style in Mansfield during the late 19th century for both houses and commercial buildings. Downtown's North Main Street contains a particularly outstanding collection of Italianate commercial architecture. Distinguishing features of the style include its vertical proportions; tall windows with flat, segmental or round arches; and a bracketed cornice. Common characteristics of Italianate houses include an L-shaped plan, low-pitched hipped or gable roof, bracketed eaves, projecting bays, entrances with transom and sidelights, and decorative woodwork on porches.



**238 West Third Street
(1878-9)**



**106-08 North Main Street
(c.1870)**

French Second Empire (1870-1895)

This style derives its name from the reign of French Emperor Napoleon III (1852-1870). French Second Empire achieved its greatest popularity in the U.S. in the 1870s, when it was employed extensively for public buildings (including the third Richland County Courthouse in 1873). This Lexington Avenue house is one of the few surviving examples of this style in Mansfield. The defining feature of Second Empire is the mansard roof, usually with dormer windows. Other ornamentation was borrowed from other Victorian styles, such as the Eastlake style porch and Italianate cornice in this example.



**14 Lexington Avenue
(c. 1880)**

High Victorian (1870-1895)

High Victorian architecture places an emphasis on verticality and variety in color and texture. High Victorian Gothic buildings use the pointed arch (as the word Gothic would indicate) and different materials to create variation in color. The Third Street brownstone is an excellent example of this style. High Victorian Italianate, represented by the Bissman Building on North Main Street, is distinguished by its window treatments which form shadows and create an ornamented facade.



**25 East Third Street
(1882)**



**Bissman Building
193 North Main Street
(1886)**



410 West Fourth Street (c.1890)



179 Poplar Street (c.1890)

Vernacular Victorian (1870-1900)

Vernacular Victorian is a broad category used to define the large number of buildings constructed during the Victorian era which do not have high style characteristics or only have one or two elements of a style. Typically, houses are either brick or frame, two or two and one-half stories, and rectangular or L-shaped in plan, with gable roofline and simple trim. Decorative treatment is most often seen in the gable faces (with patterned shingles or stickwork) and in front or side porches which may be borrowed from the Italianate or Queen Anne. Other examples lack any ornamentation at all. Mansfield's neighborhoods have many examples of this type of house, built for the large middle and working class of the late 19th century.



458 Park Ave. West (c.1890)



Eastlake Style Porch



147 W. First St. (c. 1885)

Queen Anne and Eastlake (1880-1900)

Queen Anne architecture was extremely popular in the late 19th century, and Mansfield boasts a remarkable collection of high-style residences. Influenced by the work of architect Norman Shaw in England during the 1860s and 70s, the style was popularized in this country by the British buildings at the 1876 Centennial Exhibition in Philadelphia.

Queen Anne buildings are very decorative, with asymmetrical massing, irregular rooflines, variety of window treatments, combinations of materials, and projections that include porches, balconies, bay windows, dormers, turrets, towers, and chimneys. Quite common in Mansfield is the corner turret, a hallmark of high-style Queen Anne. Eastlake is a type of ornamentation which is sometimes found on late 19th century buildings. The porch shown has characteristics of the style. This ornament is three-dimensional in character, with forms borrowed from furniture, including posts that resemble table legs and rows of spindles.

Shingle Style (1880-1900)

An adaptation of Queen Anne architecture, the Shingle Style was more common to the coast of New England than to communities of the Midwest. In Mansfield, the style is represented by this Park Avenue West house. The style is characterized by a wall surface of wooden shingles which envelopes the building. Sometimes, the ground story walls are stone, as in the pictured example where fieldstone is used.



**429 Park Avenue West
(c.1900)**

Richardsonian Romanesque (1880-1900)

This style was named for H. H. Richardson, a Boston architect who originated the style during the 1870s and early 1880s. Constructed of masonry, Richardsonian Romanesque is defined by the rounded Roman arch which is made massive and heavy by the use of rock-faced stone. Sometimes round-arched or straight-headed windows may be grouped with stone columns between them. Also common was the square tower, rounded turret or projecting bay with high-pitched roof. Richardsonian Romanesque was especially suited to public buildings such as Mansfield's Soldiers and Sailors Memorial Building and the Masonic Temple which stood on North Main Street.



**Soldiers and Sailors
Memorial Building
36 Park Avenue West
(1889)**

Beaux-Arts Classicism (1895-1915)

A style often used for public buildings, Beaux-Arts Classicism grew out of the Ecole des beaux-arts in Paris during the late 19th century. The style commonly features symmetrical facades, paired columns, monumental flights of steps, and classical ornamentation. The Mansfield-Richland County Public Library is a good example of the style (the front steps have been removed).



**Mansfield-Richland County Public
Library
43 West Third Street
(1908)**

Colonial Revival (1895-1930)

The Colonial Revival style was part of a romantic architectural movement during the early 20th century, when Americans looked to the past for their inspiration. It was an extremely popular house style in Mansfield. Typical features are classical, including pediments, pilasters and columns, Palladian windows, doors with fanlights and sidelights, and small-paned windows. Traditional elements were interpreted very liberally in this style. A typical Colonial Revival house has a symmetrical facade and central entrance, and may be faced in frame or brick.



**75 Brinkerhoff
Avenue (c.1925)**



**Williamsburg
Apartments
141-161 West
Second Street
(c.1930s)**



666 Park Avenue West (c. 1930)



771 Woodhill Road (c.1930)

Dutch Colonial Revival (1895-1930)

Although its origins are the same as the Colonial Revival, Dutch Colonial Revival is distinguished by its gambrel roofline. A large dormer was frequently used to increase the usability of the second floor space. Common facing materials were brick, clapboard and wood shingles.

Georgian Colonial Revival (1895-1930)

Unlike liberal interpretations of the Colonial and Dutch Colonial Revivals, the Georgian Colonial Revival attempted to strictly duplicate the proportion, materials and details of its 18th century antecedents. These buildings typically have central entry, hipped roof with symmetrical chimneys, classical cornice, doors with fanlights, and (often) a central gable with pediment.



**May Building
22-32 South Park
(1906)**

Spanish Colonial Revival (1900-1930)

Based on 17th and 18th century Spanish Colonial architecture, the Spanish Colonial Revival is distinguished by its red tile roof, stucco or light-colored walls, generally low profile, and arched openings. Some forms of the style also display balconies and curvilinear gables. Originating in California and the Southwest U.S., it was adapted to all types of buildings, including churches, houses, public buildings and commercial buildings. In addition to the May Building, Mansfield has residential examples of the style, including the house at 755 Park Avenue West.



**Saint Peter's Catholic Church
54 South Mulberry Street
(1911)**



**29 East Third Street
(c. 1907)**

Second Renaissance Revival (1900-1915)

Based on Italian architecture of the 16th century, the Second Renaissance Revival was best suited to large-scale residences or to public and commercial buildings. The style represented a return to simplicity and order following the Victorian era. Examples in Mansfield include St. Peter's Catholic Church, the Old Post Office on Fourth Street, and the unusual brownstone rowhouse on East Third Street. Typical of the style are a symmetrical stone facade, rusticated first story, arched and flat-headed openings, and the carved stone window trim which changes between floors.

Late Gothic Revival (1900-1920)

Late Gothic Revival draws upon earlier Gothic forms, including an emphasis on verticality and the pointed arch. The style was especially favored for churches built of masonry, often stone. Mansfield has several churches from the early 1900s which are noted as good examples of this style, including Grace Episcopal Church, First United Methodist Church, and St. John's Evangelical Church.



Grace Episcopal Church
41 Bowman Street
(1909)

Craftsman (1900-1930)

*The Bungalow house is a building type which is closely identified with the early 20th century Craftsman movement promoted by Gustav Stickley in his magazine, **The Craftsman**. These buildings feature strong horizontal lines and native materials such as stone, stucco, and wood shingles. A characteristic feature of the Bungalow is the front porch which is built into the house, wide overhangs with kneebrace or triangular brackets, and exposed rafters under the eaves, as in this Glenwood Boulevard example. The Scattergood House on Blymyer Avenue provides another example of the Craftsman influence.*



21 Glenwood Boulevard
(c. 1920)



Scattergood House
42 Blymyer Avenue
(c. 1915)

Prairie Style (1900-1930)

The Prairie Style was made famous in the Midwest by architect Frank Lloyd Wright and adapted to residences throughout the country. Its defining characteristics are a strong horizontal orientation, broad low-pitched roofs, exaggerated overhangs, continuous bands of windows, and porches with low walls. Stucco is the most common surface material, as in this Mansfield example, although the style also appeared in brick, stone or wood. Wall surfaces are plain with decoration often appearing in the form of horizontal banding or framing.



608 Park Avenue West
(c. 1910)



**38 Penn Avenue
(1906)**



**29 Prospect Street
(c. 1910)**

American Four-Square (1900-1930)

One of the most common house types in the early 20th century, the American Four-Square was the ideal expression of the comfortable and affordable house. Inexpensive to build and suited to small building lots, it was favored by homebuilders in newly-platted areas of Mansfield. The Four-Square consists of an unpretentious rectangle or square, with hipped or gable roof, heavy eaves, a broad porch across the front, and centrally-located dormers on the front and side. Wall materials are usually plain, with wood shingles, clapboards, and brick being most common.



**Mansfield Savings Bank
4 West Fourth Street
(1913)**

Neo-Classical Revival (1910-1930)

This style represented a return to classical forms during the early 20th century. The Mansfield Savings Bank provides a characteristic example of the style. Typically, the Neo-Classical Revival style features broad expanses of wall surface, flat rooflines, straight-topped windows and doors, columns and other classical ornamentation. The use of a front pedimented portico or pavilion is common.



306 Davis Road (1930)



**38-40 Marion Avenue
(c. 1925)**

English Revival and English Tudor Revival (1910-1930)

The English Revivals were part of the romantic revivals of the early 20th century which appealed to tastes and budgets of the growing middle class in Mansfield. Drawing inspiration from the rural farmhouses of England, the gabled rooflines of these houses recall the thatched roofs of the English countryside. Also typical are brick construction, round-arched doors, decorative chimneys, and small-paned casement windows. English Tudor Revival buildings also display the characteristic half-timbering and stucco. The Marion Avenue building is an example of the Tudor Revival style applied to a double house.

Art Deco and Modernistic (1925-1950)

Art Deco began about 1925 as a style of ornamentation in items such as jewelry and furniture, but evolved into an architectural style. It was used most commonly for office buildings, post offices, movie theaters, commercial buildings and apartment houses, but less often for single family residences. Characterized by rectilinear geometric forms and decoration, it is sometimes referred to as Modernistic. One example of this style is found in the Farmer's Bank, where verticality is stressed and ornament is rectilinear and flat in the upper stories. The setback of the top stories is characteristic of the Modernistic skyscraper.



**Farmer's Bank
(BankOne)
28-30 Park Avenue
West (1929)**

Art Moderne (1930-1950)

Art Moderne is similar to Art Deco, but its ornamentation is even more restrained and flat. The style makes use of geometric influences and curved surfaces, such as the rounded glass block window in the Ohio Cafe. The Zediker Apartments provide another local example of the Art Moderne influence.



**Ohio Cafe
296 East Fourth Street
(c. 1938)**



**Zediker Apartments
90-110 Blymyer Avenue
(c.1940)**

Industrial Buildings (1850-1950)

As a major industrial center, Mansfield has a large collection of historic manufacturing and warehouse buildings. Buildings from the late 1800s and early 1900s sometimes exhibit stylistic features, as in the Mansfield Cold Storage Warehouse. Other buildings are more functional and vernacular in appearance. The city has many important examples of industrial structures. The City Mills Building is an early flour mill which displays a monitor roof (central raised section with windows) used to admit light to work spaces.

