



# EDGEWOOD-PARK CITY HISTORIC DISTRICT

Draft Design Guidelines

September 2022

**Edgewood-Park City Historic District Design Guidelines**

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Knoxville-Knox County Planning

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# LOCAL DESIGNATION AS AN HISTORIC PRESERVATION STRATEGY

The City of Knoxville recognizes the power historic structures to define our unique community identity and encourages their preservation so that they remain an important part of the city's building blocks. To this end, the City, through Knoxville-Knox County Planning (Planning), works with organizations and private property owners to preserve, protect, and celebrate our historic places.

While various means exist for recognizing and celebrating the importance of historic structures, protection is best accomplished at the local level. It is here that the value of preservation is defined directly by the community, which drives the direction of the design guidelines to protect their valued historic context. It is through discussion with the community that the scope and extent of these guidelines, which ultimately reflect the vision and priorities chosen by neighborhood property owners, are defined.

## HISTORIC (H) OVERLAY DISTRICTS

### *WHAT THEY ARE*

Among the most effective and proven of local preservation tools is the historic (H) overlay district. Established in Knoxville under Tennessee Code Annotated, Section 13-7-401, and the City of Knoxville Zoning Ordinance (as amended) No. 3369, a historic (H) overlay district may be established for a “geographically-definable area which possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects which are united by past events or aesthetically by plan or physical development.”

### *PURPOSE*

The historic (H) overlay district broadly seeks to define and protect historic neighborhoods. This zoning strategy provides oversight for ensuring that its historic buildings and streetscapes are protected from inappropriate changes. This protection is accomplished through the review of proposals for changes to buildings exteriors, and approval or denial of the changes based on the design guidelines and the specific characteristics of the neighborhood. This design review is conducted monthly by the Knoxville Historic Zoning Commission (HZC), whose members are appointed by the mayor and confirmed by City Council.

The goal of establishing a historic (H) overlay district and reviewing proposed projects within it is not to freeze time, stall improvements, or prevent improvements to the community. When preservation is provided for in a meaningful way through a historic (H) overlay district, it promotes a vibrant, culturally- rich community that supports appropriate changes and allows for the contemporary use of historic buildings, but in a responsible and sensitive way that respects the larger community’s agreed-upon goals and priorities.

## DESIGN GUIDELINES: PURPOSE AND NEED

Each designated historic (H) overlay district is accompanied by a set of design guidelines that provides a framework for achieving the design goals and objectives of the community. Drafted with input from property owners, these guidelines represent the vision of the community in maintaining its historic character and provide the standards that help to achieve the goals of that vision.

Property owners play a primary role in ensuring that the historic fabric of the district is appropriately preserved. As stewards of historic properties within the historic (H) overlay district, those caring for our historic building stock must make daily decisions on how best to accommodate modern- day needs while preserving the character-defining features of the places we call home. Such decisions should be made with the historic value of the building in mind, and these decisions must also be grounded in sound and practical guidance. The design guidelines serve this role.

Rooted in accepted preservation standards for exterior maintenance and rehabilitation, the guidelines provide a common language and consistent direction for all parties that work with historic buildings in the historic (H) overlay.

Specifically, the design guidelines:

- Clarify preservation standards for property owners to enable them to make informed decisions
- Provide an agreed-upon community values approach to the appropriate treatment of historic properties
- Help coordination among architects, engineers, contractors, and others that work on historic buildings in the community
- Provide a consistent basis for Planning and HZC to make well-informed and defensible decisions regarding the appropriateness of proposed work

### *Design Guidelines Do...*

- Provide a framework for the community to achieve their specific vision for retaining an area's historic character
- Provide flexible, goal-oriented approaches to addressing the particular needs of an individual property
- Provide guidance for contemporary use of a historic building while maintaining its historic character
- Reduce the potential for adverse impacts resulting from inappropriate treatments to individual buildings and the district as a whole
- Promote consistent, defensible decision-making by Planning and the HZC

### *Design Guidelines Do Not...*

- Require maintenance on a property
- Require museum-quality restoration
- Regulate the use of a property
- Review changes for a building's interior

## **SUPPLEMENTAL TO THE HISTORIC DISTRICT DESIGN GUIDELINES**

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

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall 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 architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new features shall match the old design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The cleaning of surfaces, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources are proposed to be disturbed, mitigation measures should be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall 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.

## PRESERVATION PRINCIPLES

Design guidelines for historic overlay districts are developed based on the **Secretary of the Interior's Standards for the Treatment of Historic Properties**.

Developed by the National Park Service (NPS), this document provides a broad framework intended to promote responsible preservation practices that respect and protect our historic places. The NPS' *Standards for Rehabilitation* and accompanying *Guidelines for Rehabilitating Historic Buildings* outline standards that allow for adaptation of historic buildings for modern-day use while also preserving their character. Generally, the principles promoted by the National Park Service and incorporated into these guidelines include:

- Preserving significant historic features and materials through regular, appropriate maintenance
- Repairing and retaining historic materials instead of replacing them
- Replacing deteriorated or missing historic components and features with in-kind materials
- Designing alterations and additions so that they do not cover over or destroy significant features

More specifically, the preservation principles included in these design guidelines are also supported by the Technical Preservation Services developed by the NPS, which provide specific guidance related to particular rehabilitation and repair projects. A list of currently available *Preservation Briefs* may be found at [www.nps.gov/tps/how-to-preserve/briefs.htm](http://www.nps.gov/tps/how-to-preserve/briefs.htm).

## USING THE DESIGN GUIDELINES

As the criteria used by the HZC in determining the appropriateness of proposed work within the historic (H) overlay district, the design guidelines are an important resource that can be consulted by any property owner considering a project that will affect any exterior element of a building within the overlay. Of primary importance, the guidelines should be referred to at the beginning of the project planning process – and in consultation with any chosen architects or contractors – in order to avoid getting too far along with a project that is otherwise considered to be inappropriate. Early review of the guidelines can help save time and money in receiving approval for a proposed project. It is also important to note that while

the guidelines provide a general framework for the care and maintenance of historic buildings, they do not provide case-specific advice or address rare and unusual situations.

Use of the guidelines will help to ensure that design review is conducted according to fair and consistent standards.

## FLEXIBILITY OF DESIGN GUIDELINES

It is the intent of the Knoxville Historic Zoning Commission (HZC) and its staff to work together with applicants toward design solutions that are both feasible for the owner and do not unnecessarily destroy existing historic materials. The design guidelines are developed and written with this goal in mind. They offer opportunities to utilize a wide variety of materials and design options at differing price points.

In their review of the Certificate of Appropriateness (COA) application, the HZC will take into consideration certain factors such as the degree of deterioration, presence of intact historic materials, visibility of features, and siting/ orientation of the building.

In considering these factors, the HZC may find that the application of particular design guidelines would not be feasible due to the unavailability of historic materials and/or trades craftsmen, or disproportionate cost relative to the value of the property. Alternative materials and designs can be considered under conditions further described in these guidelines.

## ECONOMIC ASSISTANCE

The City of Knoxville and Knoxville-Knox County CAC operate numerous programs which provide financial and technical assistance for housing rehabilitation. The Tennessee Historical Commission, the NPS, and local organizations also occasionally offer grants or loans for preservation projects. Contact Planning staff for suggestions on potential opportunities.

## YOUR HISTORIC STRUCTURE MAY ALREADY BE A GREEN BUILDING

*By their design most historic buildings already feature numerous 'green' features that promote energy efficiency but may be overlooked.*

In considering the sustainable features of your historic building, look for the following:

- Substantial tree canopy that provides natural shade and cooling
- Operable, double-hung windows that allow cool air to flow in and warm air to pass out
- Windows arranged so as to take advantage of natural lighting, as well as passive heating in the winter
- Deep-set porches that moderate temperature fluctuations between interior and exterior spaces
- Deep eaves that provide for seasonal shading
- Steeply-pitched roofs that allow for heat to pass upward away from the living space, while also collecting rainwater
- Operable shutters or awnings that can be used to block solar heat gain
- Window and door arrangements, including transoms, that allow for cross-ventilation
- Heavy masonry materials with natural insulating properties
- Chimneys that allow non-mechanical heating
- High ceilings that facilitate movement of air

## HISTORIC PRESERVATION AND SUSTAINABILITY

The preservation of historic buildings is a sustainable practice because it promotes continued use and maintenance of our historic building stock over unnecessary replacement. Recognizing the connection between historic preservation and sustainability and the desire of property owners to have energy-efficient dwellings, the design guidelines are intended to balance flexibility for alternative materials and designs while also preserving the historic character of individual buildings and the community as a whole. Guidelines for sustainable measures are incorporated throughout this document in an effort to promote both goals.

### *SUSTAINABLE MATERIALS*

Historic building construction embraces durable traditional materials such as old growth lumber, brick, and stone, which last for decades if properly maintained, whereas many contemporary manufactured materials are not only unsustainable in their production but have a comparatively shorter lifespan. Some contemporary materials need to be replaced more often, causing the use of more energy.

### *EMBODIED ENERGY*

Historic preservation as a sustainable practice works because it retains the “embodied” or “already present” energy within existing building stock. From the manufacture of goods, to the transportation of those goods to the project site, to the physical labor needed for construction, buildings represent large expenditures of energy. Preserving a building and appropriately maintaining its features retains this embodied energy and minimizes the need for the use of additional energy to produce new materials.

Even when designed to be as sustainable as possible, new construction can take decades of incremental savings to simply recover the embodied energy represented in a demolished building. In addition, it takes years for new construction to offset the substantial material waste associated with demolition and disposal of the materials of the former building. Based on this reasoning, replacement of historic buildings, even when with sustainable architecture, not only makes little financial sense but also destroys architectural heritage.



## *TAKE ADVANTAGE OF THE GREEN FEATURES OF A HISTORIC BUILDING*

As previously noted, many historic buildings used design features that promote energy efficiency but are sometimes overlooked. When developing a project and incorporating 'green' design features, a property owner should first gain an understanding of the existing sustainable qualities of their building.

Doing so will help to ensure that the effectiveness of these features will not be reduced. Of particular importance is to avoid making inoperable features such as windows, shutters, chimneys, and transoms so as to retain their ability to offer energy efficiency.

## *INCORPORATE SUSTAINABLE MEASURES IN CONSIDERATION OF THE BUILDING'S CHARACTER*

While the design guidelines are flexible in allowing for sustainable measures such as solar panels, storm windows, and rainwater collection systems, it is important that any added features do not detract from the historic character of the building or the district.

Locate new features out of view or screen them from the public street right-of-way. In addition, as with all modifications to a historic building, a more recently added feature should be removable without harm to the building's historic fabric.

## **CONSIDERING ALTERNATIVE MATERIALS**

While traditional materials are the most appropriate, the HZC recognizes the increasing need to consider alternative materials due to the limited availability of traditional materials and tradespersons, as well as the need to consider sustainable initiatives. As such, the HZC will consider the proposed use of alternative materials in order to determine if they are compatible with the historic character of the building. When determining if use of an alternative material is appropriate, the HZC will consider the following:

### *AVAILABILITY AND TECHNOLOGY*

Are traditional materials of a high-quality available, or is the availability of traditional materials limited?

### *VANISHING TRADES*

Are there local tradespersons available that can work with the traditional material or is the local building industry only trained in the use of new materials?

### *DURABILITY*

Based on available information, does the proposed material perform as well as the traditional material over time?

### *APPEARANCE*

Does the proposed material match the original in terms of color, texture, finish, reflectivity, and profile?

### *COMPATIBILITY*

Does the new material appear seamless with the surrounding historic fabric? Will installation affect the way that adjacent materials appear or react (for example, expansion and contraction of masonry materials)?

## DESIGN REVIEW BASICS

The historic (H) overlay district provides the opportunity for design review of proposed exterior changes to historic buildings before work is begun. The design review process is intended to be

completed through a team effort which preserves the architectural character as well as meets the needs of the property owner.

### *APPLICABILITY*

The design review process is applicable to all properties within the historic (H) overlay district, regardless of whether the property is considered a contributing historic resource or non-contributing resource. Design review is required for exterior alterations and repairs that require a building permit or any other type of City approval. Exterior changes such as landscaping and painting non-masonry items do not require review and approval. Interior changes are also not reviewed, although building permits may still need to be obtained from the city building inspections department.

## DESIGN REVIEW SPECIFICS

### **Application Completeness**

Application submittals must be complete and include fee payment before they will be accepted.

### **HZC Meeting Frequency/Location**

Monthly in the Small Assembly Room, Main Level, City County Building, 400 Main Street

### **COA Validity**

An authorized COA is valid for 36 months from its approval date.

## *RESPONSIBILITY OF PROPERTY OWNERS*

Responsibility for complying with the design review process ultimately lies with the property owner or applicant, who should submit their application to Planning staff. The design review process begins when the property owner decides to undertake an exterior project on a building within the historic district overlay. The overlay itself does not require the property to otherwise undertake any rehabilitation or restoration activity.

## *CERTIFICATE OF APPROPRIATENESS (COA)*

The Certificate of Appropriateness (COA) serves as the record of written approval for a proposed project and provides the documentation necessary to obtain building permits for projects within the historic district overlay. The HZC or its staff issues the COA after reviewing and approving plans for the proposed work. Once issued, a COA is valid for thirty-six (36) months.

There are four levels of work associated with COA applications, depending on the complexity of the proposed project. Minor work (Level I) such as routine repair of existing features using in-kind materials or installation of storm windows and doors is typically reviewed by Planning staff for administrative approval. Any project higher than a Level 1 requires review by the HZC for compatibility with the design guidelines.

## *WORKING TOGETHER TO GAIN COMPLIANCE*

Within the historic (H) overlay district, an exterior project that is begun without a valid COA or is continued after a COA has expired is a violation of the City's zoning ordinance and building code. It is most helpful when the applicant works with the Planning's HZC staff in advance of work on any project. Should a property owner begin work without a COA, a stop work order could be placed on the project until it can be reviewed and approved by the HZC or its staff, as well as the building inspections department. Work completed that is not compatible with the design guidelines or building codes will be required to be altered or removed.

## DOES YOUR PROJECT REQUIRE A COA?

### *EXAMPLES INCLUDE:*

- Exterior work that requires a building permit
- Repair, replacement, or removal of exterior features
- Addition of exterior features or siding
- Painting of unpainted masonry
- Construction of a new main building or accessory structure
- Demolition or relocation of a building

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**YES** – *Your project will require design review by the HZC or its staff and issuance of a COA before you apply for a building permit and begin work.*

### *IF YOUR PROJECT IS LIMITED TO:*

- Changes to the interior of the building
- Painting wooden features or siding
- Installation of walkways
- Landscaping, including establishing gardens and pruning of trees

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**NO** – *Your project will not require a COA; however, be sure to obtain any other relevant building permits before beginning work.*

## CONTRIBUTING

### vs NON-CONTRIBUTING RESOURCES

A contributing resource is a structure within the historic (H) overlay district that is of an early age and retains sufficient integrity to lend historic character to the district. Even if a historic structure has been altered, it can be considered contributing as long as it retains the important character-defining features that support its association with the district.

A non-contributing resource is a structure that does not enhance the historic significance of the district due to its construction after 1945, or due to less than 50 percent of its original building envelope or materials and features remaining.

## COA LEVELS OF WORK

### *LEVEL I*

#### *STAFF REVIEW*

- Routine repair of siding, fascia, soffit, windows, roof, or other features using materials, design, and dimensions that match original or early features
- Installation of storm windows/doors, screen doors, or satellite dishes
- Removal of additions less than 50 years old in order to reveal the original configuration of the structure
- Construction of accessory structure of not more than 120 square feet in area
- Installation of signage
- Renewal of an expired Certificate of Appropriateness

### *LEVEL II*

#### *HZC REVIEW*

- Major repair, removal or replacement of architectural elements or materials
- Addition of an architectural element where no documentation exists
- Installation of skylights or solar panels
- Construction of an accessory structure that is more than 120 square feet
- Construction of an addition
- Demolition or relocation of a non-contributing structure

### *LEVEL III*

#### *HZC REVIEW*

- Construction of a primary building
- Subdivision of an individual H landmark property

### *LEVEL IV*

#### *HZC REVIEW*

- Demolition or relocation of a contributing structure

# DESIGN REVIEW PROCESS

*The design review process outlined by the overlay zoning ordinance is intended to provide an efficient framework by which proposed projects can be submitted to and reviewed by the HZC.*

This framework also is intended to promote consistent and fair decision-making by Planning staff and the HZC in the review of proposed projects. For projects subject to design review, design approval in the form of a COA shall be obtained before other permits can be issued by the relevant City department and before work can begin.

## APPLICATION AND APPROVAL PROCESS

### *STEP 1.*

#### *PLAN YOUR PROJECT*

The design review process should begin with carefully planning a project that is appropriate by considering the design guideline recommendations. As the first step, this will make the design review process go more smoothly and can help save time and money. Project planning should also include developing an understanding of the property, its integrity, and its character-defining features. This research will help in evaluating how a potential project such as removal, replacement, or addition of a feature may affect the character of the building.

Appropriate project planning at the outset of the process will also help the applicant in preparing proper documentation for HZC review. This documentation will let the HZC know that the applicant has considered and respects the significant features of the building.

