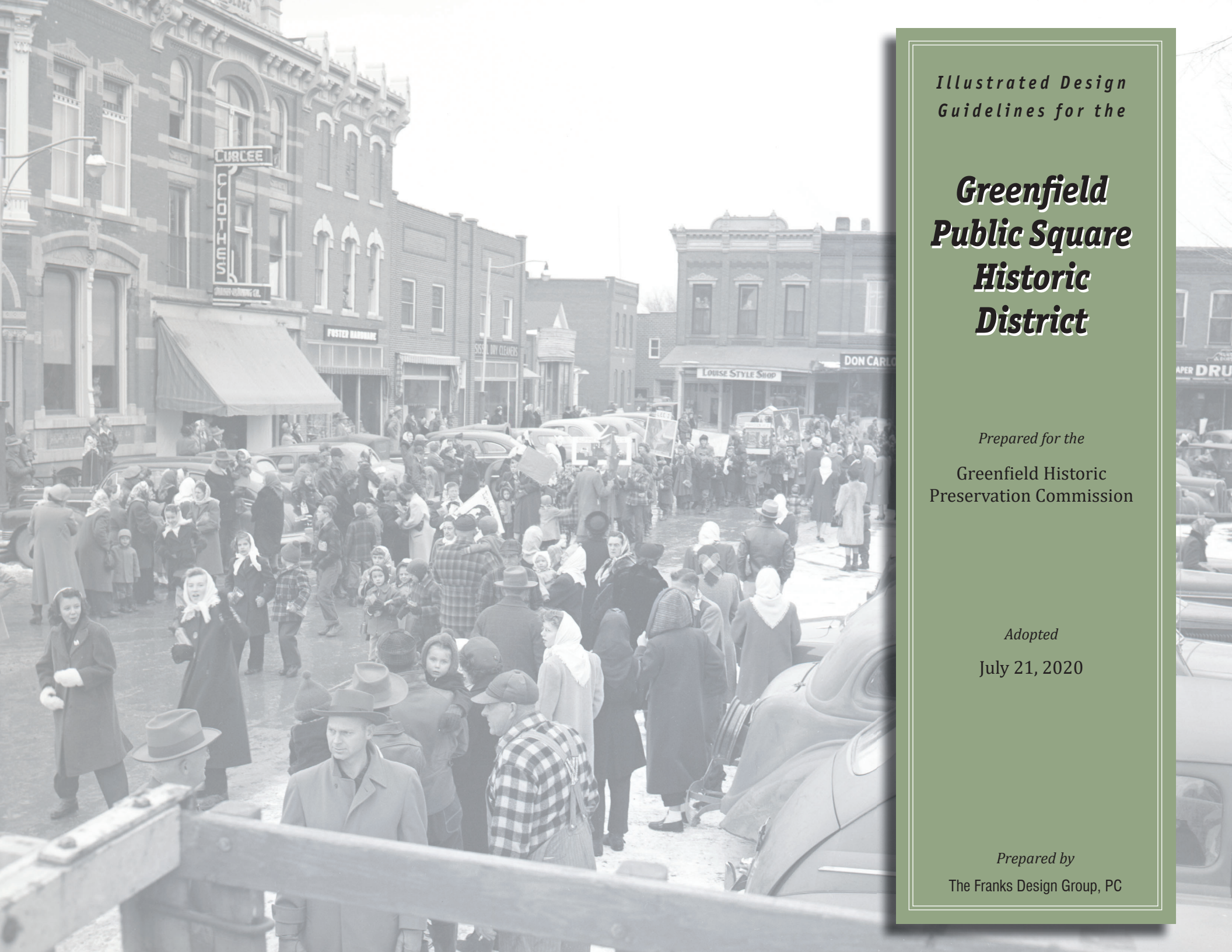



*Illustrated Design Guidelines for the*

# Greenfield Public Square Historic District

*Prepared for the*

Greenfield Historic Preservation Commission

*Adopted*

July 21, 2020

*Prepared by*

The Franks Design Group, PC

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"Small town America is strong and beautiful in ways large places can never duplicate."

--Hugh Sidey

## *Introduction*

Famed journalist Hugh Sidey of Time-Life magazines described Greenfield's public square as quintessentially "intimate and village-like" within the Midwestern landscape genre. This element of the Greenfield Public Square Historic District, with its Iowa-unique1856 Lancaster square layout, and commercial and public building elements, is at the heart of the city's character. Milton C. Munger platted the original city in 1856, twenty years prior to the 1876 court ruling that relocated the Adair county seat to Greenfield from Fontanelle.

The present courthouse, of Richardsonian Romanesque style, was built in 1891-92, with a visually harmonious addition erected in 2019. Several downtown buildings feature distinguished turn-of-the-20th-century Italianate, Queen Anne, Classical Revival, Early 20th-Century Commercial and Art Deco architecture: the Warren Opera House/Heatherington Block (1896 at 152-56 Public Square); Greenfield Savings Bank (1914 at 102 Public Square); First National Bank (1903 at 296 Public Square); Adair County Free Press (1906 at 108 E. Iowa Street); Municipal Light Plant (1940 at 207 S. First Street); Carnegie Library (1916 at 215 S. First Street); and Hotel Greenfield (1920 at 110 E. Iowa Street). Other buildings, mostly of simplified modern design, filled the outer square to its completion, upon opening of the Grand Theatre (1927 at 238 Public Square).

Beyond civic and commercial activity, the public square is a backdrop for communal events for town and county residents and visitors. The following, among many others, are historically noteworthy: celebrations for World War I Armistice Day (1918), World War II VE and VJ Days (1945), internationally-recognized Pan American Day (1941), the 1956 Centennial Celebration, Norman Lear's "Cold Turkey" Hollywood movie production (1969), and Independence Day parades and carnivals.

City planning policy reflects community consensus of appreciation for the downtown with its public square and historic architecture. In 1998 Greenfield became a Certified Local Government (CLG), adopted its historic preservation ordinance and established the Greenfield Historic Preservation Commission. As a CLG, Greenfield is eligible to receive grants from the State Historical Society of Iowa. The Greenfield Public Square Historic District was listed on the National Register of Historic Places in 2014. Furthermore, the preservation of the buildings within this historic district is part of the transformation strategy of the City of Greenfield and Greenfield Chamber/ Main Street to revitalize its downtown and strengthen the economy of the community.

Towards this goal, the Greenfield Historic Preservation Commission was awarded a CLG grant to prepare the *Greenfield Public Square Historic District Illustrated Guidelines*. The purpose of these guidelines is not to attempt to turn back the hands of time to a more nostalgic era. Rather these guidelines strive to balance the preservation of Greenfield's historic architecture with the requirements for adaptive reuse and contemporary needs of the community and stakeholders. Emphasis is placed on the appropriate treatment of the historic downtown buildings, particularly the exterior envelope, to ensure they will continue to be economically viable and relevant to the community of Greenfield for generations to come.



View of the Adair County Courthouse from E. Iowa Street. (2020)

### *Isn't preservation just for the grand buildings?*

The mention of historic preservation usually conjures images of expensive rehabilitations that returns a building to its original condition.

In reality, historic preservation is multifaceted and these iconic preservation undertakings are in fact the exceptional practice within the preservation discipline. Preservation encompasses not only the meticulous rehabilitation of an iconic building, but also the maintenance and repair of any historic building in a manner that prevents the loss and damage of its features and materials that characterize the structure and communicates the story of the time and place in which it was constructed.

Historic preservation recognizes that not only are the grand buildings important, but so too are the many buildings built by ordinary people for ordinary purposes. These may not be the buildings that we seek out for their individual significance or beauty, but they are the buildings that collectively create the sense of place and character that is unique to a community. When appropriately maintained and preserved, a place is created that enhances the quality of life in a community, attracts new people to live in and visit, and enhances its economic vitality.

### *Why guidelines for private buildings?*

Historic buildings are artifacts that represent a community's shared history. A study commissioned by the Advisory Council on Historic Preservation, *Measuring Economic Impacts of Historic Preservation* (2011) shows that historic buildings are an asset to any community, the rehabilitation of which strengthens its economic viability. The purpose of these guidelines is to encourage the appropriate stewardship of Greenfield's historic downtown buildings and convey an appreciation of their unique character and architectural features. Conventional methods of maintenance and construction are often not compatible with historic materials and construction methods. Some common treatments can damage the historic fabric with catastrophic results over time. Additionally, conventional design approaches are often not compatible with the style of a historic building or the local design traditions and themes of a historic district.

These guidelines are intended to help building owners and the community understand historic construction, materials and design, and treatments for the appropriate rehabilitation of these buildings.



View of the Victorian Era Adair County Bank. (1950)

## *Why Preserve the Greenfield Public Square?*

Many appreciate their community's heritage; the stories of our ancestors and the aesthetics of the architecture they constructed. Historic buildings are tangible connections to our past, the preservation of which enhances the aesthetics and quality of our community. Historic districts, landmarks, and the rehabilitation of these structures endows our community with pride and appreciation. However, historic preservation is not simply a sentimental endeavor. It is also a proven strategy to develop the economy of communities like Greenfield.

Tom Mayes, the deputy general counsel at the National Trust for Historic preservation, and author of *Why Old Places Matter*, provides the following synopsis of six key reasons that keeping and reusing old places is good for the economy.

### *Jobs, income, state and local taxes.*

Rehabilitation of older buildings produces higher-paying jobs than new construction and the money tends to stay in the local economy. Because rehabilitation of historic buildings generally requires a higher skill set, wages produced with rehabilitation generally are higher, and remain in the local economy more. As the FY 2012 annual report on the economic impact of the rehabilitation tax credit states: "Numerous studies conducted by Rutgers University have shown that in many parts of the country, a $1 million investment in historic rehabilitation yields markedly better effects on employment, income, GSP, and state and local taxes than an equal investment in new construction or many other economic activities (e.g., manufacturing or services)."[1]

### *Heritage tourism.*

Whether people go to old places to experience the awe of the sacred or transcendental beauty, for incomparable opportunities to learn, to spur their imaginations or simply to experience a place that has maintained a sense of distinctiveness, old places are destinations for tourism, and have been so for millennia. The economic benefits of heritage tourism are unparalleled. As Donovan Rypkema (Place Economics) has said, "Wherever heritage tourism has been evaluated, this basic tendency is observed: heritage visitors stay longer, spend more per day, and, therefore, have a significantly greater per trip economic impact."[2] The World Bank report, *The Economics of Uniqueness,* emphasizes that heritage tourism is an important economic development strategy, particularly because "tourism development… requires less capital, infrastructure, and skilled labor."[3] And there's the sustainable benefit—for everyone—of saving a community's sense of history, distinctiveness and identity.

### *Revitalization.*

For decades, older communities have used their historic buildings and streetscapes as assets for revitalization, providing a greater diversity of income and cultural background in neighborhoods, increasing property values, increasing job opportunities.[4] As the website for the Main Street program says, "the cumulative success…of the Main Street programs on the local level has earned a reputation as one of the most powerful economic revitalization tools in the nation."[5]

### *Attracting talent and investment.*

According to the World Bank report, *The Economics of Uniqueness,* "[heritage-related projects] contribute to urban livability, attracting talent, and providing an enabling environment for job creation." As Richard Florida and others have emphasized, creative people are the talent that drives the new economy, and creative people are attracted to places that have authenticity. Businesses located in places that are perceived of as good places to live, with a sense of authenticity, have an edge in attracting talent and investment. Or as the World Bank report puts it: "…heritage is a differentiator that attracts talent to cities."[6]

### *Property values.*

One of the main purposes cited in preservation statutes as a rationale for historic preservation is that it stabilizes and supports property values. Studies throughout



The northwest corner of the public square. (1938)

the United States show that this is generally true, with property values in historic districts rising more consistently than in areas that are not historic districts. In addition, studies show that historic districts maintain their value during times of real estate devaluation, such as the recent recession, and recover more rapidly.[7]

### *Business incubation.*

As the Preservation Green Lab report *Older, Smaller, Better* recently concluded, older smaller buildings are critical to the incubation of small businesses that are the primary job creators in the U.S. economy.[8]

### *Notes:*

https://forum.savingplaces.org/blogs/forum-online/2015/04/16/why-do-old-places-matter-economics. Accessed November 1, 2019.

1. National Park Service and Rutgers University, Edward J. Bloustein School of Planning and Public Policy, *Annual Report on the Economic Impact of the Federal Historic Tax Credit for FY 2012*. ntcic.webfactional.com/rutgers/. 2013. Accessed April 5, 2015.
2. Rypkema, Donovan. *The Economics of Historic Preservation*, Keynote Address, Alexandria Historic Preservation Conference and Town Meeting, May 5, 2007.
3. Licciardi, Guido and Rana Amirtahmasebi, Eds., *The Economics of Uniqueness* (Washington, DC: The World Bank, 2012), 183.
4. I note the concern that revitalization strategies may result in gentrification, the displacement of existing residents because of increased rents or property taxes. Although the complex topic is outside the scope of this brief essay, it deserves additional attention, and has been, and will continue to be, addressed and studied. For an introduction, see Donovan Rypkema's discussion in *The Economics of Uniqueness*, 125-138.
5. The National Main Street Center conducts research to document this by annually collecting statistical information on the preservation, revitalization, and economic activities in local Main Street programs throughout the country. These estimates are based on cumulative statistics gathered from 1980 to December 31, 2013 for all designated Main Street communities nationwide.

   Dollars Reinvested:Total reinvestment in physical improvements from public and private sources.
   $59.6 billion
   Number of building rehabilitations:
   246,158
   Net gain in jobs:
   502,728
   Net gain in businesses:
   115,381
   Reinvestment Ratio (i):
   $33.28:$1

   www.preservationnation.org/main-street/about-main-street/reinvestment-statistics-1.html#.VSGWP0Ih6sE. Accessed April 5, 2015.
6. *The Economics of Uniqueness*, xxiii.
7. See several studies at www.placeeconomics.com/resources/publications. Accessed April 8, 2015.
8. National Trust for Historic Preservation, Preservation Green Lab, *Older, Smaller, Better* (Washington, DC, 2014).



A parade on the public square in celebration of Victory over Japan. (1945)

# 1.0 The Significance of the Greenfield Public Square and Its Architecture



Locals enjoying a farmer's market and picnic in the shade of the courthouse square during the summer of 2013.

A canopy of green shelters the courtyard in the middle of the Greenfield Square, inviting you to come and play. Maybe that means sitting on a bench with a friend and sharing the news of the day or watching the shoppers around the Square. It might be a game of tag, taking part in a leap frog contest, or turning cartwheels in the shade. Watching friends and neighbors perform during the Bill Riley Talent Contest is a highlight each summer. Truly, a place to play.

# 1.10 Greenfield Public Square Historic District

## 1.11 National Register of Historic Places

The Greenfield Public Square Historic District was listed on the National Register of Historic Places (NRHP) in 2014. The district is organized in a Lancaster-style public square (see sidebar on page 10), the centerpiece of which is the Adair County Courthouse. The square is populated with one- to three-story commercial buildings that encircle the square. Additionally, the Greenfield Public Library, Greenfield Municipal Light Plant, Hotel Greenfield and the Adair Free Press building are included in the district. The district is significant for its resources that represent the commercial development of Greenfield between its establishment in 1856 and 1969, when the town was the location for the movie "Cold Turkey." It is also significant because of the unique Lancaster-style public square which is the only public square of this style in Iowa.

Of the 48 buildings located in the district, four are individually listed on the NRHP, 38 contribute the historic district and six are listed as non-contributing to the district. Those which are non-contributing were either constructed outside the districts period of significance, 1856 - 1969, or were significantly altered and do not retain or convey sufficient historic integrity.

The listing of properties to the National Register is not only a source of local pride for Greenfield, but also enables the owners of buildings which contribute to the NRHP district to access tax incentives for the undertaking of a qualified rehabilitation of their historic building. (See section *2.11 Financial Incentives* for more information.)

The National Register does not prevent owners from altering or even demolishing their buildings unless federal funding or licensing is involved. However, the removal or alteration of character defining features of a historic building can result in its reclassification from contributing to non-contributing which would disqualify the building for many financial incentives. Additionally, if too many buildings are inappropriately altered or demolished, the entire district can potentially be removed from the National Register of Histoic Places.



# 1.20 Architectural History of the Greenfield Public Square

## 1.21 The Public Square

Greenfield was settled in 1854 when Milton C. Munger purchased the land where the town was established. He commissioned county surveyor D.M. Valentine to plat Greenfield and the downtown was organized around a Lancaster-style town square. With the streets intersecting the square at mid-block and alleys extending from the corners east and west, the Greenfield town square is the only square of its kind in Iowa. It is also three-fourths the size of the typical town square in the state creating a uniquely intimate public space.

The Greenfield Public Square was originally designed to be a community green, not a courthouse square. Two years after the town was established, a petition was made to move the county seat from its original designated location of Fontanelle to Greenfield. The "war" to acquire the county seat continued for two decades until 1875 when the issue was settled in favor of Greenfield by the state Supreme Court. The first wood frame courthouse was subsequently constructed by the city of Greenfield on the east side of the public square. After it burned in 1883, it was replaced with another wood structure which was referred to as the "sheep shed" because of its shoddy construction.

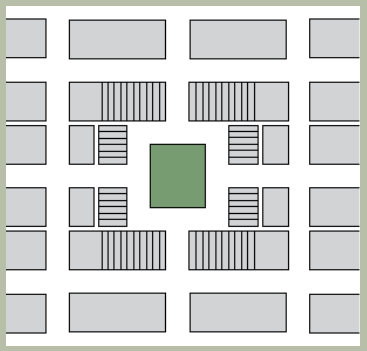
Adair County eventually made the decision to construct a substantial new courthouse. Council Bluffs' architect S.E. Maxon was awarded the contract and the current brick, Romanesque Revival courthouse was erected in the middle of the public square in 1891-92.



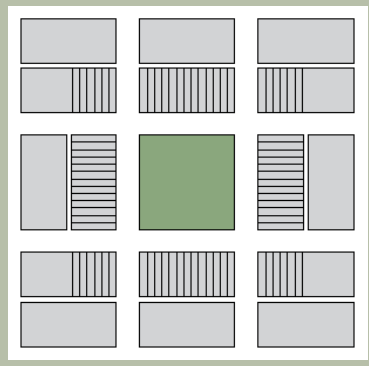

One of many parades that took place on the Greenfield Public Square through the decades. (1940)

### *The Lancaster-style Square*

The plan for the Greenfield Public Square is called a Lancaster-style town square based on the design of Lancaster, Pennsylvania. More than 20 other town squares in Iowa are based on the town square design of Shelbyville, Tennessee. The Greenfield Public Square is about three-fourths the size of other public squares in Iowa. This imbues Greenfield with a unique and intimate sense of place.