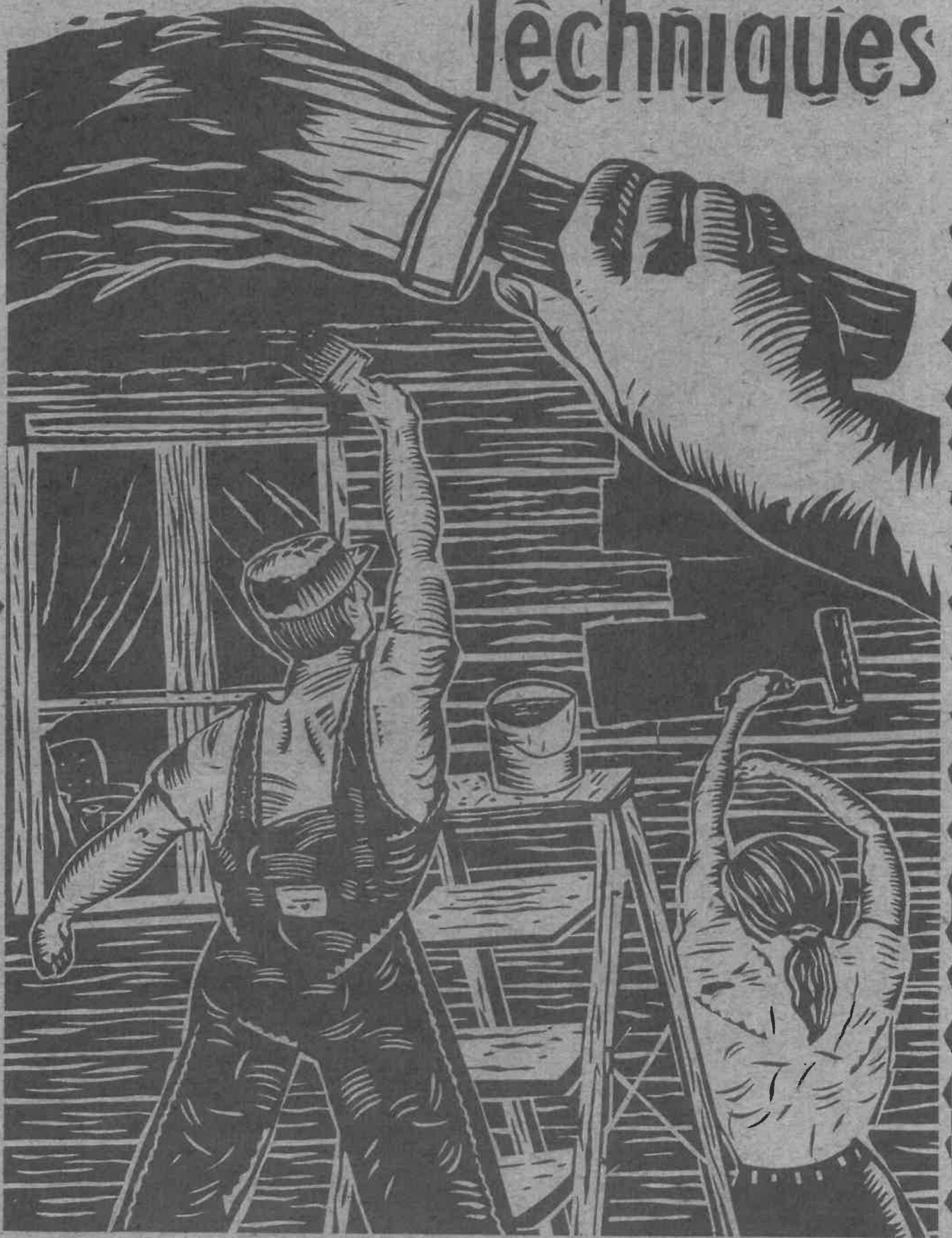


**Mansfield Cold
Storage Company
25-29 East Sixth
Street (c. 1887)**



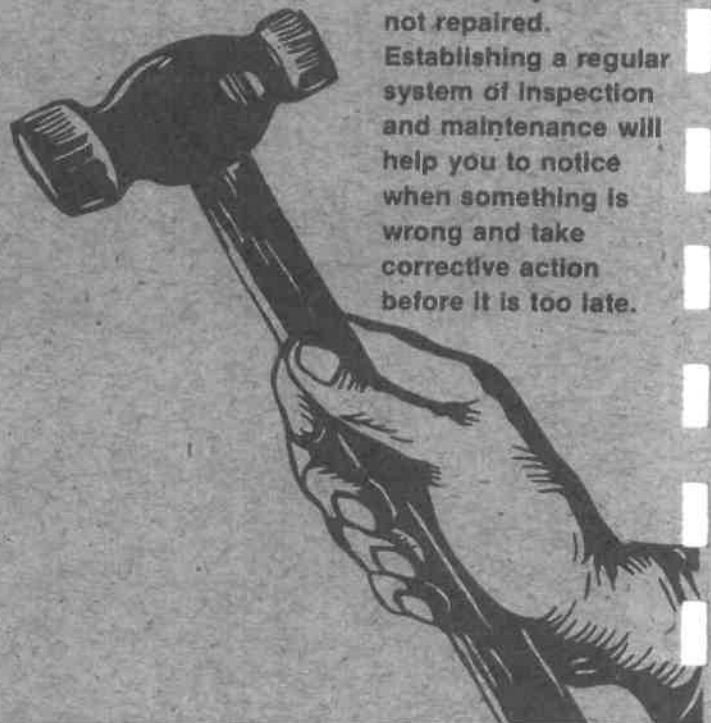
**City Mills
160 North Main Street
(1881)**

Rehabilitation Techniques



What You Should Look For: An Inspection Checklist

The best way to stay alert to your building's condition and the need for repairs is to inspect and maintain your building on a regular basis. Begin by writing down all of the building components that you want to inspect, identifying calendar months in which inspection will occur. This cyclical maintenance plan will help you to catch problems with your building before they cause substantial, and expensive, damage. A leaking drain pipe, for example, may seem like a simple problem, but it can damage your foundation, cause paint to peel, and possibly start dry rot in the building's structural system if not repaired. Establishing a regular system of inspection and maintenance will help you to notice when something is wrong and take corrective action before it is too late.



Roofs

Check when dry, preferably a day or two after a rain.

Frequency of inspection: Every 6 months

Look for:

- ☐ Tears, holes, or blisters in the roof material
- ☐ Missing slates, shingles or tiles
- ☐ Split seams or rust on metal roofs
- ☐ Sagging ridge line
- ☐ Flashing pulled away from ridges and valleys
- ☐ Loose or missing ridge caps or decorative finials
- ☐ Leaning or cracked chimney

2. Gutters and Downspouts

To really see how they perform, watch during a heavy rain.

Frequency of inspection: Every 3 months (clean out at least once a year)

Look for:

- ☐ Loose or sagging gutters
- ☐ Holes in gutters or downspouts
- ☐ Dripping gutters when it hasn't rained (usually means they're full of leaves or debris)
- ☐ Downspouts pulled loose from gutters or broken off at foundation
- ☐ Peeling paint on soffits and fascias (a sign of leaking moisture)

3. Exterior Siding

Peeling paint or weathered wood does not necessarily mean that wood is unsound. Try the pick test on page 21.

Frequency of inspection: Every 6 months

Look for:

- ☐ Blistering and peeling paint
- ☐ Water stains, paint loss at foundation (excessive splashing of rainwater or rising damp)
- ☐ Growth of moss, greenish stain on wood (sign of moisture retention)
- ☐ Cracks, warps, or rotted wood

4. Masonry

Remember that dirt and discoloration on masonry buildings is a natural part of the aging process, and need not be changed.

Frequency of inspection: Every 6 months

Look for:

- ☐ Crumbling mortar, or spalling in brick or stone
- ☐ Cracks in bricks or mortar, or in stucco walls
- ☐ Growth of moss, greenish stain on brick (sign of moisture retention)
- ☐ Blistering or peeling paint (sign of moisture)
- ☐ Bulging walls (structural problem)

5. Foundations

Your foundation provides essential structural support. An unstable foundation will require professional assistance.

Frequency of inspection: Every 12 months — If your foundation wall is cracked, however, you should observe the crack over several months to see if it is continuing.

Look for:

- ☐ Cracks in the foundation wall (small hairline cracks may be okay; large, open cracks may get worse — If they are active)
- ☐ Tilting or leaning foundation walls
- ☐ Loose or crumbling mortar
- ☐ Staining or growth of moss (caused by moisture retention)
- ☐ Wet or damp basements (poor drainage)
- ☐ Standing water around outside of foundation (poor drainage)

Before proceeding with repairs that you will do yourself, take time to do research and assemble your materials. Find out if the type work you want to do will require a building permit or other review. For example, local landmarks and historic district properties in Mansfield require review and approval by the Historic Preservation Commission. Do historical research or search for photographs of your building so that you understand its original appearance and character.

Talk with lumber yards, building supply stores, and paint stores to learn about their products and how they can help you. Use sources in the bibliography to learn about current rehabilitation products and methods. Maintain a healthy skepticism about products that are advertised as maintenance free, since everything needs maintenance eventually.

If you will not be doing the work yourself, you may choose to hire a general contractor, who will coordinate all of the work items for you, or a contractor for a special job, such as a mason, a roofer, or a foundation engineer. When deciding on a contractor, ask for references and make visits to the buildings and their owners to see the work first hand. Ask for a written bid or estimate from several contractors and have a written contract with the one you choose. It may not be necessary to let price alone determine who you will work with, although it is certainly a factor. Consider also the quality of work, ability to meet deadlines, and compatibility of the contractor's ideas with your own.



R o o f s

A weather-tight roof is basic to the preservation of your building, since it sheds water and provides protection from outside elements. It's no secret that the roof suffers more severe environmental conditions than any other part of your building. As a result, it must be inspected and repaired on a regular basis to ensure that it does its job by keeping water away from the rest of the building.

The roof also contributes to the architectural character of a building through its size, shape, color and special features. Roofs can be very simple or highly decorative in design, including such elements as patterned slate, chimneys, dormers, gables, turrets and overhangs. These roofline accents lend variety and interest to the city's body of architecture, and they should be preserved.

Materials

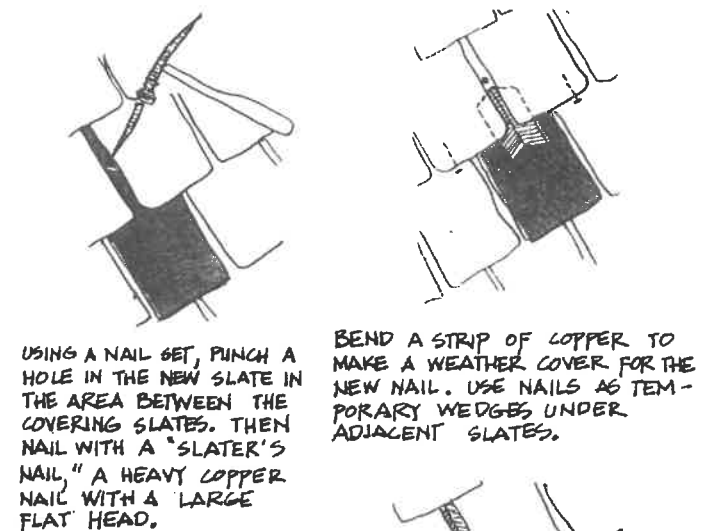
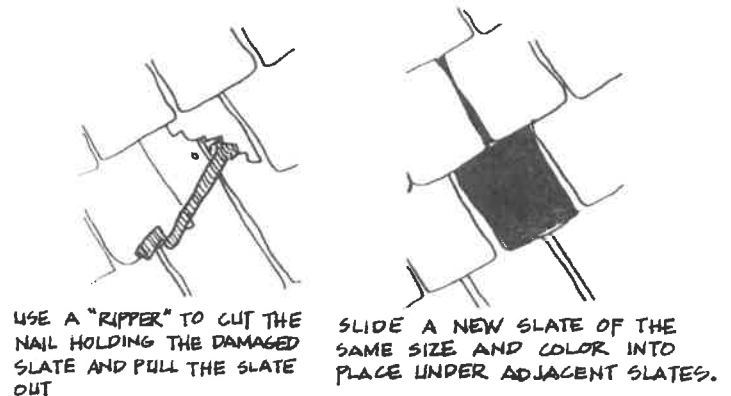
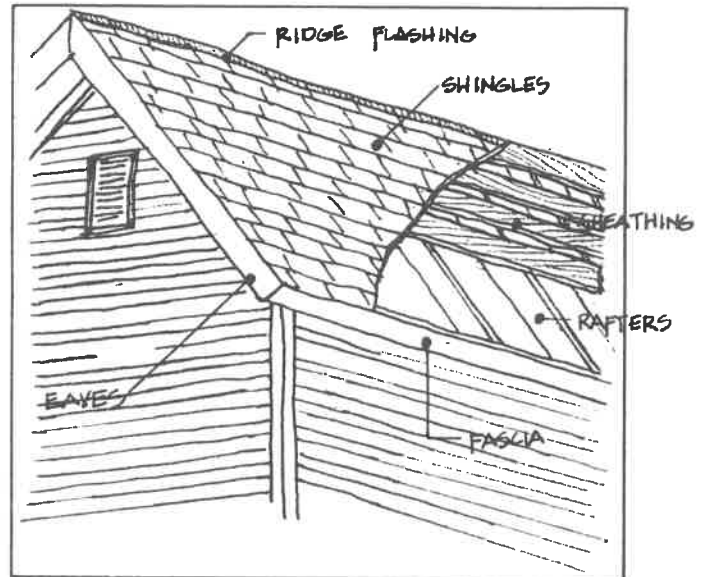
Roof materials in Mansfield today include wood shingles, slate, metal, clay tile, asphalt, and rubber membranes. Wood shingles were likely used on very

early buildings, but they had a short life span and were soon replaced by fire-resistant slate and metal roofs. Slate was a common 19th and early 20th century roof material in Mansfield. Both attractive and durable, it has a life expectancy of 100 years or more.

Sheet metal is another durable 19th century roof material which regained some popularity during the 1920s. Clay tile roofs (with either flat or semi-circular tiles) are found on several early 20th century revival-style buildings in Mansfield, and these have a long life span as well. Asphalt shingles, first used to cover roofs in the early 20th century, are a low-cost roofing material which requires little maintenance but has a life span of only about 20 years.

The built-up roof, common for buildings with flat roofs, is a membrane material made of alternating layers of felt and tar, with a gravel surface. Its life expectancy is 10 to 20 years. Newly-developed single-ply waterproof membranes are being used on many flat-roofed buildings today.

Drawing R-1: Components of a Typical Roof



Drawing R-2: Slate Replacement
(Adapted from a drawing by Robert D. Loversidge, Jr. from the **Old Building Owner's Manual** by Judith L. Kitchen, with permission.)

SLIDE COPPER COVER UP TO COVER NAIL; FRICTION WILL HOLD IT IN PLACE.

Making Repairs

The inspection of your roof (see **What To Look For** on page 13) will determine the type of repairs you need to make. An important rule of thumb is to always make repairs when the roof is dry so that moisture is not trapped underneath new materials. Exercise caution when doing roof repairs yourself, making sure that ladders are secure and being careful never to walk or kneel directly on tile or slate.

Individual shingles (wood, slate, clay tile or asphalt) are relatively easy to replace, as illustrated in Drawing R-2. In replacing roof shingles, make an extra effort to match the new material with the existing in size, texture and color. Mismatched roof materials look haphazard and can spoil the appearance of your building.