### *STEP 2.*

#### *MEET WITH PLANNING STAFF*

Planning staff will serve as the applicant's contact during the design review process and is available to assist in properly preparing the application. The planner can provide preliminary insight into what is appropriate according to the design guidelines. The planner can also confirm whether the application requires a Level I or Level II review.

For a Level I project, if appropriate documentation has been submitted and the proposed project meets the design guidelines, staff can approve a COA for a simple application without the requirement for a formal review by the HZC. Issuance of the COA enables the applicant to obtain any other required permits before beginning the project. For Level II-IV projects, the applicant must submit a more detailed application under the guidance of staff or the HZC to review.

### *STEP 3.*

#### *COMPLETE THE COA APPLICATION AND SUBMIT RELEVANT SUPPORTING MATERIALS*

A copy of the COA application form is available at the City of Knoxville Planning office or online at Planning's website ([knoxplanning.org](http://knoxplanning.org)). The applicant may also request a copy by e-mail attachment or fax. The application is to be used for all levels of work and is intended to provide Planning staff and the HZC with a thorough understanding of the proposed project.

Specific submittal requirements depend on the nature of the proposed project but generally include sketches, photographs, and written descriptions of proposed work. Product samples and specifications on proposed materials and products may also be needed. Depending on the complexity of the proposed project, professional drawings or renderings may also be recommended to effectively inform the HZC about the project.

The applicant must submit the completed and signed form, fee, and all supporting materials to Planning staff several days in advance of the HZC meeting. The COA application deadlines are available from Planning staff or on the Planning's website.

## *STEP 4.*

### *PLANNING STAFF REVIEW OF COMPLETED COA APPLICATION*

Once the applicant submits the completed application, Planning staff will review it and consider the proposed project with regard to the guidance provided in the design guidelines. The Planning staff may need to visit the property in association with the review in order to view existing conditions firsthand. The staff will then prepare a summary report on the proposed project and provide a recommendation to the HZC regarding its appropriateness.

## *STEP 5. HZC DESIGN REVIEW MEETING*

All completed applications referred to the HZC will be reviewed in a public hearing during the next available monthly meeting.

Planning staff will inform the applicant when the project has been added to the agenda. While attendance at the meeting is not required for review or approval, it is strongly encouraged for all applications as it provides the opportunity for the applicant to present the project to the HZC and address any questions or concerns, or agree to any conditions for approval.

Following discussion, the HZC will vote on the proposed project to issue a determination. One of five actions can be taken by the HZC:

### **Approval**

The project is approved as proposed. No changes are required, and a COA will be issued. COAs are valid for three years.

### **Conditional Approval**

The HZC may propose minor changes to the proposed project in order to bring it into alignment with the design guidelines, and choose to approve the project only if that condition is fulfilled. A COA will be issued for the project in compliance with the condition.

### **Postponement**

If the HZC determines that it has not received enough information about a project to either approve or deny it, the HZC may postpone the application for future consideration. Planning staff will notify the applicant of this decision and request the necessary information so that consideration of the application can be rescheduled.

### **Denial**

If the HZC determines that a project does not meet the intent of the historic (H) overlay district or the design guidelines, the HZC will deny the application and will

not issue a COA. In this case a new application for the same proposal cannot be submitted for a period of one (1) year from the date of the denial.

### **Denial Without Prejudice**

Another type of denial is called “denial without prejudice,” in which the applicant may resubmit the application with minor changes at any time. The HZC can choose this action when the overall concept of the project meets the guidelines but more illustration, design work, or research is needed to convey the proposal or bring it into full compliance.

## *STEP 6.*

### *APPLY FOR REQUIRED PERMITS*

Once a COA has been issued for a project, the applicant can apply for any required building permits necessary to carry out the project. The COA should be presented to the respective city department, typically the Building Inspections Office, when applying for permits.

## *STEP 7.*

### *PROCEED WITH THE PROJECT*

Following issuance of the COA and appropriate building permits, the applicant may proceed with the project as outlined in the COA application, which is valid for twenty-four (24) months from the approval date. Should the applicant determine that a change in the scope of the project is necessary or that the project will extend past the COA's date of validity, it is the responsibility of the applicant to notify Planning staff of any proposed changes as soon as possible in order to determine if re-review will be required.

## OPTIONS IF A COA IS DENIED

*If the HZC does not issue a “denied-without-prejudice” decision, the applicant has options for proceeding after an outright denial:*

- The applicant may choose not to move forward with the project.
- The applicant may modify the proposed project and application to bring it into alignment with the design guidelines. Following submission of the modified application, Planning staff will schedule the project for another HZC review.
- The applicant may appeal the finding of the HZC to the courts if they feel that rules and procedures were not properly followed or a fair decision was not made in consideration of the design guidelines

*Certificate of Appropriateness Process*

APPLICANT PLANS EXTERIOR RENOVATIONS TO A DESIGNATED HISTORIC PROPERTY

*Applicant meets with Historic Zoning Commission (HZC) Staff to determine what level of Certificate of Appropriateness (COA) is required*

**LEVEL II, III, IV - Major work**  
including new construction, demolition, or relocating buildings

**LEVEL I - Minor work**  
routine repair or replacement in-kind

**Review is required by HZC**

**Staff issues COA without HZC review**

**Staff assists with application**  
and schedules review at HZC monthly meeting

**Applicant checks with Building Inspections**  
to determine if a building permit is required to proceed with project

**HZC approves COA**

**HZC denies COA**

**Applicant obtains building perm**  
from Building inspections to proceed with project

Applicant may reapply  
**with substantial changes**

Applicant may reapply  
**with no changes after one year**

Applicant may **appeal to the courts**



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*Photo courtesy of Knox County Public Library,  
McClung Historical Collection*

## HISTORIC DISTRICT DEVELOPMENT HISTORY

The Edgewood-Park City area developed as one of Knoxville's early streetcar suburbs. In 1890, one streetcar line was extended north on Park Avenue (now Magnolia Avenue) to Chilhowee Park, and the other was extended north on Washington Avenue.



*The Edgewood Land and Improvement Company, formed by George F. Barber and Martin E. Parmalee, began to subdivide and promote lots in the Washington Avenue Addition, which stretched along Washington and Jefferson avenues east from Winona. The incorporated municipality known as “Park City” originated from these beginnings, which included the Edgewood holdings and other surrounding subdivisions that developed shortly after it was founded. The name of the historic district was derived from a combination of the names of the two earlier subdivisions*

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– “Edgewood” and “Park City.”

The boundaries of this district include much of the original Edgewood Land and Improvement Company development, and a moderate portion of Park City. Park City was incorporated in 1907 and roughly covered the area east of First Creek extending to Chilhowee Park and south of Coleman Avenue, now Glenwood Avenue, to Bethel Avenue. At the time, Park City covered two square miles and its population comprised about 7,000 citizens. W.R. Johnson was elected as the first mayor.

Park City also featured services including the newly constructed Park City High School, piped water, and police and fire departments. The three longest thoroughfares in Greater Knoxville traversed the municipality: Magnolia, Washington, and Jackson avenues, each of which were eventually paved.

Park City has been annexed into Knoxville twice in its history. In 1891, the city government annexed land east of First Creek to Cherry Street and south from Jefferson Avenue to McCalla Avenue as the Tenth Ward. Two years later, when the City of Knoxville was not able to meet the area’s demands for educational needs and street improvements, the Tenth Ward was removed from Knoxville’s incorporated area by an act of the Tennessee General Assembly.

In 1917, Knoxville annexed Park City for a second and final time.

*However, public improvements were not widespread in the area until the 1920s.*

In the 1910s and 20s, many moved to the Edgewood- Park City area as Knoxville’s central city became increasingly crowded and noisy. The architectural character of Edgewood-Park City began to evolve with an intermingling of smaller-scale, Craftsman bungalows and Queen Anne cottages with larger, more elaborate Queen Anne styles. The smaller homes were those of the merchants, clerks, salesmen, and railroad employees who benefited from Knoxville’s expanding economy and improved local transportation.

Standard Knitting Mills, a large complex indicative of Knoxville’s burgeoning textile industry, had located just to the west of Edgewood-Park City in 1900 and employed many who resided in the area.

## ARCHITECTURAL HISTORY

### *QUEEN ANNE ARCHITECTURE AND GEORGE F. BARBER*

George F. Barber was a noted architect who moved to Knoxville in 1888 and established the Edgewood Land and Improvement Company with his partner Martin E. Parmalee. Barber designed and marketed mail order house plans in elaborate Queen Anne styles, published numerous periodicals and even established his own company, The American Home Publishing Company, in 1898. His designs were sold nationally and even internationally. Barber lived in several homes he designed within the now Edgewood-Park City district, with 1501 E. Glenwood Avenue being the last place he lived until his death in 1915. Although the location of every Barber house in Knoxville has not been confirmed, this district boasts the area most closely associated with his early development ventures and is considered to have the largest concentration of Barber houses in the country.

*Barber's designs progressed through a series of styles, with the earlier ones best described as Eastlake, Queen Anne, or a mixture of these two Victorian styles.*

Their elaborate detailing included such features as patterned slate roofs, fish-scale-shingled wall coverings, turrets, bays, balconies, spindle work, beaded spandrels and intricate brick work. By the arrival of the twentieth century, Classical Revival details began to appear in his work. These designs often featured paired or tripled porch support columns with Ionic or Doric capitals, Palladian windows, and dentil molding.

### Houses that exhibit George Barber design influences

2701 E. Fifth Avenue

1810 E. Glenwood Avenue

1640 Jefferson Avenue

1731 Jefferson Avenue

2001 Jefferson Avenue

2038 Jefferson Avenue

1730 Washington Avenue

1802 Washington Avenue

1904 Washington Avenue

2458 Woodbine Avenue

### Houses designed by George Barber

1501 E. Glenwood Avenue

1603 Jefferson Avenue

1701 Jefferson Avenue

1708 Jefferson Avenue

2039 Jefferson Avenue

1614 Washington Avenue

1618 Washington Avenue

1620 Washington Avenue

1635 Washington Avenue

1702 Washington Avenue

1704 Washington Avenue

1705 Washington Avenue

1712 Washington Avenue

1724 Washington Avenue

1803 Washington Avenue

1805 Washington Avenue

1806 Washington Avenue

1905 Washington Avenue

1912 Washington Avenue

2331 Washington Avenue

2343 Washington Avenue

### Barber's publications include

*The Cottage Souvenir* (1891)

*The Cottage Souvenir No. 2* (1892)

*New Model Dwellings and How Best to Build Them* (1894)

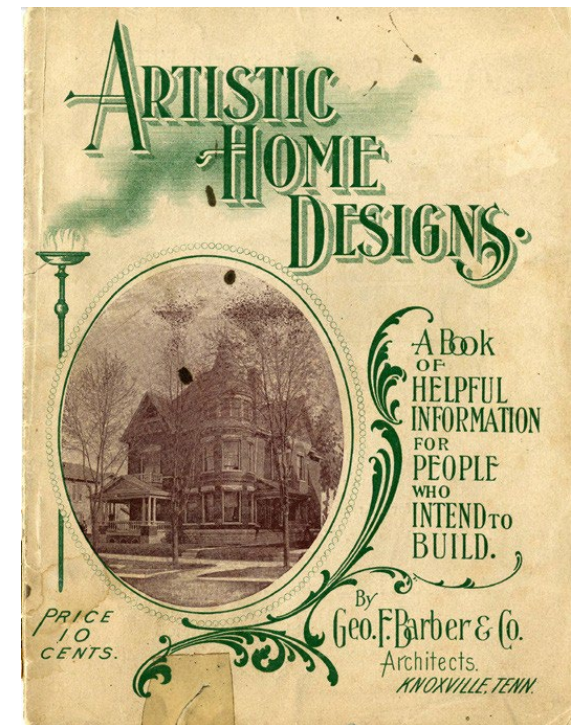
*Artistic Homes: How to Plan and How to Build Them* (1895)

*Art in Architecture* (1902-03)

*Modern Dwellings* (1901-1907)

*American Homes: A Journal Devoted to Planning, Building and Beautifying the Home*, which was an illustrated monthly magazine published by American Homes Publishing Company, continued for six years.

If any of these publications inspired the purchase of a home designed by Barber, a client could fill out a questionnaire and send it with the appropriate fee to Barber's Knoxville offices. Plans, elevations, working drawings, a bill of materials, or pre-manufactured architectural details for the house could be purchased in this manner.



## *THE CRAFTSMAN BUNGALOW AND INCREASING HOME OWNERSHIP*

Architecture in Park City at the time of its annexation demonstrates the success of the short-lived suburb, and perhaps no particular residential architectural style encapsulates the burgeoning early twentieth century middle-class better than the Craftsman Bungalow, which is ubiquitous along the edges of the district. The Craftsman style is typified by simplicity, unity with nature, and impressive wood detailing.

The tremendous popularity of the Craftsman bungalow during the 1920s is also indicative of the economic boom that transpired following World War I and following through the 1920s. For comparison, the U.S. Census Bureau shows that the national home ownership rate in 1900 was at 46 percent but had grown to almost 48 percent by 1930 because of the prosperous “Roaring Twenties.” The Craftsman bungalow, built with smaller dimensions, was the entree into the middle-class for many who were on the cusp of home ownership during this time, including workers in the industries located near Park City. By the 1920s, the Craftsman style had become associated with suburbanization and the growing prevalence of the automobile.

## *MINIMAL TRADITIONAL ARCHITECTURE MARKS THE END OF WORLD WAR II*

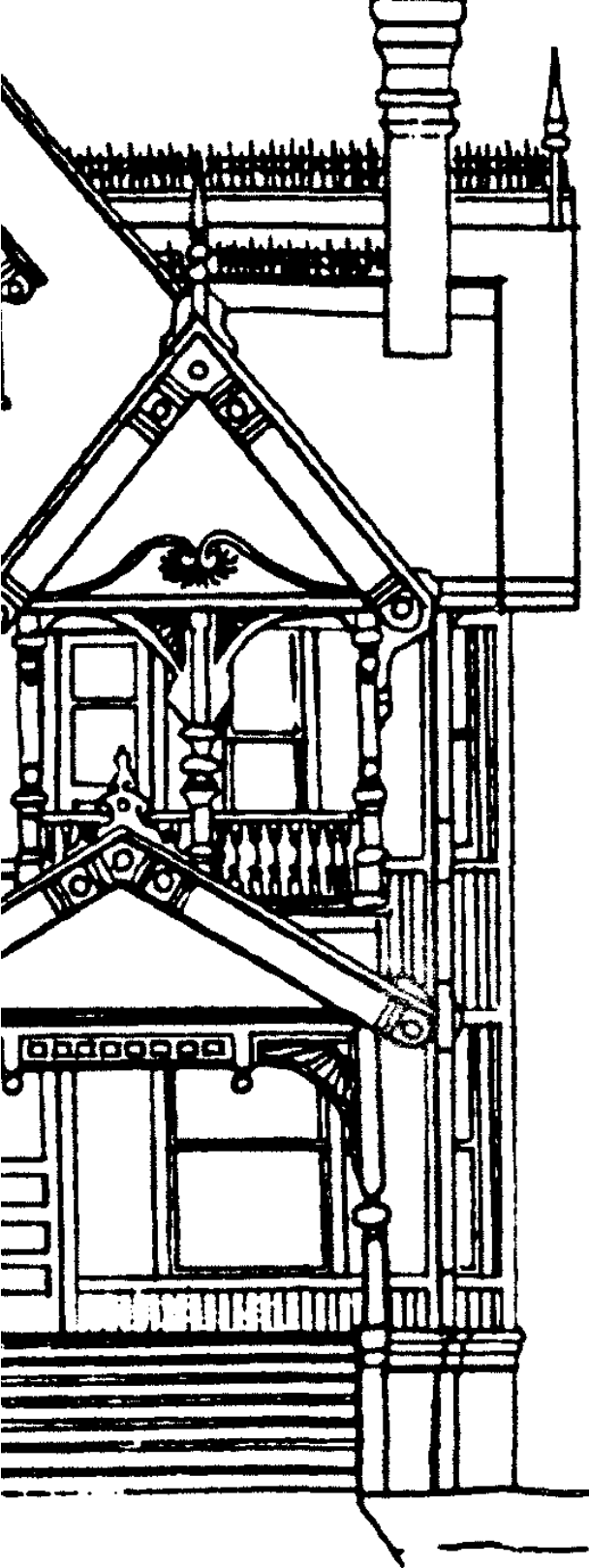
The Great Depression and the onset of World War II fundamentally altered the way neighborhoods developed. Following the stock-market crash of 1929, little new housing was built, and development in Edgewood-Park City area wound down. In an effort to rejuvenate the construction industry, provide housing, and encourage home ownership, the Federal Housing Administration (FHA) was established in 1934. The new program provided government insurance to banks that were still providing home loans, allowing them to make more long-term loans. Although the impacts from the implementation of FHA policies were not immediately felt, they became apparent in the boom years following World War II.

Pent-up housing demand mounted throughout the 1930s and early 1940s. The passage of the G.I. Bill in 1944 proved to be the impetus for a new wave of housing construction as veterans returned home from the war. The G.I. Bill covered the down payment of a new home for veterans. The construction techniques utilized during the early 1940s relied upon cost-effective mass production, which was associated with overall specialization in the war time economy. The home-building trend that emerged afterward was one focused on efficiency of construction and expansive developments to house the sixteen million soldiers returning from World War II.