Lancaster-style town square



Shelbyville-style town square

## 1.22 Victorian Era Architecture

The period of Greenfield's settlement and early development took place during the Victorian Era. The buildings on the public square during the town's early formation would have reflected the Victorian aesthetic with variations of Boomtown, Queen Anne, Italianate and Romanesque Revival styles.

The manufacturing capabilities developed during the nineteenth century allowed exuberant and complex forms and details that characterize Victorian Era architecture. Building components such as cast iron columns, brackets, cornices, embossed metal ceilings, and other parts were available through mail order and delivered via railroad. Storefront windows were constructed of wood frames in which large sheets of plate glass were installed.

The designation of the county seat brought new growth and development to the community. Between 1880-1881 the population nearly doubled to 1,101 and most of the square was filled with wood buildings for retail and service establishments to meet the need of the growing community. Most of these were eventually replaced with more substantial and fire resistant brick buildings, but a few from this era still remain.

### Boomtown

The earliest of these buildings would have been quickly constructed wood frame structures. These simple gabled buildings had a false "Boomtown" front that concealed the gable end and provided the appearance of a larger building. These vernacular buildings sometimes had a simple Italianate-style cornice with brackets.

### Italianate

More substantial brick buildings were eventually constructed. The earliest of these were in the style of Italianate architecture. Large, bracketed metal cornices, brick corbelling and decorative window hoods are typical motifs of the Italianate style. The exterior walls of these buildings are constructed of locally sourced pressed bricks. Bricks from this period are quite soft and were laid using lime mortar.

### Queen Anne

The Warren Opera House, Hetherington Block and First National Bank Building were constructed in the Queen Anne style. Characteristics of these buildings include a mannered silhouette, decorative brickwork, contrasting rusticated stonework, copper metalwork and fan-shaped ornamentation.

### Romanesque Revival

The Adair County Courthouse was constructed in the Victorian Romanesque Revival stye. Although it shares many characteristics with Greenfield's Queen Anne buildings, it is distinguished by its large arched entrance and fenestrations and more substantial appearance.



View of buildings on the southeast side of the square. (ca. 1890)




Several wood Boomtown style buildings remained in the northwest corner of the square into the 20th-century as shown in this 1930 photograph.




This photo shows various styles of Victorian Era buildings including two-story wood Boomtown structures that were eventually replaced with brick buildings. (ca. 1900)

## *Elements of the Victorian Era Facade*

### *Cornice*
The decorative metal feature that projects horizontally with brackets and a frieze below.

### *Corbels*
Stepped projections in the masonry.

### *Window Hood*
Decorative metal caps located over the upper level windows. Some buildings may have a masonry arch or lintel rather than a hood over the window.

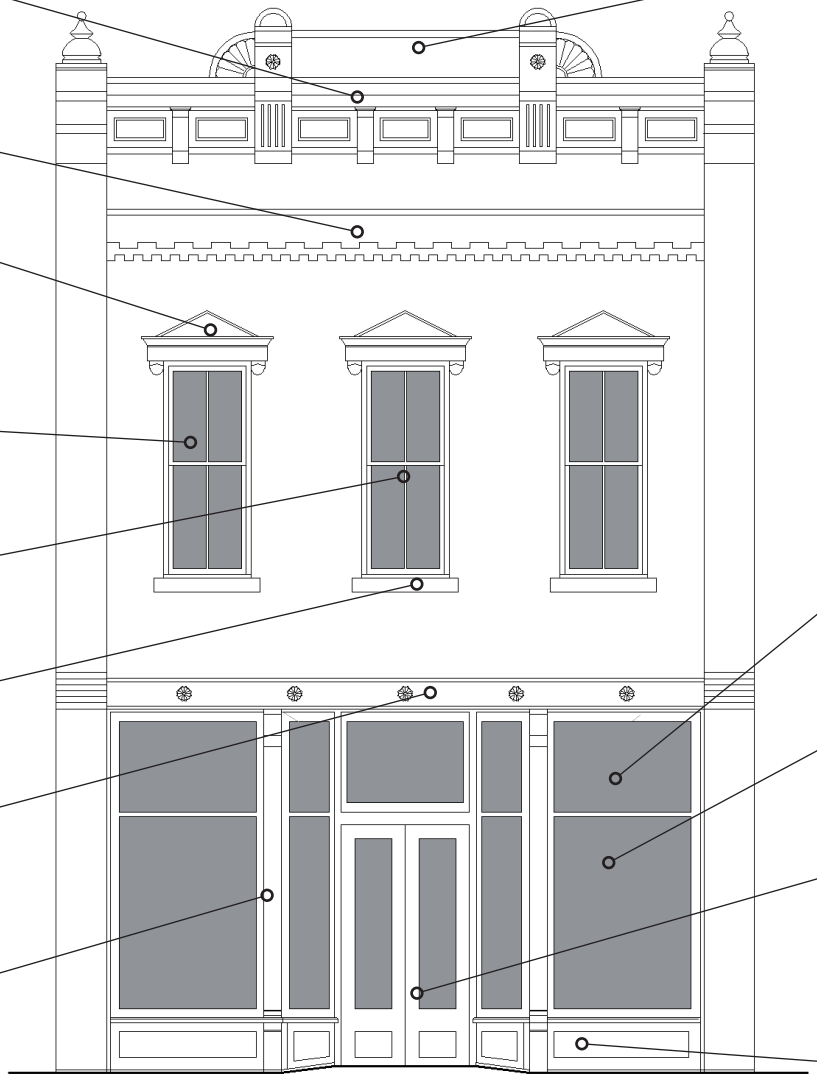
### *Double-hung Windows*
Windows with two sashes hung on cords with concealed counter weights. Both sashes are operable.

### *Muntin Bars*
The thin bars that divide the window sashes into multiple lights or panes.

### *Window Sill*
The stone masonry below the window.

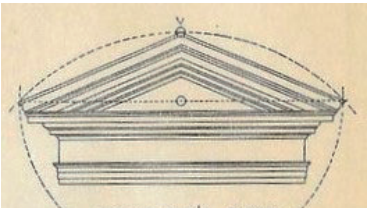
### *Cast Iron Lintel*
The exposed structural beam that supports the facade masonry above the storefront.

### *Cast Iron Columns*
The exposed vertical structure that supports the lintel and is usually cast with decorative features.



*Typical Victorian Era Italianate Facade in Greenfield*

### *Cornice "Pediment"*
In historic building catalogs from the Victorian Era, this element of the cornice was called a pediment regardless of its shape. The term pediment more commonly refers to the triangular gable element located above an entry from Classical architecture like the one pictured below.



### *Transom Windows*
The windows located above the door or display windows which help provide for daylighting of the interior space.

### *Display Windows*
The large expanse of plate glass that is set in a wood frame for the display of a merchant's wares.

### *Recessed Entry*
The space which is recessed from the front of the facade where the door is located. It allows for the doors to swing outward without interfering with pedestrians provides a deeper display space.

### *Kickpanel*
The area above the sidewalk and below the display windows. They are typically wood panel construction.

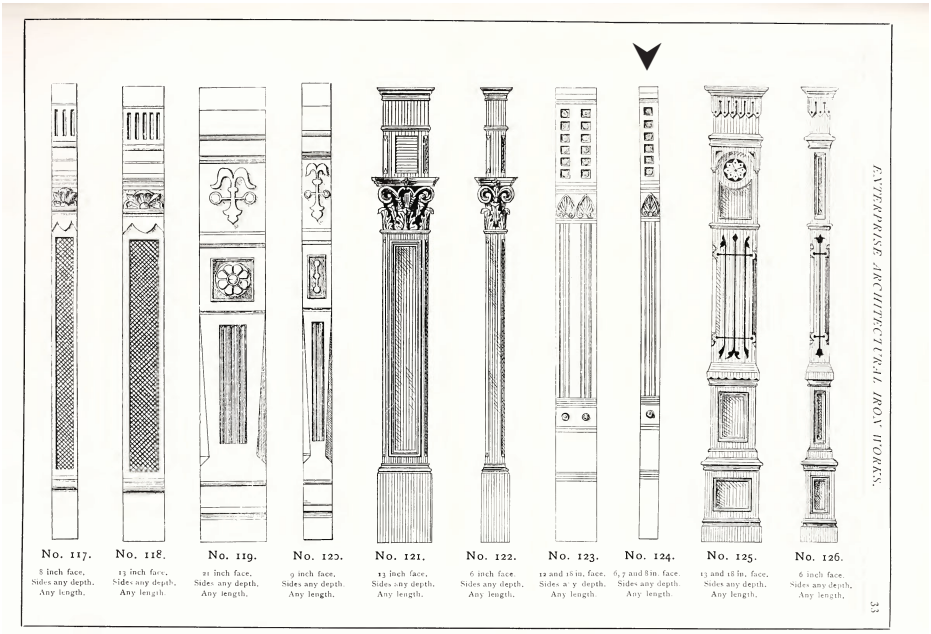
## *Ornamental Metal of the Victorian Era*

The use of ornamental metal is the most distinctive feature of the Italianate buildings on the Greenfield Public Square. Based on historic photographs and the existing buildings, it's likely that all the ornamental metal used in Greenfield was supplied by one or two manufactures.

Although there are variations in the cornices and window hoods, all the cornice "pediments" were of a similar design. The existing cast iron columns are all stamped with the name "Scherpe & Koken, St. Louis." These columns can be found in the 1883 Scherpe & Koken catalog. The manufacturer of the sheet metal cornices and window hoods has not been identified.

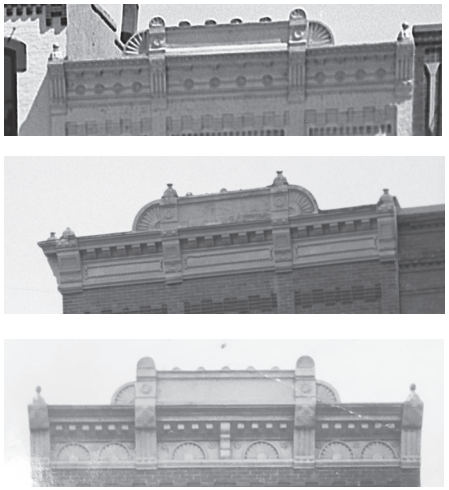


Cast iron columns from the public square




Page 33 from 1883 Scherpe & Koken catalog illustrating columns used on the Gibbs Block (346-350 Public Square).

### *Cornice "Pediments"*



Similarities in the design of the ornamental metal cornice pediments would indicate that it is likely all the embossed metal in Greenfield came from the same manufacturer.




Cast iron column base with the manufacturer's name.

### *Changing Facades*

Around 1900 the elaborate ornament of the Victorian Era gave way to the more restrained aesthetic of the Early 20th-Century Commercial architecture. The first features to be eliminated were the ornamental metal cornices and window hoods.

Historic images can help us understand how the buildings of Greenfield Public Square have changed over time and if it is reasonable to restore a facade or if another appropriate design solution is required.

Some buildings constructed during the Victorian Era have facades that have been so dramatically changed that it is infeasible to restore them to their original design.

However, the early single-story wood building with "Boomtown" fronts (covered in vinyl) could likely be rehabilitated or reconstructed based on historic images given their simplicity and construction technique.

## 1.23 Early 20th-Century Architecture

Whether spurred by fire or the desire for improvement, the early 20th-Century saw the replacement of many wood frame structures with brick edifices. A number of fires broke out in the Public Square, including one in 1902 which started in a candy shop/restaurant. New brick construction was undertaken in the more restrained styles of the Early 20th-Century.

A new storefront system was implemented during this time period. Plate glass was secured in a framing system of bronze or copper extrusions which also provided for the drainage of interior condensation and integral flashing of the sills.

### Transitional

Buildings constructed in the first decade of the 20th-century retain some features of the Victorian Era such as brick corbels and arched window heads. However, the decorative features such as ornamental cast iron columns, metal cornices and window hoods were eliminated.




The transition from Victorian Era architecture to a simplier aesthetic is evident in these buildings constructed 14 years apart.

### Early 20th-Century Commercial

By 1912, the decorative features of the previous century were completely eliminated and the masonry facades had a flat, rectilinear appearance. Relief was provided by the use of panels of brick laid in patterns and sparing use of tile, concrete, limestone or terra cotta accents.




The Haddock building, constructed in 1926-28, is a fine example of Early 20th-Century Commercial architecture. (ca. 1929)

### Classical Revival

The architecture of the 1893 Columbian Exposition in Chicago spurred renewed interest in the Classical architecture of Greece and Rome. Classical Revival architecture is typically symmetrically composed and very formal in appearance. Both the Greenfield Hotel and the Greenfield Savings Bank (102 Public Square) feature Doric columns and a triangular pediment at the entry. The half-round arched windows and continuous cornices are also common Classical Revival features.



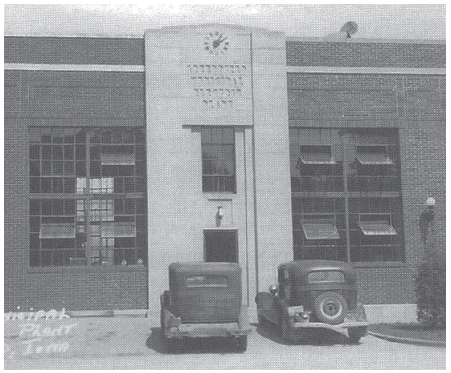
The pilasters, window style and symmetrical composition of the Carnegie Library are characteristics of Classical Revival architecture.




(Left) This row of buildings on the southwest side of the square are all examples of Early 20th-Century architecture. (1974)

### Art Deco

The Municipal Light Plant (211 S 1st St.) was constructed in 1940 in the Art Deco style. The use of smooth stone, curved elements and layered surface planes are characteristic of Art Deco architecture.



The Municipal Light Plant is the only example of Art Deco in the Greenfield Public Square Historic District.

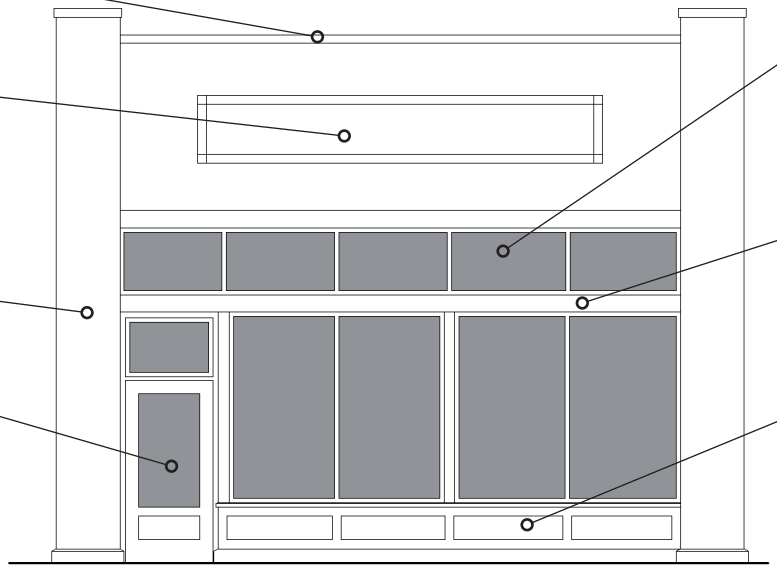
### *Elements of the Early 20th-Century Commercial Facade*

**Coping**
The cap at the top of the parapet wall typically made of stone, concrete or clay tile.

**Parapet**
The portion of the facade wall that projects above the roof and usually features a panel of decorative masonry.

**Pilaster**
A structural or decorative vertical projection from the face of the masonry wall.

**Entry**
Typically, a wood 3/4-light entrance door which may be flush with or recessed from the facade.



**Transom Window**
Windows located above the door or display windows. In Early 20th-Century Commercial architecture they were often made of prismatic glass to enhance the interior daylighting.

**Horizontal Mullion**
A structural component between the transom and display windows where awnings were typically attached.

**Kickpanel**
The area above the sidewalk and below the display windows. They may be wood panels, ceramic tiles or brick.

*Typical Early 20th-Century Commercial Facade in Greenfield*

## 1.24 Mid 20th-Century Architecture

With the prosperity that followed World War II, modernization was in vogue. Although there was no new construction on the Greenfield Public Square, a number of buildings were substantially altered. The two-story Adair County Bank was reduced to a single story and completely refaced, leaving nothing of its Victorian Era edifice. Decorative metal cornices, pediments and window hoods were removed and storefronts on other buildings were replaced with stone synthetic stone veneer and modern window framing. Although the metal framing system was similar to that of the Early 20th-Century, it was now manufactured in nickel or aluminum. The addition of aluminum canopies over the storefront was a common method to modernize the appearance of an older storefront.



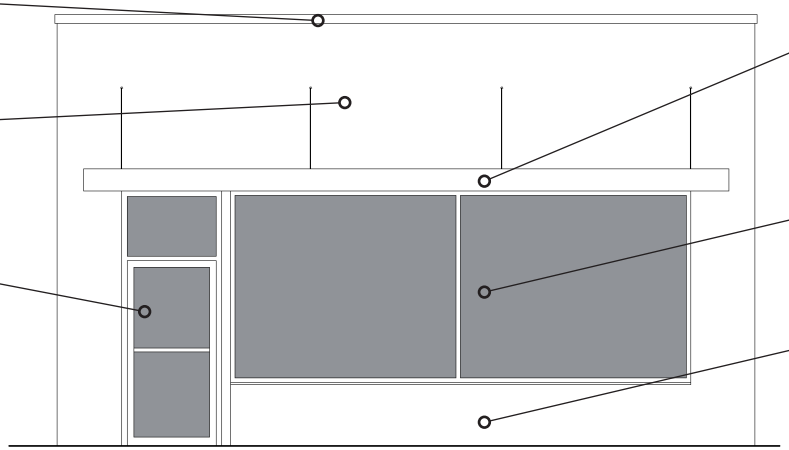

This 1952 photo shows the transformation of the two-story Victorian Era Adair County Bank building into a sleek, Modern edifice.

## *Elements of the Mid 20th-Century Commercial Facade*

***Coping***
The cap at the top of the parapet wall typically made of stone or metal.

***Parapet***
The portion of the facade wall that projects above the roof.

***Entry***
Typically, a full-light metal entrance door which may be flush or recessed from the facade.



***Canopy***
A fixed aluminium structure suspended with metal rods to shade the display windows. and protect pedestrians from the elements.