Minor damage to metal roofs can be repaired by sanding off rust and patching small holes. For patching, cut a small piece of the same metal (an inch or two wider than the hole) and secure it with caulk. If the metal roof is extremely rusted or pitted, it should probably be replaced. Tin-plated

or galvanized iron roofs should be kept well-painted with an oil-based iron-oxide paint, while copper can be left to weather. Use nails of the same or compatible metal as the roofing material to prevent galvanic action (see glossary). Don't cover your metal roof with an asphalt coating because it can lead to deterioration of the metal below.

Small holes and blisters in a built-up roof can be repaired fairly easily, while other types of repairs will usually require a professional roofing contractor. If the roof is covered with tears and blisters, you will probably need to have it replaced.

Patch metal flashing in much the same way as a metal roof. It should also be caulked at any point where it forms a joint exposed to weather, with the caulk completely filling or overlapping the joint, with no gaps. If you find that flashing is deteriorated, it should be replaced and painted with rust-resistant paint.

Replacing the Roof

If you've made the decision to replace your roof, be sure to select an appropriate replacement material. For historical accuracy, it is best to

use the same material or a substitute that is close in appearance. For example, slate-colored asphalt shingles are sometimes used to replace a slate roof when a slate replacement is not affordable.

You will need to consider your roof's pitch in choosing a replacement material. Pitch is the relationship of rise to run: a roof that rises four inches for every 12 inches of run has a pitch of 4/12 (see drawing). The roof material must be compatible with the roof pitch so that water will drain properly. Slate, tile and asphalt shingle roofs need a minimum 4/12 pitch.

For a flat roof, it is best to leave it flat rather than introducing a pitched roof which changes the building's appearance. Since they do not shed rain or melting snow easily, flat roofs require a waterproof membrane. There are newly-developed materials that form a virtually continuous, single-ply flexible membrane, such as polyvinyl-chloride (PVC) or chlorinated polyethylene (CPE). Application of a built-up roof or waterproof membrane roof should be subcontracted to a professional builder.

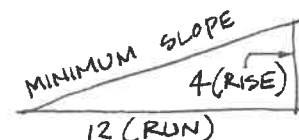
When re-roofing, avoid placing the new covering over the existing roof. This can result in an uneven appearance, add additional weight to the roof structure, and make future leaks hard to detect. Remove the roof down to the wood sheathing, except in cases where the sheathing is widely spaced, when you may need to leave the old roof in place to provide support and a nailing surface for the new roof.



Decorative ceramic tiles like these are found on several early 20th century Mansfield roofs.



Slate was a common roofing material in late 19th and early 20th century Mansfield. This is an example of a conical slate roof.



Drawing R-3: Roof Pitch

Gutters and Downspouts

Gutters and downspouts serve the crucial function of collecting and removing rainwater and melted snow from your building's roof. Their failure can cause a wide range of problems — including mildew, dry rot in walls, moisture in the basement, and stained and crumbling plaster inside the building. When the gutter fails, water will be allowed to seep into the cornice and rafter ends, and down into the building's wall. Poor drainage from downspouts is a very common cause of wet basements.

Types and Materials

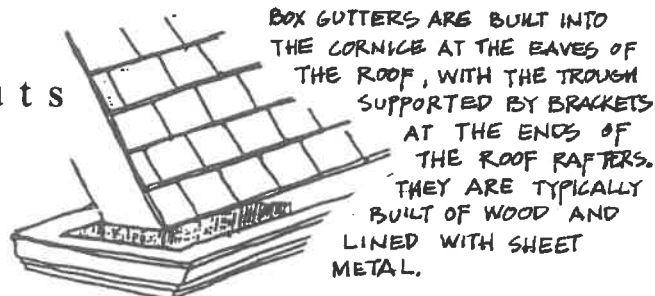
The most common gutter types on older buildings in Mansfield are illustrated in drawing GD-1. Gutters appear on most buildings, but some houses — such as some early 20th century Bungalows — did not have them. In addition, some buildings have decorative copper gutters and downspouts which are an important part of their styling.

Making Repairs

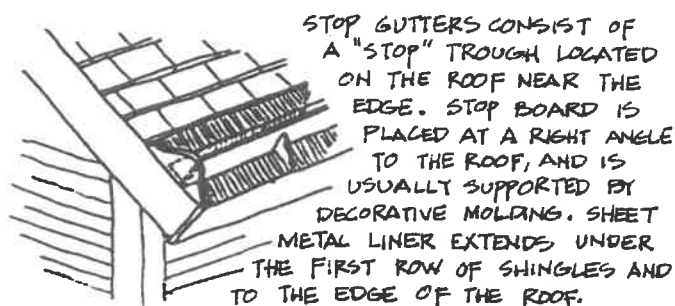
For wood gutters, scrape off any decayed wood, fill

scars and holes with wood putty or an epoxy patching compound, then sand and paint. Keep joints caulked. A wood gutter should be relined, if necessary, with either sheet metal or a flexible rubber membrane with very few seams. Extend the lining underneath the first row of shingles and over the outside edge of the gutter. Sheet metal linings should be kept painted and joints should be sealed.

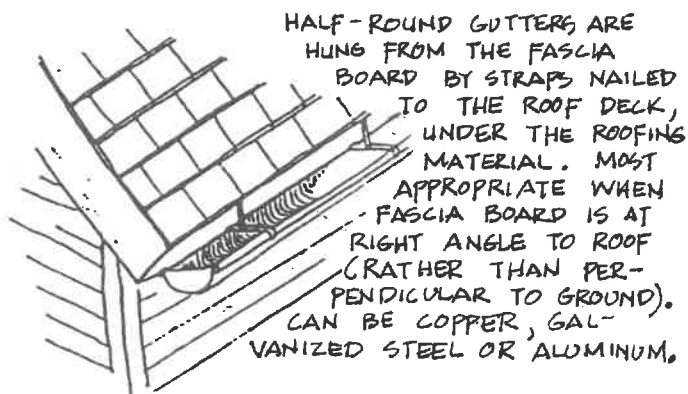
Repair small holes in metal gutters or downspouts by scraping the rusted area, placing a patch of the same metal over the hole and sealing it with caulk. Use the same or compatible metals when nailing or patching metal gutters to prevent galvanic action. Joints should be resoldered by a professional if necessary. Some repair manuals recommend applying a thin coat of roofing cement or asphalt as a patch, but these materials tend to hold moisture and may cause deterioration. Keep metal gutters and downspouts painted (except copper which will weather naturally).



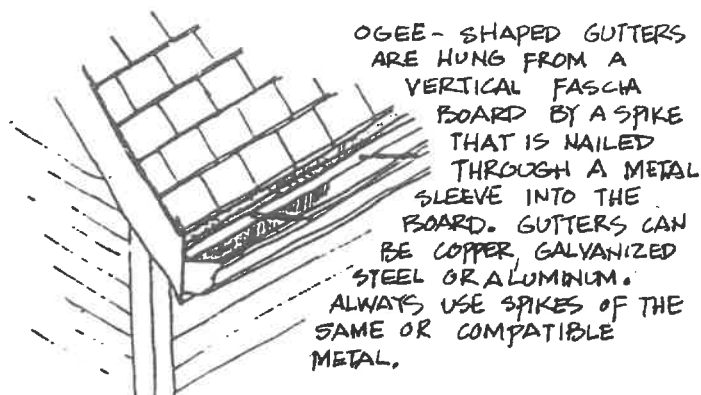
BOX GUTTER



STOP GUTTER



HALF-ROUND GUTTER



OGEE-SHAPED GUTTER

Replacing Gutters and Downspouts

If replacement is needed, try to match the appearance of the original as closely as possible. Ideally, the same type of gutter as originally used should be maintained. If box or stop gutters are to be replaced with suspended gutters, make sure that this work does not require you to remove important cornice material or decorative trim.

Make sure that suspended gutters are hung away from the fascia so that any water backing up will drip over the back edge rather than work into the roof structure. If strap hangers are used, be sure they are nailed to the roof deck under the roofing material, not on top of it. Keep the gutter edge below the slope line so that it catches water, but allows snow and ice to slide clear. Gutters should slope toward the downspout at about 1/16 inch for each foot of length.



An example of a downspout which ties into an underground drainage system.

Downspouts should be located on the rear and sides of your building, rather than on the main facade, and should be painted to match nearby surfaces. Fasten downspouts to the wall with either hooks or straps every three to six feet. The downspout should terminate either in an elbow and splashblock or in a fitting that leads to an underground drain system.



Poor practice — A broken downspout is allowing an excessive amount of water to pour down the side of this house, causing paint to peel and deterioration of the wood.



This splashblock diverts water away from the building's foundation.

Exterior Siding

Together with the wall framing and sheathing, exterior siding should provide a weather-tight seal for your building. In addition, the color, texture and pattern of siding materials affect the form and appearance of the building to a great extent. In simple buildings, the siding itself can become an important element of design. More ornate buildings often use a variety of siding materials to create a distinctive character.

Types and Materials

Historic wood siding materials in use in Mansfield include clapboards (4" width and under), weatherboards (over 4"), shiplap siding, and wood shingles. Clapboards are the most common, although many examples of weatherboards and shiplap siding exist. Wood shingles cut in sawtooth or fishscale patterns are sometimes found in late 19th century Queen Anne and Vernacular Victorian houses. More recently, new siding materials — such as aluminum or vinyl siding and asbestos shingles — have been

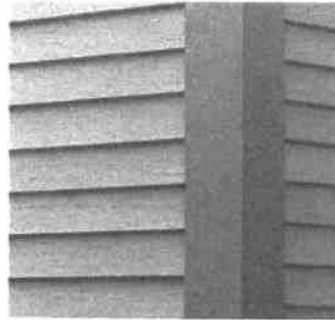
introduced to older buildings in Mansfield. These fabricated materials are often inappropriately applied over the original wood siding, covering up peeling paint or other problems that may exist.

Making Repairs

If your house has its original wood siding, make every effort to keep it in good condition. Wood siding will last indefinitely if well maintained, needing only minor repairs and repainting. Drawing ES-1 shows several repairs to wood siding that you can make yourself. Excess moisture is the biggest cause of problems with wood, so it is important that you keep siding ventilated and painted to protect it from moisture. If you are unsure if your siding is sound, try the pick test (see sidebar).

If the pick test fails, it could be that the wood is rotted (dry rot fungus) or damaged by insects (termites, carpenter ants, powder post beetles or other pests). Excess moisture can lead to both of these

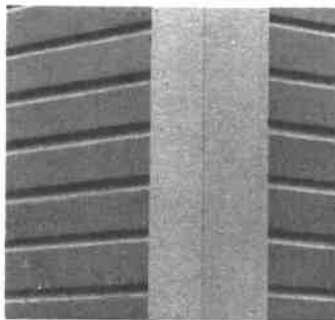
Some examples of wood siding types in Mansfield.



Clapboard siding



Wood shingles



Shiplap siding



This Queen Anne house has lost much of its former character through application of inappropriate siding. Windows have been covered up with vertical wood boards while the rest of the house has been covered with stucco.

The Pick Test

Although it may have weathered and turned gray, a wood surface is still sound if it resists penetration by a sharp instrument. Using an awl or ice pick, jab the piece of wood in a direction across the grain, then pry upward with the instrument's point. The wood is sound if splinters of wood are pulled away and break with a distinct crack. But, if the awl or ice pick penetrates the wood with little resistance, or if the wood crumbles into small pieces without splintering, then you can conclude that some damage has occurred.

problems, so your best defense is to give the wood adequate ventilation and a chance to dry out by correcting the moisture problem. Once the spread of dry rot has been stopped, it will not cause any more damage (although the existing damage can't be reversed) and the wood member may not have to be replaced. Wood preservatives are useful on new wood, but do not help if dry rot has already occurred. Treatments for insect infestation usually involve powerful chemicals, and this is a job which should be left to the experts.

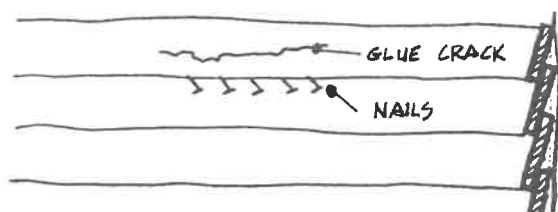
Replacing Siding

If wood siding is so badly damaged that it must be replaced, be as selective as possible. Instead of replacing an entire wall, replace only those pieces which are damaged. A new clapboard should be of the exact same dimensions and appearance as the original board. Redwood and cedar are both good quality woods to use. Before installation, treat the board with a wood preservative and prime it on the back. Occasionally, you may be able to

salvage siding from a rear wall of the house or outbuilding, which can then be re-sided with a replacement board.

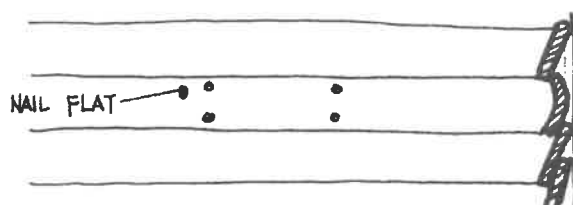
Damaged wood siding should not be covered up with aluminum, vinyl or asbestos siding to put it "out of sight, out of mind." The new siding can trap moisture and reduce ventilation behind its surface, causing additional deterioration. Problems with peeling paint, mildew, dry rot or insects need to be corrected or the building can sustain long-term damage.

If applied incorrectly, artificial siding can also drastically change the appearance and character of your building. Using vertical, diagonal or extra wide sidings are not recommended. If you already have artificial siding on your building, consider removing it to expose the original wood siding underneath. Be sure to check the older siding for soundness and make any repairs, then sand and apply a new coat of paint. You will be amazed at the difference it can make in the appearance of your house.