The coalescence of these variables was embodied in the “Minimal Traditional” style of bungalow housing found in many of the later areas of Park City, including the eastern portion of Woodbine Avenue between Polk and Olive streets. Housing design in these areas exhibits what was at the time a new level of simplicity. The classic Minimal Traditional house continued to be constructed up until around 1950.

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***Note:** Most of the properties included in the H overlay district were first identified in the 1989 nomination for the Edgewood-Park City National Register of Historic District.*



# ARCHITECTURAL STYLES OF THE DISTRICT

The Edgewood-Park City Historic District contains distinctive architectural styles that date from the late 19th to mid-20th centuries. As is true with most of the historic architecture in Knoxville, there are very few “pure” styles. Instead, the styles found in the Edgewood-Park City Historic District draw characteristics from several styles to form an eclectic mix. Styles most representative of the neighborhood are discussed in this section.

## LATE NINETEENTH CENTURY

The last half of the 19th century saw a shift from the restrained, classical designs of Georgian, Federal, and Greek Revival to the textured, varied designs of the Victorian era. By the time houses were being designed and built in Edgewood-Park City, in the late 1800s, these Victorian designs were well established.

### Queen Anne

The Queen Anne style was popularized by a 19th century architect, Richard Norman Shaw, about 150 years after the time of Queen Anne’s reign, which was from 1702 to 1714. The first American example of Queen Anne style is thought to be the Watts Sherman house in Newport, Rhode Island, built in 1874. By 1880, architectural pattern books were spreading the style throughout the country. The expanding railroads helped to popularize it by making pre-cut architectural details widely available.

The Queen Anne style contains varied, exuberant architectural elements. Details from many other styles are reinterpreted and captured in Queen Anne designs. Queen Anne houses have irregular floor plans, large porches, corbelled chimneys, and elaborate decoration on exterior surfaces. Roofs are complex and steeply pitched, some with coverings of colored slate,

patterned oversize asphalt shingles, or terra cotta tiles. Ornamental wood shingles, with a diamond, square, or fish scale pattern, are often used on gables. Turned wood porch columns are common, with trim of elaborately sawn wood lacy spandrels. Porch railings have beaded or turned balusters. Ornamented attic vents or windows are often found. Windows may be leaded glass, and transoms and sidelights enhance front entries. A Queen Anne window, of small square glass panes surrounding a large central pane, is common.

Smaller Queen Anne houses known as “Queen Anne cottages” are one or one-and-one-half stories in height, and usually have a hip-and-gable roof and often would have had sawn wood ornamentation. These cottages have a large front porch, with roofs supported by wooden columns which may be turned, chamfered or round. Sawn brackets, sawn attic vents, and spindle or turned balustrades are common. Windows are double hung sash, with either two-over-two or one-over-one lights. There may be patterned wood shingles in gables, with sawn wood bargeboard at the roof peaks. A Cottage window, an early form of the picture window, is often found in Queen Anne cottages. It consists of a large fixed pane with fixed or moveable transoms and narrow side windows.



## Eastlake

The Eastlake style was used at the same time as the Queen Anne style and is similar. Developed by Charles Eastlake, it is most frequently associated with interior design. It is more vertical than the Queen Anne style, with more massive wood trim, usually formed by a chisel or gouge. Rows of spindles and beaded trim are common.

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*Illustrations of architectural styles  
created by Kristi Edens*



## Craftsman

Buildings of this style have low-pitched gable roofs with wide overhanging eaves. Roof rafters are visible, and decorative beams and knee braces are widely used on Craftsman houses. Porches usually stretch across all or most of the front facade, with a roof supported by battered or square columns, or by posts resting on piers or a balustrade. Dormers are used extensively. Weatherboard is a common wall surface material. Windows are usually double hung, with the upper sash having three, four, or more panes, and the lower sash having one pane. The smaller, one-story type of this house is referred to as a “bungalow.” A larger, two-story Craftsman house type is often of a style that is referred to as an American Four Square, described below.



## American Four Square

This house style was used from the 1900s until the 1920s, and is recognized by its square appearance and often hipped, pyramidal roof. Front dormers are often used. It is almost always two or two-and-one-half stories in height, and the interior spaces are arranged into four square or nearly square, rooms. A full front porch is most common in these buildings. Detailing on the house may be from any of the styles common in the early twentieth century. Sidelights and transoms are often used on an American Four Square front entry, and these may be of leaded, stained or beveled glass. Double-hung windows are common, and they may have a patterned upper sash or may be in a one over one configuration.

## LATE NINETEENTH CENTURY

(CONTINUED)

### Folk Victorian

Another eclectic style present in the Edgewood Land and Improvement Company Historic District, Folk Victorian houses usually feature a front gable and trim derived from the Queen Anne style. Full-length porches with chamfered or turned posts are common, as are double-hung windows. Folk Victorian houses usually are simpler in massing and roof design than the Queen Anne houses or cottages that they imitate.

## EARLY-TWENTIETH CENTURY

*After 1900, the style of buildings gradually began to change from the elaborate Victorian-era designs to simpler designs.*

Some of these were revival styles, based on earlier historic precedents. Another design emphasis involved the Bungalow and Craftsman styles. These later designs evolved as some of the first purely American architectural styles.

### Tudor Revival

This style mimics or interprets medieval European design. Walls are primarily clad in either stone, stucco, or brick. Stone patterns are often square cut ashlar or dressed stones, and may be laid in either a random or broken range course. Stucco is either troweled into a smooth, lightly mottled pattern or a leaf pattern. Other exterior wall surface materials include weatherboard, wood shingles and applied half timbering. Decorative half timbering involves using horizontal, vertical and curvilinear wood members with either brick or stucco infill. Tudor Revival houses commonly feature steeply pitched roofs, often with side gables or multiple gables. Roofs and gable ends may feature a bell cast curve. Brick chimneys may be patterned. Stone quoin-like projections and voussoirs are common around door and window openings. Windows are usually casement or double-hung, with diamond shaped panes often used as a design element.

## MID-TWENTIETH CENTURY

### Minimal Traditional

Minimal Traditional housing exhibits simple, unadorned design and is typically one-story construction with a low-to-moderately pitched side-gabled roof. These houses are designed with a rectangular compact floor plan and often a symmetrical façade. Entrances are typically marked by a front-gabled stoop as opposed to a larger porch. Windows are single or double-hung, and the occasional large picture window is featured. Wall cladding may consist of wood siding or asbestos shingles. Chimneys are also common with this style.

# ADDITIONAL ELEMENTS THAT AFFECT HISTORIC CHARACTER

*Changes to the following elements do not require a Certificate of Appropriateness, but landscaping, fences and public improvements can strongly affect the historic character of the district.*

## LANDSCAPING

Hedges were frequently used to mark the edge of lots. When planning foundation plantings, or considering removing overgrown ones, remember that foundation plantings were not used the way they are today. Shrubbery planted close to the houses can harm foundations, which are usually constructed of soft brick and mortar. Shrubbery can also prevent wooden members from drying properly after wet conditions. To avoid the necessity for expensive siding, brick, and foundation repairs, plantings should be kept several feet from the base of the house, with the ground sloped away from the house. Shrubbery should be kept trimmed so air can circulate freely.

## FENCES

Front yard fences were sometimes used in historic Edgewood-Park City, and stone or masonry retaining walls along the public sidewalk were common. Both were used to separate the private front yard from the public area of the sidewalk and the street, and to separate properties at side yards. The style of a fence or wall should be compatible with the era and style of the house or other building. Fences would have been made of wood or wrought iron, usually not more than three feet in height. Taller fences may have been utilized in the rear, although privacy screens were more likely to have been hedges. The height of the fence or wall should be constant and follow the contour of the land.

Solid board fences are not appropriate further forward than the midway point of the side of the house due to their stockade-like appearance. Since chain link fencing is not an appropriate fencing material in the historic district, if used, consider painting it dark green or using it as a trellis for plants. Fences and walls should be installed a minimum of three feet from an adjacent structure in order to provide adequate space for maintenance.

## PUBLIC IMPROVEMENTS

Changes made in public improvements can have a substantial impact on the pedestrian character of the historic district. Several distinctive public features survive from the earliest days of the neighborhood. These include brick pavers, stone curbs, and the “diamond chip” sidewalks that can be found throughout the neighborhood. These features should be retained.

Street lighting can also have a significant impact on the district. Modern lighting, with high intensity fixtures on tall poles, is not appropriate in the historic district. The height of the modern fixtures is often level with second- story windows, and shines directly into the houses.

# HISTORIC DISTRICT DESIGN GUIDELINES



# OVERALL APPROACH FOR PRESERVING HISTORIC BUILDING MATERIALS

## RETAIN

### Retain and preserve historic building materials

- Protect historic building materials and features from deterioration.
- Maintain protective coatings on historic materials.
- Provide adequate drainage to limit standing water on horizontal surfaces.
- It is not appropriate to remove historic materials that are intact or repairable.
- Clean historic materials only when necessary to stop deterioration or remove graffiti, heavy soiling, or biological growth. General cleaning should otherwise be avoided so as not to unnecessarily introduce moisture into materials.
- Start with a low-pressure water washing and a soft, natural bristle brush when cleaning is necessary.
- It is not appropriate to use abrasive cleaning methods such as high-pressure water washing or sandblasting, which can easily damage historic materials and lead to additional deterioration.

## REPAIR

### Repair deteriorated but repairable historic materials before considering replacement

- Repair deteriorated materials by using accepted preservation treatments.
- Match repairs to original materials in appearance, profile, texture, and finish.
- If disassembly of a historic building feature is necessary in order to complete a repair or avoid inadvertent damage to surrounding features, document the configuration of the feature and reassemble accordingly once finished.
- If removing paint, stain, stucco, or other claddings, select a localized area to test the removal process to ensure that materials will not be damaged.
- It is not appropriate cover historic materials instead of appropriately repairing them.

## REPLACE

### Replace historic materials in kind

- Replace only the portions of a feature that are deteriorated beyond repair. Avoid wholesale replacement of otherwise intact features or materials.
- Replace deteriorated or damaged materials with replacement materials that match the original in dimension, detail, profile, texture, and finish.
- Use replacement materials and a design based on historical, photographic, and/or physical evidence.
- In the absence of appropriate documentation, utilize a simple design that is compatible with the building in scale, profile, material, and finish.
- Alternative materials will be considered on a case- by-case basis depending on the building feature and compatibility of the proposed material.
- Alternatives to traditional materials may be utilized on new construction, additions, and contributing historic structures if the HZC determines that the alternative material adequately simulates the traditional or original material. Faux wood-grained materials do not adequately simulate wood.

# CHECKLIST FOR THE APPROPRIATENESS OF THE REMOVAL OR ADDITION OF FEATURES/MATERIALS

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**PLEASE NOTE:** *An original or early architectural component may not be removed solely for the purpose of accommodating the interior renovation plans for the structure.*

## SHOULD YOU REMOVE A FEATURE/MATERIAL?

- Is the feature/material a significant character-defining element that helps convey the style and associated period of construction for the structure?
- Is the feature/material a unique artistic expression, or rather is it common and utilitarian?
- Will the character of the structure be altered significantly if the feature/material is removed?
- Is the feature/material original or at least 50 years old? Has the original or early feature been altered?
- Is the feature/material prominently visible from the public street right-of-way?
- Is the feature/material of low quality or does it exhibit poor craftsmanship?

## SHOULD YOU ADD A FEATURE/MATERIAL?

- Does the proposed feature/material cause the structure to look earlier or later than its time?
- Does the proposed feature/material confuse or alter the primary style of the structure?
- Does the proposed feature/material make a design statement that is not authentic to the structure? Is it overly decorative or noticeable so as to detract from the original or early façade?
- Is the proposed feature/material typical of other features/materials found on other structures of the period in the district?
- Is the proposed feature/material appropriate for the style as indicated in academic architecture manuals?

# MASONRY

1. Protect and retain original masonry surfaces and features.
  - a. Retain the original color and texture of masonry materials.
  - b. Provide positive drainage away from foundations to move water away from the foundation wall.
  - c. Retain protective paint coatings where historically present.
  - d. It is not appropriate to paint or stucco historically-exposed masonry surfaces.
  - e. It is not appropriate to remove protective patinas that evolve over time and are part of the structure's character.
  - f. It is not appropriate to sandblast or use abrasive methods to clean masonry materials.
2. Repoint deteriorated mortar joints.
  - a. Repoint mortar joints only where there is evidence of moisture problems, material breakdown, or sufficient erosion to allow standing water in the joint.
  - b. Prepare joints by using hand tools, removing ½" to 1" of old mortar to provide sufficient space to bond new mortar.
  - c. Repoint mortar with materials matching the original in composition, color, and texture. High lime mortars and hydraulic cements are the most appropriate for repointing historic masonry.
  - d. Match the size and profile of the repointed joint to the original joint.
  - e. Using inflexible mortars with high amounts of Portland cement, which are incompatible with historic soft mortars that accounted for expansion and contraction of masonry materials, is not appropriate.
3. Replace deteriorated or missing masonry units or features in kind.
  - a. Replace only the sections of historic masonry that are missing or deteriorated.
  - b. Use new or recycled masonry materials that match the original as closely as possible in size, shape, color, and texture.
  - c. If a historic masonry feature is missing, replace it with a new feature that, based on photographic documentation or comparable features elsewhere on the building, matches the original in size, material, texture, and scale.
  - d. Replacing large sections of intact masonry materials is not appropriate.
  - e. It is not appropriate to use materials, such as artificial stone or apply a brick veneer, as a substitute for replacement of deteriorated masonry.

## MASONRY SEALANTS

*Applying waterproof or water repellent coatings to masonry is generally not appropriate. Not only can they alter the appearance of masonry, but sealing a foundation can also prohibit the natural movement of moisture through masonry, ultimately trapping it and causing additional deterioration.*

Sealants are not to be used as a substitute for appropriately repairing deteriorated materials. Sealants are only to be applied in rare circumstances where moisture can be demonstrated to be uncontrollably infiltrating masonry and when the method of infiltration is understood.

In instances where use of a sealant is determined appropriate, coat only the masonry that is affected. It is not appropriate to unnecessarily seal masonry that has no demonstrated infiltration. Apply sealants only on dry masonry. Treating masonry while damp can unintentionally trap damaging moisture inside the masonry.

Maintain clear distances between plantings and the foundation wall in order to limit the potential for moisture to be trapped against the wall by vines or vegetation.

## WOOD FEATURES AND SIDING

1. Repair deteriorated wood elements as character- defining features.
  - a. Repair deteriorated wood surfaces by patching, consolidating, splicing, or otherwise reinforcing deteriorated sections.
  - b. Match repairs to original materials in appearance, profile, texture, and finish.
  - c. When repairing deteriorated components, retain unique details such as beaded edges, bevels, or fish scale patterns.
2. Maintain compatibility when replacing wood features that are deteriorated beyond repair.
  - a. Repair or replace, only as needed, materials and features with components that match the original in material, dimension, detail, profile, and texture.
  - b. Smooth-finished fiber cement board may be utilized as a replacement for wood siding only when it has deteriorated beyond repair, and for any other type of siding, as long as the profile and exposure (visible width) is historically appropriate. Existing vinyl or aluminum siding may be replaced in-kind as long as no further architectural detailing is covered or removed.
  - c. Existing vinyl or aluminum siding may be replaced in-kind as long as no further architectural detailing is covered or removed.
  - d. Utilize a replacement siding that matches the profile and exposure of any original existing siding or matches what is documented to be the original. In the absence of appropriate documentation, install the exposure to match that of similar buildings in the district.
  - d. Replace missing wood features with elements based on historical, photographic, or physical evidence of the original feature. In the absence of such evidence, use a design that is compatible with the building in style, scale, and size.

## HOW TO PRESERVE WOOD FEATURES

- Protect wood surfaces and features from deterioration by providing a protective, weather-resistant coat of paint or stain. Paint all six sides of new siding in order to provide a consistent protective coating.
- Identify, evaluate and treat the causes of wood deterioration, including faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking at seams, plant material or insect or fungus infestation.
- Apply chemical preservatives to historically exposed wood features such as ends of beams or rafters.
- Remove deteriorated protective coatings to the next sound layer by hand scraping and then repaint. It is not appropriate to use damaging methods such as a propane torch to remove paint.
- When patching or splicing deteriorated wood components, use timber that matches the grain and density of existing materials.

# THE SIMPLE TRUTH ABOUT VINYL SIDING

*Vinyl siding is not a cure-all, despite what marketing materials often claim.*

The truth is that “maintenance-free” claddings such as vinyl siding are not actually maintenance-free. Rather, maintenance-free means that the material is not easily repairable, which can be just one of many problems with the material:

## **VINYL SIDING TRAPS MOISTURE**

Artificial claddings such as vinyl siding are considered a non-permeable material. While this means that moisture cannot penetrate the material, it also means that any moisture that gets behind the cladding will be trapped and unable to dry out to the surface. As water runs along the building materials behind siding, it will look for areas to penetrate into the building.

## **VINYL SIDING CANNOT BE REPAIRED**

Just like every other material, vinyl siding deteriorates. It can dent, warp, crack, discolor, sag, or fade. While timber and masonry elements can be patched and repaired on a localized basis as needed, vinyl siding cannot be easily repaired. When a piece fails, the entire piece must be replaced.