***Display Window***
A plate glass window set within a narrow nickel or aluminum frame.

***Kickpanel***
The area above the sidewalk and below the display windows which is typically the same as the face brick.

*Typical Mid 20th-Century Commercial Facade in Greenfield*







(Above) This photo of the Burget & Campbell (previously C.C. Haddock) building facades illustrates the appearance of the facades before they were updated. (1926)

(Left) The current facade of the Burget & Campbell Building (246-248 Public Square) was constructed in 1952 and an addition replaced the adjacent Boomtown building.



The Heaton Block (222-226 Public Square) was modernized with the removal of the Victorian Era ornamental metal and installation of new store-fronts. (1974)

# 2.0 Project Planning

## *for Building Rehabilitation*




Girls racing on the public square street in the late 1940s.

Greenfield's unique town square serves the community as the hub of county government, retail and professional businesses and most importantly gatherings of all kinds. Parades, entertainment, fundraisers, farmers markets, hosting of visitors and kicking off events happen on the square throughout the year. It may sound cliche but it is the heart of Greenfield.

# 2.10 Planning a Successful Rehabilitation Project

## 2.11 Planning Recommendations

### Plan Before Demolition

It's often tempting to begin the process of demolition before developing a plan for a rehabilitation project. Taking some time to do the appropriate research before demolition will help any building owner better appreciate their historic building, its significant features, the appropriate treatment for materials and features, and may reveal applicable financial incentives for their project. A project may not be eligible for certain financial incentives if significant demolition begins before a financial incentive application has been approved.

### Hire a Preservation Architect

Depending on the scale and complexity of a project, building owners may want to consider engaging an architect that specializes in historic preservation. Upper-level apartments, structural remediation and complete building rehabilitation are examples of projects that may require an architect. Additionally, an architect is recommended if state or federal grants or tax incentives are used. A preservation architect will ensure that a project complies with building and zoning codes, historic materials are appropriately treated and compliance with incentive regulations. However, a competent contractor with preservation experience will likely suffice on projects such as repointing, window restoration, and roof replacement.

### Understand Historic Significance

Although most of the buildings within the Greenfield Public Square Historic District are historically significant and contribute to the overall NRHP district, many have changed over time. Some original features and materials may have been removed while others may have been added to update the building to the popular style of time. Though not original to the building, some of these changes may be historically significant and should be retained. Others simply distract from the character of the building and should be removed.

#### Historic Documents

Examining photos of the Greenfield Public Square from different periods of time can help one understand the changes to a building and the historic significance of the building's features and materials. In addition to photographs, historic newspapers, Sanborn fire insurance maps, yearbook advertising, and atlases can be useful.

#### Exploratory Demolition

Alterations to a building may conceal historically significant materials. This is particularly true with changes to the storefront. Where materials such as metal and plywood have been installed, portions of these materials should be removed to determine if they conceal historic materials, finishes, elements and features.

### Evaluate the Building

Planning the rehabilitation of a historic building can be a complex process. It's important to thoroughly evaluate the building to determine if there are significant issues that should be prioritized such as damaged or unstable materials, structural problems and water infiltration. This may require using a preservation architect or experienced preservation contractor.

#### Guidelines

Throughout chapter *3.0 Illustrated Design Guidelines*, information is provided regarding the evaluation of historic materials and features with recommendations for their appropriate treatment. These guidelines only cover the building exterior. Additional guidance will likely be required for mechanical, electrical, and structural systems; abatement of hazardous materials; interior finishes such as plaster, embossed metal ceiling, millwork and flooring; code requirement; and developing the architectural plan. Consultion with a preservation architect is always recommended.

Additional exterior issues which require evaluation but are not included in the guidelines are:

#### Drainage

Observe how water is moving away from or into the building. Downspouts should direct water away from the building.

Conditions to look for when evaluating drainage include:

- Positive slope of the ground or paving adjacent to the building so water drains away from the foundation and doesn't pool at the foundation wall.
- Sagging or rusty gutters, and missing or damaged downspouts.
- Missing mortar or water marks on the rear wall where water has not been captured by the gutter.
- Standing water in the basement after a rainstorm or rapid snow melt.

#### Foundation

Evaluation of the foundation requires inspection of the foundation wall. Conditions to look for when evaluating a foundation include:

- Cracks, bulging, other signs of structural failure.
- Signs of water infiltration such as water stains, ponds and a musty odor in the basement.
- Missing mortar.

**Preservation Briefs for Architectural Investigation**

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 35: Understanding old Buildings: The Process of Architectural Investigation

### Develop a Plan

A rehabilitation plan should prioritize issues that contribute the most to building deterioration. A phased approach is often necessary to rehabilitate a building and a good plan will ensure that individual projects will be compatible with future undertakings.

#### Codes and Guidelines

In addition to complying with these guidelines, it is important to consult with the City Code Official to ensure a proposed plan complies with building and zoning codes. If undertaking an extensive rehabilitation, it is recommended that a preservation architect be consulted.

### Consult with the Historic Preservation Commission

Before beginning construction, the Greenfield Historic Preservation Commission (HPC) should be consulted. Although compliance with these guidelines is voluntary, the HPC can offer guidance, solutions and ideas for rehabilitation projects.

### Hiring a Contractor

Critial to the success of any building rehabilitation is the selection of experienced and competent contractors, consultants and other service providers. Below are some guidelines to assist with the selection process.

- Ask for multiple current references for work performed by the contractor.
- Ask the contractor for a cost estimate in writing for any work they propose.
- Make sure they are a licensed and insured contractor.
- The contractor should certify that their work conforms to federal, state and local regulations and requirements.
- Verify that the contractor carries workers' compensation insurance.
- Make sure the contractor has experience and success with similar preservation work.

### Document the Project

Photograph your building prior to removal of any historic components. Label all components and key them to a photograph so they may be reinstalled in the original location. Also, photograph work as it progresses. Photographs can be valuable references when communicating with consultants and inspectors, as well as addressing unexpected conditions.

## 2.12 Financial Incentives

### Incentives Available to Developers and Property Owners

#### Federal Historic Preservation Tax Incentive

*Contact: State Historical Society of Iowa*

The Federal Historic Preservation Tax Incentives program is one of the Federal Government's most successful and cost-effective community revitalization programs. The Preservation Tax Incentives reward private investment in rehabilitating historic properties such as offices, rental housing and retail stores. This program provides for a credit to federal income taxes which is equal to 20% of the total qualified rehabilitation expenditure towards a certified rehabilitation of a historic building. The building must be listed on the National Register of Historic Places (NRHP), determined eligible for listing, or be listed as a contributing building within an NRHP historic district.

(A tax credit differs from an income tax deduction. A tax deduction lowers the amount of income subject to taxation. A tax credit, however, lowers the amount of tax owed.)

#### State Historic Preservation and Cultural and Entertainment District Tax Credit Program

*Contact: State Historical Society of Iowa*

The State Historic Preservation and Cultural and Entertainment District Tax Credit Program provides a state income tax credit for the sensitive rehabilitation of historic buildings. It ensures character-defining features and spaces of buildings are retained and helps revitalize surrounding neighborhoods. The program provides an income tax credit of 25% of qualified rehabilitation expenditures. For income-producing properties, this credit may be used in combination with the Federal Preservation Tax Incentive. The tax credit is refundable and transferrable.

#### Property Tax Exemption

*Contact: State Historical Society of Iowa*

The Temporary Historic Property Tax Exemption provides a local property tax incentive for the sensitive, substantial rehabilitation of historic buildings. While all counties are required to offer this exemption, not all counties have set priorities for the program.

The program provides a combination of four years of full exemption from any increased valuation due to the rehabilitation, followed by four years of property tax increases (25% per year) up to the new valuation.

### Workforce Housing Tax Credits

*Contact: Iowa Economic Development Authority*

This program assists with the construction or rehabilitation of housing in communities with workforce housing needs by providing tax benefits to developers who provide housing. The WHTC focuses especially on projects using abandoned, empty or dilapidated properties.

A Small Cities set aside for this program is available to eligible projects within the 88-least populous counties in the state. Developers qualifying under the Small Cities set aside may receive an investment tax credit of up to 20% of the investment directly related to the construction or rehabilitation of the housing. The state investment tax credit is fully transferable.

### Historical Resource Development Program (HRDP)

*Contact: State Historical Society of Iowa*

The State Historical Society of Iowa offers grant funding to help preserve, conserve, interpret, enhance, and educate the public about Iowa's historical assets. The Historical Resource Development Program provides funding for documentary collections, historic preservation and museums. Nonprofits, governments, tribes, individuals and for profit organizations are eligible to apply for up to a $50,000 grant with a required cash match from the applicant. The grants are awarded on a competitive basis and may be used for the rehabilitation of buildings listed on the National Register.

### Field Services

*Contact: State Historical Society of Iowa*

The Field Services program provides technical assistance to potential Historical Resource Development Program grant recipients and those who require guidance once the grant has been awarded. Field Services consultants have many years of experience working with museum, historic preservation and documentary collections projects. Through this program consultants visit communities or project sites to offer specific advice on grant-funded projects.

### Main Street Challenge Grant

*Contact: Iowa Economic Development Authority*

On behalf of a downtown property owner, Greenfield Chamber/Main Street may apply for a matching grant from Main Street Iowa and the Iowa Economic Development Authority. Projects such as façade improvements, upper floor interior rehabilitation, structural repairs/improvements, code compliance and energy efficiency are eligible.

Additionally, the Main Street Challenge Grant may be used to address a mutually agreed upon improvement or series of improvements of multiple properties. All multiple-property applications must be connected by a common need or issue that defines the scope/type of proposed project. For instance, a series of rear entrances visible from a parking lot; the removal of inappropriate slipcovers/siding materials and façade restoration for several buildings, multiple upper floor rehabilitations, etc. Multiple properties are not required to be contiguous.

This grant requires a 1:1 match with a minimum investment of $15,000 ($30,000 with match).

## Incentives Available to Communities

### Downtown Revitalization Fund Community Development Block Grant (CDBG)

*Contact: Iowa Economic Development Authority*

This program provides grants to communities for downtown facade improvements and is funded through the federal Community Development Block Grant program. The project must meet the U.S. Department of Housing and Urban Development's Slum and Blight National Objective.

### Iowa Great Places

*Contact: Department of Cultural Affairs*

For a unique community with a strong vision for innovation, and enhancing vitality and quality of life, while staying true to what makes the community unique, the Iowa Great Places program recognizes unique communities with a strong vision for innovation, vitality and quality of life. The program provides designation and supports the development of new and existing infrastructure intended to cultivate the unique and authentic cultural qualities of neighborhoods, communities and regions in Iowa.

### Community Catalyst Building Remediation Program

*Contact: Iowa Economic Development Authority*

Assists communities with the redevelopment, rehabilitation or deconstruction of buildings to stimulate economic growth or reinvestment in the community.

### Derelict Building Program

*Contact: Iowa Department of Natural Resources (DNR)*

The DNR Derelict Building Program offers Iowa communities of 5,000 or fewer residents financial assistance to address/rehabilitate neglected structures that have sat vacant for at least six months.

### Nuisance Property and Abandoned Building Remediation Loan Program

*Contact: Iowa Economic Development Authority*

Loans secured through this program may be used for the demolition or remediation and reuse of residential, commercial or industrial structures.

## 2.13 Web Resources

There are a number of historic preservation resources available on the internet that are helpful to the project planning process. The following are a few websites which offer information on a variety of topics relevant to preservation and grant funding options.

*State Historical Society of Iowa* / State Historic Preservation Office (SHPO)
https://iowaculture.gov/history/preservation

Iowa Economic Development Authority
www.iowaeconomicdevelopment.com

Preservation Iowa
http://preservationiowa.org

Technical Preservation Services (includes Preservation Briefs)
www.nps.gov/history/tps/about.htm

National Register of Historic Places; National Park Service
www.nps.gov/history/nr/publications

The Association for Preservation Technology
www.apti.org

National Main Street Center, Inc.
www.mainstreet.org

Building Technology Heritage Library
https://archive.org/details/building-technologyheritagelibrary

National Center for Preservation Technology and Training
www.ncptt.nps.gov

National Preservation Institute
www.npi.org

National Trust for Historic Preservation
www.preservationnation.org

The Preservation Marketplace; Historic Preservation.com
www.historicpreservation.com

Historic Preservation Education Foundation
https://www.hpef.us/

USDA Rural Information Center; Historic Preservation Resources
www.nal.usda.gov/ric/ricpubs/preserve.html

U.S. General Services Administration: Preservation Technology
www.gsa.gov/portal/category/20992

National Institute of Building Science; Whole Building Design Guide
www.wbdg.org/resources/sustainable_hp.php

Preservation Directory.com
www.preservationdirectory.com

Traditional Building Magazine
www.traditional-building.com

Advisory Council for Historic Preservation
www.achp.gov

Place Economics
www.placeeconomics.com

National Alliance of Preservation Commissions
https://napcommissions.org/



Children ride their decorated bicycle around the public square in the 1950 Fourth of July parade.

## 2.14 Architectural Terms

**Awning:** A framework covered with fabric at an angle from the facade of a building at the storefront level or above window openings.

**Bracket**: A wood or metal structure that supports a horizontally projecting element; often decorative.

**Columns:** A slender vertical element that supports part of the structure.

**Canopy:** A flat metal structure projecting horizonally from a storefront and usually suspended with chains or rods.

**Corbels:** The portion of a masonry wall that steps horizontally. Corbels are often at the parapet and step outward to create a thicker wall.

**Cornice:** The cornice is a linear element that projects horizontally from the facade. It is located near the building roof. Often a secondary cornice will be located above the storefront. It is typically made of decoratively formed metal or patterns of brick, terra cotta or stone.

**Cornice Pediment:** A triangular, rectangular or curved structure characteristic of Victorian Era buildings located at the upper cornice . The building date or name is often on the cornice pediment.

**Coping**: A protective cap located at the top of a wall. Typically it is made of masonry, concrete, stone, metal or terra cotta

**Date/Name Block:** The date block and/or name block can be found within the design of the cornice or below the cornice on the upper part of the façade.

**Dentils:** A Classical Revival decorative element of small blocks with spaces in between usually located below a frieze or cornice.

**Divided Lights:** Multiple panes of glass within a window sash that are separated by muntin bars. Double-hung windows are described by the number of lights in the upper sash over the number in the lower sash (ie. 6/6 or 4/1).

**Double-hung:** Windows composed of an upper and lower sash which move vertically and are counterbalanced with sash cords and weights.

**Facade:** The main, or front, exterior face(s) of a building.

**Finial:** A pointed ornament which is typically symmetrical and circular in cross section.

**Flashing:** Strip of metal bent to cover joints and angles on roof surfaces.

**Historic:** A building which is listed on the National Register of Historic Places (NRHP) or evaluated as eligible for the NRHP.

**Kickpanel:** The area between the sidewalk and storefront window.

**Light**: An individual pane of glass in a window or door.

**Lintel:** Horizontal structural element located at the top of a window, door, or other opening.

**Mullions:** Vertical or horizontal structural elements between windows.

**Muntin Bars:** The vertical and horizontal elements that separate multiple lights within a sash or door.

**Parapet:** The portion of the wall of a building that extends above the roof line.

**Pediment:** A small structure that is often triangular shaped or curved and looks like the gable end of a Classical building. They frequently are used over entrances and sometimes at the building cornice.

**Pier or Pilasters:** A column that is engaged with a wall. It may be structural or simply decorative.

**Pressed Tin Ceiling:** A historic interior design element used as an affordable alternative to decorative plaster. Each panel has an intricate pattern pressed into the tin.

**Prismatic Glass:** Glass tiles that are molded with ridges to refract light for greater illuminaton. Multiple tiles are joined with lead came to form transom windows.

**Rehabilitation**: The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

**Repoint:** Repairing existing masonry joints by removing defective mortar and installing new mortar.

**Sash:** A frame designed to hold the glass in a window.

**Sill:** The protruding surface below a window. On the exterior, the sill is sloped slightly.

**Soldier Course:** A coursing of brick in which the bricks are set vertically with the narrow brick face outward.

**Storefront Display Windows:** Originally used to bring natural light into the building, storefront windows provide for product and merchandise displays.

**Stringcourse or Banding:** A projecting or recessed, narrow, horizontal strip, often in a contrasting material, which runs across the outside wall of a building.

**Terra Cotta:** A hard-fired ceramic material used for both structural and ornamental purposes which is usually glazed when used on the exterior.

**Transom:** The window area directly above storefront display windows. Transom windows filter light back into narrow traditional commercial buildings, illuminating the interior. It may also be a small horizontal window located above a door or window.

**Window Hoods:** In Victorian Era architecture, the metal ornament located at the head of a window

**Wythe:** A single layer of brick wall within a multi-layer brick wall.

# 3.0 Illustrated Design Guidelines

## *for the Greenfield Public Square Historic District*



The 1941 Pan American Day show stage on the courthouse green.

Beyond civic and commercial activity, the public square is the backdrop for the "spiritual" gathering place of the town and county. It has witnessed these significant events: celebrations for World War I Armistice Day (1918), World War II VE and VJ Days (1945); internationally recognized Pan American Day (1941); the 1956 Centennial Celebration; Norman Lear's "Cold Turkey" Hollywood movie production (1969); and many Independence Day parades and carnivals.

# 3.10 Introduction to Design Guidelines

## 3.11 About the Guidelines

The purpose of the *Illustrated Design Guidelines* is to encourage the appropriate stewardship of Greenfield's historic downtown buildings and convey an appreciation of their unique character and design features. The guidelines are intended to provide building owners with a basic understanding of exterior issues associated with historic buildings and recommendations for appropriate treatments.

These guidelines are based on the *U.S. Secretary of the Interior's Standards for Rehabilitation.* If using state or federal tax incentives and/or historic preservation or federal grant programs to finance improvements to a historic building, compliance with the Secretary of the Interior's Standards is required. (See section *2.12 Financial Incentives* for more information.)

If improvements to a historic building are not fundied with state or federal incentives, compliance with these guidelines is voluntary. However, for the benefit of the community and future generations, the Greenfield Historic Preservation Commission strongly encourages building owners to follow these guidelines.

### Technical References

Throughout chapter *3.0 Illustrated Design Guidelines* are references to technical information published by the National Park Service which provides more detailed information on relevant topics. Additional technical support is available through the State Historical Society of Iowa and the National Park Service Technical Preservation Services website.