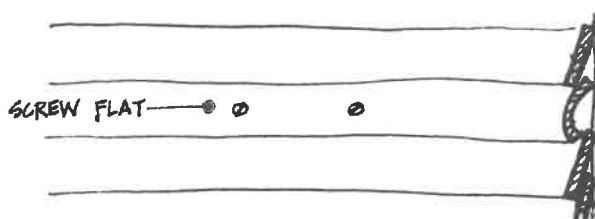
CRACK REPAIR

CRACK REPAIR: APPLY WATERPROOF GLUE TO BOTH SIDES OF THE CRACK, THEN CLAMP THE BOARD WITH NAILS (LEAVING 1/4" OF THE NAIL HEAD EXPOSED FOR REMOVAL) UNTIL THE GLUE SETS. REMOVE NAILS, FILL HOLES WITH PUTTY, SAND AND REPAINT.



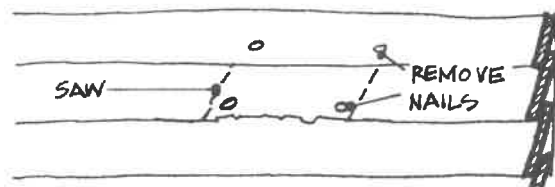
CONCAVE WARP REPAIR

CONCAVE WARP REPAIR: DRILL SETS OF HOLES NEAR THE OUTER EDGES OF THE BOARD AND DRIVE FINISHING NAILS INTO THESE TO FORCE THE EDGES BACK DOWN. COUNTER-SINK NAILS, FILL HOLES WITH WOOD PUTTY, SAND AND PAINT.



CONVEX WARP REPAIR

CONVEX WARP REPAIR: DRILL HOLES ALONG THE CENTER OF THE BOARD AND GRADUALLY SCREW IN FLAT HEAD WOOD SCREWS TO FASTEN. WETTING THE BOARD MAY KEEP IT FROM SPLITTING. COUNTERSINK SCREWS, FILL HOLES WITH WOOD PUTTY, SAND AND PAINT.



REPLACEMENT

REPLACEMENT: MAKE VERTICAL CUTS WITH A SMALL SAW AT EITHER END OF THE DAMAGED SECTION, REMOVE NAILS IN THAT SECTION. REMOVE THE SECTION WITH A HAMMER AND CHISEL. CUT A NEW BOARD TO FIT AND INSERT. NAIL IN PLACE JUST ABOVE THE TOP OF THE BOARD IT OVERLAPS.

Masonry

Treatment of exterior masonry walls is often one of the first things that an owner considers in a rehabilitation project. Since particular treatments can strongly affect a building's appearance and its ability to resist weather, it is important to know what actions are most appropriate for your building.

Materials

Masonry materials in Mansfield include brick, stone, concrete block, tile, terra cotta and stucco. Brick is most common, although stone was used for some residences, churches and commercial buildings of the city. Stone was also used as a trim and foundation material on many local buildings. Glazed terra cotta was used on some early 20th century downtown structures. Also during this period, stucco came into limited use.

Making Repairs

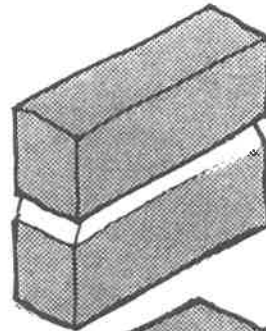
Cleaning a masonry building is not usually necessary for its preservation, and it can cause harm if not done properly. Before you decide to have your building cleaned, remember that deposits of dirt and a change in color are part of the weathering process over a period of many years, and the resulting patina of age is part of your building's history.

If masonry is to be cleaned, use the gentlest means possible. Abrasive cleaning techniques such as sandblasting are *not recommended* because they can be very damaging to historic brick. When the outer surface is blasted away, the softer pink core of the brick is exposed to moisture and dirt. In any masonry cleaning, get expert technical advice from an experienced cleaning contractor who is knowledgeable about techniques other than sandblasting.

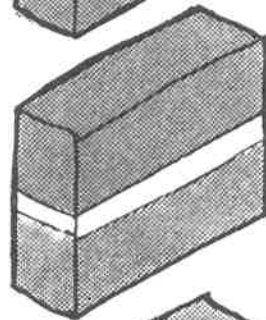
This is an example of a 19th century brick surface which has not been cleaned or recently repointed. Note the narrow masonry joints.



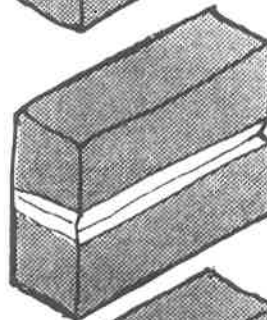
As a contrast to the brick in the photo above, this surface has been sandblasted and inappropriately repointed. Note how the joints have been widened and the mortar has been smeared on the bricks.



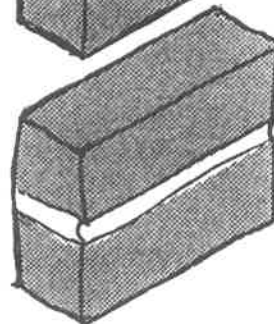
STUCK



FLUSH



V-SHAPED



CONCAVE TOOLED

Drawing M-1: Typical Mortar Joints

Chemical cleaners react with the dirt and/or masonry to speed the removal process, and are followed with a low-pressure water wash (under 300 pounds per square inch). A mild cleaning chemical that is diluted to manufacturer's specifications is usually best. For glazed terra cotta or stucco walls, cleaning can best be accomplished by using water, detergent and a natural or nylon bristle brush. Minor repairs can also be made to these materials; check the bibliography for some useful sources of information.

If a masonry wall has disintegrating mortar, cracks in mortar joints or loose bricks, you may need to repoint the wall or a portion of it.

Repointing is the process of removing deteriorated mortar from the joints and replacing it with new mortar (shown in drawing M-2).

When repointing, use a mortar that approximates the softness of the original. A mortar that is too hard will not give sufficiently when the masonry units expand or contract with changes in heat or moisture. The result is cracking and

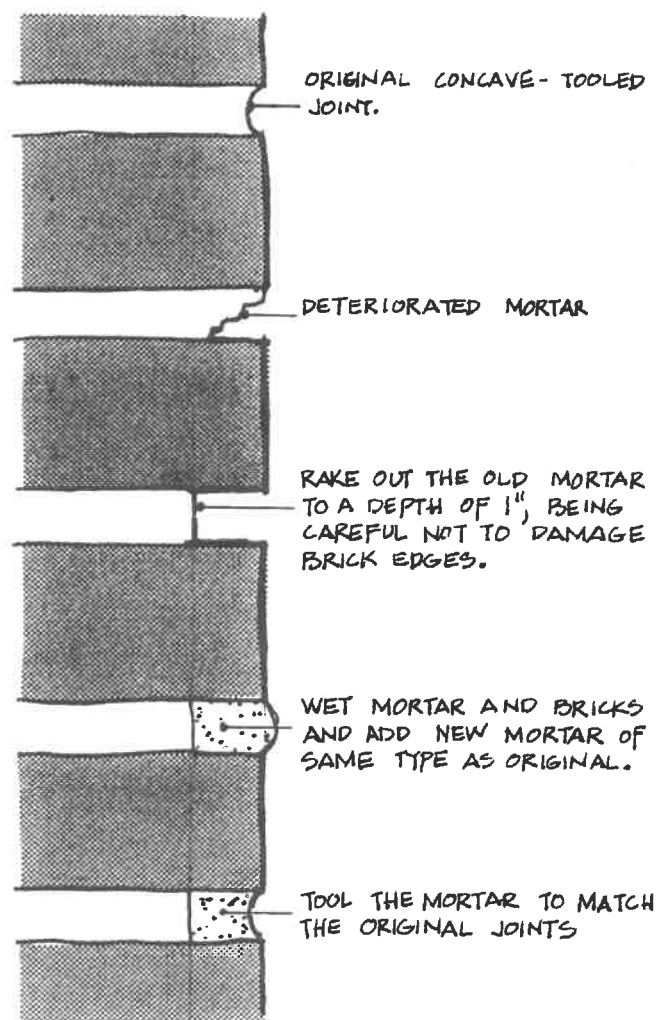
spalling, especially in the case of bricks. The recommended formula for a good general purpose repointing mortar is *one-part lime by volume to two-parts sand*. To whiten the mortar or increase durability, Portland cement may be added, but only to a maximum of one-fifth of the volume of lime used. In areas of extreme weathering, such as chimneys and parapets, a mix of three-parts lime, six-parts sand and two-parts Portland cement is suggested.

The sand you use should be comparable in color, texture and grain size to the sand in the original mortar. Also, be sure that the masonry joint tooling matches the existing, and avoid the "feather edge" type of mortar joint that smears mortar onto the brick surface.

Before you authorize your mason to proceed with a repointing job, have a sample wall area in an inconspicuous location prepared and re-worked until you are satisfied that the mortar color, joint tooling and joint width match the original. Be sure that your contract requires that all work be done to match the approved sample.

When masonry walls have moisture

problems, correct the source of the problem before deciding on a sealer as a treatment. Although they are meant to keep walls dry, sealers can actually cause moisture problems because they disrupt the movement of water and water vapor through a wall. Moisture in walls is usually caused by something other than rain coming through the wall (e.g. leaky gutters). Once these conditions are corrected, the moisture problems will often disappear.



Drawing M-2: Repointing a Masonry Joint

Foundations

The stability and safety of your building is dependent on a sound foundation. The foundation serves several purposes: 1) It provides support for the entire weight of the building so that no one element carries excessive weight, 2) It spreads out the building's weight with footers so that the bearing capacity of the soil is not exceeded, and 3) It raises the building structure above the ground so that it does not come into contact with damp soil and insects.

Materials

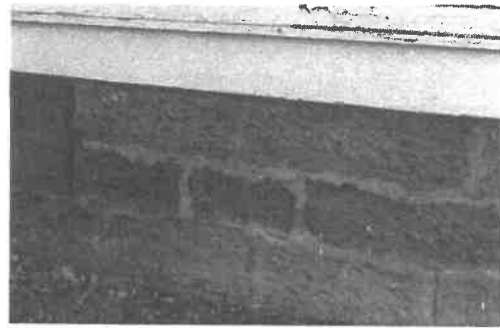
Your building's foundation can also be important to its overall appearance. Foundation materials commonly found in Mansfield include brick, stone, concrete block, and concrete slab. Stone foundations from the 19th century are frequently dressed or rock-faced sandstone that was quarried in Richland County. Brick foundations were also used on 19th and early 20th century buildings of both brick and frame;

if brick, the foundation is usually of the same brick used in the building's walls. Concrete block foundations (both cinder block and rock-faced) came into use around the turn of the century. Concrete slab uses a flat sheet of concrete to spread out the building's weight and is most common on postwar buildings.

Making Repairs

Begin by protecting your foundation from excessive amounts of moisture which can cause structural problems. If you already have a damp basement, it's important that you solve any drainage problems before trying other solutions. Two of the most effective things that you can do are: 1) make sure that the building's drainage system is working to divert water from the foundation (see gutters and downspouts) and 2) slope land at the foundation away from the building so that water can drain properly (see drawing F-1).

Examples of foundation materials in Mansfield.



Sandstone block foundation with a tooled surface. The repointing in this example is poorly done — notice how the mortar is smeared on the surface of the stone.



A typical sandstone block foundation in Mansfield.



Rock-faced concrete block foundation.

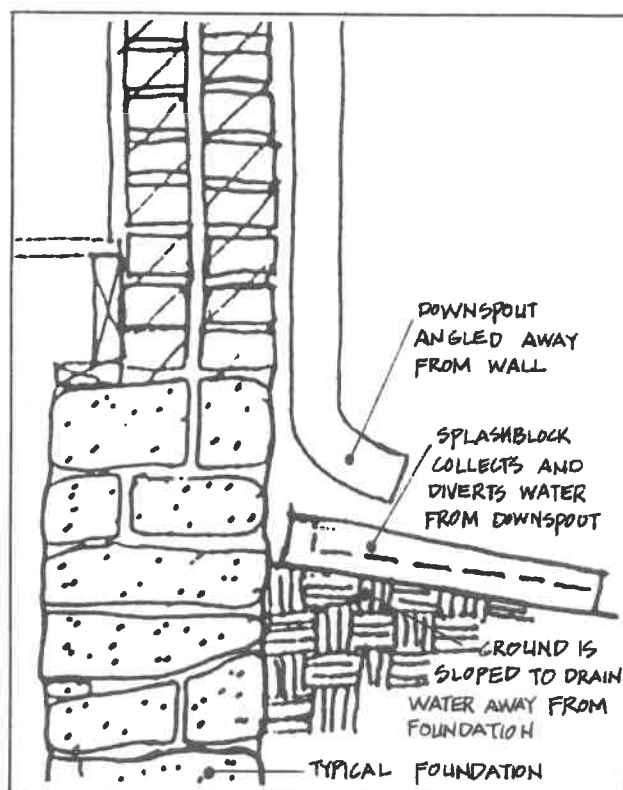
Once you have improved site drainage, make sure that your basement or crawl space is kept well ventilated and dehumidified, if necessary. Repoint any deteriorated mortar in the foundation to close up gaps where moisture might penetrate. Give the area a chance to dry out before taking any other action. If the wet basement persists, the inside walls can be coated with a cement-based paint to make the basement watertight. In extreme cases, you may need to have the ground around the foundation excavated and a new drainage system installed. This latter action should not be done without professional advice.

If your inspection reveals cracks in the foundation wall, these could be symptoms of foundation damage. Remember, though, that foundation cracks and shifted windows do not necessarily indicate problems unless this movement is *continuing*.