## **VINYL SIDING MASKS DETERIORATION**

Installing vinyl siding may hide underlying deterioration of wood or masonry, but it will not make the problem go away. Often, it will actually cause the problem to worsen, and, with the problem out of sight, it has the effect of causing the homeowner to forget about the deterioration while it continues behind the siding. Should the homeowner decide to eventually correct the problem, vinyl siding prohibits easy access to the materials below.

## **VINYL SIDING CHANGES THE CHARACTER OF A BUILDING AND THE DISTRICT**

Vinyl siding destroys the visual integrity of a historic building. Scale, textures, profile, and colors are all altered when vinyl siding is installed. Furthermore, architectural features and details are often lost, concealed, or removed by the installation of vinyl siding.

# PAINING POINTERS

*Paint colors are not regulated in the historic district. Although paint colors help to create a unified appearance for a historic district, they are also reversible. The explanation given here is to assist owners of historic properties who wish to enhance the appearance of their buildings through the use of appropriate paint colors.*

The original color of a house may be determined through paint analysis. To conduct the analysis, look for samples of the original color behind shutters or trim, or in a protected corner. These areas usually show the original colors because they have not been exposed to weather and the elements, and have not been scraped to bare wood. It is appropriate to assume that three or four colors were used in the original paint scheme of the earlier Victorian-era house. Later revival styles may have used only a two-color scheme, and white was very common with the revival styles. Darker earth tones were used on Craftsman styles. The paint color of trim, window sashes, porch columns, doors, shutters, and wood brackets typically contrast with the house siding. Window sashes were often painted the darkest color.

Many paint companies now manufacture colors that replicate historic colors. Before selecting paint colors. Consider using these historic color selections as a reference. Most importantly, if the original color is to be painted over, leave an un-scraped patch in a protected place so a record of the original paint layers remains on the house.

Historic houses were usually painted with a lead base, and later alkyd, paint. This paint is generally glossier than latex paint. If a latex paint is used on the house, first install a good coat of primer manufactured to mask the old oil paint so that the new coat of latex paint will adhere properly. Use a glossy finish latex paint to more closely replicate the original appearance of the house. Ensure that all six sides of each piece of new siding is painted to seal out moisture and prevent warping. With this practice, the paint will last longer.

## REPLACING SLATE AND TILE ROOFS

*Specialty roofing materials such as slate and tile requires careful consideration.*

While replacement with in-kind materials is most appropriate, allowances can be made for substitute materials in consideration of the continual changes to roofing within the district overtime. In general, the following options will be considered:

### IN-KIND REPLACEMENT

Existing slate and tile roofs should be maintained as necessary in order to maximize their useful life. When deteriorated, consider selective repair or replacement over wholesale replacement.

### IMITATION SLATE OR TILE

In many instances, replacement of an existing roof with a new slate or tile roof may prove infeasible. In such instances, replacement of the roof with a modern substitute material that replicates the appearance of the original material will be considered. When reviewing such materials, the HZC will consider the texture, pattern, durability, and dimension of the replacement material.

### ASPHALT OR FIBERGLASS SHINGLES

If replacement with an in-kind or imitation roof material is not feasible or appropriate, replacement with a dimensional fiberglass or asphalt shingle can be considered.

## ROOFS, ROOF FEATURES AND CHIMNEYS

*The roof shape and pitch help distinguish the architectural character of a building. Whether gabled, hipped, or a complex arrangement of multiple forms, roofs directly influence our perception of a building and play a role in defining a building's massing, volume, and presence along the streetscape.*

A roof can be further distinguished by any number of features, including chimney, dormers, cornices, turrets, finials, and eaves, which further contribute to the character of a building. Roofing materials are also a distinguishing feature of a roof, including standing seam metal, slate, cement or metal shingles, and terra cotta tiles, but many roofs have been re-clad with modern asphalt shingles. Retaining the original roof shape and pitch, as well as associated features, is important since changes to the roof can significantly alter the appearance of a building.

1. Retain original roof shapes, materials, and associated characteristics.
  - a. Retain and preserve decorative and functional features of the roof such as dormers, finials, cresting, and built-in gutters.
  - b. It is not appropriate to remove, cover, or wrap original eaves or cornices.
  - c. It is not appropriate to remove original roof dormers.
  - d. Corrugated, 5V-groove, or wide sheet metal is not appropriate on the roof of the main building or on front porches.
2. Retain original chimneys.
  - a. Retain original or reconstructed original chimneys.
  - b. Install a chimney cap so that it does not diminish the original design of the chimney, require removal of decorative features, or damage historic materials.
  - c. If rebuilding a chimney is necessary, use historically appropriate materials. It is not appropriate to use simulated masonry materials.
  - d. Altering the character of a chimney by painting, parging, or otherwise covering historically-exposed masonry materials is not appropriate.
  - e. Reducing the height of chimney stacks, while retaining the appearance that a stack exists, can be considered based on a professional contractor's assessment of their condition. If a chimney stack is destroyed or the height reduced by an act of nature, then retain any remainder of the stack and cap the chimney. Retain and store loose bricks for possible future reconstruction.
  - f. Small chimneys that originally served as enclosures for stove pipes can be removed if determined to be of no architectural or historical significance.
3. Repair original roofing materials and features unless substantial deterioration warrants replacement.
  - a. Repair original specialty materials such as tile, slate, and metal by replacing only deteriorated sections unless more than 35% of the total surface is deteriorated.
  - b. Use in-kind materials when repairing localized areas of deteriorated roofing.
  - c. Repair deteriorated flashing by installing new to match the existing. Unfinished metal flashing is not appropriate.
  - d. It is not appropriate to remove or replace original features that are deteriorated but repairable.
4. Replace deteriorated roofing materials with compatible counterparts.
  - a. Preserve the original roof shape and configuration when installing new cladding materials.
  - b. Replace deteriorated roofing with in-kind materials, matching original materials in appearance, pattern, color, and composition.
  - c. Compatible substitute materials can be used if determined an appropriate match for traditional roofing materials. Low-profile asphalt or fiberglass shingles in dark shades may be an appropriate substitute.
  - d. Where large sections of specialty materials such as slate or tile are deteriorated on primary slopes, consider consolidating intact units from the rear slope for use in the deteriorated area.
  - e. Replace specialty roofing materials with in-kind materials. If in-kind materials are not feasible, consider alternative materials that mimic the appearance of traditional materials.
  - f. Consider salvaging intact units of specialty cladding materials when replacing roofs in order to reduce landfill waste and promote reuse of historic fabric.
  - g. It is not appropriate to install tar paper as a finished roof or patch roofing materials with tar.
5. Minimize the impact of rooftop additions or changes.
  - a. Retain the original roof configuration when making additions or changes to the building.
  - b. When reconstructing an original feature that is missing, such as a chimney or dormer, base the reconstruction on historical, photographic, and/or physical documentation.
  - c. It is not appropriate to add dormers, skylights or other architectural features to a roof if they can be viewed from the street right-of way, or if they change or detract from a character-defining facade.
  - d. New dormers are to be scaled to the massing of the building and other dormers present on the building or similar structures in the district.
  - e. Skylights are to be flat. Bubble-profile skylights are not appropriate.
  - f. It is not appropriate to enclose exposed rafters.
  - g. It is not appropriate to install new roof features in a manner that damages or obscures significant architectural features.



# ROOFTOP SOLAR COLLECTORS

*Rooftop solar collectors allow the property owner to reduce energy consumption by taking advantage of renewable resources. These may be in the form of either solar panels or solar shingles which translate the sun's energy into usable power for the home.*

Installation of such features is permissible and encouraged where it can be accomplished without diminishing the historic character of the building. Edgewood-Park City supports the use of solar panels and other renewable energy technologies to achieve broader community goals of sustainability. See the section headed "Historic Preservation and Sustainability" for further information. Use these guidelines when considering rooftop solar collectors in order to limit the potential for them to affect the aesthetic of the building:

1. Minimize the impact of rooftop solar collectors on the historic character of the building.
  - a. Ensure that the roof structure can support the weight of added collectors.
  - b. Install solar collectors on roof slopes that are inconspicuous from the public street right-of-way.
  - c. If a building's orientation limits the utility of solar collectors on a rear roof slope, a slightly visible location on a secondary elevation may be considered. Appropriateness will be considered regarding the size of the installation, panel arrangement, and material finish.
  - d. If possible, position solar collectors behind features such as dormers or chimneys in order to minimize their visibility from the public street right-of-way.
  - e. If possible, install solar collectors on accessory buildings at the rear of the lot rather than on the primary structure.
  - f. Install solar collectors so that they lay parallel to the roof surface.
  - g. Install solar collectors to be, at maximum, within 6" of the roof surface.
  - h. Install solar collectors in a manner that they do not cause irreversible damage to the roof structure or require the alteration or removal of character defining-features such as chimneys, dormers, or cornices.
  - i. Select solar collectors and frames that are similar in color to roofing materials in order to minimize their appearance.
2. As new solar collector technologies are developed, they can be evaluated on a case-by-case basis, based on the guidelines above.

# PORCHES

*Porches are both a historically significant aesthetic and functional component of a house, and many neighborhoods are defined by the rhythm of porches along the streetscape.*

Front porches distinguish the street presence of a house and define its architectural character, whether featuring simple brick columns or intricate scrollwork. Historically, porches were a form of air conditioning and provided a buffer between interior and exterior temperature fluctuations. Porches also performed a social function, often serving as the location for the gathering of neighbors.

1. Retain and preserve original or early porches, including their individual components.
  - a. Retain porches that contribute to the historic character of the building, including individual components such as:
    - i. support columns and posts
    - ii. masonry piers
    - iii. balustrades (rails & balusters)
    - iv. newel posts
    - v. beadboard ceilings
    - vi. tongue-and-groove floors
    - vii. steps and hand rails
    - viii. ornamentation
  - b. Retain the location and character of front porch steps.
  - c. Retain open porches on the facade. Porches at the rear of secondary elevations or on the rear elevation may be enclosed with glass or screening and minimal framing in order to retain a sense of transparency.

- d. It is not appropriate to remove or alter a historically character-defining porch.
  - e. It is not appropriate to enclose a front porch in any manner, including with screening or glass. Opening enclosed porches that were originally unenclosed is appropriate.
3. Repair deteriorated or replace missing historic porch components.
    - a. Repair or replace only the deteriorated or missing section of a historic porch component. Wholesale replacement of intact historic components is not appropriate when only a small section is deteriorated.
    - b. Repair deteriorated porch components with materials finished to match original or early components.
    - c. Where historic components are determined to be deteriorated beyond repair, use them as the basis for selecting replacement components in order to match the early or original in design, profile, and material texture.
    - d. Where historic components are missing, use historical, photographic or any remaining physical evidence as the basis for replacement components. In the absence of such evidence, reference historic porches on nearby structures of similar style and vintage.
    - e. Pressure-treated lumber is not appropriate on front porches except where it comes into contact with the ground or is concealed from view.

- However, pressure-treated tongue-and-groove porch flooring is appropriate.
- f. It is not appropriate to replace tongue-and-groove flooring with other types of flooring including board decking. If tongue-and-groove flooring is not existing, then board decking can be installed, although moisture damage to the structure beneath the porch will need to be monitored.
  - g. It is not appropriate to replace a wood porch floor with a concrete one.
4. Design new porches to be compatible with the character of the historic structure.
    - a. Add a front porch only when there is documentary or physical evidence that one historically existed, or when there is precedent in the district for porches on buildings of similar style and vintage.
    - b. Select a design for reconstructed porches based on physical or pictorial evidence. In the absence of sufficient documentation, select a simplified design that is compatible with the building in terms overall design and scale as well as material and detail.
    - c. Design porches to be added to the rear of secondary elevations or on the rear elevation to be compatible with the building in terms of overall design and scale as well as material and detail.
    - d. Design new balusters to be set into the top and bottom rails instead of overlapping them.

## BALUSTRADES AND BUILDING CODE REQUIREMENTS

The City of Knoxville building code provides specific regulations for the installation of balustrades on residential porches. When working on a balustrade, remember the following regulatory guidance:

- A balustrade may be reinstalled at its existing height if it is removed only temporarily for repairs of the porch flooring or other porch elements.
- If an existing balustrade is to be replaced, the new balustrade must meet the required building code height of 36 inches from the porch floor when a landing is 30 inches or more above ground. This requirement also applies to step railings.
- When a landing is 30 inches or more above the ground, a new balustrade is not required to meet building code height of 36 inches from the porch floor, but is still required to meet the design guidelines.
- The balusters (sometimes called spindles or pickets) may not be spaced more than 4 inches apart according to the required building code.



- The bottom rail may not be higher than 4 inches from the porch floor.

- If the porch and steps are masonry, either wood or metal might be appropriate for handrails. Select a handrail with a simple profile and paint metal black and wood to match existing trim.

## HANDRAILS

Historically, few porch steps had handrails. However, handrails are necessary in some instances in order to accommodate safety or ease of access.

Design handrails to be as non-intrusive as possible to the original design of the porch. Handrail designs will be reviewed on a case-by-case basis, but the following criteria.

- If the porch and steps are wood, new handrails are also to be wood and mounted on wood posts. Select a handrail with a simple profile and paint to match existing trim.

## ALTERNATIVE MATERIALS

Porch components are common targets for the use of alternative materials such as composites and fiberglass.

The HZC can approve proposed alternative materials on a case-by-case basis in consideration of texture, reflectivity and finish of the proposed replacement material. In all instances, regardless of the material selected, the replacement feature must match the original in profile and dimensions

# ENTRANCES AND DOORS

*Entrances are one of the most distinctive features of a historic building, and may include sidelights, a transom and ornate hardware. The front door is character-defining and can help convey a building's architectural style. Secondary entries at the rear of the building were typically simple in detail.*

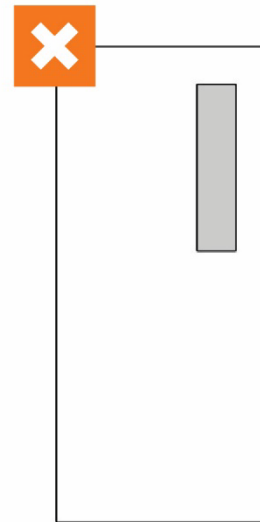
1. Retain original door openings.
  - a. Retain the location, size, and shape of original door openings.
  - b. It is not appropriate to reduce or enlarge original door openings.
  - c. It is not appropriate to close in original door openings.
  - d. It is not appropriate to alter primary entrances by adding details not historically present.
  - e. It is not appropriate to alter secondary or service entries to make them appear more formal by adding elaborate doors, transoms, sidelights, or other elements.
2. Preserve original doors and associated features.
  - a. Retain original doors and components such as hardware, trim, casings, transoms, and sidelights.
  - b. It is not appropriate to remove historic leaded, stained, or prismatic glass in doors, sidelights, and transoms.
  - c. It is not appropriate to cover original transoms or sidelights.
  - d. Repair and retain original hardware.
3. Install appropriate energy efficiency enhancements.
  - a. Low-e or other light-absorbing coatings are only appropriate on door glazing when it can be demonstrated that there will be no significant change in the original appearance of the glass.
  - b. Full-light, wood doors are the most appropriate option. Doors with excessive ornamentation or framing members that obscure the primary door are not appropriate.
  - c. Select storm doors with fully-transparent glass. Frosted, tinted, reflective, opaque, or patterned glass is not appropriate.

## ENERGY CONSERVATION

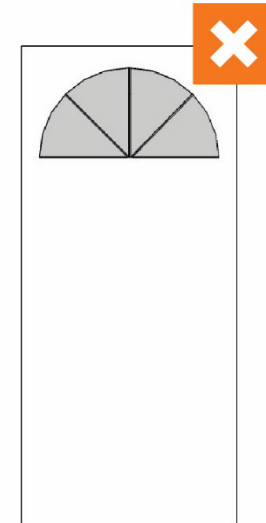
*Historic solid-core wood doors are great insulators.*

If the homeowner wishes to further minimize heat loss and improve energy efficiency, the most important step is to reduce air leakage around the door. This can be accomplished by installing weather-stripping along the frame and at the base of the door, ensuring that the door is properly fitted to the jamb and threshold, and securing glazing putty around any glazing in the door. Energy efficiency can be further addressed by installing a properly fitted, full-light storm door.

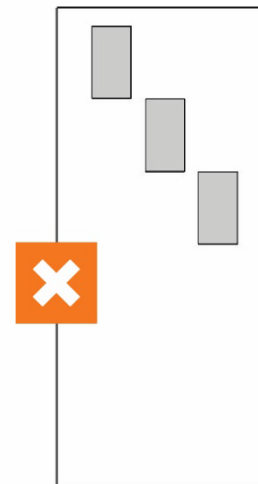
4. Select a replacement door compatible with the character of the building.
  - a. Replace early or original doors only when they are determined to be deteriorated beyond repair. Replace these doors in kind.
  - b. Select replacement hardware that is compatible with the style of the building.
  - c. Vinyl and vinyl-clad wood doors are not appropriate.
  - d. Replace inappropriate doors with a new door that matches the early or original in style, size, profile, and glazing configuration.
    - i. Select the door based on photographic or physical evidence of the original or early, if available.
    - ii. In the absence of documentation, select a door type that is simple in design and compatible with the style and period of the building and others in the district.
  - e. Replace deteriorated or inappropriate doors on secondary elevations with a new door that matches the early or original. Alternative door types compatible with the character of the building can be considered on secondary elevations.
  - f. Undistinguished, flush doors are not appropriate.
  - g. Any muntins within glass door panels are to be either true divisions or simulated divisions with muntins on each side of the glass and a shadow bar between them.
  - h. Frosted, tinted, reflective, opaque, or patterned replacement glass is not appropriate unless historically present.
5. Design new door openings to be as inconspicuous as possible.
  - a. Where creation of a new door opening is considered, locate it to the rear quarter of a side elevation or on the rear elevation so that its visibility from the public street right-of-way is limited.
  - b. Design new door openings to be compatible with those existing on the building in size and proportion.
  - c. Locate new door openings so that significant historic materials and features are not destroyed.