The guidelines are divided into three sections and provide three levels of treatment for materials and building features.

### Guidelines for Materials

These guidelines address materials specific to a historic building that require special consideration to ensure their continued longevity. The dominant materials in the Greenfield Public Square Historic District are masonry, wood and metal. Section *3.2 Guidelines for Materials* should be used in conjunction with sections *3.3 Guidelines for Building Features* and *3.4 Guidelines for Storefronts.*

### Guidelines for Building Features

The treatment of typical building features in the historic district are addressed in this section of the guidelines and convey an understanding of the significance and function of specific features as well as appropriate treatment.

### Guidelines for Storefronts

Storefronts typically change over time as design styles fall in and out of favor, and business occupancies change. However, certain storefront treatments are not compatible with historic buildings and districts. Thus, the objective of these guidelines is to convey an understanding of historic storefront design, encourage the retention of historic storefront materials and the installation of compatible new storefronts. Features that are typically specific to a business but are relatively changeable, such as signage, lighting and awnings, are also addressed.

### Guidelines for New Construction

Recommendations for the construction of infill buildings on vacant lots within the Greenfield Public Square Historic District and additions to existing buildlings are provided in section *3.5 Guidelines for New Construction.*

### Secretary of the Interior's Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

## 3.12 Levels of Treatment

The *Illustrated Design Guidelines* describe the three levels of treatment required for most building materials and features depending on their condition and the objective of the work to be completed. The type of undertaking to rehabilitate a historic building can range from simple cosmetic changes for a more inviting facade to remediation of structural deficiencies to wholesale rehabilitation.

### Maintain and Preserve

The appropriate maintenance of a building is the most straightforward method of historic preservation. Failure to maintain a building can exponentially increase the cost of rehabilitation. Maintenance must focus on the building as a whole and not just the most visible facade or features.

- Maintain the occupancy of historic buildings. When buildings or portions of buildings are no longer inhabited, they are more likely to fall into disrepair. Leaks, cracks and other signs of deterioration often go unnoticed until damage becomes extensive.
- If a building or portion of a building is not occupied, it should be appropriately mothballed to protect it from deterioration (See *Preservation Brief 31*).
- Maintain historic building envelope to protect the structure from weather, moisture and deterioration. Maintain a sound roof, exterior paint and coatings, masonry, mortar and window glazing. Over time, a single leak in a roof can result in the structural failure of the roof and floor systems.
- Always use appropriate treatments for preserving and maintaining historic materials. Often the use of today's conventional treatments can do more harm than good to an historic building. The application of sealers, exterior insulation and finish system (EIFS), vinyl and other synthetic treatments can often trap moisture within a historic wall assembly and accelerate its deterioration.
- Use the gentlest means possible to clean exterior materials such as wood, masonry and metal. Do not sandblast or pressure wash historic buildings. Pressure washing can force moisture into the wall assembly. Sandblasting stone and masonry can damage the exterior surface and allow greater penetration of moisture.

### Retain and Repair

After World War II, the desire to modernize meant historic buildings were not valued and were significantly altered or neglected. Additionally, later economic conditions may have limited the ability to maintain these building. Thus, most historic buildings have some degree of damage, deterioration and incompatible alterations.

By today's conventions, it may seem appropriate to remove damaged features and materials, or repair them using conventional construction techniques. However, by preservation standards, historic materials and features should be retained wherever feasible and repaired using appropriate preservation techniques.

- Retain historic materials and features, and repair them if damaged. Replace historic features only if they are too damaged to feasibly repair.
- Don't replace materials just because there are cracks, minor flaws or the paint is peeling. Many materials can be repaired with traditional techniques, or using epoxy consolidation and fillers, patching, reinforcing or similar treatments.
- Improve the energy performance of historic buildings through retrofitting with storm windows, weatherstripping, insulation and high-performance HVAC system. Don't remove historic materials like windows and doors if they are otherwise sound.

**Preservation Briefs for Maintenance**

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 31: Mothballing Historic Buildings

Brief 47: Maintaining the Exterior of Small and Medium Size Historic Buildings

**Photographs and Illustrations**

Throughout the guidelines photographs are used to illustrate examples of various conditions, treatments and designs for historic materials and features. The following symbols applied to a photo indicates it is an example of:

- An appropriate treatment or design
- An inappropriate treatment or design
- A condition that requires appropriate treatment or redesign



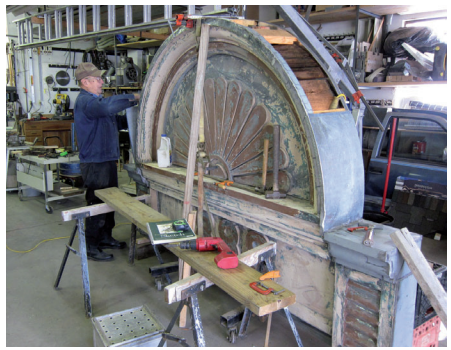
### *Replace or Reconstruct*

Replacement of building components is necessary when components are too damaged or deteriorated to repair. Reconstruction is required if features are completely missing and there is little physical evidence of its design and construction or limited photographic documentation.

- Replace materials or features that are too deteriorated to repair and match the original design and material.
- Replace only the materials and features which are beyond repair. If only a portion of a feature is deteriorated, only replace that portion.
- Use the same type of construction materials and methods as were used historically in the building.
- Use existing components of a building as a model to reconstruct like components that are missing.
- Don't install features that are of a different historic architectural style than the original building.
- Refer to historic photographs to reconstruct a missing building feature. If photos are not available, refer to buildings of a similar age and architectural style.
- Simplify or stylize architectural features if the exact detail of a feature is not clear or very complex. When simplifying a feature, retain the original scale, proportions and overall form.



The structural collapse of this building was initiated with a small leak in the roof.







Although the roof and second floor of this corner building collapsed, it and adjacent buildings were rehabilitated with the assistance of CDBG funding.

# 3.20 Guidelines for Materials

## 3.21 Masonry

### Brick

Most of the buildings in the Greenfield Public Square Historic District are constructed of brick. Victorian Era buildings were built with relatively soft and porous locally-sourced red brick. The street facing facades of buildings constructed after this period often had a harder face brick on the facade, but continued to use the local soft red brick for interior wythes and elevations that did not face the street.

### Stucco

Many of the exterior walls in Greenfield have been stuccoed. The stucco was likely applied as a less expensive alternative to repointing an aging wall. Although the stucco may have provided some protection to the brick wall, over time many of these brick walls continued to deteriorate causing the stucco to crack. Cracks allow additional water to penetrate the wall resulting in additional mortar loss and damage.

### Clay Tile

Clay tile is extruded terra cotta clay with relatively thin walls and a hollow core. Clay tile blocks became popular for the non-street facing facades of Early 20th-Century Commercial buildings and more utilitarian buildings. It was developed as a lightweight alternative to brick and stone. Overall, in downtown Greenfield, the clay tile walls observed appear to be in good condition.

### Stone

Stone is used primarily for window sills and as a decorative element to contrast with the brick. Some synthetic stone has been applied as a veneer to Mid 20th-Century storefronts.

### Evaluation

Brick is a durable material which can last for centuries if properly maintained and repaired. A cursory inspection of the masonry conducted from ground level revealed some significant defects which will require repair and maintenance.

### Spalling

Spalling is the flaking or breaking of the brick, particularly at the outer surface. This is usually caused when the mortar is harder than the brick. Historic mortar was composed mostly of lime. Lime mortar is semi-elastic and expands and contracts with changing temperatures. Portland cement based mortars should never be used on historic brick because they will eventually cause the brick to spall.

Some of the spalling and deterioration appears to be due to defective bricks which were not adequately fired or original mortar that was too hard for the brick.

### Paint and Sealers

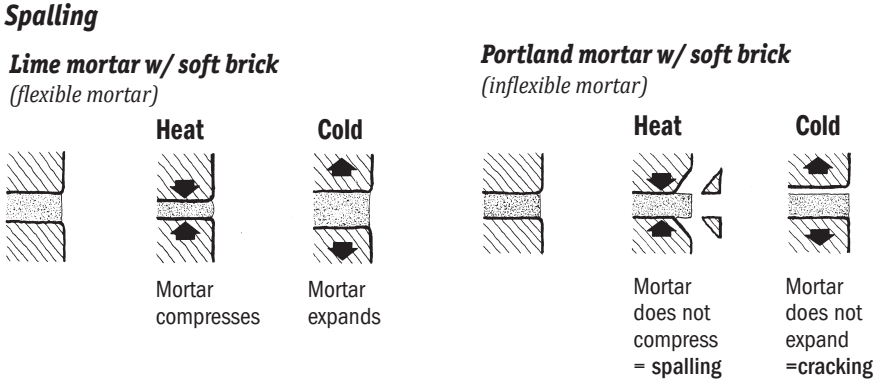
Water vapor originating from the interior must be allowed to pass through the wall. An inappropriate exterior sealer or paint will trap this moisture at the face of the exterior brick surface. If this water freezes, it will cause the face of the brick to spall.

### Water

Some areas of a building are more vulnerable to damage from water than others. At the base of the building water can splash from concrete paving onto the building increasing the exposure of the brick to moisture. There generally tends to be a greater occurrence of missing mortar and loose brick near the base of the wall. Water also tends to wick through the brick from the wet ground which is called rising damp.

The parapet is exposed to the freeze-thaw cycle from both sides. It can be exposed to water if the coping is cracked or damaged. The top of the building is also more subject to wind driven rain and snow.

**Spalling**






Mortar that is harder than the brick



Non-breathable paint over soft brick

### Structural Indications

Cracks and movement of exterior masonry may indicates the failure of internal structural components such as window lintels, columns or the foundation and require evaluation by a qualified professional.



362 Public Square



288 Public Square



230 Public Square

### Greenfield Examples



Water splashing on the wall from the sidewalk has caused the mortar at the base of the building to erode.



Missing mortar resulting in structural failure at 178 Public Square



Parapet wall with missing mortar



Missing mortar and loose bricks below a threshold at 326 Public Square



The original mortar at 126-132 Public Square was likely too hard and has caused the face of the brick to spall.



Cracked and delaminating stucco indicates damage to the brick substrate at 306 Public Square.

## Guidelines

Decades of deferred maintenance and inappropriate repairs and treatment have left the buildings in downtown Greenfield vulnerable to structural failure and an increased rate of deterioration. Addressing the potentially catastrophic condition of the masonry should be a high priority.

Consultation with a mason or preservation professional who is knowledgeable of historic masonry treatments is highly recommended.

### Maintain and Preserve

- Periodically inspect masonry to ensure there are not defects that allows water to penetrate the wall or that are indicative of structural issues. This would include cracks, leaking gutters and downspouts, damaged coping, spalling or loss of mortar. Defects should be addressed to prevent further damage.
- If cleaning is required, masonry should be cleaned using the gentlest means possible with chemical agents that will not damage soft and porous masonry, such as soap and water.
- Masonry should not be painted unless there is an existing coat of paint which has not caused the masonry to spall.

### Retain and Repair

- If masonry needs to be repointed, use only hand tools to carefully remove deteriorated mortar prior to re-pointing to avoid damaging the masonry. All loose mortar and powder residue should be cleaned from the joint or to a depth twice the width of the joint.
- Repoint masonry where required with mortar that duplicates the original in strength, composition, color, texture, width and joint profile.
- Mortar used for repointing historic buildings constructed of soft brick or stone should be composed of lime and sand. **Portland cement mortar must not be used.**
- After cleaning, mortar should be carefully packed into the joints and raked to match the original mortar joint.
- The application of surface treatments such as water-repellent coatings to masonry after re-pointing, should be done ONLY if masonry repairs have failed to stop water penetration problems as recommended by a historic preservation professional or architect.
- Any surface treatments should be manufactured specifically for use on historic masonry and allow water vapor to pass through the wall.
- If clay tile blocks are deteriorated, they may be grouted solid to structurally stabilize.

### Replace or Reconstruct

- If masonry requires replacement, damaged or missing bricks and blocks can be replaced with new material that matches the original in color, size, texture and hardness.
- Salvaged material may be used or damaged bricks and blocks may be turned around to expose the undamaged face.
- If a masonry wall is to be restuccoed, first repair and repoint the brick substrate as required. Any stucco coating must be breathable to allow moisture to escape the wall.



Damaged bricks can be removed from the wall and replaced with bricks that match or original bricks can be reinstalled with the non-damaged side facing outward.



When repointing masonry, cleaned joints should be carefully filled with mortar. The mortar should not be smeared on the wall.

***Preservation Briefs for Masonry***

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 2: Repointing Mortar Joints in Historic Masonry Buildings

Brief 22: The Preservation and Repair of Historic Stucco

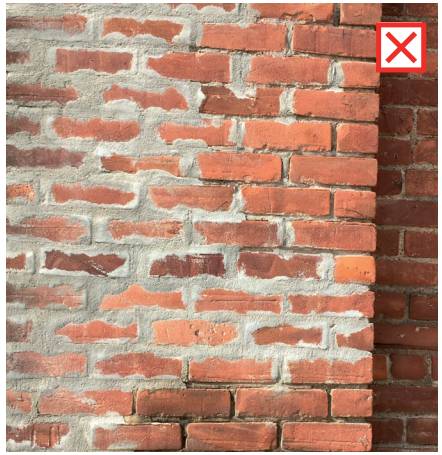
Brief 38: Removing Graffiti from Historic Masonry

***Technical Notes for Masonry***

http://www.nps.gov/tps/how-to-preserve/tech-notes.htm

Water Soak Cleaning of Limestone

### Not Recommended



Use of portland cement mortar will eventually result in spalling of the brick and mortar. Re-pointing mortar should be carefully tooled rather than smeared.

## 3.22 Wood

All wood is not created equal. The wood that was used to construct older buildings was harvested from old growth forests and is therefore denser and stronger than the wood harvested from today's managed forests. Proper rehabilitation of original wood is a sounder and more sustainable approach than replacement with new wood.

### Evaluation

Wood is used for a variety of features including windows, doors and kickpanels. Although wood may be weathered and cracked it may still be structurally sound.

- Use a sharp instrument such as a screwdriver or ice pick to poke the wood and determine if there are areas that are soft and rotting.
- Look for peeling paint and areas where the wood has splintered.

### Guidelines

#### Maintain and Preserve

- Protective coatings are required on wood features. Keep all wood surfaces primed, painted and appropriately caulked in order to prevent wood deterioration. Monitor wood surfaces for signs of excessive water damage, rot or pest infestation.
- Original wood siding or other wood components should not be covered with metal, stucco, vinyl or other synthetic material. Covering wood not only alters the appearance of the feature but can also trap moisture and cause deterioration. When covered, wood deterioration is often undetected until it is significantly damaged.

#### Retain and Repair

- Because of the quality of historic wood, even if it has weathered and has some minor deterioration, it can be cleaned, sanded and repaired, and will be sound for many more decades. Epoxy wood consolidators and fillers such as Wood Epox and Liquid Wood by Abatron can be used to repair a wooden component and reconstruct missing material.
- Historic wood details, such as trim, corbels, cornices or other decorative wood elements should not be removed from a building unless they are to be repaired or replaced in kind.

#### Replace or Reconstruct

- Missing or severely deteriorated historic wood elements can be duplicated and replaced using a wood species that is resistant to rotting such as cypress, Spanish cedar, ponderosa pine, Accoya, high and medium density overlay plywood (HDO and MDO) or other engineered wood product.
- Polyurethane, PVC, plastic, vinyl or other synthetic components are not recommended as a substitute for wood. These products typically do not have an appropriate appearance and easily expand and contract due to changes in temperature.

#### Substitute Material

- Use substitute material in place of wood ONLY if the substitute material is durable, retains the appearance and texture of wood, and accepts any color of paint. Materials that may be suitable substitutes for wood include fiberglass, fiber cement products, wood composites and engineered wood products.
- Avoid the use vinyl, PVC, plastic or similar synthetic material.

### Greenfield Example



Wood rot at a display window sill

### Epoxy Wood Repair



Before repair



Epoxy consolidation and filling



Completed repair

### Preservation Briefs for Wood

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 9: The Repair of Historic Wooden Windows

## 3.23 Metal

Metal is often used in historic buildings as both structural and decorative elements. The types of metal that can be found in the Greenfield Public Square Historic District are:

- Pressed steel sheet metal cornices and window hoods used as decorative elements on Italianate facades.
- Structural cast iron columns, lintels and threshold plates used at the storefronts of Victorian Era facades.
- Copper sheet metal cladding, cornices and other decorative components used on Queen Anne facades, which patinas green or brown.
- Early 20th-Century Commercial and Mid 20th-Century storefront windows were originally bronze, zinc or aluminum.
- Steel casement windows.

The primary concern in Greenfield is the corrosion of steel and cast iron components due to exposure to water and atmospheric moisture. Ferrous metal (steel and cast iron) components need to be properly primed and painted to prevent rusting. Copper and bronze do not corrode but patina green and brown. Zinc and aluminum also do not corrode.

Mechanical breakdown may occur due to abrasion, fatigue, exposure to extreme heat and similar actions. Connections such as bolts, welds and reglet joints may also be point of failure.

### Evaluation

Metal components such as cornices, window hoods and cast iron columns should be inspected for signs of corrosion, mechanical breakdown and connection failure.

- Looks for rust and unpainted surfaces
- Look for broken connections and missing components.

### Guidelines

#### Maintain and Preserve

- If there are signs of rust, remedy the moisture issue that caused the corrosion of the metal.
- Keep metal surfaces cleaned, primed and painted with coatings that are designed for use on metals.

#### Retain and Repair

- Any damaged or broken connection should be repaired using compatible metals that will not result in galvanic corrosion. If compatible metals are not feasible, install nonporous neoprene gaskets or butyl rubber caulking between the incompatible metals to prevent their contact.
- Corroded portions of sheet metal can be removed and patched with a compatible metal or fiberglass. Additionally, minor pits, cracks and dents in ornamental metal may be filled with an epoxy compound that is designed for use on metal.

#### Replace or Reconstruct

- If a metal feature is missing or severely damaged, replacing it in kind is the preferred treatment. Alternatively, if a prototype is available, a mold may be taken of a components and used for casting a duplicate replacement component in fiberglass.

#### Preservation Briefs for Metals

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 27: The Maintenance and Repair of Architectural Cast Iron

Brief 49: Historic Decorative Metal Ceilings and Walls: Use, Repair, and Replacement

#### Technical Notes for Metals

http://www.nps.gov/tps/how-to-preserve/tech-notes.htm

Restoring Metal Roof Cornices

Metals in America's Historic Buildings

Repair and Retrofitting Industrial Steel Windows

Repairing Steel Casement Windows

### Greenfield Examples



Corrosion and possible mechanical breakdown of a sheet metal cornice at 362 Public Square.