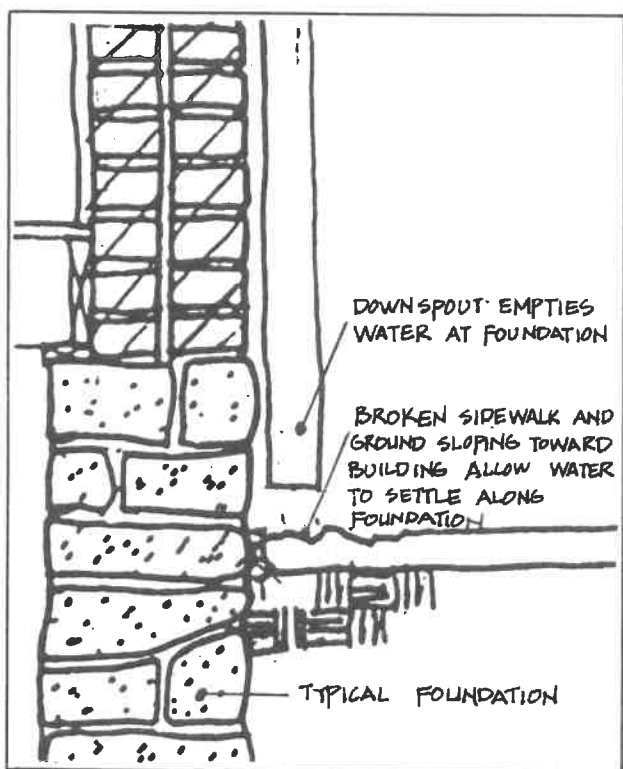
Sometimes these conditions resulted from poor original soil compaction and, once the foundation and soil reached equilibrium, the movement stopped.

Check over a period of time to see if this movement is continuing. Always consult a professional engineer or foundation contractor if you suspect that the foundation is unsound.

Most often, any problems or weaknesses in the foundation of an older building have already manifested themselves. Further problems are unlikely unless they are caused by new conditions, such as improper excavation during the construction of an addition. Avoid cutting or enlarging windows and door openings in basement walls as they can remove support from the building, causing settlement and shifting. If this must be done, be sure that your contractor adds support to replace the load-bearing capacity of the removed wall area.



Drawing F-1: Proper Foundation Drainage



Improper Foundation Drainage

Windows

In addition to their obviously important function of admitting light and air, windows are important as part of your building's architectural design. They can be simple or ornate, flat or projecting, but they always add interest to the building. Windows are also a critical part of the building's envelope since they represent a point of entry for weather and deteriorating elements.

Types and Materials

The most common historic window type in Mansfield is the double-hung wood window, where the upper and lower sash slide vertically. The main variable affecting this type of window is the number and size of its panes, depending upon the period or style of the building. Historic wood windows are often made of a higher quality wood (dense or heart wood, usually pine) than windows made today, and they can be very long-lasting if properly maintained.

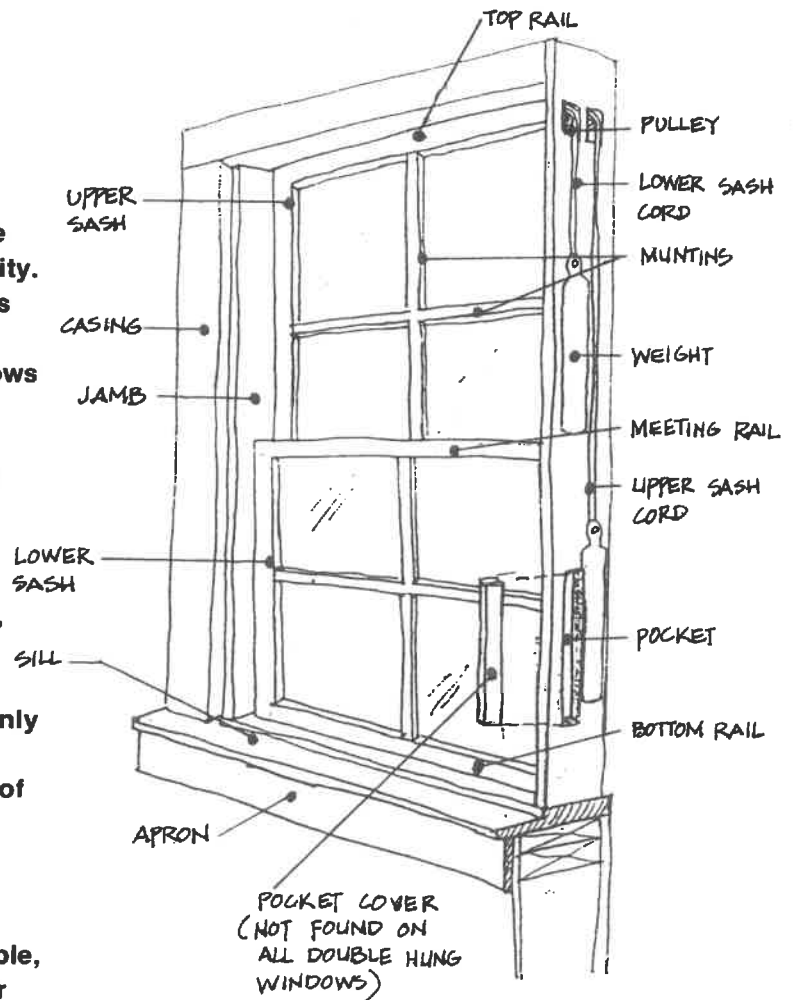
Decorative stained and beveled glass windows are found in

churches and some residences of the city. Older window types in Mansfield also include steel windows which were sometimes used in industrial buildings and schools beginning in the 1890s. Metal casement windows, which swing horizontally on hinges, are commonly found on English Revival residences of the 1920s.

Making Repairs

Wherever possible, maintain and repair the original windows on your building. Don't assume that weathered wooden sash must be replaced (see the pick test, page 21).

Upgrading an older window is something which you can do yourself. It usually requires removing the sash from its frame and may include paint removal, repair and reglazing of the sash, repairs to the frame, weatherstripping, and repainting. Although these are not difficult repairs, they are labor-intensive, so be sure to set aside sufficient time for a window repair project.



Drawing W-1: Parts of a Double-Hung Window (interior view).

If the window has an accumulation of paint layers, paint removal can improve its appearance and operation (see section on paint, page 37). If glazing putty is loose or missing, scrape out the existing putty by hand and remove the glass pane for reglazing. If the wood shows some signs of decay, you can probably stabilize the window by waterproofing, patching, consolidating and repainting the wood.

While the window sash are out of the frame, caulk any joints or seams in the frame and make other repairs. Install new weatherstripping if the old is loose or missing. Broken sash cords can be replaced with new rope cords or chains purchased at a local hardware store.

For minor repairs to stained glass windows, epoxies are available for closing cracks in stained glass pieces. If the window is sagging or pulling apart, the lead support system may need to be replaced. If vandalism is a problem, install a clear Plexiglass shield over the exterior of the window, making sure that it is vented with small holes to prevent condensation.

For steel windows, you can clean and scrape off rust, remove paint if necessary, prime with a rust-inhibiting primer, replace cracked or broken glass and glazing compound, replace missing screws or fasteners, repaint with a finish paint, and caulk the window frame. More substantial repairs will require a skilled craftsman.

Replacing Windows and Deteriorated Parts

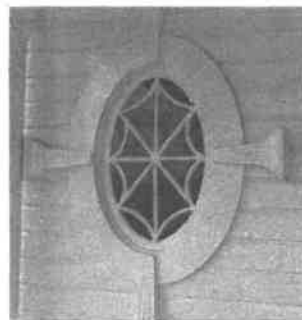
When parts of the window have deteriorated badly, but other parts can be salvaged, replace the damaged parts with new matching pieces or splice new wood into existing members. Treat new pieces with a wood preservative and back prime before installation.

If the window is so severely damaged that it can't be repaired, consider replacing the sash only, leaving the frame intact. Wood replacement windows with true muntins (muntins which go through the glass) are recommended. Less desirable are aluminum or vinyl windows with fake muntins, since these detract from the

appearance of your building. New wood windows can be found at building supply outlets, wood-working mills, or product catalogs. Be sure that the new sash matches the original design and fits the existing frame (don't purchase windows that will force you to reduce or enlarge your window openings).

If energy conservation is your concern, consider adding exterior storm windows to the building rather than replacing windows with new thermal-paned windows. Make sure that your storm windows fit the window size exactly with the middle rails corresponding. Paint the storm windows the same trim color as the window.

Some decorative windows in Mansfield.



A decorative oval window with delicate tracery.



An oriel window (a projecting window which does not touch the ground).



Casement windows are often found in English Revival style houses. This leaded-glass example is found on Brinkerhoff Avenue.



The window openings in this building have been cut down in size to accommodate a too-small window. You can see how this change has compromised the original appearance of the building.

Doors and Entrances

A building's entrance is important to its architectural character, as it often serves as the focal point of the main facade. In more style-conscious buildings, the entrance may be highlighted with a transom or sidelights. The entry doors themselves can be simple or ornate, as well, depending upon the style and level of detail in the building.

Types and Materials

Generally speaking, early to mid-19th century buildings had simple solid wood paneled doors. During the late 19th century, Italianate and Queen Anne entry doors were often embellished with carved ornamentation, could have glass in the upper half, and were sometimes double doors. The early 20th century styles brought a return to the more simplified wood doors but glass continued to be used in the upper half and sometimes nearly the full height was of glass. Commercial buildings have either full glass doors or glass in the upper half.

Making Repairs

Some of the typical problems with doors can be alleviated by repairs that you can do yourself. Wherever possible, an original door should be repaired rather than replaced. Begin by removing the door from its hinges, releasing the bottom pin first.

If the door is sticking, it may be that the wood is swollen or that the hinges are mounted improperly. If it is swollen, you can sand the edges where it sticks to allow it to close more easily. Tighten any loose hinges and make sure that the hinges are set into the wood evenly, so that one is not recessed more than the other. Gaps can often be solved with weatherstripping around the door and door frame or by adding thin wood strips (painted to match) to the sides of the door.

Door sills that are rotted (see the pick test, page 21) should be replaced with a new wood sill of the same appearance and dimensions as the old. If parts of the wood door are

A sampling of doors in Mansfield.



An Italianate door with delicate arched transom and sidelights.



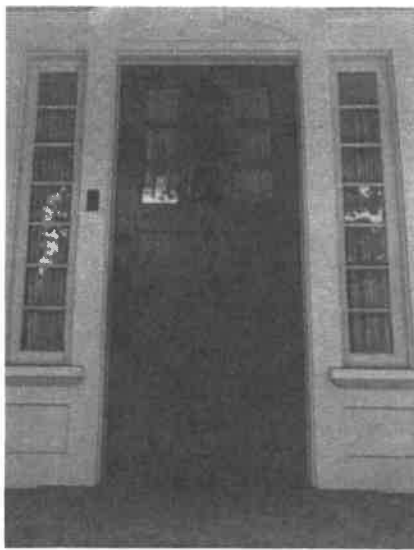
A double-leafed door from a Park Avenue West Queen Anne house.

rotting, you may be able to replace individual panels rather than the entire door. Treat any replacements with a wood preservative and back prime before installation.

Replacing Doors

If an original door is too deteriorated to repair, replace it with a door that matches its appearance as closely as possible. Avoid changing appearance by adding doors of the wrong vintage to your building. If you have no idea of your original door's appearance, you can do a little library research or take a look at buildings that are similar to yours in style. The bibliography provides some sources on architectural styles to help you.

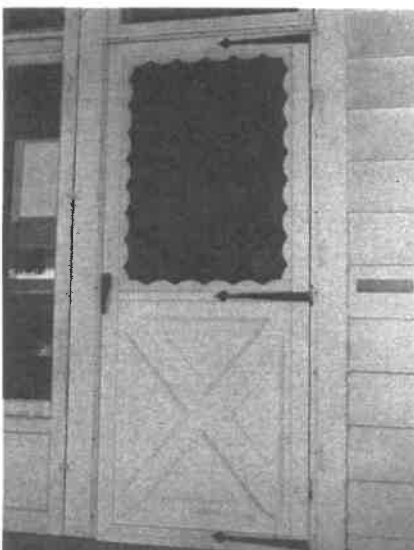
If you are adding or replacing a screen or storm door, choose a simple design that won't detract from the door itself. The "cross-buck" door is a new design which is not recommended for older buildings in Mansfield. Far better is a door with a solid lower panel which leaves most of the entry door visible to view. The metal should be painted to match the door or its trim.



An example of a residential door from the early 1900s.



An 1870s Italianate storefront.



A cross buck storm door like this one is a modern addition, and not appropriate for older buildings.

Porches

Porches are important architecturally because they serve visual, social and functional purposes. The front porch is an integral part of a house's design and sometimes its most distinctive feature. Socially, the porch serves as the entrance to the building, providing a transition between the natural and man-made environments. In houses, it is an extension of the living space to the outdoors, a place for residents to greet neighbors or relax in private.

Types and Materials

Mansfield's porches exhibit variety in their materials, degree of ornamentation, scale, and sometimes location. They can be very grand and sweeping, or small and compact; sturdy and massive, or delicate and light. Porches in Mansfield were typically built of wood, with wood floors, posts or columns, and balustrades. Wooden porches are appropriate for both wood and masonry houses, while porches of brick or stone are

most often used only on buildings of brick or stone. Changes to porches include removal of the porch altogether, replacement with a different type, enclosing a porch to create a new room, and missing or replaced features such as columns or balustrades.