*Single-Lite  
Vertical*



*Fanlight*



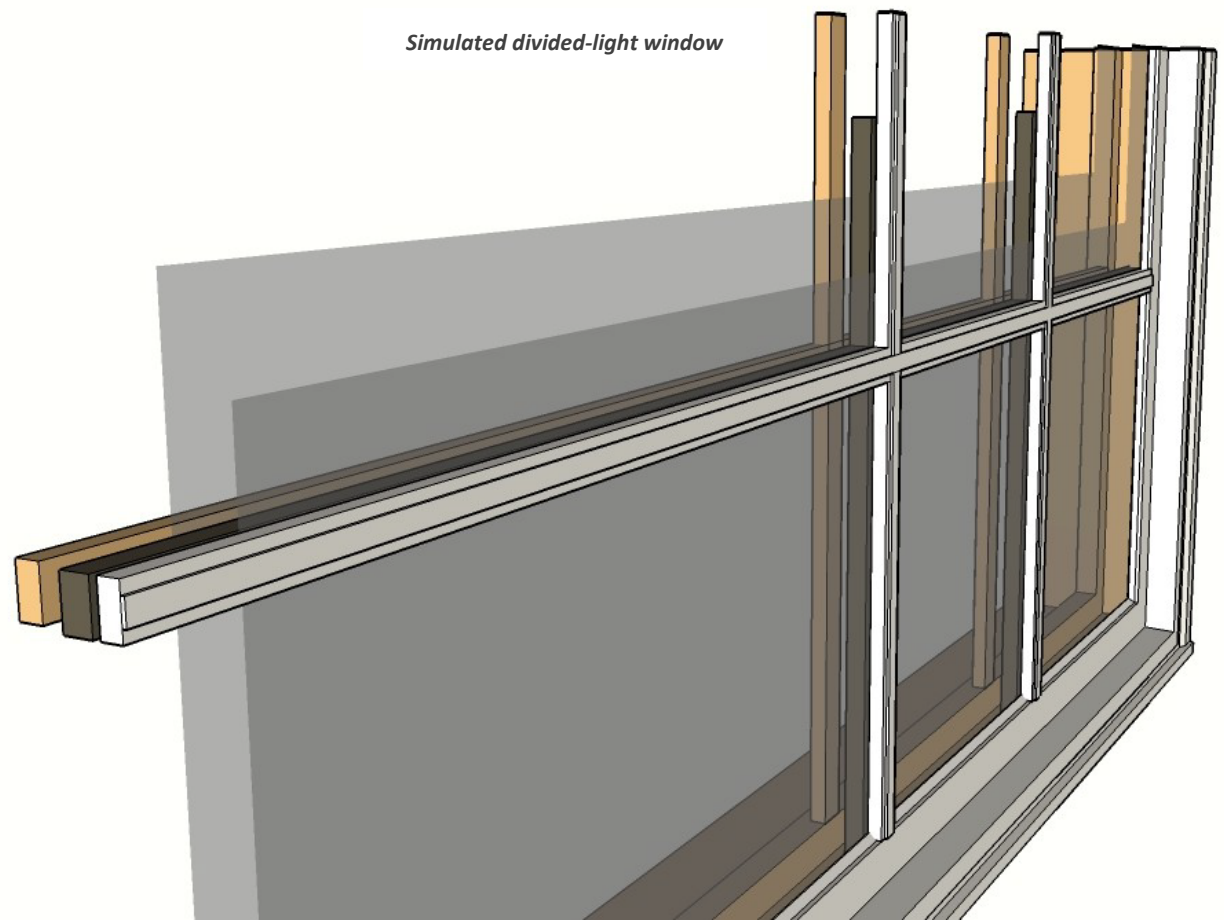
*Three-Lite  
Diagonal*

# WINDOWS

*Inappropriate changes to windows can severely detract from the overall character of a historic building. As important character-defining features, their preservation should be a priority of any rehabilitation project.*

While the most common argument against historic windows is that they are not energy efficient, it is proven that an appropriately weather-sealed historic wood window with a storm window is just as energy efficient, if not more so, than a new insulated window. In addition, historic windows of old growth wood are more stable and resistant to deterioration and, if properly maintained, can be easily repaired and last for hundreds of years. Carefully scrape, prime, and repaint deteriorated coatings to provide a weather-resistant coating. Maintain caulk and glazing putty in good condition, providing a weather-resistant coating.

1. Retain the original window openings.
  - a. Retain the location, pattern, and size of original window openings.
  - b. It is not appropriate to reduce or enlarge original window openings.
  - c. It is not appropriate to close in original window openings.
2. Preserve original windows and associated features.
  - a. Retain early or original windows, including all functional and decorative elements such as the sash, hardware, and casing, as well as any decorative moldings or hoods.
  - a. It is not appropriate to remove historic leaded, stained, or prismatic glass.
  - b. Burglar bars, security grilles, and other visually-intrusive elements are not appropriate.
3. Improve the energy efficiency of intact original windows rather than replacing them.
  - a. Low-e or other light-absorbing coatings are only appropriate on the primary facade when it can be demonstrated that there will be no significant change in the original appearance of the glass.



- b. Enhance energy efficiency by installing storm windows.
  - i. Align storm windows within the original opening. Altering an opening to accommodate a storm window is not appropriate.
  - ii. Wood-framed storm windows are most appropriate, but baked-on enamel-finished or anodized aluminum is also acceptable if the finish color matches that of the building's trim. Bare aluminum sashes are not appropriate.
  - iii. Storm windows that do not allow for a full-view of the primary window or do not have a meeting rail that aligns with that of the primary window are not appropriate.
  - iv. Interior storm windows are encouraged but should be installed in a manner that limits the potential for damaging condensation to form on the primary window. Incorporate air-tight gaskets, ventilating holes, and/or removal clips.
- 4. If replacement is necessary, replace historic materials in kind.
  - a. Replace historic window sashes only when they are determined to be deteriorated beyond repair.
  - b. Replace only the deteriorated component of a historic window (such as the sash) rather than replace the entire assembly.
  - c. Properly recess new window sashes within the opening to protect the window, allow water runoff, and preserve historic profiles.
  - d. It is not appropriate to enlarge or reduce the size of the original opening to accommodate the installation of a replacement window.
  - e. Replacement windows are to match the operation type (e.g., double-hung) of the original window.
  - f. Alternative materials for replacement windows may be considered, as long as the replacements match the overall size, muntin configuration and profile, meeting rail width and profile, and style of the original windows.
  - g. When replacing with divided-light sashes, use either true-divided-light or simulated divided-light sashes with dimensional muntins permanently affixed to the exterior of the glass. Snap-in grids and internal muntins sandwiched between panes of glass are not appropriate.
  - h. Maintain the original profiles, trim dimensions, and depth of reveal when installing replacement sashes.
  - i. In the absence of other intact windows on the building, reference window designs on similar properties within the district.
  - j. Frosted, tinted, reflective, opaque, or patterned replacement glass is not appropriate unless historically present.
- 5. Design new window openings to be as inconspicuous as possible.
  - a. Where creation of a new window opening is considered necessary, locate it to the rear quarter of a side elevation or on the rear elevation so its visibility from the public street right-of-way is limited.
  - b. Design new window openings to be compatible with existing windows on the building in scale, proportion, materials, and detail.
  - c. If new egress window openings for converted attic spaces are required, install them so that their visibility from the public street right-of-way is limited. Size these windows to be appropriate to the scale of the wall elevation to which they are being added.
  - d. Locate new window openings so that significant historic materials and features are not destroyed.
  - e. Design and locate new window openings so that they are compatible with the pattern and rhythm of those existing.

## STEPS FOR APPLYING FOR WINDOW REPLACEMENT

*Replacing historic windows with inappropriate ones can significantly detract from the historic character of a building. A property owner will need to develop a preservation-minded plan for the replacement of historic windows and their components.*

- Prepare an inventory of windows and their condition: The first step in developing a window replacement project is completing an inventory of the windows and their existing condition, which can be used to make evaluations regarding appropriate treatment strategies. Such an inventory must be included in your Certificate of Appropriateness (COA) application.
- Consider what needs to be replaced: When evaluating windows and treatment options, carefully consider what exactly it is that needs to be replaced and why. In some instances, you may find that the window simply needs to be re-glazed while in others you find replacement of only the sash is necessary. Rarely does the entire window assembly need to be replaced.
- Gather physical and/or photographic evidence for your project: Once you have evaluated the windows and the actions necessary, photograph the condition of each window to be replaced in support of your COA application in order to demonstrate your project needs. Without such evidence, the HZC cannot appropriately review your project.
- Find a suitable replacement: The final step in preparing your materials for a window replacement application is finding the appropriate replacement component, whether just the sash or an entire assembly. Replacement components are to match existing original or early windows and may be found at salvage stores or fabricated to match.

## HOW TO MAKE YOUR WINDOWS MORE ENERGY EFFICIENT

*There are small things that can go a long way to promote energy efficiency and sustainable approaches in window projects.*

- Maintain and preserve existing old-growth wood windows to the extent possible, which also limits the necessity to harvest new timber and eliminates landfill waste.
- Locking the windows not only provides increased security but also helps create a tight seal between sashes and reduces air infiltration.
- Maintain glazing putty and sealants in good condition in order to minimize air and moisture penetration. Adding weather-stripping can reduce infiltration by as much as 50%
- Installing storm windows provides a tremendous boost in energy efficiency. In fact, the combination of a historic wood window and a properly sealed storm window can, in many instances, provide better value than a new double-pane insulated sash.



# MECHANICAL AND UTILITY EQUIPMENT AND ENERGY RETROFIT

*Making allowances for modern systems in historic buildings helps to preserve them.*

Such systems include heating, ventilation, air conditioning, and plumbing systems, satellite dishes and antennas, as well as energy conservation and green technologies. It is important, though, to make sure that the installation of modern systems does not compromise the architectural character of a historic building or detract from the appearance of the streetscape or district.

## ENERGY EFFICIENCY TIPS

Enhance rather than replace or remove original materials and features of historic buildings and their sites to maximize energy conservation.

- Retain mature shade trees, porches, awnings, operable windows, transoms, breezeways and other such historic features that help to regulate air flow and temperatures.
- Retain and preserve existing energy efficient features such as porches, breezeways, transoms, and operable windows.
- Enhance the energy efficiency of existing features by installing weather stripping and maintaining tight seals by caulking.
- Add storm windows and doors in accordance with the guidelines.
- Insulate attic spaces.
- Install draft plate sealers to electrical outlets and switches.
- Seal around holes in foundations and walls used for service lines.
- Fill electrical, plumbing, and ventilation chases with insulation.

1. Locate modern systems and equipment to minimize aesthetic impacts.
  - a. Place ground-mounted equipment, such as air-conditioning units, so it is not visible from the public street right-of-way or screen it from view with appropriate landscaping, fencing, or masonry wall.
  - b. Locate new utility systems, such as water, gas, and electric meters, so they are not visible from the public street right-of-way or screen them from view with appropriate landscaping, fencing, or masonry wall.
  - c. Locate antennae and satellite dishes toward the back of secondary roof slopes or on the rear roof slope.
  - d. Screen antennae and satellite dishes from view as much as practicable by placing behind chimneys, dormers, or in roof valleys.
  - e. Paint mechanical and utility equipment to blend with the building or landscape, if the existing color stands out.
  - f. Installing runs of ducts, pipes, or cables on the exterior of a building is not appropriate.
  - g. The installation of communication towers within the boundaries of the historic district is not appropriate.
2. Install modern systems and equipment in a manner that avoids damage to historic materials and features.
  - a. When installing roof-mounted systems, use methods that do not damage historic fabric or require removal of character-defining features.
  - b. Install equipment in such a way that it can be easily removed in the future without damaging historic fabric.
  - c. It is not appropriate to cut holes in features such as decorative cornices or rake boards to accommodate cables or modern systems or equipment.
3. Install passive energy collection systems in a manner that does not diminish the character of the building.
  - a. Install freestanding or detached solar collectors in areas that are inconspicuous from the public street right-of-way.
  - b. Select a finish for exposed hardware, frames, and piping that blend with that of the primary building.
  - c. It is not appropriate to install framing systems with reflective surfaces. Matte finishes of black, brown, and gray may be appropriate.

# ACCESSIBILITY AND SAFETY

*First and foremost, make sure all work meets the requisite building and zoning code requirements. Then ensure that work minimizes the impact on the historic character and materials of a building while still accommodating accessibility and safety needs.*

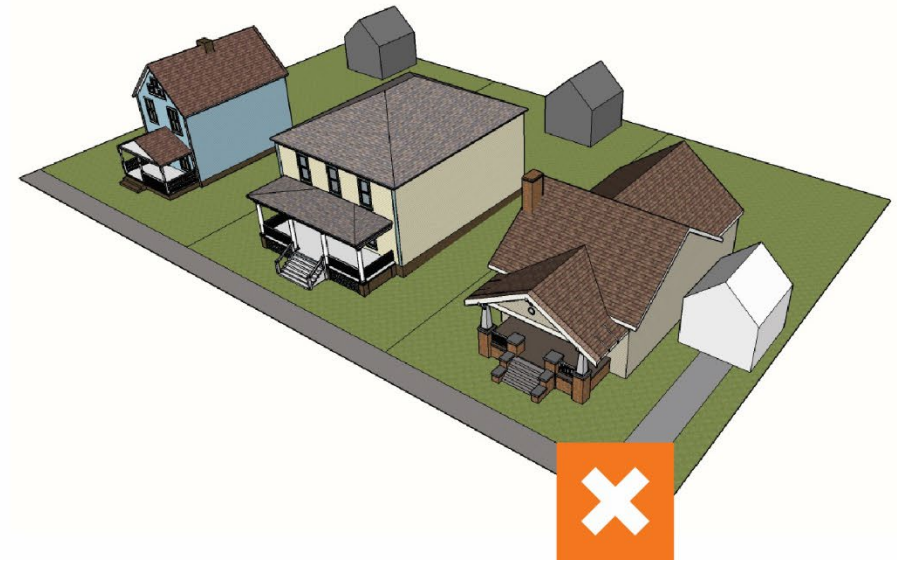
1. Minimize the impact of accessibility and safety features on the visual character of the building and the district.
  - a. Locate ramps and other means of access along secondary elevations whenever possible.
  - b. Scale the feature to the historic building to which it is being added.
  - c. Design ramps to have simple, non-detracting detailing.
  - d. Design accessibility elements such as handrails and balusters to be simple in character and finish.
  - e. Select finishes that blend with the building or landscape.
2. Minimize the impact of accessibility and safety features on the historic fabric of a building.
  - a. Design and install ramps so that they do not require removal or alteration of character-defining features.
  - a. Design and install ramps so that they can be removed in the future without damaging historic materials.
  - b. It is not appropriate to install ramps or other means of access that require changes to the original front entry or porch.
  - c. Widen entries on secondary elevations, if necessary to meet the accessibility code, rather than those on the front.

# ACCESSORY STRUCTURES

*Accessory structures may include carriage houses, garages, sheds, or gazebos. These structures impact the relationship of open to occupied space on a property.*

They should be preserved, repaired, or rehabilitated as necessary in order to promote their continued use as significant features of a site. It is important that new accessory structures be designed to be compatible with the character, massing, and scale of the primary building on a lot.

1. Preserve historic accessory structures.
  - a. Retain and repair historic accessory structures in their original locations.
  - a. Retain historic materials and configuration, including massing, scale, roof shape and pitch, and placement of doors and windows.
  - b. Retain and repair historic sidings, doors, and windows, using in-kind materials where repair is necessary.
  - c. Retain historic doors (particularly garage or carriage doors) and windows on accessory structures.
  - d. Replace elements that are deteriorated beyond repair with new units that are compatible in design and vintage.
  - e. Altering the design of historic accessory structures to be inconsistent with their original character is not appropriate.
  - f. Demolition of historic accessory structures is not appropriate.
2. Adapt historic accessory structures for current needs by adding an addition rather than demolishing and replacing.
  - a. Design additions that are subordinate to the mass of the original accessory structure.
  - a. Design additions that are simple in character.
  - b. Locate additions below the roof ridge of the original structure and use a roof shape compatible with the original structure.
  - c. Locate additions so they are not visible from the public street right-of-way.
  - d. Set back an addition from the wall of the accessory structure.
  - e. Additions that are larger than the original structure are not appropriate.
3. Design new accessory structures to be compatible with the primary building on the lot as well as adjacent structures.
  - a. Design new accessory structures to be visually compatible with the property and the district in terms of scale, size, and materials. Simplified designs are the most appropriate.
  - a. Utilize a roof shape and pitch that is consistent with accessory structures historically found in the district or with that of the primary building.
  - b. Select exterior wall and roof materials that are visually compatible with historic materials found in the district.
  - c. Choose windows and doors that are proportionately consistent with the size of the accessory structure.
  - d. Accessory structures that are greater than one- third of the footprint of the primary building on the site are not appropriate.
4. Respect the character of the site when designing a new accessory structure.
  - a. Retain the historic relationship between the primary building, open space, and landscape features when siting a new accessory structure.
  - a. Locate new accessory structures in rear yards unless documented precedent exists within the district for other locations.