Rusting of industrial metal windows and a cast iron light fixture at the Municipal Light Plant.

## 3.24 Paint and Surface Cleaning

Discussions of paint frequently focus on the issue of color. Although historically appropriate paint color selection is strongly encouraged, paint also functions as a coating to protect materials that are vulnerable to moisture and deterioration. For it to serve this function, proper substrate preparation, primer and paint selection is critical.

### Evaluation

Wood and ferrous metals require a protective coating such of paint and primer, or varnish to protect them from deterioration. Condition that may require remediation include:

- Paint that is peeling or cracked.
- Rust or rotted wood.
- Excessive build-up of paint.

### Guidelines

#### Cleaning and Paint Removal

Remove damaged or deteriorated paint using the gentlest means that is recommended for the substrate (ie. wood, brick, steel, cast iron, etc.). Don't use cleaning methods that are harsh and abrasive (including sandblasting, grinding and steel brushes) because they will damage the substrate. Such techniques can also alter the appearance of the substrate.

- On masonry, such techniques will remove the outermost layer of the masonry which naturally protects it from moisture penetration.
- On wood, damaging techniques will result in a more porous and prominent grain.
- Avoid the use of high pressure water cleaning techniques. Such techniques can force excess moisture into the wall cavity and cause damage to wood, masonry and interior finishes. Where cast iron and steel are used, the water can promote rusting.

#### New Paint

- When painting a surface, properly prepare, sand and prime the substrate per the paint manufacturer's recommendations prior to painting. If the wood surface has grayed, the gray will need to be removed with sanding.
- Make sure to select the appropriate primer and paint for the substrate and location.
- Don't paint historic masonry that has not been painted previously. If masonry has been painted, it is acceptable to repaint it an appropriate color provided the masonry has not spalled.
- Where a surface has been damaged by water, don't paint over the damaged area until the cause for the water damage has been identified and repaired, and the substrate is completely dry.
- Select colors that are historically appropriate. These are typically more muted, less saturated colors. Use bright colors for accents only.
- Test the paint removal technique on a small area to ensure it will adequately remove the paint and not damage the substrate.
- If using a chemical technique, apply the chemical to a small test area and observe it over a period of time to ensure it will not damage the substrate.
- Take appropriate precautions when removing suspected lead-based paint to prevent it from becoming airborne, contaminating the ground or entering the storm sewer.

### Greenfield Examples



Paint build-up on a kickpanel at 304 Public Square



Peeling paint at 156 Public Square

**Preservation Briefs for Paint & Surface Cleaning**

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings

Brief 6: Dangers of Abrasive Cleaning to Historic Buildings

Brief 10: Exterior Paint Problems on Historic Woodwork

Brief 37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing

**Technical Notes for Paint & Surface Cleaning**

http://www.nps.gov/tps/how-to-preserve/tech-notes.htm

Proper Painting and Surface Preparation (Wood)

# 3.30 Guidelines for Building Features

## 3.31 Roofs and Drainage

Most of the roofs in the Greenfield Public Square Historic District are "flat" roofs that slope gently for water to drain to a gutter at the rear of the building. Flat roofs are typically unseen from the street because they are concealed by parapet walls.

It is essential that these roofs are appropriately sealed and maintained. A leaking, poorly drained roof can greatly accelerate the structural deterioration of a historic building.

### Evaluation

Inspect both the roof and the flashings for signs of deterioration and failure. It is recommended to consult with a commercial roofing contractor.

- Note any areas that feel soggy or unstable. Look for holes or cracks in the roofing material.
- Look for areas where water is ponding rather than draining to a gutter or leader.
- If there are roof drains or scuppers, check for obstruction.
- Check the interior for water stains and cracked plaster at the upper floor ceiling.
- Check flashing and caulk joints for cracks and deterioration.

### Guidelines

#### Maintain and Preserve

- To extend the life of a flat roof, inspect it regularly. Look for signs of roof failure and make repairs as required.
- Ensure that gutters and downspouts are in good condition and sufficiently direct water away from the roof and the exterior walls and foundation.

#### Retain and Repair

- Repair any roof defects in a timely manner. Even if the space below the roof is unoccupied, don't ignore or delay the repair of a leaking roof. This can result in more damage and higher repair costs.
- If a roof cannot be repaired or replaced in a timely manner, use plywood and tar paper to temporarily protect the building from water infiltration.

#### Replace

Replace the roof if inspection determines that a new roof is warranted.

- Always use a contractor to repair or replace a roof that is qualified for the roof type. Many residential roof contractors do not have the skill, experience and equipment to properly install a flat roof.
- Always replace a roof per industry standards to ensure the roofing material is properly fastened, sealed and warrantied.
- Roofing terminations at parapets can damage soft brick if masonry fasteners are driven under high pressure into the brick. Anchors should be placed at mortar joints if possible.
- Consider the installation of thermal insulation board when a roof replacement project is planned.
- If replacing a pitched roof that is highly visible from the street, use roofing material that closely matches the appearance of the original material.
- Don't change the style, shape or slope of a roof if the new construction is visible from the street and distracts from its historic character.

#### Roof Equipment

- Locate rooftop mechanical and service equipment such as air conditioners, transformers or solar panels so they cannot be seen from the street level.
- Install the necessary raised curbs or mechanical pads before adding equipment on the roof.
- Consult a structural engineer to evaluate the impact of additional loads on the roof structure.

### Not Recommended



The added metal roof over a Mid 20th-Century building dramatically alters its appearance.




The addition of a gable roof over a flat-roofed building changes the character of the building.



Ponding and staining on a flat roof is an indication that it is no longer draining propertly.

## 3.32 Copings, Parapets and Cornices

A coping is used to cap the top of the parapet wall to prevent moisture from penetrating a wall. Depending upon the age and style of a building, the coping may be metal, glazed terra cotta tile, brick or stone. Sometimes, a thick layer of mortar or concrete was added to the top of a parapet in lieu of a coping.

Parapets and copings can become deteriorated over time. If the coping is cracked or missing, eventually water will penetrate the parapet. Deteriorated parapet mortar is often a sign the coping has failed.

Cornices are three-dimensional linear elements that project outward from the building wall. They often project from the parapet or may be located where the roof adjoins the parapet. On Victorian Era buildings, they are typically made of metal over a wood frame and they also form the coping. On later styles, they may be made of brick or stone.

### Evaluation

Parapet walls are particularly subject to deterioration due the freeze thaw cycle and exposure to weather. The coping that protects the top of the parapet can also become damaged over time and subject the wall to water infiltration due to:

- Missing or deteriorated bricks and mortar.
- Missing or damaged stone copings.
- Rusted or deteriorated metal flashings and copings.

### Greenfield Examples



194 NE Court



176 Public Square



111 W Iowa Street

The deterioration of these copings not only allows moisture damage to the building wall, but falling bricks could be hazardous to pedestrians below.

### Guidelines

#### Maintain and Preserve

- Parapets and cornices should be inspected periodically to ensure they are structurally sound and are not a safety hazard for pedestrians below.
- When installing a new roof, add a water proof membrane that is continuous with the roof membrane to the back side of parapet walls.
- Periodically inspect and maintain the mortar of stone, concrete and brick copings and parapet walls.

#### Retain and Repair

- Repair any deteriorated parapet, cornice or coping rather than removing it.
- Because parapet walls are subject to the elements from both sides, they tend to deteriorate faster. Repoint parapet walls as needed per section *3.21 Masonry.*
- Don't permanently remove any parapet, cornice or coping.
- Cornices need to shed water. Ensure that the top of any cornice has a slight slope away from the building. If required, have metal flashing professionally installed over the top of the cornice to protect it from moisture. The metal should match the color and size of the orignal coping.

#### Replace or Reconstruct

- If a portion of a cornice is missing, use any remaining portion as a model to duplicate the missing section.

### Not Recommended



Don't cover a parapet with metal in lieu of appropriate repairs.



If a metal cap is required, it should appear similar to the historic coping.

## 3.33 Windows

Window manufacturers have extensively marketed the need to replace historic windows with with claims that new windows will save energy and money. However, this approach not only removes historic material and alters the appearance of the historic building, but also has a higher life-cycle cost. There are many reasons why historic windows should be restored rather than replaced.

- Historic windows were made of quality old growth wood such as cypress and fir that naturally resisted rot. When rehabilitated, they will likely last another 80-100 years if properly maintained and repaired. In contrast, contemporary replacement windows are typically warrantied for no more than 25 years and many of their components for much less.
- Most replacement windows cannot be repaired and must be replaced when they fail, or must be repaired by a representative of the manufacturer. Historic windows, on the other hand, can be easily repaired by the owner or a local craftsman with common tools.
- Although some replacement windows may initially perform better than a restored wood window, over time their performance diminishes significantly. The argon gas between the window panes leaks, gaskets and seals break down and vinyl components warp. Thus, the average performance of a replacement window isn't any better than a historic window.
- Studies[1] have shown the payback period for new windows in energy savings is about 20-25 years depending on the cost of energy where they are installed. Thus, by the time the cost of new windows has been recouped in savings, the windows are at the end of their lifespan and will again require replacement.

### Evaluation (Double-Hung)

The majority of non-storefront windows in the Greenfield Public Square Historic District are wood double-hung windows. Although negelected historic wood windows appear unsightly, their relatively simple construction and use of old growth wood, makes rehabilitation a reasonable, sustainable and cost-effective option compared to replacement.

- Inspect the wood sashes, frame and sill for rot and deterioration.
- The glazing compound that holds the glass in the frame should be continuous and firm, but not brittle.
- Check for missing window hardware and sash cords.
- Exterior windows sills should slope away from the windows for positive drainage.
- Where insulated glass has been installed, condensation between the glass pains is a sign that the glass seals have failed.

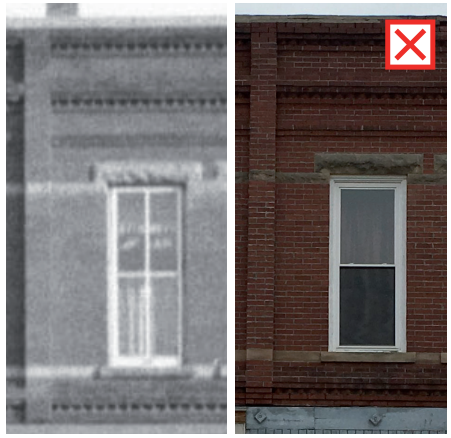
### Greenfield Examples



Never infill a window opening and install windows that are smaller than the original windows.



Maintain the paint and glazing on historic windows.



Install replacement windows with muntin bars that match the original.





Always install arched-head windows in openings that are arched unless historic photographs indicate otherwise.

1 *A Comparative Study of the Cumulative Energy Use of Historical Versus Contemporary Windows*, (2010) by Frank Shirley AIA, Fred Gamble PhD, Jarod Galvin, RA Leed AP

*Window Repair, Rehabilitation and Replacement,* (2011) by Peter Baker, PE

### Greenfield Examples



Original window openings should be retained rather than covered or infilled.



If windows are replaced, install windows that match the original window type, size and material. Vinyl casement windows are not appropriate for a historic building.

## Guidelines

### Maintain and Preserve

Historic windows should be maintained. This requires keeping them properly painted, glazed and weather-stripped.

To improve energy efficiency, a storm window may be added to a historic window. A number of companies make interior and exterior storm windows that are appropriate for historic buildings and will improve the thermal performance of the windows.

- Exterior storm windows should be painted or prefinished to a historically appropriate color.
- Aluminum combination storm windows set in an exterior wood frame may be used allowing storms and screens to be changed from the interior.

### Retain and Repair

- Don't remove original or historic windows unless they are severely deteriorated. Peeling paint, broken glass and cracked glazing are not sufficient conditions to warrant replacement of historic windows.
- Remove cracked and peeling paint per section *3.24 Paint and Surface Cleaning.*
- Remove dry and cracked glazing and properly reglaze historic windows.
- Replace broken glass panes with clear, double-weight glass.
- Retain historic window hardware such as sash pulls and latches.
- Replace broken sash cords with new, cotton sash cords.
- Retain and repair as much of the existing window trim, brick molding and sill as possible.
- If a sash is too deteriorated or missing, there are manufacturers and local craftsmen who can duplicate historic sashes and window components.

### Replace or Reconstruct

If a historic window must be replaced, do install a window of the same material, type, configuration, size and appearance as the historic window.

- Match the dimensions and profiles of the sashes, rails and stiles as close as possible.
- Match the configuration of lights and profile of muntin bars to the original window if the original has divided lights.
- Raised muntin bars should be installed on both the interior and exterior sides of the glass so the window has the appearance of true divided lights.
- Flat window "grills" or grills sandwiched between thermal windowpanes in lieu of raised muntin bars have a significantly different appearance than historic muntin bars and are discouraged.

#### Glass

- Use clear glass when replacing glass in existing windows or installing new windows. Avoid installing windows with tinted or mirrored glass. Where privacy is an issue, frosted or textured obscured glass or film may be used.

#### Window Openings

- Retain all historic window openings in their original size and configuration on street-facing facades. Adding framing in a large window opening and installing a smaller window dramatically changes the appearance of the historic facade. This includes installing a standard window where an arched head window was historically used.
- To preserve the appearance of the street facing facades, installing window air conditioners in windows that don't face the street is preferred.

## Other Window Types

### Glass Block

Glass block became a common building material after 1935 and was used in combination with venting windows at 248 Public Square. As a contributing building and the only origin use of glass block in the district, the windows should be repaired and new venting windows installed. Some individual glass blocks are missing and will require replacement with either new or salvaged material to match.



Venting windows have been removed from the glass block fenestration.



At a minimum, the glass block should be stabalized until rehabilitation is feasible.



### Steel Windows

Although the venting windows at 248 Public Square were likely steel, the only remaining steel windows are used on the Municipal Light Plant. These windows should be rehabilitated so they may continue to function for future decades.



Steel windows are a unique feature of the Municipal Light Plant and should be rehabilitated.

### Preservation Briefs for Windows

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 9: The Repair of Historic Wood Windows

Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows

Brief 33: The Preservation and Repair of Historic Stained and Leaded Glass

### Technical Notes for Windows

www.nps.gov/tps/how-to-preserve/tech-notes.htm

1: Planning Approaches to Window Preservation

2: Installing Insulating Glass in Existing Steel Windows

3: Exterior Storm Windows: Casement Design Wooden Storm Sash

4: Replacement Wooden Frames and Sash

5: Interior Metal Storm Windows

6: Replacement Wooden Sash and Frames With Insulating Glass and Integral Muntins.

7: Window Awnings

8: Thermal Retrofit of Historic Wooden

9: Sash Using Interior Piggyback Storm Panels

10: Interior Storm Windows: Magnetic Seal

11: Installing Insulating Glass in Existing Wooden Sash Incorporating the Historic Glass

12: Aluminum Replacements for Steel Industrial Sash

14: Reinforcing Deteriorated Wooden Windows.

15: Interior Storms for Steel Casement Windows

16: Repairing and Upgrading Multi-Light Wooden Mill Windows

18: Aluminum Replacement Windows With True Divided Lights, Interior Piggyback Storm Panels, and Exposed Historic Wooden Frames

19: Repairing Steel Casement Windows

21: Replacement Wood Sash Utilizing True Divided Lights and an Interior Piggyback Energy Panel

## 3.34 Secondary Facades and Yards

The Lancaster-style public square design of the Greenfield Public Square results in buildings which face two public streets. The rear facades of buildings located on the north and south side of the Public Square face Hayes and Jackson Streets. Some of these property owners have taken measures to improve the appearance of these spaces. For most of these properties, however, the rear sides appear neglected. Through landscaping and building improvements the visual quality of the double-fronting lots should be addressed.

### Side and Rear Facades

- Evaluate and appropriately rehabilitate side and rear building facades per sections *3.20 Guidelines for Materials* and *3.30 Guidelines for Building Features* including repointing masonry, stucco repair, stain and paint, and window rehabilitation.
- Rehabilitate the facades of buildings flanking the east-west alleys. Where the side elevation of a building abuts an alley, consider the addition of an accessible side entrance. Side entrances could also provide opportunity to offer smaller spaces for boutique retail or access to more generous outdoor seating for restaurants or coffee shops.

### Greenfield Examples



The rear walls of these buildings face a public street and require rehabilitation to preserve the buildings and improve their appearance.



Appropriate maintence of the rear of these buildings is not only attractive from the street but also contribtes to the usability of the rear yard for outdoor seating.



Alley behind 160-178 Public Square



Behind Hotel Greenfield



Rear facade of 342 Public Square

The rear facades of the above buildings have been appropriately maintained.

### Entrances

- Improve the appearance of rear building entrances intended for public use by painting the door a contrasting color, adding a canopy or awning over the door, signage or similar techniques.
- Construct exterior stairs that are attractive and code compliant. Repair and stain existing wood stairs. Metal stairs are preferred for new exterior stairs.



Wood rear stairs should be stained.

### Parking

- Where parking structures are provided behind these buildings, encourage a uniform design that is simple but attractive when they are reconstructed or if new structures are built.
- Where parking is adjacaent to a public street, provide shrubs and/or an appropriate fence to visually screen the parking.

### Equipment

- Provide a screen of attractive fencing, shrubs or grasses at garbage cans, condensers, utility meters and other service equipment which can't be easily moved to a more discrete location. This is more important at rear yards that face a public street.



Staining the stairs and guardrails as well as screening utility meters would improve the appearance of these rear entrances.



Adding a fence similar to below would screen the parking and define the edge of this lot where a building once stood.





Adding a simple screen like the one below would improve the appearance of this rear yard.



# 3.40 Guidelines for Storefronts

## 3.41 Features of Historic Storefronts

Storefronts, awnings, canopies and signs are the architectural features that draw pedestrians through downtown and into the doors to browse and shop. Storefront features provide the opportunity for businesses to express their image and add to the vibrancy of downtown through creative design, color and enticing signage.