Making Repairs

Begin by making sure that your porch is kept dry and free from damage caused by decay or insects. The roof and drainage system should be working properly to shed water away from the porch. Keep the area below a wood porch open so that this space can be ventilated. If it is missing, install a lattice screen between the porch supports, making sure that the bottom of the screen is at least 1" off the ground. New lattice strips for repair or replacement can be purchased at lumber yards.

Try the pick test (see page 21) on wood which you think may be decayed to see if it is still sound. Small cracks or holes in sound wood can be

Mansfield's wide variety of porches.



An ornate entrance hood on an Italianate house.



A turn-of-the-century Victorian porch.



A broad Colonial Revival veranda on a turn-of-the-century double house.



A simple entrance hood on a Craftsman house. Notice the built-in benches.

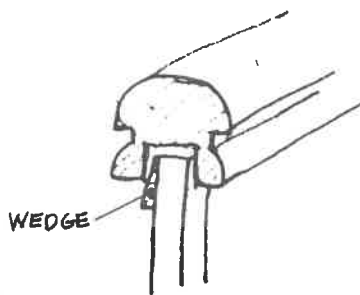
filled with wood putty or epoxy, sanded down and repainted. You can shore up a sagging porch railing or replace several pieces of a porch deck (see drawing P-1). You may need to repair posts by splicing in a new piece of wood to replace a damaged section (the base is the most susceptible to rot). Wood columns are usually hollow and are set on plinths which raise them above the porch deck to allow air circulation. If the plinth is rotted or otherwise damaged, it should be replaced. Be sure to install a temporary support for the porch roof before you remove a post or column for treatment.

For masonry porches, repairs may include cleaning, repointing, patching or repainting of the stone, brick or stucco (see section on masonry for information). Concrete steps can be repaired by patching cracks and holes with concrete. If the concrete is crumbling away, the steps will probably need replacement.

Replacing Porch Features

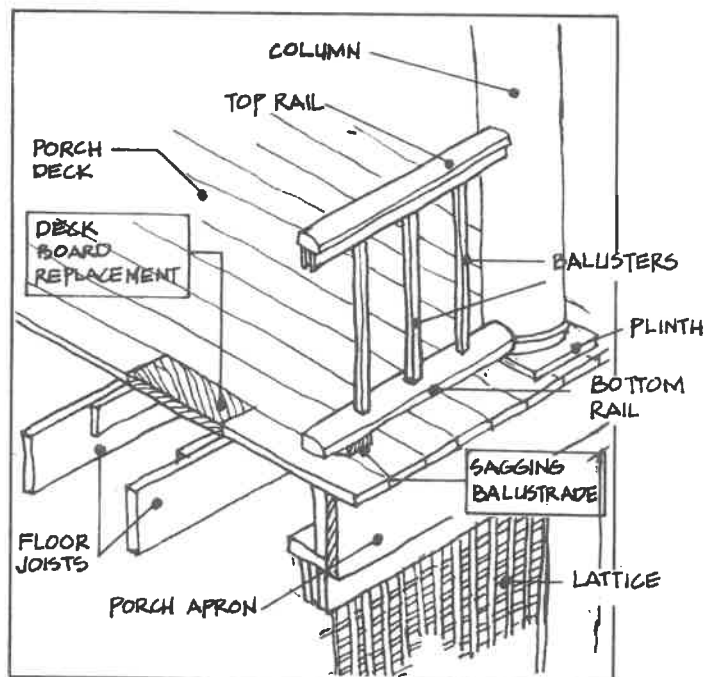
Selective replacement of deteriorated parts of your porch is better and far less expensive than replacing the entire porch. If the wood decking, railings, trim, posts or columns are badly deteriorated and must be replaced, the replacement should duplicate the original feature. If you are attempting to restore a feature which is missing, look for evidence of its original appearance so that you can match it as closely as possible. Old photographs are most helpful, but you can also look for physical evidence on the porch, such as paint shadows.

If a portion or all of your porch floor is rotted or warped, the individual boards should be replaced with interlocking boards of the same width. Wood flooring should be painted. If wooden steps are damaged beyond repair, they should be replaced with new stairs that match the original. A porch ceiling can also be replaced with new beaded porch board ceiling available at most lumber yards.



LOOSE BALUSTER: REPAIR A LOOSE BALUSTER BY USING A WEDGE TO SECURE THE RAIL.

Drawing P-1: Porch Repairs



DECK BOARD REPLACEMENT: CUT OUT THE DAMAGED SECTION. CUT A NEW BOARD TO FIT, TREAT WITH A WOOD PRESERVATIVE AND BACK PRIME. NAIL 2x4'S TO THE FLOOR JOISTS TO SUPPORT THE NEW BOARD AND NAIL INTO PLACE.

SAGGING BALUSTRADE: FIRST, FIND AND CORRECT THE SOURCE OF THE PROBLEM, THEN SHORE UP THE BOTTOM RAIL AT MID-SPAN WITH TREATED WOODEN BLOCK CUT TO FIT.



Keep wood lattice beneath the porch in good repair.

Or n a m e n t a t i o n

Ornamentation includes the variety of brackets, cornice details, columns, and window and door trim, to name a few, which are used to enhance a building's form and further define its style. Loss of original ornamentation can seriously detract from the appearance and value of a building. This loss may be due not so much to damage as to unnecessary removal by the building owner, who may not be aware of the feature's significance.

Materials

Most applied ornamentation in Mansfield is wood, which means that it can be repaired inexpensively but also that it needs to be maintained. In addition, ornamentation can be made of metal, plaster, terra cotta or stone. Late 19th century commercial buildings often have projecting window hoodmolds and cornices of pressed metal, and some residences have roof cresting of cast iron. Plaster was used for column capitals and surface decoration on some Queen Anne and Colonial Revival

houses. Terra cotta trim is found on some early 20th century buildings, such as the public library.

Making Repairs

Since ornamental features may be expensive and hard to replace, it's important to protect what you have. Much is written about repair techniques for wood, metal, terra cotta, or plaster, and several excellent references are cited in the bibliography. Major repair work may be left to an experienced craftsperson, but there are several minor repairs that you can do yourself. You may be able to make repairs in place, or you can carefully remove a feature with a pry bar, being sure to mark its original location.

For wood ornamentation, first apply the pick test (see page 21) to determine if the wood is sound. For cracks, holes or dents in the wood, patch with a wood putty or epoxy compound, sand and repaint the feature. If layers of paint are hiding detail, you can remove the paint to restore the feature (see section on paint). Always keep wood details painted.



A pressed metal cornice on a North Main Street commercial building.



Sawn and turned wood ornament includes a decorative window hood and cornice brackets.



Terra cotta facing and ornamentation on the facade of the Renaissance Theater.

If wood is rotted, you can cut out the damaged sections and replace with new wood that is milled or cut to match the existing. The new piece should be saturated with a wood preservative, primed and painted.

For metal that is mildly deteriorated, scrape rust off with a wire brush and patch holes by cutting a larger piece of the same metal and sealing it over the hole with caulk. Layers of paint can be removed from metal, but be sure to coat the exposed surface with a metal primer as soon as possible after cleaning. Pressed tin and cast iron are usually painted, while copper features are left to weather. Resoldering of loose joints in metal features should be done by a professional.

Plaster repair, often requiring preparation of a mold to make a matching piece, is often left to a professional craftsman. Minor damage to terra cotta can be repaired by gently scraping and painting with a protective masonry paint that is tinted to match. Although stone features are less likely to deteriorate, they are

very difficult to replace and should be protected by careful cleaning and repointing methods (see section on masonry).

Replacing Ornamentation

If replacement is necessary because the original ornamental feature is rotted or severely damaged, try to duplicate it as closely as possible. Most wood details can be reproduced to match the existing. Local lumber yards may have stock moldings, or they may be able to mill new pieces based on a sample. New pieces of sheet metal can be fabricated to match an existing cornice or window hoodmold. For plaster, terra cotta or stone replacements it is best to consult a contractor who specializes in these materials. If the original material is expensive or difficult to duplicate, it may be possible to use a modern material as a substitute. For example, a heavy wood or stone cornice could be replaced with fiberglass that duplicates the appearance of the original.



Brick patterns distinguish the upper facade of this Main Street building.



Carved stone detailing above the entry to the Voegel Building on North Main Street.

Storefronts

The storefront is one of the most important parts of an older commercial building. It is often the feature which is changed the most, however, as merchants and property owners try to keep pace with new developments in shopping centers and malls. The older storefront may have been replaced or covered over with new materials. Or, some portions may be intact, while other features are missing.

Parts and Materials

Storefront materials in Mansfield include wood, metal, brick, stone and glass. The composition of the historic storefront usually consists of supporting columns or piers, display windows and transoms, entry doors which may be either flush or recessed, and decorative elements that include molded cornices, column capitals, bulkheads, brackets, signs, or awnings (see commercial building illustration, page 2).

Making Repairs

In rehabilitating a storefront, start by doing as little as

possible. Often the problem with an older storefront is only that it is dirty and paint-encrusted. Sometimes cleaning and maintenance are all that is needed, rather than major repairs or replacement.

If the storefront has only mild deterioration, you can make a number of minor repairs to materials yourself. For metal, patches can be used to mend small holes by covering with a piece of the same metal and securing it with caulk. If paint build-up and rust are not severe, the surface can be scraped and wire brushed, and a rust-inhibiting primer coat applied before repainting.

Wood elements can be patched with putty or an epoxy compound, sanded and repainted. If the wood is rotted, the feature may not have to be replaced if the cause of the problem is solved. Allow the wood to dry out, then fill holes with putty, caulk joints, sand and repaint. Always keep a wood storefront painted. For masonry storefronts, practice the techniques for cleaning and repointing which are described in the

section on masonry. Brick can be painted or not painted, but stone is usually left unpainted.

Storefront windows can be repaired by replacing deteriorated putty or reglazing. For metal-framed windows, a glazing compound and special glazing clips should be used to secure large sheets of glass.

Replacing Storefront Features

If features of the storefront are so badly damaged that they can't be repaired or stabilized, try to replace them with materials that duplicate the original as closely as possible. Don't allow a few deteriorated elements to be justification for replacing an entire storefront. It is more economical and more authentic to retain and repair as much of the original storefront as possible.

Replacement parts for the storefront can often be ordered from catalogues or supply stores or replicated by a carpenter or craftsman. If the original material, such as stone or cast iron, is expensive or difficult to duplicate today, the feature can sometimes be



An original 1870s storefront on North Main Street.



Although paint encrusted and dirty, this storefront has its original features intact, including the piers, windows and front door.

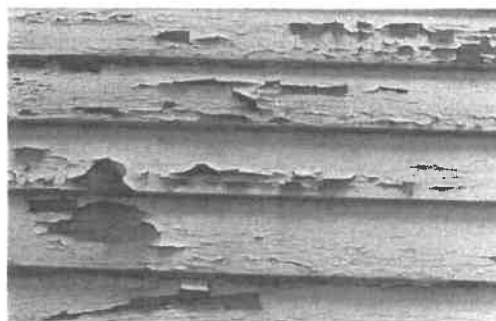


The original storefront has been completely changed in this example. Part or all of the original storefront may be hiding beneath new materials.

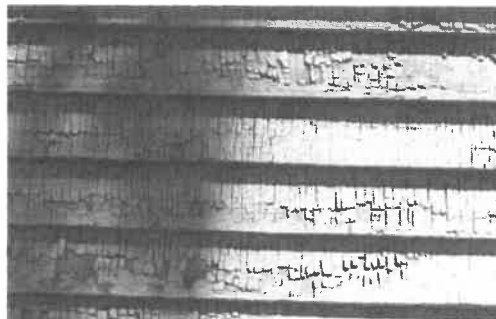
reconstructed of aluminum, wood, plastic or fiberglass. If replacing glass, be sure to match the original in size, color and reflective qualities.

Try to maintain the true character of the storefront in your rehabilitation. Search for physical evidence or photographs to help you determine its appearance. Storefronts should not look residential; they should be as transparent as possible. Avoid wood-shingled mansards, aluminum canopies, diagonal or board-and-batten siding, brick veneer, or varnished storefronts. These would not have been used historically, and they can also be quite expensive.

If all historic storefront materials have been removed and a modern front installed, it may be best to leave the modern front rather than try to do a restoration. Plain storefronts can be softened by inexpensive efforts such as painting, new signage or a canvas awning. If you decide to install a new storefront, and are unsure of the original design, it is best to create a storefront that is contemporary (not make to look old) and compatible with the rest of the building.



Paint peeling to bare wood is usually caused by an interior or exterior moisture problem. Always correct the problem before taking any other action.



Alligatoring or cracking results when paint that is many layers thick becomes brittle and can't expand and contract with the wood. Moisture penetrates the cracks, causing deeper cracks to form.

In these examples, the paint is peeling to bare wood and should be completely removed before repainting.



If complete removal of paint is warranted (paint is peeling or cracking to bare wood), choose the gentlest means available, exercise caution and seek professional help when necessary.



Paint

Paint is considered an essential protection for wood and other materials on historic buildings. It provides important protection from moisture, in particular, by preventing water from getting in and causing damage. Keeping wood surfaces painted is a rule of thumb in building maintenance and rehabilitation. Surfaces which have never been painted, however, such as stone and brick, should be left unpainted.

Problems with paint on your building may be caused by a number of factors, but the most likely source of the problem is moisture. Peeling or flaking paint on walls usually means that the wall is retaining too much moisture and the paint simply will no longer adhere. Before doing any repainting, you first need to correct the moisture problem or your new paint will peel off as well.

Next, you need to decide whether you need to remove the old paint on your building before repainting. As a general rule, *removing paint from exterior woodwork and masonry should*

be avoided unless it is absolutely necessary. Some brick buildings were historically painted, so it is best to keep paint on the building rather than trying to remove it.