## DETERMINING THE APPROPRIATENESS OF NEW ACCESSORY STRUCTURES

In evaluating the appropriateness and compatibility of proposed new accessory structures within the district, the HZC will review the application to determine if the proposed building conforms to the general characteristics of the neighborhood and can be constructed without diminishing the character-defining qualities of the particular lot and neighborhood.

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**NOTE:** At its discretion, the HZC may also request samples of garage door or other material in order to verify their appropriateness.

### Location

Does the location of the proposed accessory structure respect the character of the site and the relationship of existing buildings to open space?

### Demolition

Does the proposed accessory structure require demolition of historic buildings or removal of significant site features such as mature landscaping or historic fencing?

### Size

Is the size, including the height, of the proposed accessory structure compatible with the surrounding area?

### Orientation

Is the proposed accessory structure oriented square to the lot line?

### Character

Does the proposed accessory structure utilize a simple, unobtrusive design that is neither overtly modern nor falsely historic?

### Materials

Are traditional materials or compatible alternative materials proposed?

# ADDITIONS

*With proper planning and consideration of the historic qualities of the primary building, an addition can both provide needed space and be compatible with the building and the district.*

On the other hand, an inappropriate design can result in an irrecoverable loss of historic character. During the continued life of a building, there is often a need to adapt it to provide additional space. While many historic buildings can readily accommodate a new addition, careful consideration must be given to the design and location of a proposed addition.

1. Locate additions to minimize visual impact on the original building and the district.
  - a. Place new additions on the rear elevation or at the rear quarter of a side elevation.
  - a. Locate new additions so that they do not conceal, destroy, or cause removal of character-defining features of the original building.
  - b. Locate a new addition so that significant landscape features (such as mature trees) and historic accessory structures are not damaged or removed.
  - c. Locate additions so that they can be removed in the future, if so desired, without causing damage to the character-defining features of the original building.
  - d. Design an addition so that it does not dramatically alter the relationship of open to occupied space on a property.
  - e. It is not appropriate to construct an addition that requires removal of a character-defining feature.
  - f. It is not appropriate to construct an addition that significantly alters the original structural system of the original building.
  - g. It is not appropriate to construct an addition that changes the orientation of the primary entry on the original building.

## REUSING HISTORIC MATERIALS

Make every effort to limit the amount of historic materials and features removed when constructing an addition. If necessarily removed materials are sound or repairable, retain them for future projects or consider donating them to someone else who might be able to use them on another project. Doing so continues to make use of the embodied energy captured in existing materials and limits landfill waste resulting from the project.

2. Design an addition that respects the massing and scale of the primary building and surrounding structures.
  - a. Design an addition so that it is compatible with the size, scale, setback, and massing of the primary building.
  - b. Limit the size of an addition so that it does not diminish or visually detract from the primary building or district.
  - c. Additions that exceed one-third of the primary building's original footprint are not appropriate. Design an addition with walls that are offset from those of the primary building in order to differentiate the two.
  - d. Consider separating a large addition from the primary building by a small linking corridor (called a "hyphen") that distinguishes the two forms from one another.
  - e. Design an addition with reference to the roof shape and pitch of the primary building. The roof of an addition should not result in changes to the shape and pitch of the primary roof.
3. Select a design that is compatible with the character and materials of the original building and surrounding structures.
  - a. Design an addition so that it is compatible with the general character of the original building but so that it stands as a product of its own time and it is clear what is historic and what is new. Subtle changes in setback, material, and architectural motif are appropriate methods to employ.
  - b. Simplified details that reference the character of the original building are appropriate.
  - c. Design door and window openings that conform to the proportion, size, and rhythm of those on the original building.
  - d. Visible foundation walls are to be offset from those of the original building.
  - e. Use materials historically found on the original building or compatible alternative materials that are consistent in color, texture, and scale.
  - f. Duplicate only the most basic details from the original building, such as trim. Minimize replication of highly decorative or distinguishing details found on the original building.
  - g. Designs that starkly contrast with the original building and call undue attention to the addition are not appropriate.

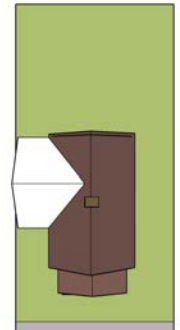
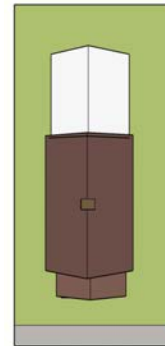
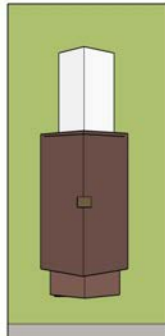
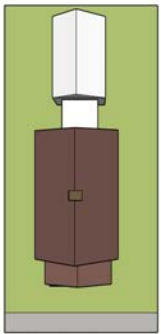
## CONSIDERATIONS WHEN PLANNING AN ADDITION

*When planning to construct an addition, it is important to be aware of the factors that the HZC will consider in its review of the appropriateness of the proposed addition.*

Questions that the HZC will ask include:

- Is the addition visible from the public street right-of-way?
- Does the addition diminish the ability to interpret the character and vintage of the original building?
- Does the addition detract from adjacent properties?
- Does the addition require significant alterations or removal of character-defining features?
- Does the addition require structural changes to the original building?
- Is the massing of the addition subordinate to the original building mass?
- Is the addition offset from the original building to provide differentiation?
- Is the design simple and compatible with the character of the original building and surrounding properties?
- Could the addition be removed in the future without causing irreversible damage to the historic building?

4. Carefully consider the location and character of rooftop additions to minimize visual impacts.
  - a. Appropriate rooftop additions are generally limited to dormers.
  - b. Limit dormers and rooftop additions to places where they do not detract from a character- defining facade. It is not appropriate to add such features to the front facade.
  - c. Scale rooftop additions to the primary building mass so that they are proportionately consistent.
  - d. Large rooftop additions that dramatically alter perception of the original building mass are not appropriate.
  - e. It is not appropriate to remove or conceal character-defining features of the roof, such as finials, chimneys, or cresting, when adding a rooftop addition.



REAR RECESSED  
*with Connector*

REAR RECESSED

LARGE REAR  
RECESSED

LARGE SIDE



# CONSTRUCTION OF PRIMARY BUILDINGS

*Designing a new building to fit within a historic neighborhood requires careful planning and an inherent understanding of the area's architectural history in order to determine the basic features that reinforce the district's character.*

Replication of historic house designs is not required, although it is acceptable to use them as a basis for new construction. The guidelines allow for contemporary designs that allude to the historic styles. In this way, the new building design is differentiated from its historic counterparts and avoids creating a false sense of history. The following elements are particularly critical in considering the design of a new construction within the district: location, setback, form, scale, massing, height, and roof shape.

1. Design new buildings to be compatible with the existing site.
  - a. Significantly altering the existing topography of a site to accommodate a new structure is not appropriate.
  - a. Consolidating lots in to a larger property in order to accommodate a larger structure disrupts the pattern of properties within the district and is not appropriate.
2. Locate new buildings in a manner that is compatible with established precedents of building patterns within the district.
  - a. Retain the historic relationship among buildings within the district by basing the location of a new building on patterns of existing setbacks, orientation, and spacing between buildings.
  - a. Maintain the existing spacing of front and side yard setbacks along a block.
  - b. Orient the front entrance toward the main street.
  - c. Site a building so that it is parallel to existing lot lines.
  - d. Design new porches to be consistent with the rhythm of those existing in the district.
  - e. Locate related new accessory buildings at the rear of the lot consistent with those existing in the surrounding district.
3. Design new buildings so their size is compatible with existing buildings in the district.
  - a. Maintain the established height and scale of the street by designing new buildings to be within the typical range of heights and forms.
  - a. Design new buildings to have massing similar to those traditionally found within the district.
  - b. Use floor-to-ceiling heights that are consistent with those of existing structures within the district.
  - c. Choose a building form that has a similar complexity to those elsewhere in the surrounding area.
  - d. Break up large massing through vertical and horizontal articulation.
4. Design new buildings with features that reflect those existing in the district.
  - a. Include substantial front porches that are at least 8 feet in depth.
  - a. Balance facade proportions with those historically found in the district. The composition and scale of facade elements, such as porches, significantly affect the aesthetic of the district.
  - b. Use materials with traditional dimensions.
  - c. Maintain traditional ratios of solid wall spaces to openings.
5. Utilize window and door openings that are compatible with those on surrounding buildings in placement, spacing, scale, proportion, and size. Windows are to have a vertical orientation.
6. Select a roof form and pitch that is compatible with established precedents within the district.
  - a. Use roof forms similar to those traditionally present in the streetscape and the district, relating roof pitch and shape to the scale of the building.
  - a. Use contemporary interpretations of traditional features such as cornices and rake boards to add visual interest.
7. Design a new building to be compatible in character with existing structures but also to be a product of its own time.

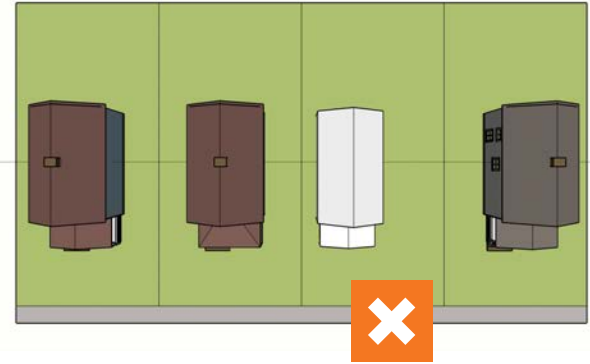
- a. It is appropriate to employ contemporary interpretations of historic designs or use a simple contemporary design that conforms to general characteristics such as massing, scale, and proportions.
  - a. Include architectural details or building articulation such as cornices, lintels, brackets, and chimneys. Contemporary interpretations of traditional details are encouraged, but avoid oversimplified, bland buildings that stand in stark contrast to the rich architectural variety within the district.
8. Utilize traditional materials or alternative materials that are comparable to those found on nearby buildings within the district.
- a. Select materials with textures and finishes that are compatible with those of the surrounding area, promote a sense of human scale, and have proven durability.
  - a. Where wood siding is installed, utilize trim boards, which show depth and have a more finished appearance.
  - b. Use masonry materials that are compatible with the character of traditional masonry materials in size and texture.
  - c. Alternative materials to wood are appropriate for new construction. Materials that simulate wood siding may be appropriate for new buildings, excluding vinyl and aluminum siding.
  - d. Where fiber cement board or other wood alternative materials are selected, use a smooth- finish and maintain a 4-inch reveal compatible with historic details.
  - e. It is not appropriate to use fiber cement board or other material that has a faux wood grain. buildings that stand in stark contrast to the rich architectural variety within the district.
9. New parking pads, driveways, and access points for new construction and existing houses should be unobtrusive to the existing patterns of the block and streetscape.
- a. Do not locate parking pads in front yards.
  - b. New curb cuts can result in removing historic sidewalk, curb details, or retaining walls, and should be kept to a minimum.
  - c. When possible, alley access should be used for new garages or parking areas on blocks with operable alleys.
- d. On streets without alleys, parking areas should be at least twenty feet behind the front façade of the house, with access limited to one lane between the street and the façade.



*Faux wood grain is an inappropriate finish in the historic district because it does not present an authentic appearance.*



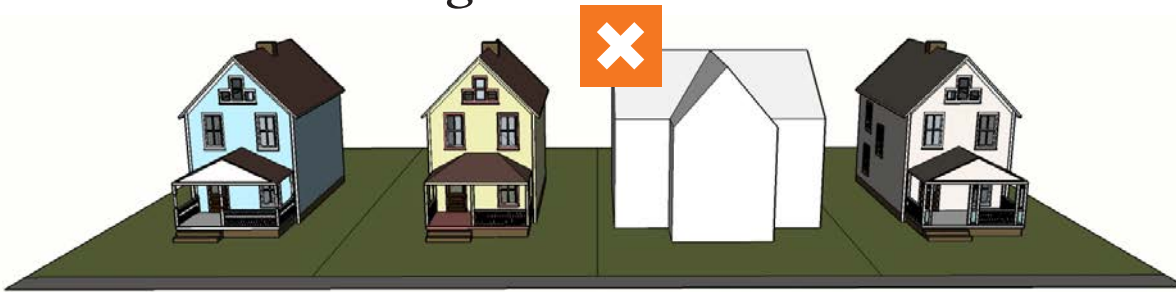
NEW CONSTRUCTION  
*Spacing*



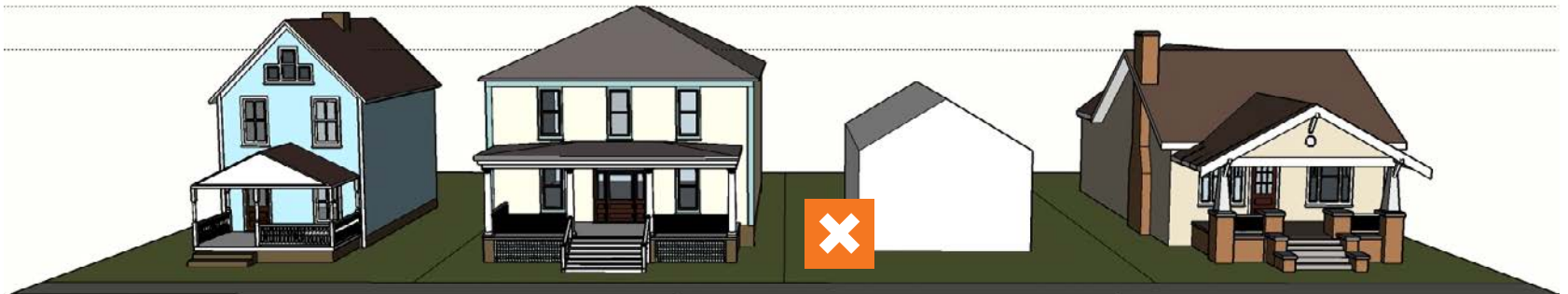
NEW CONSTRUCTION  
*Setback*



NEW CONSTRUCTION  
*Massing*



NEW CONSTRUCTION  
*Height*



# FURTHER GUIDANCE FOR NEW CONSTRUCTION

## APPLYING THE GUIDELINES

Guidelines for new construction are not intended to define a specific level of detail or style for new buildings. Rather, they are intended to promote an understanding of the general characteristics that are important to consider in ensuring that a new building is compatible with the surrounding district.

The HZC will utilize the guidelines to answer the following questions:

- Does the building maintain the street character?
- Does the building fall within the established rhythm along the street?
- Is the building orientation and setback consistent with the streetscape?
- Is the front entrance oriented to the street?
- Does building massing and form fall within the established range of the streetscape?
- Does the front facade incorporate human-scale elements?
- Is the ratio of solid to openings (windows and doors), particularly on the facade, consistent?
- Is the complexity of the building form appropriate within the context of the streetscape?
- Does the roof shape and pitch conform to those within the district?

- Are materials scaled to the building and appropriate traditional materials or modern substitute counterparts with proven durability?
- Is the building appropriately articulated by architectural details that recall historic forms but stand as a product of their own time?

## RECOMMENDATIONS FOR ENVIRONMENTAL STEWARDSHIP

Just as with rehabilitating historic buildings, carefully plan the construction of infill buildings to include a sustainable approach and maximize energy efficiency:

- Maintain site features such as mature trees that provide natural shade.
- Site a building to take advantage of passive solar gain in the winter and deflection in the summer.
- Incorporate features such as porches where there is historic precedent.
- Use locally-sourced or recycled materials that are compatible with traditional materials in the district.
- Consider roof forms that allow for the installation of solar collectors at the rear of secondary elevations or on the rear elevation.
- Design and locate gutter systems that allow for the capturing of stormwater runoff.
- Locate windows and doors to allow for indoor cross ventilation.

## CONFLICTS WITH BASE ZONING

At times, appropriate setbacks for buildings may conflict with the base zoning of any particular district. However, the application of the historic zoning overlay (H) provides a mechanism for addressing such conflicts. Addressing these conflicts through the design guidelines allows the neighborhood to retain its significant character by determining setbacks that are compatible with the historic character of the district.

The following types of setbacks can be approved by the HZC:

- Front setbacks for new construction
- Side setbacks for construction of accessory structure of not more than 120 square feet in area

It is important that the applicant coordinate early with zoning staff in the City of Knoxville Plans Review and Building Inspection Department in order to work through applicable zoning issues prior to advancing too far in a project. This coordination will help determine if an adjustment or variance is required for the project.

# RELOCATION

*Moving a building is a last resort to save it from demolition. Although relocation will destroy the original context and compromise its significance, some of the vacant lots in the district may be appropriate receiving areas.*

Significant buildings in Knoxville have been saved from demolition and successfully moved with benefits to the community.

Because moving a building is expensive and complex, every aspect of the move should be considered early in the process. Is there a threat of demolition other than through neglect? Is relocation the only alternative? Does the building's significance justify the move? Will the structure survive the move and adapt to its new site?