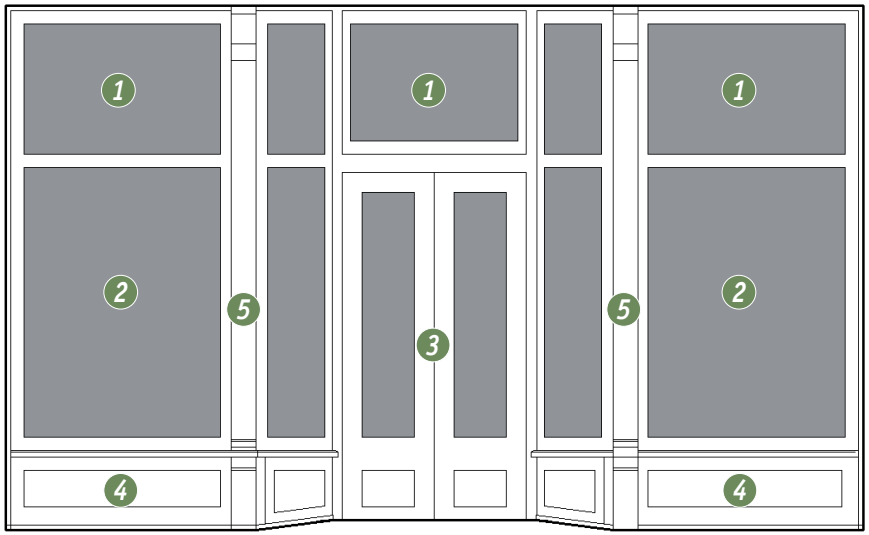
### 1 Transom Windows

Transom windows allow daylight to penetrate the deep narrow storefront space. Early 20th-Century Commercial buildings frequently had prismatic glass in the transom to further refract the light entering the shop. Transoms were frequently removed or covered when facades were modernized and ceilings were lowered.

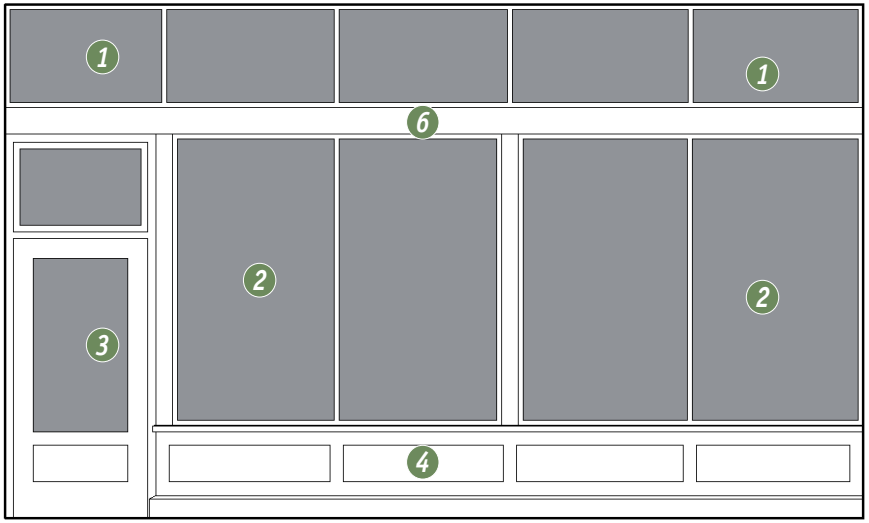
### 2 Display Windows

Large plate glass windows allow the display of goods and create an inviting pedestrian environment. The transparency of display windows is critical to engaging shoppers and having a successful retail environment downtown. Display windows need to be clear and unobscured.

Victorian Era display windows were set in a thick wood frame. Early 20th-Century Commercial display windows were set in narrow extrusions of bronze or copper creating a lighter, more delicate appearance.




*Typical Victorian Era Storefront*




*Typical Early 20th-Century Commercial Storefront*

### 3 Entrance

Typically, storefronts have a recessed entrance providing a place for the door to swing out, protection from weather and deeper display windows. However, on some Early 20th-Century buildings the door is flush with the display windows. Zoning and building codes will dictate which direction the door must swing and whether a recessed entrance is required.

Like the display windows, full- or 3/4-light entry doors are also inviting to the pedestrian and were typically constructed of wood for both styles.

### 4 Kickpanel

This portion of the storefront raises the display window above the sidewalk and provides a durable base to the storefront.

### 5 Cast Iron Columns

These structural members were typical to Victorian Era storefronts and were also decorative. They help to emphasize the more vertical proportion of storefronts of this era.

### 6 Horizontal Mullion

The transom and storefront windows were typically delineated with a horizontal mullion on Early 20th-Century storefronts. Awnings were also integral to the horizontal mullion.

## Evaluation

The storefronts of downtown buildings tend to change over time to reflect changing stylistic preferences. The quality and condition of storefronts in the Greenfield Public Square Historic District vary significantly and range from mostly intact historic storefronts to poorly maintained and inappropriate replacements.

An evaluation of a storefront should consider the following:

- Determine which components are historically significant. This may require some selective demolition to determine if newer materials conceal historically significant materials.
- Evaluate the condition of the materials to determine the level of treatment required.
- Where required, design a plan for replacing storefront components or the storefront in its entirety where required. Use historic photographs as a guide for reconstructing or rehabilitating a storefront.

### Preservation Briefs for Storefronts

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 11: Rehabilitating Historic Storefronts

## Historically Significant Examples




Except for the entry doors and transom, the storefront at 306 Public Square retains its historic features. The residential half-light doors and solid transom distract from its Victorian Era character and are less inviting.




The storefront at 218 Public Square retains all its original components and should be maintained rather than replaced.




Although not original to the building, the storefront at 226 Public Square is historically significant. The aluminim framing, glazed brick kickpanel and mosaic tile at the entry are largely intact.

## Examples of Inappropriate Storefronts Compared to Historic Photos



358 & 354 Public Square (2020)




358 & 354 Public Square (1945)



210 Public Square (2020)




210 Public Square (1974)



164 Public Square (2020)




164 Public Square (1940)

### *238 Public Square - Grand Theater*

Behind the pent shingled roof and tile facade the original brick edifice likely remains. Historic photos illustrate changes to the facade through the decades and can be used to guide its rehabilitation. At least three different marquees adorned the Grand Theater.



Grand Theater (2020)


Grand Theater (ca. 1928)



Grand Theater (1946)


The arrow above points to the original brick facade behind the wood shingles.



Grand Theater (1941)


Grand Theater (1950)

### *242 Public Square*

Early 20th-Century Commercial brick facades are likely obscured by vinyl siding.



242 Public Square today


242 Public Square (1930)

### *234 Public Square - Haddock Building*

Sheet metal was installed over a historic storefront of the Haddock Building. Historic photos illustrate that the original storefront had a prismatic glass transom and a fixed canopy.


Haddock Building (2020)



Haddock Building (ca. 1929)


Haddock Building storefront entrance



Haddock Building (1941)

## 3.42 Storefront & Display Windows

The most important feature of a storefront are the display windows. The transparency of large display windows are inviting to pedestrians and allows them to view the goods and activities within a business establishment. Display windows are appropriate for most types of businesses and provide the greatest flexibility and potential for the economic viability of a downtown building. If privacy is required for an office use, interior blinds or shades can be installed.

### Preserve and Maintain

- Maintain existing display window glass and framing. Glass should be kept clean and free of cracks.

### Retain and Repair

- Repair damaged window frames. Often, wood window sills will be deteriorated. Repair wood sills per section *3.22 Wood* or replace. Ensure that the sill slopes away from the building so water will drain off the sill rather than pool.
- Existing metal or wood window frames should be repaired where feasible rather than replaced.

### Replace or Reconstruct

- If replacing an existing storefront, keep the original size of the display windows. Don't fill in the display windows with a solid wall and install smaller windows.
- Replace a severely deteriorated storefront based on the storefront's historic design or reconstruct it based on historic photo documentation.
- Design any new storefront so it is compatible with the architectural style of the building.

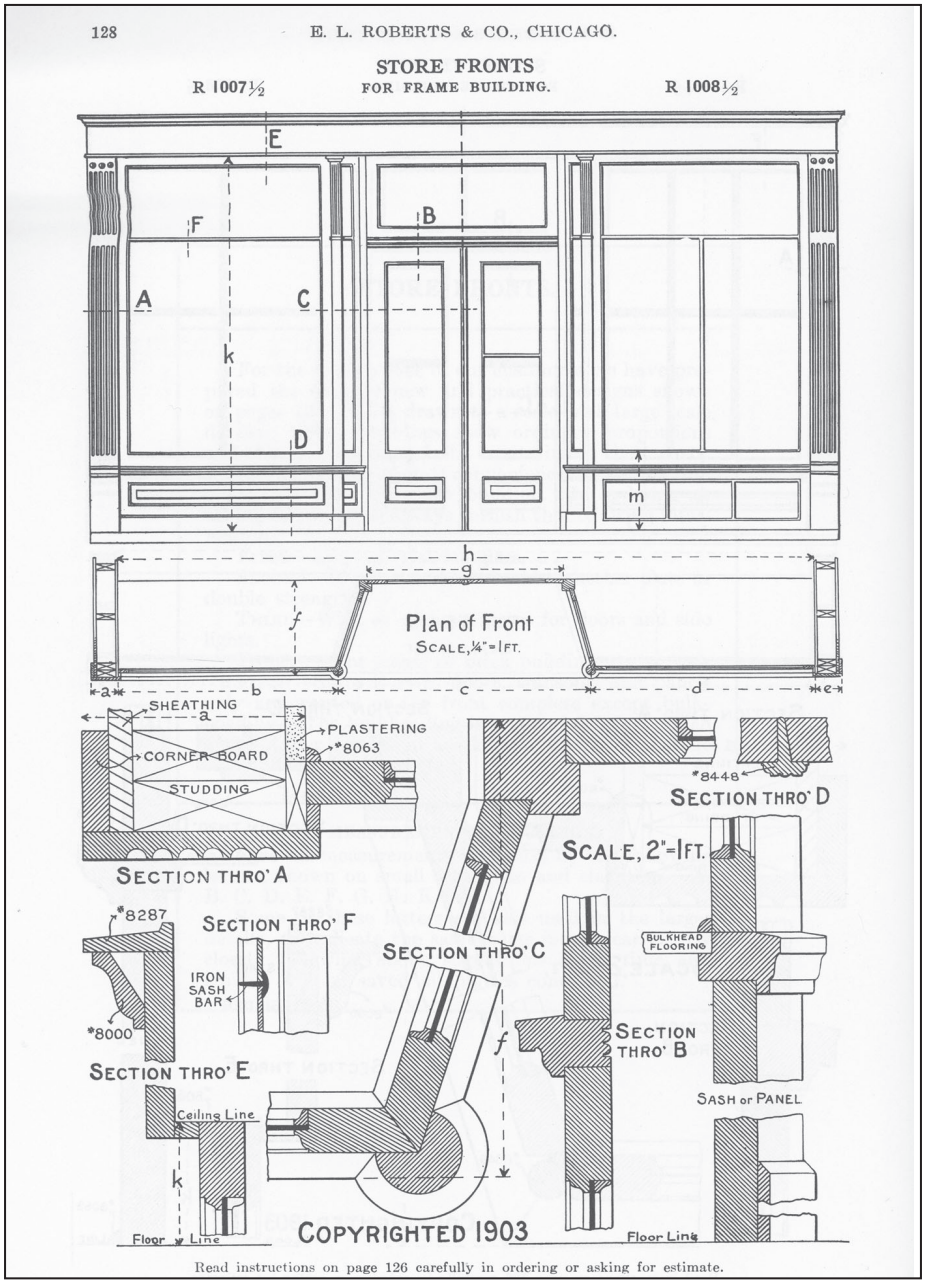
### Victorian Era Storefront Reconstruction

Whereas the structural components of Victorian Era storefronts were typically cast iron, the rest of the assembly was constructed from wood, including the window frames, doors and kickpanel.

The appearance of this type of assembly can be recreated with modern construction techniques. This method entails using insulated glass panels set directly (direct set) into wood framing. The installation of glass in a manufactured frame is not necessary.




A typical Victorian Era storefront.

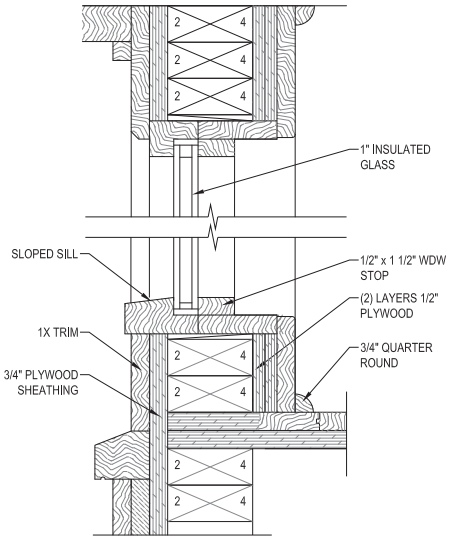



This page from a 1903 millwork catalog is an example of how Victorian Era storefronts were constructed.

## Victorian Era Reconstruction Rehabilitation and Reconstruction



Detail of storefront reconstruction




The above detail is an example of a direct set display window for a Victorian Era storefront reconstruction.




This reconstructed storefront was built of wood using the direct set method of display and transom window installation.




This original storefront was rehabilitated rather than replaced.










The above photos illustrate the changes to a Victorian Era storefront beginning with the original storefront (top) which was replaced mid-century with an extruded nickel storefront. When the facade was rehabilitated, a wood replacement storefront was constructed. Steel columns were clad in wood in lieu of stone or cast iron columns. Additional columns were added next to the stone pilasters to resolve structural problems.

## Examples of Victorian Era Rehabilitation and Reconstruction



Storefront replacement with steel horizontal beam.




The above replacement storefront is constructed entirely in metal.




Rehabilitation of Victorian Era storefront.








This storefront reconstruction used a new aluminum storefront frame with a trim board set in front of the frame which could be easily repainted to a different color.

## Not Recommended



The shingle canopy and brick storefront are not appropriate for a historic building.



Residential windows should not be used in a storefront reconstruction.



Infilling a storefront and using smaller windows detracts from a builidng's character and reduces the function of the storefront for display.

### *Early 20th-Century Commercial Storefront Reconstruction and Rehabilitation*

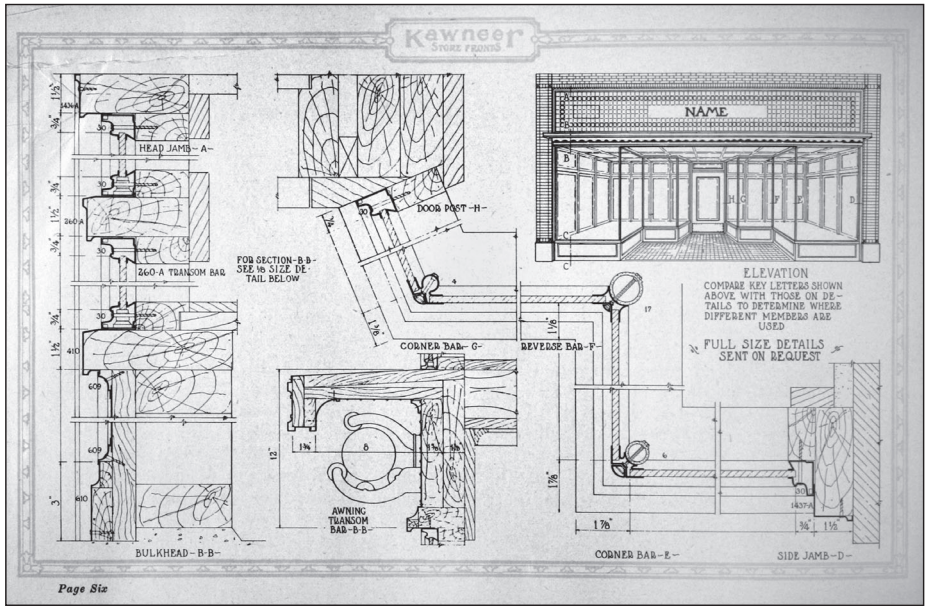
Early 20th-Century Commercial storefronts used a system of manufactured, narrow extruded bronze or copper framing. These frames could be ordered and installed with integral sill flashing, a retractable canopy at the horizontal mullion set in a protective hood, prismatic glass transom, and other features. They have a lighter and more delicate appearance than Victorian Era storefront framing. This style of framing eventually evolved into the standard storefront framing system which is common today. Contemporary framing can be used to reconstruct a storefront of this era. However, if there are outside corners, heavy 4 or 6 inch corner framing should not be used as it is very bulky in appearance. A silicon butt joint or a joint with a similar narrow appearance is preferred.



Frameless corner joint of a storefront reconstruction sealed with silicon.



This Early 20th-Century Commercial storefront replacement was constructed of wood. To simulate the appearance of an early extruded metal framing system, the glass is set directly into wood construction with a narrow trim piece around the glass.




This page from a 1927 Kawneer catalog illustrates the details of an Early 20th-Century Commercial storefront system.




This intact storefront illustrates the light appearance of the Early 20th-Century Commercial style storefront window framing system. This type of system used a wood door frame and door.

## Early 20th-Century Commercial Storefront Reconstruction and Rehabilitation



(Above) While the existing awning was rehabilitated, the storefront required replacement with a new metal storefront system.

(Right) A deeper horizontal mullion was added to this storefront replacement to simulate the appearance of a retractable awning hood.









This rehabilitation retained the existing storefront windows, added a retractable awning and replaced the transom panel with opaque glass panels.



The storefront window system was reconstructed with metal framing and new wood kickpanels.

## Not Recommended



The construction of stuccoed infill with "punched" openings is not compatible with this building's historic character.




Reducing the size of the storefront openings and using a residential door are not recommended.

## 3.43 Transom Windows and Ceilings

With electrification of interior spaces transom windows were no longer considered a necessity to the illumination of a storefront space. Additionally, when storefronts and shops were modernized, the installation of dropped ceilings required that transoms be covered up or eliminated. This also concealed original embossed metal ceilings which contribute significantly to the interior character. The higher ceiling height is also preferred for successful retail and entertainment establishments.

- Remove any panels or wall materials that cover transom windows.

  If the historic transoms are intact, restore the transom windows.

- Remove any lowered ceilings that cover transom windows and metal ceilings.

  If it is not feasible to remove the entire ceiling, remove 8-12 feet to reveal the transom and metal ceiling adjacent to the storefront.

- Allow electrical conduit, ductwork, and sprinkler components to be exposed below the tin ceiling.

  To make these items less noticeable, paint them the same color as the ceiling.

  If replacing ductwork, use round spiral ducts in a paintable finish to match other exposed ceiling elements.



Heating ducts, conduit, pipes and other utility infrastructure should be painted the same color as the metal ceiling.