There are several conditions that you should look for before deciding on paint removal. If the surface is simply dirt-encrusted or stained, these deposits should be cleaned with water and a household detergent (if necessary) before repainting.

If a top layer of paint is peeling, or has small blisters or wrinkles, you should remove paint to the next sound layer. Limited paint removal is best accomplished using a gentle means such as hand scraping and sanding. If the painted wood surface displays continuous patterns of deep cracks or is blistering and peeling so that the bare wood is exposed, you will probably need to completely remove the old paint before repainting.

Complete removal of paint is a difficult process. You may be able to do small projects yourself, but you should always seek professional assistance for major jobs. Removing paint can be expensive and even hazardous, so it's a job that can't be taken lightly.

Paint can be removed by an electric heat plate or heat gun, which softens paint layers so that they can be scraped off. Chemical strippers, which can be poured, sprayed or brushed on, should be used with extreme caution. Often, they are best used as a supplement to the heat plate or gun to remove paint from cracks or hard-to-reach areas. Since many old paints contain lead, wear a specially-designed mask to protect you from harmful fumes.

Never try to remove paint by sandblasting or high-pressure waterblasting, which will damage the surface, or by a blow torch, which can lead to fire damage. The electric heat plate or heat gun, although safer, still carry risks and should be used with caution.

For repainting, if you are painting bare wood, you may use an oil primer and oil top coat, or an oil primer and latex top coat. If you are painting over existing paint, however, you need to know if the top coat is oil or latex (oil was commonly used historically). If it is oil-based paint, an oil top coat should be used because latex paint applied over old oil paint is more likely to fail. If it is latex,

either oil or latex paint can be used.

Paint Color

The original paint colors for your building can be researched as a starting point for color selection. What combinations of colors were used and in what locations? The Ohio Historic Preservation Office can assist with microscopic analysis of paint samples from your building. You should also search for historic photos or post cards to help you identify original paint schemes. Sources for learning about typical paint colors for different styles and periods are listed in the bibliography.

For late 19th and very early 20th century buildings, contrasting colors may be appropriate, but avoid too many colors on one building. The simpler the building design, the fewer the colors that should be used. A conservative approach is to combine lighter and darker shades of the same color. In commercial buildings, the color selected for the storefront is usually repeated on upper facade details such as the frieze, cornice and window sash.

Energy Conservation

Energy conservation — reducing the amount of energy used in heating, ventilating and cooling a building — is an important consideration for building owners. Mansfield's climate, including both harsh winters and hot summers, requires property owners to be sensitive to ways in which energy can be used efficiently. The best approach to energy conservation is to start with the least expensive and most effective solutions first.

Passive Measures

Passive measures include lowering the thermostat in winter and raising it in air-conditioned buildings in summer, using operable windows and shutters to control infiltration of air and light, turning off unnecessary lights in rooms, closing off rooms to reduce energy use, and maintaining heating and cooling equipment in good condition.

Caulking and Weatherstripping

Windows and doors should be caulked and weatherstripped to

reduce infiltration of cold air during winter. Caulking is used at non-moving joints where there may be a surface opening where air is getting in. Flexible caulk which can expand and contract with temperature changes will provide the best seal. Weatherstripping is used on doors and windows to close gaps between the operable part and the immovable door or window jamb. The most common may be metal strips which are installed around the door and frame or inside the window channel.

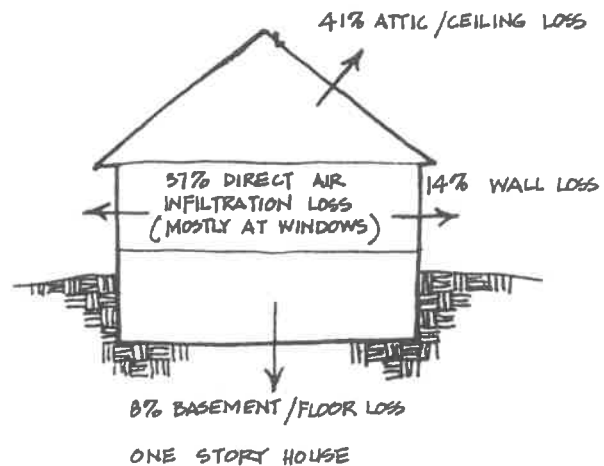
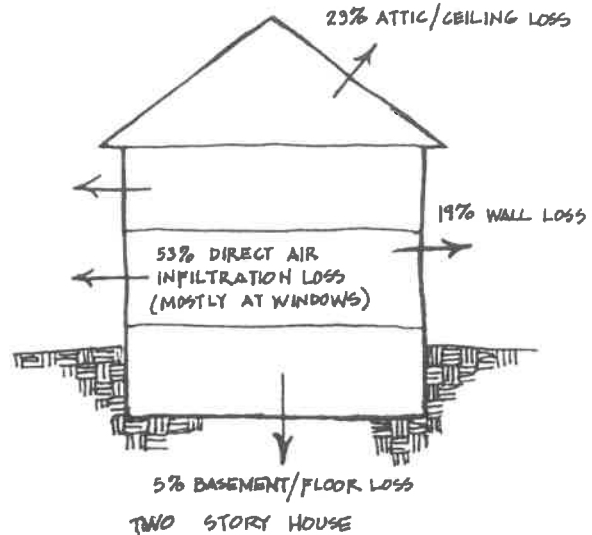
Storm Windows and Doors

Exterior storm windows and doors are another good method of reducing air infiltration and keeping heat from radiating out of the building. Storms may be of wood or newer materials such as aluminum or vinyl, although wood is more energy efficient and compatible with older buildings. The storms should match the window configuration, fit snugly, and be vented at the bottom edge to allow moisture to evaporate.

Insulation

The decision to insulate your building should be carefully made. Insulation is expensive, so first determine if a combination of caulking,

weatherstripping and exterior storms will be sufficient for energy efficiency. If you decide to insulate, you will get the best results by insulating your attic area first. Studies have shown



These drawings show the average heat loss for an older house which does not have insulation, storm windows or weatherstripping. (Adapted from *Insulating the Old House*, compiled and edited by Sally E. Neilsen (Portland, Maine: Greater Portland Landmarks, Inc., 1977 and 1978,) pp. 8-10.)

Drawing EC-1: Average Heat Loss in a Residential Building

that heat loss is greater through a building's roof area than through its walls (see drawing EC-1). Also effective is insulation of heating and cooling ducts and hot water pipes, and basement or crawl space insulation. Least effective is insulation of sidewalls.

There are a couple of important rules to follow in adding insulation. Always use a vapor barrier (a waterproof material such as sheet plastic or metallic foil) with insulation. Placed on the *warm* side of the insulation, the vapor barrier keeps interior moisture from getting trapped in the insulation as it migrates to the cooler and drier outside air. Trapped moisture in insulation is one cause of rot in wood structural members.

Second, always vent insulation to ensure that any moisture which does happen to soak in is given a chance to dry out. The area most in need of venting is the roof where both soffit and ridge vents can be used. Proper insulation and venting of your attic can help prevent ice dams (drawing EC-2).

Appropriate types of insulation for older buildings include fiberglass batts, blown fiberglass or

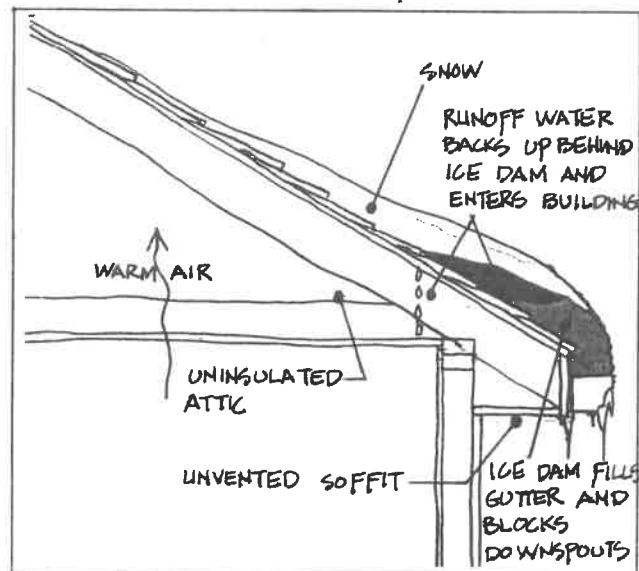
blown cellulose which is treated with boric acid as a fire retardant. Fiberglass batts are probably the least troublesome type of insulation, since they are rigid. If the attic does not have a floor, the insulation can be laid between the joists; if it does have floorboards, it may be laid between the roof rafters, leaving a 2" space for ventilation between the insulation and the roof sheathing.

Do not blow insulation into wall cavities. When this is done, the loose insulation clumps together in the wall cavity, leaving uninsulated air pockets. Since you cannot blow a vapor barrier in as well, moisture will condense in the insulation, making it ineffective. Many people find that paint will not stick to a building which has had insulation blown in, and this is due to excess moisture from the insulation which has become trapped in the wall.

If you handle any insulating materials, always wear heavy clothing, work gloves, a breathing mask and eye protection. It may be best to leave the insulation of your building to an experienced contractor.

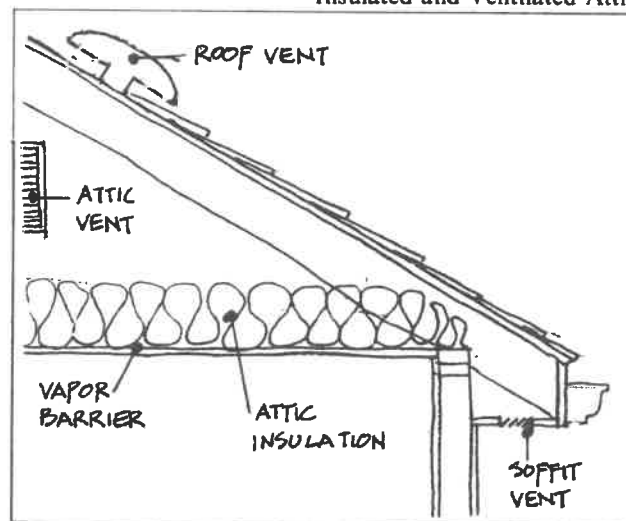
Drawing EC-2: Attic Insulation and Ventilation

Attic Without Insulation or Adequate Ventilation



ICE DAMS CAN BE CAUSED WHEN THE WARMED ROOF MELTS SNOW AND THE WATER RUNOFF FREEZES OVER THE UNHEATED EAVE. SUBSEQUENT RUNOFF STOPPED BY THE ICE DAM BACKS UP UNDER SHINGLES AND ENTERS BUILDING. ICE DAMS CAN ALSO CAUSE THE GUTTERS AND EVEN THE EAVES TO FALL OFF.

Insulated and Ventilated Attic



PROPERLY-INSTALLED INSULATION (WITH A VAPOR BARRIER) WILL REDUCE PENETRATION OF WARM AIR TO THE ROOF. ADEQUATE VENTILATION IS IMPORTANT TO ALLOW OUTSIDE AIR TO CIRCULATE ABOVE THE INSULATION. THIS DRAWING SHOWS THREE TYPES OF ROOF VENTS WHICH MAY BE USED.



Awnings provide passive energy conservation. Canvas awnings like these are appropriate on downtown commercial buildings.

Appendix

Secretary of the Interior's Standards for Rehabilitation

The rehabilitation information and advice in this handbook are based on the 10 Standards adopted by the Secretary of the Interior to guide all types of rehabilitation projects. The Standards are listed below.

1. Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.

2. The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.

3. All buildings, structures and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.

4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.

5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site shall be treated with sensitivity.

6. Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.

7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.

8. Every reasonable effort shall be made to protect and preserve archaeological resources affected by or adjacent to any project.

9. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural, or cultural material, and such design is compatible with the size, scale, color, material, and character of the property, neighborhood or environment.

10. Wherever possible, new additions or alterations to structures shall be done in such a manner that if such additions were to be removed in the future, the essential form and integrity of the structure would be unimpaired.

Glossary of Terms

Balustrade: A railing or parapet consisting of a handrail on balusters; may also include a bottom rail.

Bargeboard: A board, often decoratively carved, which hangs perpendicular from the projecting edge of a roof gable.

Bay: 1) A spatial structural unit of a facade. 2) A protruding structure.

Board and Batten Siding: A type of wood siding which consists of vertical boards with narrow vertical strips (battens) placed over the joints.

Bulkhead: In commercial buildings, the area below the display windows at the sidewalk level.

Bracket: A projecting member (often decorative) which supports an overhanging weight, such as a cornice.

Bridged Chimney: A pair of chimneys which are joined by a horizontal connection, or bridge, usually of the same material as the chimney.

Capital: The topmost part of a column, usually given a decorative treatment which distinguishes it from the column shaft.

Casement Window: A window with side hinges that swings outward.

Clapboard: Wood boards which taper slightly (thickest at the bottom) and are overlapped; applied horizontally on buildings of frame construction.

Column: A supporting round post found on storefronts, porches and balconies; may be fluted or smooth.

Corbel: A projection produced by courses of wood or masonry which extend in successive stages from the wall surface.

Cornerboard: A board used to cover the exposed ends of wood siding to give a finished appearance and help make the building watertight.

Cornice: The projecting trim at the uppermost portion of a wall, often treated in a decorative manner with brackets.

Cresting: Highly ornamental trim, usually of cast iron, which projects from a roof ridge, wall or canopy.

Dentil: One of a row of small blocks used as part of the decoration in a frieze or cornice.

Dormer: A structural projection from a building's roof, intended to provide light and head room in an attic space, usually contains window(s) on its vertical face.

Double-hung window: A window with two balanced sashes, with each sliding over the other vertically.

Dry Rot: Decay caused by a fungus which destroys wood by consuming the lignin in the wood cells, robbing it of its strength and form.