1. Ensure that the structure to be moved is architecturally compatible with the adjacent buildings within the receiving area.
2. Choose a site that corresponds to the size and proportion of the structure to be moved. Orient the building to the street and ensure the setback and lot coverage is compatible with the existing structures on the block.
3. Ensure that the shape, mass and scale of the building to be moved conforms to the existing structures on the block.
4. Protect important site features of the original site, the new site and the route of the move during relocation. Ensure the move will not destroy mature trees, vegetation and historic accessory structures.
5. Relocate a building as a single, intact unit or in sections to prevent the unnecessary loss of historic building fabric. Partial or complete disassembly is acceptable only as a last resort as it could result in a substantial loss of historic building material.

## PREPARATION FOR RELOCATION OF STRUCTURES

- Choose relocation only as a last resort to demolition.
- Document the building as well as the original site through drawings and photographs before moving it.
- Plan the relocation route thoroughly and contact utility companies and city officials to secure necessary permits.
- Coordinate efforts with affected private property owners to ensure minimum delays.
- Protect the structure from vandalism or weather damage before, during and after the move.

# PREPARATION FOR DEMOLITION OF STRUCTURES

*Demolition creates a permanent change in and loss to the district, reducing its historic and architectural significance. Demolition will be considered only when all other alternatives have been explored.*

1. Work with the Historic Zoning Commission (HZC) to identify alternatives to demolition.
  - a. Redesign the project to avoid any impact to the structure or setting.
  - b. Incorporate the structure into the overall design of the project.
  - c. Convert the structure into another use (adaptive reuse).
  - d. Relocate the structure on the current property.
  - e. Relocate the structure to another property within the same H zoning overlay.
  - f. Relocate the structure to another property within the city of county.
2. Before demolition is considered, document the condition of the building, including any public health and safety issues, such as asbestos or lead paint.
3. Document significant structures through photographs and drawings prior to demolition.
4. Describe any impact of demolition of the subject property on the surrounding properties.
5. Work with the HZC staff and interested groups to facilitate salvage of usable architectural materials if demolition is approved.
6. Approval for demolition may be considered if the HZC determines that the building or structure does not contribute to the historical or architectural character of the district. A building's contribution may include its linkage, historically or architecturally, to other buildings in the district, such that their continuity as a collection possesses greater significance than the subject building as an individual resource.

# APPENDIX A FREQUENTLY ASKED QUESTIONS

## **Does my project require design review?**

If you are proposing exterior work to your building located within a historic (H) overlay district, and the work requires a building permit or drive-way permit, then a Certificate of Appropriateness (COA) is required. Interior work does not require design review unless it will affect the exterior appearance of the building (such as enclosing a window opening from the inside).

## **Where do I begin the review process?**

You can obtain preliminary information on the design review process, fees, application forms and design guidelines at the Knoxville-Knox County Planning website at [knoxplanning.org](http://knoxplanning.org). The primary contact for the design review process is the Planning historic preservation planner, who serves as staff to the Historic Zoning Commission. Planning staff can provide information on the process and guidance on your proposed project.

## **When is the best time to begin coordination with Planning staff?**

In order to avoid unnecessary delays and expenses, you should contact the designated Planning staff as early as possible in your design process. Planning staff can verify that you are on the right track with your project.

## **How much does the design review process cost?**

The HZC charges a fee for a Certificate of Appropriateness scaled to the nature of the proposed work. The latest information on fees associated with COAs can be obtained from the Knoxville-Knox County Planning website at [knoxplanning.org](http://knoxplanning.org) or from Planning staff.

## **How can I get through the design review process more quickly?**

The design review process is guided by a set calendar that allows for consistent meeting dates and submittal deadlines. Providing all the information outlined in the application checklist is important to ensure that projects are reviewed efficiently. The best way to speed up the process is to coordinate early with Planning staff to ensure that you submit appropriate, complete materials for your project.

## **Do I need to hire a professional?**

Not all projects necessitate hiring a design professional or contractor to assist with the design review process. For example, replacing a front door will not require the use of a professional. However, for complex projects such as additions, that require the submission of scaled drawings or renderings, retaining the services of a professional will lessen the chances that the project will be sent back to the drawing board for revisions. You are the one responsible for “selling” the HZC on your project.

## **Can I begin work after receiving a COA?**

Usually, going through the design review process and receiving a COA is just the first step of the process necessary to begin work on a project. Check with the Building Inspector to ensure that you have all necessary permits prior to beginning work. Note that you cannot receive a building permit without first obtaining an approved COA.

## **What if an emergency repair is needed?**

If a building within a historic district requires an emergency repair due to unforeseen events such as a tree collapse, fire, or weather event, the Building Inspector can choose to issue an emergency work permit without review by the HZC.



# APPENDIX B HISTORIC ZONING COMMISSION PRE-APPLICATION REVIEW

## PLANNING YOUR PROJECT

*For larger or more complex projects, such as new construction or certain accessory structures, a pre-application review by the Historic Zoning Commission (HZC) is highly recommended.*

The purpose of a pre-application review is to provide helpful feedback to the applicant early in the design process. The focus of the pre-application review is to provide guidance that will ultimately result in consistency of the project with design guidelines for the historic districts and with the Secretary of Interiors (SOI) Standards for Rehabilitation. There is no fee for a pre-application review.

Examples of projects that would benefit from a pre-application review include:

- Construction of a new primary building
- Construction of accessory building proposed to be a dwelling unit
- Construction of accessory building proposed to be over 15 feet to the average roof slope
- Applicants are encouraged to take advantage of the pre-application review process for construction of large additions—where the project footprint exceeds 33% of the size of the existing building.

## SCHEDULING A PRE-APPLICATION REVIEW

*Pre-application reviews are held after the regularly-scheduled HZC public meetings which begin at 8:30 a.m. and fall on the third Thursday of every month.*

A completed pre-application form and required materials must be submitted according to the same application submittal deadlines for a Certificate of Appropriateness. Upon receipt of the form and materials, staff will determine the completeness of the submittal.

If the submittal is complete, the review will be scheduled for the next available HZC meeting. Pre-application review submittals are advertised along with the regular HZC agenda in the newspaper at least 12 days prior the meeting.

The meeting agenda and application package are posted at least five days prior to the meeting date on the Planning website ([knoxplanning.org](http://knoxplanning.org)).

## COMPLETING A PRE-APPLICATION FORM

A pre-application form must be completed, signed and submitted with the following:

- Scaled, dimensioned drawings or sketches, completed at least to the conceptual level, (preferably printable at 8.5" x 11" ) which correctly depict the existing and proposed design and include:
- Main elevations
- Floor plan and dimensioned site plan
- Indication of proposed materials on drawings or on specification sheets
- Photographs of existing exterior elevations and/or site conditions
- While not required, a 3-D or modeling study of a streetscape where infill construction is being proposed is helpful in the HZC's review.

## THE PRE-APPLICATION REVIEW MEETING

Typically, the HZC allows 20-30 minutes for review of each project. The informal review format is as follows:

1. Staff will make a brief presentation (5 minutes) identifying aspects of the project that should be addressed by the HZC.
2. Applicant will make a brief presentation (5 minutes) describing the project.
3. The HZC will discuss the project and consider whether the project is consistent with the applicable design guidelines and the SOI Standards.

While Commission members may discuss the appropriateness of a design approach and how it is or is not supported by the design guidelines or the SOI Standards, their role is not to re-design the project, but to respond to the pre-application before them. Given the complex nature of some large rehabilitation projects, the HZC may recommend that the applicant retain an architect experienced in restorations or infill construction.

1. At the end of the review, the HZC Chairperson will summarize the aspects that were identified as not meeting specific design guidelines.

At least one pre-application review will take place prior to a qualifying project being officially submitted for a HZC public hearing. Depending on the degree of clarity of the presentation or the degree of revisions that are recommended, the HZC may recommend an additional pre- application review.

## A completed pre-application form and accompanying materials should be submitted to:

Knoxville-Knox Planning Suite 403, City County Building  
400 Main Street  
Knoxville, Tennessee 37902 or  
may be emailed to: [applications@knoxplanning.org](mailto:applications@knoxplanning.org)

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*Please Note Although it is the goal of the HZC to provide comments that will result in a project that will be recommended for approval by the HZC, those comments provided during the pre- application review are not binding, and the staff recommendation nor the final decision of the HZC can be predicated on these comments.*

## QUESTIONS?

All questions regarding the pre-application review process should be directed to Historic Zoning Commission staff at 865-215-3795. Design guidelines can be viewed on the Knoxville-Knox County Planning website at: [knoxplanning.org/historic](http://knoxplanning.org/historic)

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*Please be advised that Planning staff may take further photographs of your property for the HZC pre-application review meeting.*

# APPENDIX C

## GLOSSARY OF ARCHITECTURAL TERMS

### A

#### Aluminum Siding

Sheets of exterior wall covering fabricated from aluminum to resemble wood siding. Aluminum siding was developed in the 1940s and was popular into the 1950s and 1960s.

---

#### Appropriate

Suitable for, or compatible with, a property, based on accepted standards and techniques for historic preservation.

---

#### Arch

A curved and sometimes pointed structural member used to span an opening.

A rounded arch represents classical or Romanesque influence whereas a pointed arch generally denotes Gothic influence.

---

#### Architrave

The lower part of a classical entablature, resting directly on the capital of a column, the molding around a window or door.

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#### Art Deco

A style of decorative arts and architecture popular in the 1920s and 1940s, characterized by geometric forms and exotic motifs.

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#### Asphalt Shingle

A shingle manufactured from saturated roofing felts, rag, asbestos or fiberglass coated with asphalt and finished with mineral granules on the side exposed to weather.

---

#### Awning

A roof-like cover of canvas or plastic over a window or door to provide protection against sun, wind or rain.

---

### B

#### Balustrade

A series of balusters or uprights connected on top by a handrail and sometimes on the bottom by a bottom rail to provide an ornamental and protective barrier along the edge of a stair, roof, balcony, or porch.

---

#### Bargeboard / Verge Board

A sometimes richly ornamented board placed on the verge (incline) of the gable to conceal the ends of rafters; typically seen in the picturesque styles of the nineteenth century such as the Gothic Revival and the Queen Anne.

---

#### Battered Column

A column that is thicker at the bottom than at the top.

---

#### Bay

(1) An opening or division along a face of a building; for example, a wall with a door flanked by two windows is three bays wide. (2) The space between principle structural members, as in a timber frame, the space between posts. (3) A projection from the facade of a building, such as a bay window.

---

#### Beveled glass

Glass panels whose edges are ground and polished at a slight angle to form a beveled border; used for entrance doors and ornamental work.

---

## Brick Bond

The pattern in which masonry, particularly brickwork, is laid to tie together the thickness of the wall.

---

## Bracket

Projecting support members under eaves or other overhangs; plain or decorated. Often called console brackets, they are characteristic of the Italianate style.

---

## Bulkhead

The area below the display window on the front facade of a commercial storefront.

---

## Bungalow

A house type and architectural style popular in the early 20th century. Typically defined as a relatively modest, one-story dwelling of informal character, the bungalow traced its origins to British colonial India, as well as to the Arts and Crafts movement of the 19th century.

---

# C

## Capital

The top member of a column, usually decorated or molded. Each classical order —Doric, Ionic, Corinthian, Composite — has its characteristic capital.

---

## Casement

A window with sash hung vertically, which opens inward or outward.

---

## Casing

The finished visible framework around a door or window.

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## Certificate of Appropriateness

When an owner within a historic or neighborhood conservation district wants to make changes to the exterior of his or her property, a Certificate of Appropriateness (COA) is needed from the Historic Zoning Commission (HZC) in addition to other permits that may apply. The COA grants permission for the proposed work that is compatible with the adopted design guidelines.

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## Chamfer

A beveled edge on the corner of a post, wall, etc. May take the form of a flat surface, or a more elaborately molded surface. Edges so beveled are said to be chamfered.

---

## Character-defining-features

Individual physical elements of any structure, site, street, or district which contributes to its overall historic or architectural character, and for which it is recognized as historically or architecturally significant.

---

## Clapboard

Long horizontal boards with one edge thicker than the other, overlapping to cover the outer walls of framed structures; also known as weatherboard.

---

## Classical

The architecture of ancient Greece and Rome, and architecture using forms derived from ancient Greece and Rome.

---

## Colonial Revival (1870-1950)

An architectural style that drew freely on motifs associated with the American past, including elements of the Colonial period. Features of the style include a balanced facade; the use of decorative door crowns and pediments, sidelights, fanlights and porticos to emphasize the front entrance; double hung windows with multiple panes in one or both sashes; and the frequent use of string courses or decorative cornices.

---

## Composite Order

A classical order that incorporates the large volutes (spirals) of the Ionic Capital with the lush foliage of the Corinthian Capital.

---

## Coping

The top course of a masonry wall or parapet which projects beyond the wall surface to throw off the rain.

---

## Corbel

A small projection built out from a wall to support the eaves of a roof or some other feature.

---

## Corinthian order

A classical order distinguished by the capitals, which are ornamented with stylized acanthus leaves.

---

## Cornice

In classical architecture, the upper projecting section of an entablature; projecting ornamental molding along the top of a building or wall. The term is loosely applied to any horizontal molding forming a main decorative feature such as a molding at the junction of the walls and ceiling.

A raking cornice extends along a slanting (raking) side of a gable or pediment.

A boxed cornice is a simple treatment with a vertical fascia and a horizontal soffit board enclosing the ends of the ceiling joists where they project at the eaves.

---

## Course

A horizontal row of bricks, stones, or other masonry units.

---

## Craftsman (1905-1930)

The Craftsman style, which originated in southern California, was inspired primarily by the work of Greene and Greene, two brothers who practiced architecture in Pasadena (the style was also influenced by the English Arts and Crafts movement). Characteristics include low pitched gable roofs with exposed rafters; recessed porches; tapered columns; heavy stone foundations and windows with multi-pane top sash.

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## Cresting

Ornamental ironwork used to embellish the ridge of a gable roof or the upper cornice of a mansard roof.

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## Cross Gable

A gable which is set parallel to the ridge of the roof.

---

## Cupola

A small domed structure, usually polygonal, built on top of a roof or tower.

---

## D

### Deck

A roofless porch, usually at the rear of a building, popular in contemporary residential architecture.

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## Dentils

Small, closely placed blocks set in a horizontal row used as an ornamental element of a classical cornice.

---

## Doric Order

The oldest of the classical Greek orders, characterized by heavy fluted columns with no base, simple unadorned capitals supporting a frieze of vertically grooved tablets or triglyphs set at intervals.

---

## Dormer

A vertical window projecting from the slope of a roof; usually provided with its own roof; used to light rooms in a half story.

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## Double-hung Window

A window with two sashes, each movable by means of sash cords and weights.

---

## Downspout

A pipe that carries water from the gutters to the ground, or to a sewer connection.

---

## E

### Eaves

The projecting overhang at the lower edge of a roof.

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## Elevation

A scaled drawing which illustrates the view of any side of a building.

---

## EII

A wing or extension of a building, often a rear addition, positioned at right angles to the principal mass.

---

## Engaged Column

A column that is in direct contact with a wall; at least half of the column projects beyond the surface of the wall to which it is engaged. Sometimes called a pilaster

---

## English Bond

A method of laying brick wherein one course is laid with stretchers and the next with headers.

---

## Entablature

The horizontal part of a classical order, above the columns; consists of architrave, frieze and cornice.

---

## Etched Glass

Glass where the surface has been cut away by a strong acid, creating a decorative pattern.

---

## F

### Facade

An exterior side of a building.

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## Fanlight

A semicircular or fan-shaped window with a radiating glazing bar system usually found over entrance doors.

---

## Fascia

The flat member of the architrave in classical architecture. A fascia board is a flat board used to cover the ends of roof rafters.

---

## Fenestration

The arrangement of windows in other exterior openings of a building.

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## Finial

An ornament at the top of a spire, gable or pinnacle.

---

## Folk Houses

Houses built with local materials to provide basic shelter. More influenced by geography and local tradition than by architectural styles.

---

## Foundation

The supporting portion of a structure below the first-floor construction, or below grade.

---

## Frieze

In classical architecture, the member between the architrave and cornice. Also, any plain or decorative band, or board, on the top of a wall immediately below the cornice.

---

## G

### Gable

A triangular wall segment at the end of a double pitched or gabled roof.

---

### Galvanize

To coat steel or iron with zinc.

---

### Gambrel Roof

A roof having a double slope on two sides of a building.

---

### Gazebo

A small summerhouse or other space with a view; usually found in a garden or yard.

---

### Georgian Style (1700-1780)

The prevailing architectural style of the 18th century in Great Britain and the North American colonies; characterized by symmetry of floor plan and facade, heavy classical moldings, raised panels and classically derived ornament.

---

### German Siding

A type of siding characterized by overlapping boards; the upper part of each board has a concave curve.

---

## Gothic Revival (1840-1880)

This style, which came from England, is distinguished by the pointed arch which in public buildings and churches could be combined with towers, buttresses and steep gables. The first documented houses in this style were designed by Alexander Jackson Davis and were asymmetrical in plan to allow for flexibility of rooms and create a picturesque silhouette.