A dropped ceiling is installed below the original metal ceiling in the spaces above. However, the dropped ceiling has been removed about 10 feet back from the storefront so the transom can be revealed.

***Preservation Briefs for Metal Ceilings and Walls***

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 49: Historic Decorative Metal Ceilings and Walls: Use, Repair and Replacement

### *Greenfield Examples*




The transoms above the display windows at the 346-350 Public Square have been retained.



Storefront interior at 218 Public Square




This transom provides daylighting at the upper-level stair.



Although a canopy has been installed over the transom above, the transom still allows for additional daylighting to the interior.

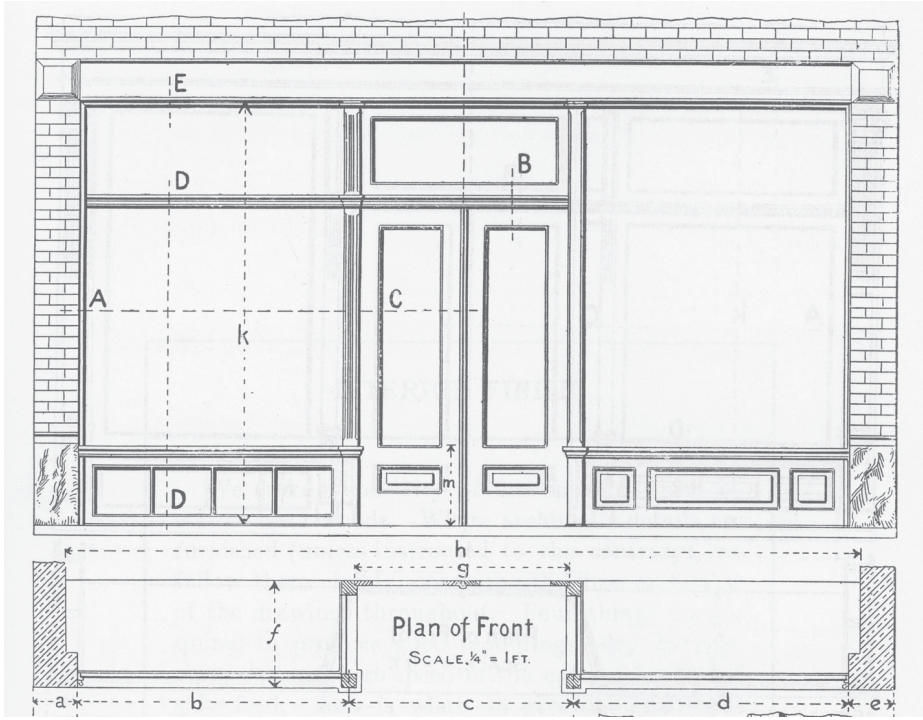



The storefront at 284 Public Square with the transom windows.

## 3.44 Kickpanels

Located adjacent to the sidewalk and below the display windows, kickpanels are subject to damage from the elements and pedestrians.

- Maintain paint or other protective coatings on the kickpanel.
- If the kickpanel needs to be replaced, replicate the historic design of the bulkhead if it is known.
- If the historic design of a kickpanel is not known, a recessed panel would be appropriate for most buildings in Greenfield.
- If replacing the kickpanel with wood construction, raise the kickpanel base trim at least 1/2" above the sidewalk to help minimize damage to the wood from moisture on the sidewalk.
- On Early 20th-Century Commercial buildings, ceramic tile, brick and stucco are also appropriate finishes for the kickpanel.




This drawing from a 1903 catalog illustrates two kickpanel designs and a typical entry configuration with 3/4-light doors.



(Left) The glazed brick kickpanel at 226 Public Square was installed when the original Victorian Era storefront was replaced ca. 1950 and should be retained.



The brick kickpanel above was likely installed when the original window wells were fill-in.



This wood kickpanel and other wood storefront components should be retained and rehabilitated.



The original wood kickpanel at 214-218 Public Square has been replaced with brick. The arched brickwork is what remains of the basement fenestration before the lightwells were infilled.

## 3.45 Entrances

The entrance should appear to be integral to the storefront system. Victorian Era and Early 20th-Century Commercial storefront doors would typically have been constructed of wood with 3/4-light glass. Over the years they were often replaced with modern full-light aluminum doors or residential doors.

- Retain and rehabilitate existing historic doors and door hardware.
- If replacing a door, use a historically appropriate material, typically wood.
- If replacing the door, retain the height of the historic door. Installation of smaller residential doors changes the proportions of the storefront.
- Replacement doors should be full-light or 3/4-light.
- Where orignal mosaic tile exists at an entrance floor, retain and repair the tile.

### Accessibility

Historic buildings are not exempt from compliance with the *Americans with Disabilities Act (ADA)*. Alterations in historic buildings must comply with the same standards as other alterations to existing buildings wherever feasible. This can be particularly challenging relative to providing an accessible front entrance if it is not flush with the sidewalk.

If it is determined that providing access threatens or destroys the historic significance, then alternative methods of access must be provided per subpart C of the ADA.

The *ADA Accessibility Guidelines (ADAAG), Minimal Requirements for Accessibility in Historic Buildings* relative to an accessible route and entrance are:

- A minimum of one accessible route from the site to an accessible entry. (A ramp with a 1:6 slope for a maximum 2 - foot length may be used at an exterior entry.)
- At least one accessible entry shall be provided. (If public entries cannot comply, then a non-public, unlocked entry may be provided, with directional signage provided at the public entries.)
- An accessible route shall be provided to all public spaces at the level of the entry.

These minimal requirements may only be used by exception, when it is formally and properly determined that meeting the standard requirements for alterations to buildings cannot be done, in order to preserve the historic nature.

Strategies for compliance with the ADAAG are:

- If there is a capital improvement undertaking in the Greenfield Public Square, consider raising the sidewalks to better align the sidewalks with the building entrances.
- Provide sidewalk ramps at raised building entrances.
- For buildings located at the corners of public rights-of-way, provide a ramped entry at the side of the building.
- If it is not feasible to add a ramp at the front or side of the building, consider providing an accessible rear entrance.



Except on Mid 20th-Century buildings, original doors were typically wood with 3/4- or full-lights.


An attractive accessible entrance is provided at the rear of Hotel Greenfield.


Example of modification of the sidewalk elevation and ramp installation to provide accessible entry to these storefronts.

***Preservation Briefs for Accessibility***

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 32: Making Historic Properties Accessible

## 3.46 Awnings and Canopies

Awnings and canopies are features of storefronts that have contributed to the character of downtowns from the beginning. They serve a number of practical purposes; they control sunlight and thermal heat gain in stores, protect pedestrians, reduce UV damage to displayed goods, protect storefront materials, provide a location for signage and add color and vibrancy to a building and downtown. However, a canopy or awning is not necessarily needed or required on every building.

Any selected awning or canopy design should add to the diversity of color and style of the streetscape.

- Select an awning or canopy that is compatible in scale, proportion, color, and material with the building's facade and is appropriate to the building.

  An awning should not overpower the facade or storefront, and should not cover architectural details and features.

  Select traditional awning shapes that are appropriate to the architecture. The awning shape should relate to the shape of windows, doors, and other openings.

  Waterfall, box, hipped or bullnose shaped awnings are discouraged.

- Consider the effect a canopy or awning will have on the interior environment of the building and exterior pedestrian environment.

  Canopies and awnings can reduce solar heat gain and glare on facades facing east, west and south.

  Retractable awnings provide better control of sunlight during different seasons and hours of the day.

  A deeper awning or canopy may be better on a south-facing storefront where control of solar heat gain and shade are more important. If an awning is desired for aesthetic purposes only, a shallow awning would be sufficient.

### Awnings

Fabric awnings are available with many variations; awnings may have open or closed ends; be retractable or fixed; have hidden or exposed structure; be continuous or segmented at the mullions. Awnings should be selected based on the compatibility with the facade architecture.

- Install professionally manufactured canvas awnings that are colorfast, carry a warranty, and are treated with weather resistant chemicals.
- Awnings made of plastic, formed vinyl or other synthetic material are discouraged.
- Locate awnings appropriately relative to the piers, columns, transom and display windows.

  Awnings should be located within the masonry opening and shouldn't overlap the masonry at the head or adjacent piers by more than a few inches.
- The installation of plastic grids/ baffles and underlighting with canvas awnings is discouraged.
- Select a color and pattern that is appropriate to the overall design of the facade and storefront.



This is an appropriate awning for the facade.




The construction of the Mid 20th-Century storefront at 246-248 Public Square included a shallow fixed aluminum canopy.

### Not Recommended



These awnings are too steep and installed too high resulting in a crowded appearance. Single-story buildings often require flatter awnings.




The installation of non-traditional awning shapes and materials are discouraged.



Fabric awnings must be kept clean and replaced if faded and damaged.

### *Canopies*

Historic photos of the Greenfield Public Square shows the use of simple fixed canopies supported by metal pipe columns with corrugated metal roofing. These canopies would have been installed during the Victorian Era and span the entire sidewalk. Reconstruction of these canopies would require coordination with the city to ensure they don't interfere with street lights, signs and the public right-of-way.

However, fixed canopies that were supported by rods and turnbuckles from above became popular on Early 20th-Century Commercial buildings. These canopies had a steel framework covered with wood and/or metal and attached to connectors that were bolted through the masonry wall.

With the increased use of aluminum during the mid 20th-century, lightweight aluminum canopies could easily be added to a facade with expansion bolt connectors set in the mortar joints.

- Fixed canopies are most appropriate on Early 20th-Century or Mid 20th-Century Commercial buildings. Victorian Era canopies should have vertical supports.
- New canopies will need to be engineered and the structural integrity of the facade evaluated to determine the best means of supporting the canopy.
- Existing aluminum canopies should be cleaned and maintained. If installed on a contributing mid-century facade, aluminum canopies should be retained.

#### *Preservation Briefs for Awnings*

www.nps.gov/tps/how-to-preserve/briefs.htm

Brief 44: The Use of Awnings on Historic Buildings, Repair, Replacement and New Design




The Haddock building originally had a fixed canopy which was later replaced with a fabric awning.

(Below) Historically, fabric awnings and fixed canopies supported by pipe columns were both used on the Greenfield Public Square (1930).






This is an appropriate canopy reconstruction for a Mid 20th-Century storefront.



Aluminum canopies should be cleaned and maintained.

### *Not Recommended*



The wood shingled canopy isn't compatible with these Victorian Era facades.



The shingled canopy obscures the character of this historic building.




Pent roof canopies became common in 1970s, but are not recommended in the Greenfield Public Square.

## 3.47 Signage and Lighting

Signage and lighting provide the opportunity for individual owners to creatively express an image for their business. They can also enhance the overall image of the Greenfield Public Square Historic District.

Signs should be carefully designed so they complement the architecture and downtown district. The types of signs that may be appropriate along a highway commercial district may not be appropriate for a historic downtown district. Downtown signage should be primarily oriented to the pedestrian, use a more muted palette of colors and be less brightly illuminated. Large, brightly illuminated signs distract from the historic character of downtown.

The most important aspects of signage in the district are harmony with the architecture and quality of the finished product. Signage must be professionally designed and constructed using quality workmanship and materials.

### Sign Definitions

#### Wall Signs

These signs are attached parallel to the facade wall or painted directly on a facade surface. The may be set flush with the surface or set 3-6 inches in front of a wall.

**Storefront Signs** provide the name of the storefront business and are located on the wall or cornice fascia above display windows and transom.

**Window Signs** are located on any window, transom or door light.

**Building Signs** are used to denote the building name or construction date. They are located near the top of the building on the parapet near the cornice or coping.

**Information Signs** are typically located on a masonry building pier or wall. They provide detailed information such as a restaurant menu, directory or building history.

#### Projecting Signs

These signs are hung, suspended or otherwise attached to structures that are fastened to the building facade.

**Blade Signs** are attached at right angles to the building face. They may hang from a single metal bracket attached to the building or be fixed with one or more brackets. The brackets may be ornamental.

**Canopy Signs** are located on the outer edge of a fixed canopy and should be used in lieu of a Storefront Sign when the building has a canopy attached.

**Hanging Signs** are installed below the exterior ceiling of a recessed entrance or a fixed awning or canopy.

#### Awning Signs

These signs are screen printed, appliquéed or otherwise attached to the body or valance of a fabric awning.

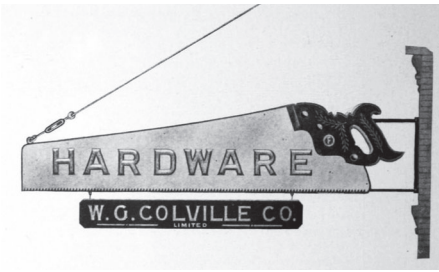



The installation of quality signage, lighting, awnings and use of color contributes to a lively streetscape.

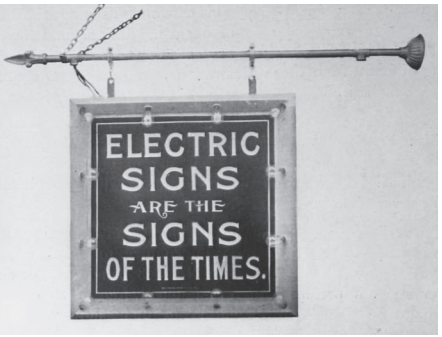
### Examples of Historic Blade Signs




From the 1900 Benfield Milne Mfg. Co. catalog.




An examples from the 1911 Flexlume catalog.




From the 1906 Metropolitan Engineering Co. catalog.

## Guidelines

### Design & Construction

- The design of the sign need not be "old fashioned" in appearance. Creativity and quality design is encouraged. However, the type and scale of the sign should be appropriate to the building and historic district.
- Signs should be distinctive, but not over power the facade or detract from the architecture. (See pages 55 and 56 for illustrations of appropriate signs.)
- Signs should be produced of durable materials using quality craftsmanship. Sign materials such as MDO (medium density overlay plywood) sign board, wood, steel, aluminum, and glass are recommended.
- Use graphics and lettering that are clearly legible.
  Lettering, the proportions of which have been significantly altered through expanding or compressing the typeface, should not be used.
- Use lettering and graphics that are professionally produced. Acceptable types of letters and graphics include:

  Laser cut vinyl letters

  Professionally painted or silk screened

  Prefabricated or laser cut dimensional letters made from metal, acrylic or wood

  Channel or reverse channel letters
- Use colors that are historically appropriate and are compatible with the color of the building to which it will be applied.

### Location & Installation

- Signs should be located so they compliment the facade and do not obscure significant features.
- Chose a method of installation that won't damage or destroy any historic materials.

  On masonry buildings, bolts and fasteners used to attach a sign or bracket to a building should be set at the mortar joint.

### Illumination

- Signage should be illuminated using a light source that is external to signs. This includes various styles of gooseneck lights, barn lights and similar directional lighting.
- Neon signs or LED simulated neon signs that are of an appropriate size and design are also acceptable.
- Internally illuminated cabinet signs, off-the-shelf plastic simulated neon signs, digital light boxes, moving banner signs, flashing light signs and other similar signage types which are not complementary to the historic district are discouraged.
- Use a light source that has a warm color. Avoid use of a cool colored light source.

## Sign Examples



Window signs on display windows.


Multiple signage types and awnings.



Blade sign hanging over entry.

## Not Recommended



Illuminated cabinet signs are not recommended in a historic district.



Signs in a historic district should support the district's character.



Bright primary colors and too many signs look cluttered and detracts from the architecture.

## Signage Appropriate for Victorian Era Facades



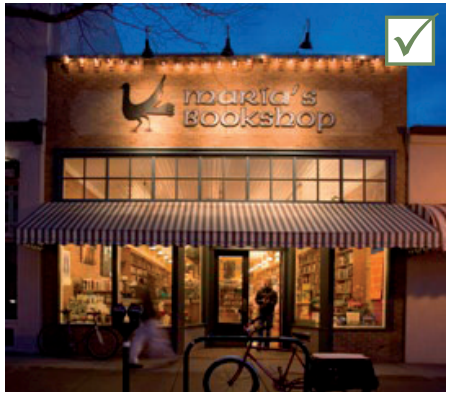

## Illumination Examples




Gooseneck lights illuminating a sign.

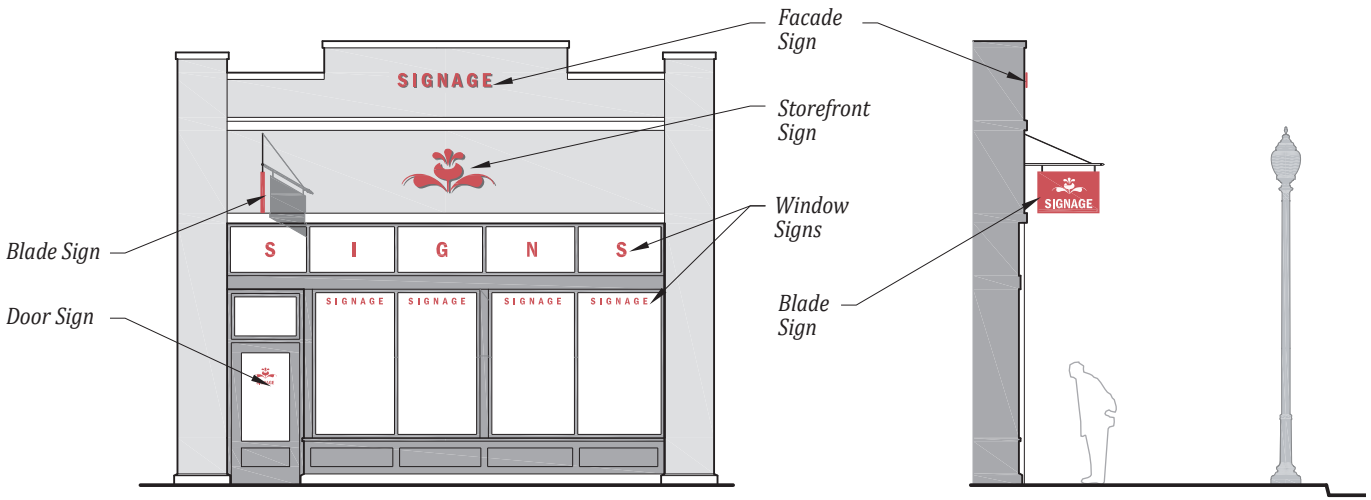



Neon illuminated sign.




Appropriate illumination of a sign and facade.

## Signage Appropriate for Early 20th-Century Facades







## Acceptable Sign Examples




Use of multiple sign types on a facade.