Eaves: The lower portion of a sloping roof, especially the part that overhangs the building's wall.

Epoxy: A resin (various kinds) which forms tight polymer structures which have strong adhesive and corrosion-resistant qualities.

Facade: The architectural "face" of the building; usually refers to the front.

Fanlight: A semi-elliptical design used both over doors and in gables, executed either as a window or as a decorative element.

Fascia: A flat horizontal wooden member often used as a facing at the ends of roof rafters and in the cornice area.

Finial: An ornamental piece which terminates the peak of a roof, post or spire.

Flashing: Sheet metal used to cover joints to make a roof or other surface watertight.

Flute: A vertical groove or channel, used decoratively in the shaft of a column.

Footer: A broadened base of the foundation wall where the foundation sits on the soil; used to distribute the weight of the foundation and prevent settling.

Frieze: Long narrow panel at the top of a wall, used chiefly for decoration; becomes part of the cornice on commercial buildings, found just below the point where the wall surface meets the building's roof.

Gable: The triangular section of the end wall of a gable roof.

Gable Roof: A roof which has one slope on opposite sides of a ridge, with a gable at either end.

Galvanic Action: An electrochemical action between incompatible metals, which results in corrosion.

Galvanize: To coat iron or steel with rust-resistant zinc.

Gambrel Roof: A roof which has two slopes on opposite sides of a ridge.

Half-timbering: A treatment, seen in English Tudor Revival buildings, which gives the appearance of exposed wood framing.

Hipped Roof: A roof which has a slope on all four sides of the building.

Hoodmold: Decorative, projecting element over a window; may extend down the sides of a window as well as surround the top.

Jamb: A vertical member at the sides of a window or door opening.

Lattice: Criss-cross pattern of thin wooden slats most often found covering the open space beneath a porch.

Lintel: Horizontal structural element over a window or door; may be of wood, stone or metal, which carries the load of the wall above.

Mansard Roof: A roof which has a double slope on all four sides, with the lower slope being quite steep or nearly vertical.

Modillion: A horizontal bracket or scroll which appears at the building or porch cornice.

Mullion: A vertical piece that divides window sash, doors, or panels set close together in a series.

Muntin: The pieces that make up the small subdivisions in a multiple-pane glass window.

Ornamentation: Decoration, usually non-structural, which is applied to a building to increase its visual interest.

Overhang: A projecting portion of a roof or upper story beyond the story below.

Palladian Window: A three-part window, with a round-arched central window flanked by two rectangular windows whose height reaches the point where the arch begins.

Parapet: The portion of an exterior wall which rises entirely above the roof, usually in the form of a low retaining wall.

Pediment: The triangular face of a roof gable; or a gable which is used in porches, or as decoration over windows, doors and dormers.

Pilaster: A flat pier which is attached to the surface of the wall and has little projection; it may be given a base and cap, may be smooth or fluted.

Plinth: A square or rectangular base on which a column rests.

Portico: An entrance porch, usually supported by columns and sheltering only the entry.

Rafter: Long wooden structural members which run in series from ridge to eaves and provide structural support for the roof sheathing and roofing materials.

Return: The continuation of a projection or a cornice in a different direction, usually around a corner at a right angle.

Ridge: *The intersection of the upper edges of two sloping roof surfaces.*

Ridge Cap: *A covering (metal, shingles, etc.) for the ridge of a roof.*

Rustication: *Stone with emphasized recessed joints created by beveling the edges of the block.*

Segmental Arch: *A type of circular arch which does not extend on the sides to a full half circle; a segment of a circle.*

Sheathing: *A sub-surface material, usually wood, which covers exterior walls or roof rafters under the siding or roofing materials.*

Sidelight: *A glass panel, usually of multiple panes, to either side of a door; often used in conjunction with a transom.*

Soffit: *The undersurface of any overhead exposed part of a building, such as a cornice.*

Spalling: *The flaking away of the face of a stone or masonry unit, sometimes caused by internal pressures in the wall from repointing mortar that is too hard or from subflorescence (crystallized salts below the surface).*

Terra-cotta: *Molded and fired clay used for ornamental work and as decorative tile.*

Transom: *A glass panel, sometimes fixed and sometimes operable, which is placed over a door or window to provide additional natural light and ventilation to and through the interior of the building.*

Turret: *A corbelled projection, usually located at a corner.*

Valley: *The intersection (trough or gutter) of the lower edges of two sloping roof surfaces.*

Vapor Barrier: *A waterproof membrane which is used to prevent moisture from migrating from damp to dry areas.*

Vernacular: *Architecture which draws on folk traditions and forms, stressing basic functionalism, economy and utility rather than the "rules," principles and ornamentation of high style architecture. May contain secondary high-style design elements.*

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Preservation News (monthly newspaper) and **Historic Preservation** (quarterly magazine) are benefits of membership in the National Trust for Historic Preservation. Write the National Trust at 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036.

The Old House Journal is a monthly publication full of practical ideas for repair, rehabilitation and restoration of older structures. Listed below are some specific articles relating to topics in this handbook. Available by writing **The Old House Journal** at 69A Seventh Avenue, Brooklyn, NY 11217.

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City of Mansfield

...On the Boulevards

The Boulevards area is one of Mansfield's important early 20th century neighborhoods, boasting an attractive collection of some 125 homes built between 1904 and about 1930. The neighborhood consists of three streets: Glenwood and Parkwood Boulevards, and Brinkerhoff Avenue.

95 Brinkerhoff Avenue
English Revival



A Streetcar-Oriented Neighborhood

The Boulevards was developed during a period when Mansfield was expanding at a rapid rate. The electric streetcar lines, and then the automobile, made it possible for large numbers of people to live outside the central city for the first time. The Park Avenue West streetcar made the Boulevards a convenient outlying neighborhood. For only a few cents a ride, people living along the streetcar lines could hop on the trolley for the short trip into town.



18 Parkwood Boulevard
Vernacular



The Dream of Home Ownership

The Boulevards is also a product of the dream of home ownership that preoccupied the growing middle class of the early 1900s. Inexpensive land, low labor costs and mass-produced building materials combined to enable more people to own their own homes.

Magazines such as *The Ladies Home Journal* and *The House Beautiful* featured the latest in home designs and advocated the healthful, wholesome family life that was exemplified by neighborhoods such as the Boulevards.

"Price, Terms, Improvements and Location"
(plus a Free Streetcar Ticket)

The Briggs Real Estate Company purchased the tract of land on which the Boulevards is now located in 1904 and began laying out house lots for sale. The developer called this new subdivision "The Boulevards," drawing attention to the attractive medians on Glenwood and Parkwood. To entice homebuilders, Briggs' brochure offered "price, terms, improvements and location," plus a free streetcar ticket to visit the site. Among the improvements already in place were paved streets and sidewalks, sewer and water systems, and neatly-boxed shade trees for each lot.



Building the Neighborhood

Lots in the neighborhood were sold to prospective homeowners who would erect their own houses on the lots.

Twenty-seven homes were constructed by 1915, with the total jumping to 68 by 1920. Early residents of the neighborhood included professionals such as architects and doctors, company sales managers, insurance agents, bank cashiers, a photographer, store owners and industry managers and foremen. The houses which they built were sturdy and practical, with neat front lawns and even spacing.

Architectural Fashions

House styles of the early 20th century differed from their late 19th century counterparts. They were generally simpler in design, with less ornamentation and a more classical orientation. The Boulevards contains a delightful mixture of house types and styles — a result of its many different owners and builders. Styles and influences present in the neighborhood include Colonial Revival, English Revival, and Craftsman. The Revival styles were inspired by a nostalgia for the past during the early 1900s. Simplicity and the use of natural materials were expressed by the Craftsman houses, as illustrated by the Bungalows in the neighborhood.



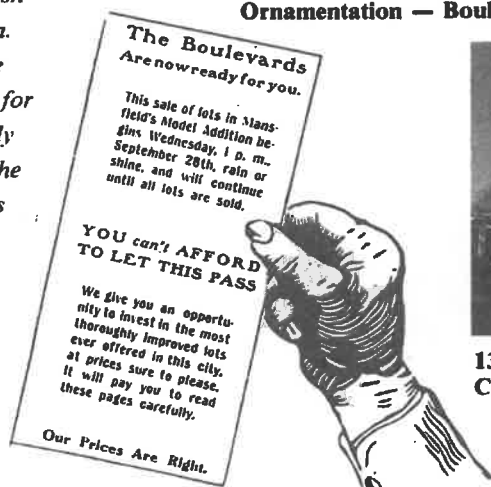
Glenwood Boulevard

The Comfortable House

Boulevards houses are comfortable houses, built during a time when technological advances and a concern for health were changing the American household. Sun porches became popular, a result of the interest in health, sunlight and fresh air. Clean-looking, porcelain-tiled bathrooms were the norm. Kitchens became more efficient to accommodate the modern housewife, and electrical appliances made her work a little easier.



Ornamentation — Boulevards



Neighbors Working Together

From the beginning, Boulevards homeowners have taken a great deal of pride in their neighborhood and the upkeep of their homes. The Glenwood-Parkwood Boulevards Association, formed early on, has been actively working to protect the residential character and amenities of the area. The association also proudly sponsors a Fourth of July parade, Oktoberfest, and many other activities during the year which bring neighbors together.

Protecting Architectural Character

The Boulevards has the distinction of being Mansfield's first Local Historic District. Through this designation, exterior architectural changes proposed for buildings in the district are reviewed by the Historic Preservation Commission to ensure that they are compatible with the district. In this way, the historic and architectural character of this early 20th century neighborhood is preserved.



**132 Parkwood Boulevard
Colonial Revival**



150 Glenwood Boulevard
English Revival



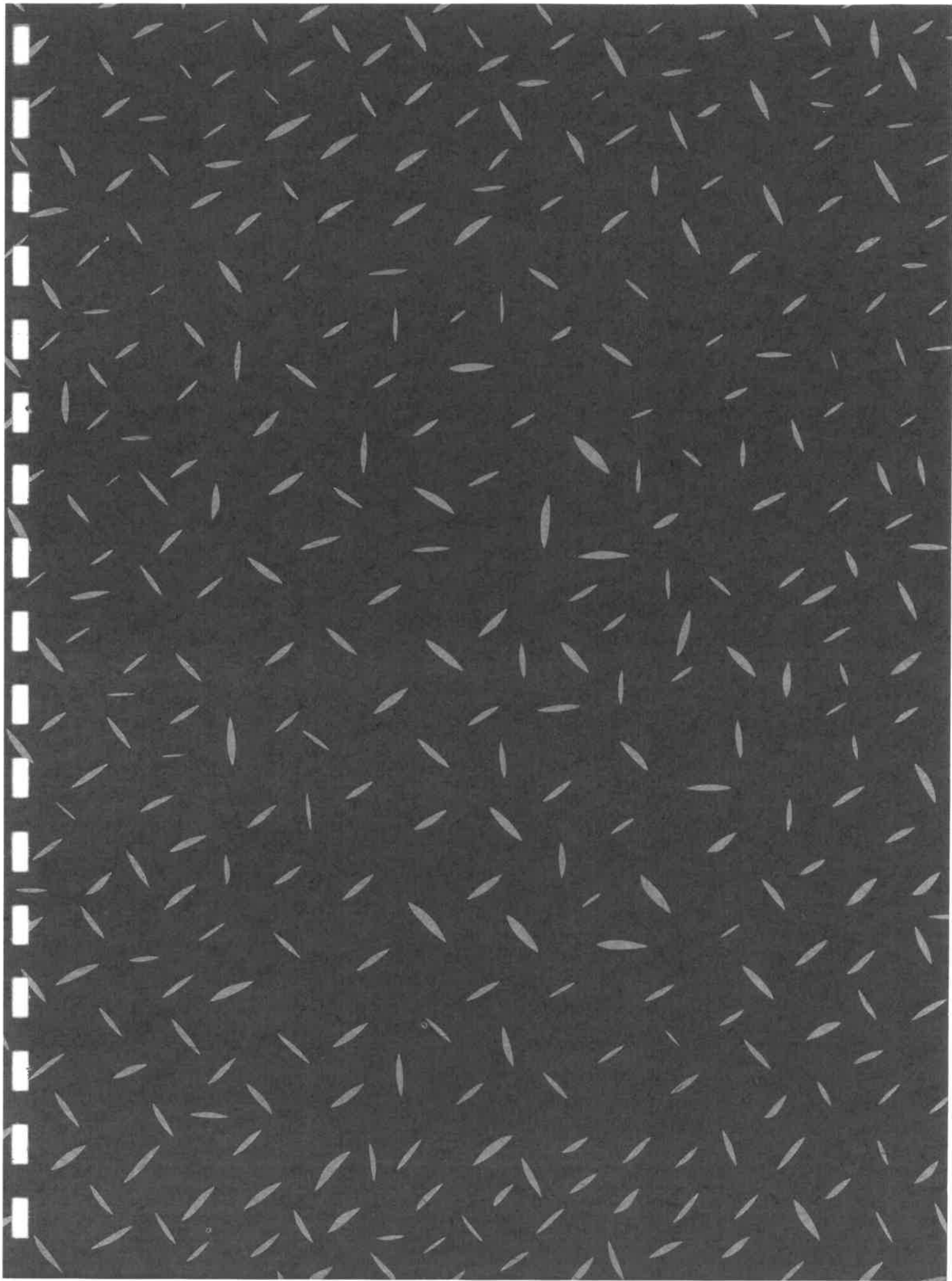
103 Parkwood Boulevard
Dutch Colonial Revival



58 Parkwood Boulevard
Vernacular



72 Glenwood Boulevard
Craftsman Bungalow



\$ 8.95