Blade sign on decorative bracket.




Use of multiple sign types on a facade.

# 3.50 Guidelines for New Construction

Growth and development of the downtown district is not only encouraged through adaptive reuse and rehabilitation of existing historic buildings, but also through additions to existing buildings and new construction on vacant lots. Growth is healthy to the downtown economy, but new construction must be designed in a manner that is sensitive to the Greenfield Public Square Historic District.

An infill building is a structure that has a facade facing a public street. The building may be constructed as a discrete space or it may add to the space of an adjacent building.

A building addition is the expansion of an existing building which does not have a street frontage. The addition may be located at ground level to the rear of the property or be the addition of a new story.

### General Guidelines

- Thoroughly evaluate adaptation of noncharacter-defining interior spaces to fulfill business needs for additional space before planning an addition or infill building.
- Design additions and infill buildings to "fit" with the historic context and character of historic district.
- Buildings that may be appropriate for a commercial strip, light industrial or argricultural use likely would not be compatible with the historic district.

## 3.51 Additions

Additions must be designed to be clearly subordinate to the historic building it expands.

### Location

- Locate additions on non-character-defining elevations and limit the size and scale in relationship to the historic building. Additions should not be larger than the historic building.
- Any addition should not exceed the height of the historic building.
- Decks and patio areas may be constructed behind a historic building provided they are compatible with the historic character of the building and district.

### Design

- Incorporate design features of the historic building such as materials, color, proportion, and horizontal lines in the addition. The addition should not be an exact replica.
- Design and build any new addition so that there is the least possible loss of historic materials, and character-defining features are not obscured, damaged, or destroyed.
- Building additions should clearly be differentiated from the historic original.
- Design additions to be diminutive to the historic building through the appropriate use of scale, materials and details.



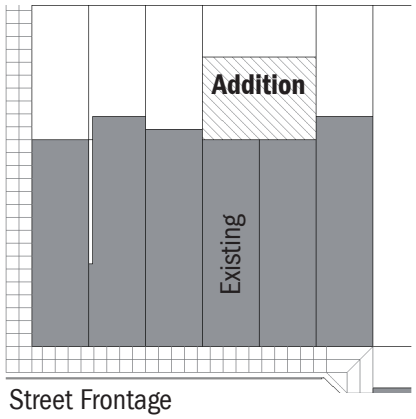
Care should be taken to improve the appearance of rear additions and covered parking structures that face a public street.

### Covered Parking

Due to the character of the Lancaster-style public square, the rear yards and elevations of many of the buildings face a pubic street. Covered parking and storage additions have been constructed and many distract from the character of the district. If these structures are reconstructed or new ones are added, a simple but more attractive design would be more appropriate.

- Use wood, fiber cement board, stucco or brick for wall cladding.
- Traditional corrugated sheet metal may be used for roofs, but should be avoided for wall cladding. Contemporary "Morton-style" sheet metal should be avoided.
- Steel columns should be painted or clad in wood or fiber cement board.

### Building Addition Plan Diagram



## 3.52 Infill Buildings

The design of infill buildings should be unique, but inspired by the architecture of the Greenfield Public Square. Qualities such as rhythm, proportion, and scale should be similar to other historic buildings in the district, but building features can be stylized and reflect more contemporary architectural trends.

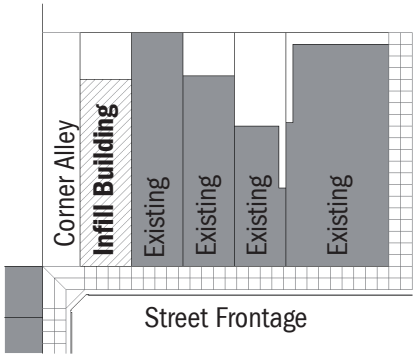
### Dimensions

- The front and side facade walls should be located on the property line.
- The height of an addition or infill building should be one to three stories as is typical in the Greenfield Public Square Historic District.
- Match the floor and ceiling heights of the buildings adjacent to the addition or infill building.
- The heights of prominent elements such as window heads, transoms, parapets and cornices should generally align with adjacent historic buildings.
- If multiple adjacent lots become available for new construction, the infill building should reflect the pattern of existing buildings with a storefront located in 25' modules.

### Design

- New buildings designed for lots adjacent to corner alleys are to have accessible side entrances and windows which open onto the alley.
- Use a low-pitched membrane roof with parapets that is similar to and compatible with buildings in the district.
- Design the ground level street-facing facade as a storefront with traditional storefront features per section *3.40 Guidelines for Storefronts.*
- Repeat the general pattern of window sizes, proportion and placement of existing historic facades on the block.
- Brick should be the primary building material for the street-facing facades of infill buildings. Wood or fiber cement clapboard may be used for buildngs inspired by Boomtown architecture.
- Select paint and masonry colors that are compatible with the color of the other buildings on the block.

***Infill Building Plan Diagram***






# 4.0 Master Planning

## *for the Greenfield Public Square Historic District Environs*



Girls parading their doll decorated doll buggies on the public square in 1930.

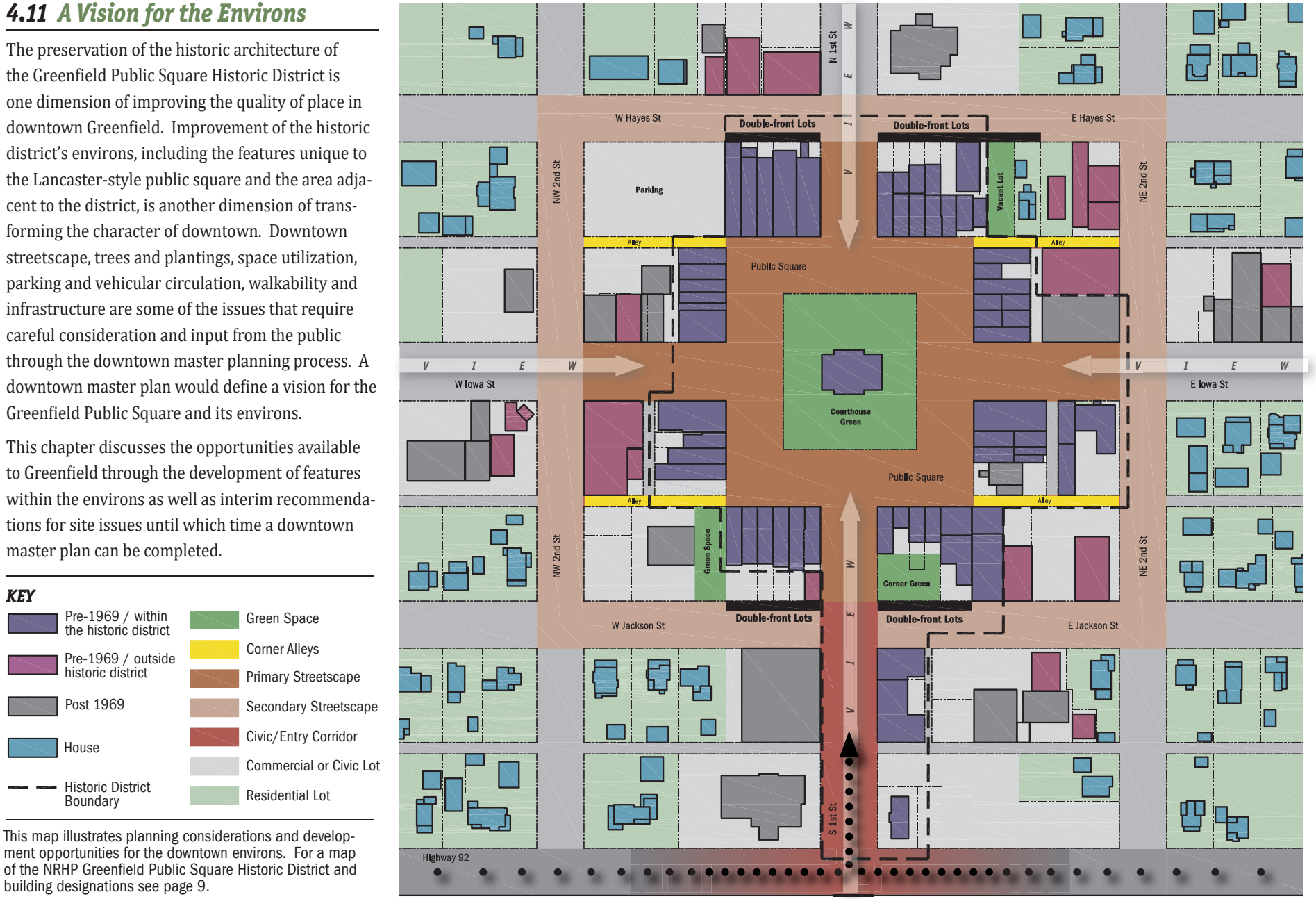
Greenfield's public square downtown element of the Historic District, with its1856 Lancaster square layout design and commercial and public building elements, constitutes the heart of the town's character, which hometown national journalist Hugh Sidey described as quintessentially "intimate and village-like" within Midwestern genre.

# 4.10 Greenfield Public Square Environs

## 4.11 A Vision for the Environs

The preservation of the historic architecture of the Greenfield Public Square Historic District is one dimension of improving the quality of place in downtown Greenfield. Improvement of the historic district's environs, including the features unique to the Lancaster-style public square and the area adjacent to the district, is another dimension of transforming the character of downtown. Downtown streetscape, trees and plantings, space utilization, parking and vehicular circulation, walkability and infrastructure are some of the issues that require careful consideration and input from the public through the downtown master planning process. A downtown master plan would define a vision for the Greenfield Public Square and its environs.

This chapter discusses the opportunities available to Greenfield through the development of features within the environs as well as interim recommendations for site issues until which time a downtown master plan can be completed.




This map illustrates planning considerations and development opportunities for the downtown environs. For a map of the NRHP Greenfield Public Square Historic District and building designations see page 9.

## 4.12 Environs Opportunities & Considerations

### Public Square Streetscape

Streetscape improvements are a standard strategy to downtown revitalization. A streetscape plan typically specifies such elements as lighting, street furniture, paving materials and patterns, street trees, plantings and public signage. The streetscape around the Greenfield Public Square should be designed to support higher intensity pedestrian use as a commercial, entertainment and civic center as well as a community gathering space. Additionally, the height of curbs and sidewalks need to be considered to address issues of accessibility to adjacent buildings.

#### *Interim Recommendations*

- New street furniture such as fixed benches and trash receptacles should match or be compatible with the existing metal benches.
- Maintain existing streetscape features.

### Corner Alleys

Alleys extend east-west from the corners of the Greenfield Public Square. These alleys have different characteristics, but primarily serve to provide pedestrian access to parking lots, buildings and other spaces adjacent to the alleys.

Northeast Court is flanked by buildings which define an intimate, pedestrian-oriented space. The buildings along this alley are of historic interest and situated to take advantage of this unique space if redeveloped. Northwest Court functions primarily as an entrance to the public parking lot from the square. Southeast Court provides pedestrian and vehicular access to parking located behind Hotel Greenfield, the Post Office and 113 SE Jackson. Southwest Court provides access to the gravel lot adjacent to 306 Public Square and green space located adjacent to 342 Public Square.

#### *Interim Recommendations*

- Emphasize the pedestrian character of the alleys by adding large pots with plantings, seating and signage depending on the function and character of each alley.
- Encourage the rehabilitation of the buildings flanking Northeast Court.
- Corner alleys provide the opportunity to develop side entrances at 178, 248, 262, 306 and 342 Public Square. These side entrances could allow development of smaller spaces for boutique retail or more generous outdoor seating for a restaurant or coffee shop use.



The alley at the northeast corner has an intimate character and potential for redevelopment.

#### *Streetscape Examples*







#### *Alley Examples*





## Sidewalk Cafés

The addition of sidewalk cafés would add to the vitality of the Greenwood Public Square. However, guidance from the City is required to ensure the public right-of-way is not obstructed and to address issues related to the sale of alcohol. Most cities define a zone in the right-of-way where a sidewalk café may be established and require some type of barrier that defines its perimeter, particularly when alcohol is served. These barriers may be comprised of a simple or decorative fence, stanchions with chains or ropes, or planters.

### *Interim Recommendations*

- The city should adopt a plan/ordinance for the establishment of sidewalk cafés in the downtown environs.

## Courthouse Square

The courthouse square is characterized by overstory trees and lawn and has become a location for various memorials. This scheme keeps the lawn generally free of clutter, reinforces the courthouse as the centerpiece of the Greenfield Public Square and provides shade during summer months.

### *Interim Recommendations*

- Continue to maintain the landscaping and conserve the overhead trees.
- If additional memorials are required, locate elsewhere in the historic district to prevent the courthouse square from becoming too cluttered.

## Open Spaces

In addition to the courthouse square, a number of vacant lots and rear yards offer opportunities to develop programmed open spaces. Areas that are prime for this type of improvement include the lot at the northeast corner of the intersection of Jackson and South 1st Streets, and the lots adjacent to 342 and 206 Public Square. Careful consideration should be given to the use of these spaces and their future design as they relate to the redevelopment of upper stories for housing. Playground equipment, game tables, park benches, plantings and similar ammenities can contribute to the desirability of downtown living. Through the master planning process, a community vision should be developed to guide future improvements.

### *Interim Recommendations*

- Continue to maintain and enhance the landscaping of the existing open spaces.

## Sidewalk Cafe Examples




Sidewalk cafe with barrier.




Sidewalk cafe with a few attractive tables and chairs.

## Open Space Examples




Downtown open space with various features.



Playgounds can attact young families and children to downtown.

## Open Space Opportunities



Corner of S 1st & SE Jackson Streets.



Lot adjacent to 342 Public Square.



Lot adjacent to 206 Public Square.

### Parking

A parking study should be completed with the downtown master plan to determine both current and projected future parking needs. Greenfield has generous on-street parking in addition to public and private parking lots. Future efforts to improve parking should address screening parking lots to soften their visual impact, define edges and provide shade.

#### Interim Recommendations

- Screen parking lots readily visible from the public square with appropriate fences, shrubs or other plantings.

### Civic and Axial Corridors

The courthouse is located at the intersection of 1st and Iowa Streets creating axial view corridors of the courthouse from these streets which should be protected. Additionally, the primary street entrance to the Greenfield Public Square from Highway 92 is South 1st Street. This street also serves as a civic corridor along which City Hall, the Carnegie Library and the Municipal Light Plant are located. This single-block section of South 1st Street should be enhanced to reflect its significance as the primary entrance to the public square and a civic corridor. Improvements should eventually be made in conjunction with evaluation of parking needs and options to offset parking losses with new spaces nearby.

### Double-fronting Lots

The rear facades of buildings located on the north and south sides of the square face Hayes and Jackson Streets respectively. Some of these property owners have taken measures to improve the appearance of these spaces, but most rear facades and yards appear neglected.

#### Interim Recommendations

- Encourage improvement to the buildings facing Hayes and Jackson Streets per section *3.34 Secondary Facades and Yards.*

### Highway 92

The primary purpose of addressing Highway 92 in a master plan is to develop a strategy for drawing traffic from the highway into the downtown district. Streetlights, plantings, paving and signage are some of the elements which could be used to communicate the historic district attraction to highway travelers.

#### Interim Recommendations

- Install attractive signage directing traffic to the historic district.

### Parking Screen Examples

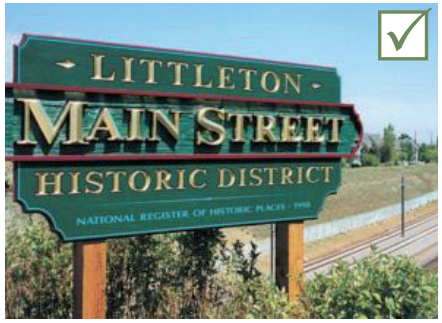


Fence defines edge of parking.



Ornamental grasses screen parking.

### Signage Examples




Historic district highway sign.




Historic district street sign.



S 1st Street is the primary entrance to the Greenfield Public Square and a corridor of civic functions. The design of the streetscape should communicate its stature and function.

### Secondary Streetscape

The downtown commercial properties are located within a larger square defined by West 2nd, East 2nd, Hayes and Jackson Streets. The streetscaping of this square should also be considered. This secondary streetscape design should serve the purpose of defining the edges of the downtown commercial district, creating a transition between the downtown district and the adjacent residential neighborhood, drawing traffic into the square, and buffering the less visually compatible uses within the downtown environs.

### Commercial Buildings Outside the Historic District

Outside of the Greenfield Public Square Historic District are buildings that are contemporary to the architecture of the Greenfield Public Square Historic District and for which preservation should be encouraged (see map on page 60). In particular, the buildings located on the north side of NE Court Drive such as the old GAR Lodge have redevelopment potential and are vital to the character of this alley. Additionally, there are a number of buildings located off the public square but within the environs that were constructed for implement and auto repair and sales, or similar uses. Though not listed on the NRHP, these buildings support the unique character of the downtown core and are artifacts of the community's unique story.

A number of these building are currently occupied by auto-oriented uses. These are the type of buildings that are often taken for granted. Because they enclose large spaces and have a unique aesthetic, they have future redevelopment potential for other uses if they should become vacant in the future.

#### Interim Recommendations

- Although not within the Greenfield Public Square Historic District, the HPC should encourage the appropriate treatment and preservation of these commercial buildings.

### Residences

A residential neighborhood surrounds most the Greenfield downtown district. West 2nd, East 2nd, Hayes and Jackson Streets delineates the downtown district from the neighborhood. Many of the houses within the 1/2 block area beyond these streets are contemporary to the Greenfield Public Square Historic District; their dates of construction falling within the district's period of significance.

#### Interim Recommendations

- Although not within the Greenfield Public Square Historic District, the HPC should encourage the appropriate treatment and preservation of residences that were constructed between 1856 and 1969.




111 W. Iowa Street




107 NW Hayes Street

Buildings constructed for auto and implement repair and sales contribute to the character of the environs and should be maintained and preserved.



101 SE 2nd Street

Consideration should be given to the preservation of the residential neighborhood surrounding the Greenfield Public Square.



The removal of the shingled canopy structure at 106 NE 2nd Street would improve the visual appeal of the historic building and the downtown environs.



190, 194 and 198 NE Court Drive are significant to the downtown environs and are uniquely situated on a corner alley. Alterations to these buildings should be according the *Illustrated Design Guidelines*.



102 N 1st Street

Beneath the vinyl siding is a clay tile edifice which could potentially be rehabilitated.