---

## Greek Revival (1825-1860):

The mid-nineteenth century revival of the forms and ornamentation of the architecture of ancient Greece. The style is characterized by a low-pitched gable or sometimes hipped roof, a pedimented gable, a portico, six-over-six double hung windows, and a four-panel door flanked by side lights with a transom window above.

---

# H I J K

## Headers

Bricks laid with their ends toward the face of a wall.

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## Hipped Roof

A roof formed by four pitched roof surfaces.

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## Ionic Order

A classical order characterized by a capital embellished with opposing volutes.

---

## Italianate (1840-1880)

An architectural style characterized by the following: two or three stories, low pitched hipped roofs, cross hipped or cross gabled with wide eaves supported by large brackets; a cupola or tower is sometimes featured. There are many sub-types.

---

## Jerkin Head Roof

A roof form in which the top of the gable is cut off by a secondary slope forming a hip.

Keystone: The wedge-shaped stone found at the center of an arch.

---

# L

## Latticework

Openwork produced by interlacing or crossing lath or thin strips of iron or wood; often used at the base of a porch.

---

## Lean-to

A small addition to a house with a single pitched roof.

---

## Light

A pane of glass.

---

## Lintel

A horizontal structural member that supports a load over an opening.

---

## Louver

A small lantern or other opening, often with wood slats, used for ventilating attics or other spaces.

---

## Lunette

A small round or arched-top window in a vaulted or covered ceiling or roof.

---

# M

## Mansard Roof

A roof that has two slopes on all four sides.

---

## Masonry

Work constructed by a mason using stone, brick, concrete blocks, tile, or similar materials.

---

## Molding

A continuous decorative band; serves as an ornamental device on both the interior and exterior of a building or structure.

---

## Mortar

A mixture of plaster, cement, or lime with a fine aggregate and water used for pointing and bonding bricks or stones.

---

## Mullion

A large vertical member separating two casements and forming part of the window frame.

---

## Muntin

One of the thin strips of wood used for holding

panes of glass within a window; also called sash bar or glazing bar.

---

## N

### Neoclassical Revival (1900-1940)

Used to define the revival of architecture based on Greek and Roman forms around the turn of the 20th century; characterized by a two-story pedimented portico supported by colossal columns (usually with Ionic, Corinthian or Composite capitals). More modest versions of the style are common.

---

### Newel Post

The post supporting the handrail at the top and bottom of a stairway.

---

## O P

### Order

A style of column and its entablature (i.e., the section resting on the top of the column). In classical architecture, order refers to the specific configuration and proportions of the column including the base, shaft, capital and entablature. See: Composite order, Corinthian order, Doric order, Ionic order, and Tuscan order.

---

### Pane

A single piece of window glass.

---

### Panel

A sunken or raised portion of a wall, ceiling, mantel or door with a frame-like border.

---

### Parapet

A low wall or protective railing often used around a balcony or along the edge of a roof.

---

### Patio

A usually paved and shaded area adjoining or enclosed by the walls of a house.

---

### Pediment

A wide low-pitched gable surmounting the facade of a classical building; also used over windows, doors and niches.

---

### Pergola

An arbor or passageway with a trellis roof on which climbing plants can be trained to grow.

---

### Pilaster

A shallow pier attached to a wall, often decorated to resemble a classical engaged column.

---

### Pointing

The final filling and finishing of mortar joints that have been left raw or raked out.

---

### Porte-cochère

A large covered entrance porch through which vehicles can drive.

---

### Portico

A major porch, usually with a pedimented roof supported by classical columns.

---

### Portland Cement

A hydraulic binder for concrete; made by burning a mixture of clay and limestone.

---

### Preservation

Preservation means the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property.

Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

---

### Public Street Right-of-Way

Publicly owned and maintained streets, including sidewalks. For purposes of these design guidelines, this does not include alleys.

---



# Q

## Queen Anne (1880-1910)

An eclectic late 19th century architectural style, influenced by the work of English architect Robert Norman Shaw and characterized by irregularity of plan and massing, variety of color, texture and window treatment, multiple steep roofs, porches with decorative gables and the frequent use of bay windows.

---

## Quoin

Large stones, or rectangular pieces of wood or brick, used to decorate and accentuate the corners of a building.

---

# R

## Rehabilitation

Rehabilitation means the act or process of making possible an efficient compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.

---

## Rake

The slope of a gable, pediment, stair, string, etc.

---

## Repointing

Raking out deteriorated joints and filling them with a surface mortar to repair the joint.

---

## Restoration

Restoration means the act or process of accurately depicting the form, features and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code- required work to make properties functional is appropriate within a restoration project.

---

## Retaining Wall

A wall that bears against an earthen backing.

---

## Return

The continuation of a molding from one surface onto an adjacent surface.

---

## Roof Ridge

The horizontal line formed when two roof surfaces meet.

---

## Rustication

Rough-surfaced stonework.

---

# S

## Sandblasting

An abrasive way of cleaning brick, masonry or wood by directing high powered jets of sand against the surface.

---

## Sash

A frame for glass to close a window opening.

---

## Segmental Arch

An arch formed by the segment of a circle.

---

## Shingle

A wedge-shaped piece of wood as used in overlapping courses to cover a roof or an outside wall surface.

---

## Shingle Style (1880-1915)

A picturesque style that evolved from the Queen Anne style characterized by uniform wall covering of wood shingles, hip or gable roofs with dormer windows, irregular roof line, small paned windows, and no corner boards. The style is generally associated with New England.

---

## Shutter

An extra closure for a window or door, usually of wood, paneled, and of a pair hinged at the outside jambs.

---

## Sidelight

One of a pair of narrow windows flanking a door.

---

## Sill

The framing member that forms the lower side of an opening, such as a door sill. A window sill forms the lower, usually projecting, lip on the outside face of a window.

---

## Soffit

The exposed underside of an arch, cornice, balcony, or beam.

---

## Spall

To split off from the surface, as stone that is bearing undue pressure near its face or is acted on by weathering.

---

## Spandrel

The triangular space between the shoulder of an arch and the triangular framework that surrounds it; the space between two adjacent arches; the triangular space between the outer string of a stair and the floor.

---

## Stringcourse

A continuous horizontal band of brick, stone, or wood on the exterior wall of a building; used for decorative purposes, or to break up a large expanse of wall surface.

---

## Stoo

A casing or molded piece running along the base of a window and contacting the bottom rail on the inside of a building.

---

## Stucco

An exterior wall covering consisting of a mixture of Portland cement, sand, lime, and water.

---

## Surround

An encircling border or decorative frame.

---

## T

### Terra Cotta

A fine-grained fired clay product used ornamentally on the exterior of buildings, may be glazed or unglazed, molded or carved.

---

## Tongue-and-groove

A projecting rib along the edge of a member fit into a corresponding groove in an adjacent member.

---

## Transom

An opening over a door or window, usually for ventilation, and containing a glazed or solid sash.

---

## Trellis

A light frame or latticework used as a screen, or as a support for vines.

---

## Trim

The finish material on a building, such as a molding applied around door and window openings or at the floors and ceilings of rooms.

---

## Turret

A small tower usually corbelled at the corner of a building.

---

## Tuscan Order

One of the classical orders, resembling the Doric but of greater simplicity. The columns are unfluted, the capitals are unornamented and the frieze lacks the triglyphs that are part of the Doric order.

---

## U V

### Underpinning

The system of supports, such as rough walls or piers, beneath the ground floor.

---

## Valley

The depressed angle formed at the meeting point of two roof slopes.

---

## Veranda or Verandah

A roofed space attached to the exterior wall of a house and supported by columns, pillars, or posts; commonly used in Britain to describe an open porch.

---

## Volute

A spiraling scroll-like ornament. In classical architecture, the dominant feature of the Ionic Capital (but also focused on Corinthian and Composite Capitals).

---

## W X Y Z

### Water Table

A plain or molded ledge or projection, usually at the first-floor level, that protects the foundation from rain running down the wall of a building.

---

## **Weatherboard**

Wood siding consisting of overlapping horizontal boards, usually thicker at one edge than the other.

---

## **Weatherstrip**

A piece of wood, metal, or other material installed around window and door openings to prevent air infiltration and moisture penetration.

---

## **Wrought Iron**

Pig iron that is puddled and rolled or hammered into shape, never melted or cast.

---

# APPENDIX D NEW CONSTRUCTION CHECKLIST

*The following checklist may be used by applicants or HZC members as a reminder of the features and elements to be considered when proposing new construction.*

## *SITE*

### Walkways and Driveways

- Location
- Dimensions
- Materials/Finish

### Fences

- Location
- Scale/Height
- Materials/Details
- Meet zoning requirements

### Mechanical and Utilities Screening

- Location
- Visibility from public street right-of-way

## *BUILDINGS*

### Building Placement

- Distance to street (setback)
- Oriented to primary street
- Respects existing pattern of spacing between buildings

### Size

- Massing relates to existing buildings
- Complexity of form is compatible with surrounding buildings
- Height is within 10 percent of adjacent buildings
- Width is within 10 percent of surrounding buildings

### Roof

- Compatible pitch and form
- Materials are compatible with historic precedents
- Chimneys, dormers, and other features are of appropriate scale

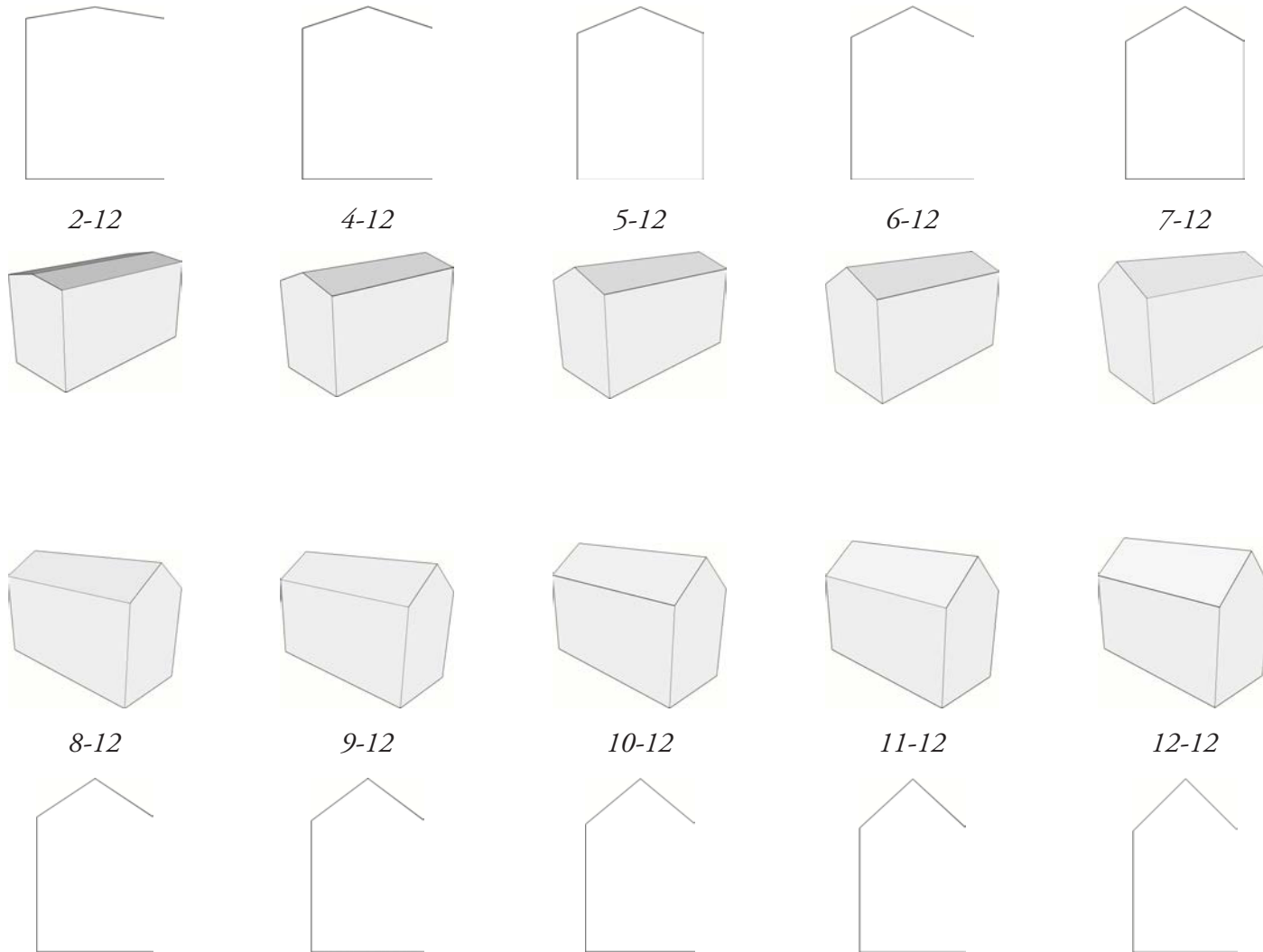
### Windows and Doors

- Compatible ratio, spacing, and proportions
- Window material and casing compatible with historic precedents
- Door style and finish are compatible with historic precedents
- True-divided- light or simulated- divided-light
- Storm windows and doors painted and conform to openings and window/door divisions
- Shutters (if included) are scaled to the opening and include hinge hardware

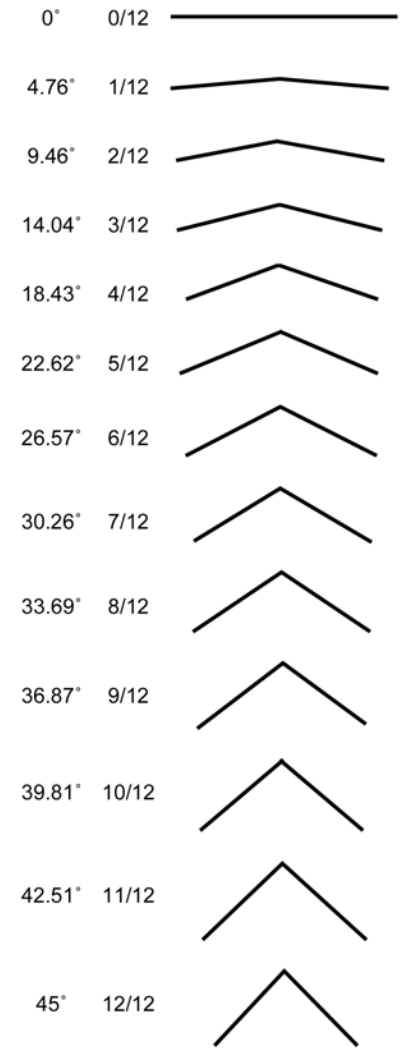
### Porches

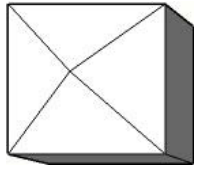
- Compatible to the scale and style of surrounding houses
- Design respects materials, proportions, and placement of surrounding houses
- Materials and Details
- Traditional materials
- Alternative materials that adequately simulate the authentic material

# APPENDIX E ROOFS

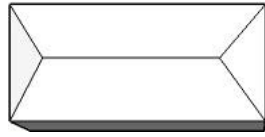


## *Roof Pitches*

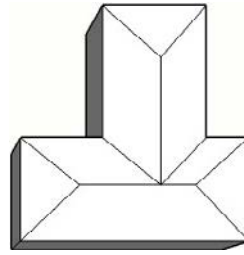




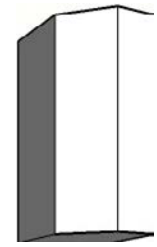
*Pyramidal*



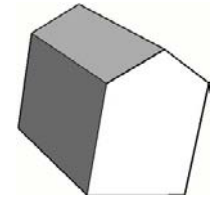
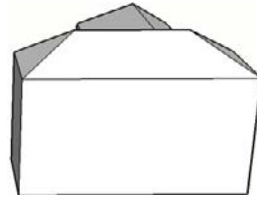
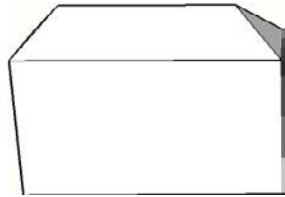
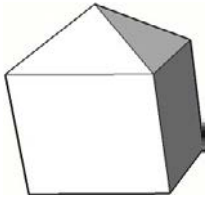
*Hipped*



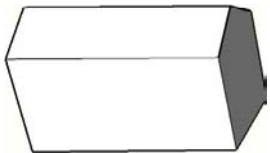
*Cross Hipped*



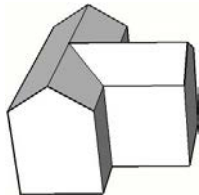
*Front Gable*



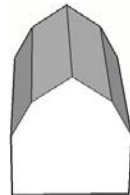
## *Roof Styles*



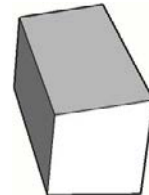
*Side Gable*



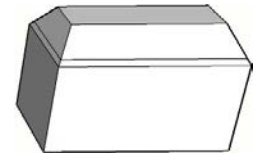
*Cross Gable*



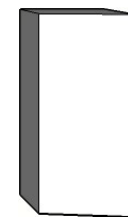
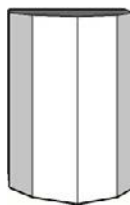
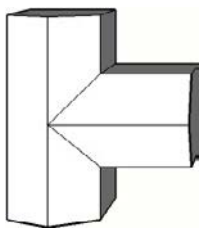
*Gambrel*



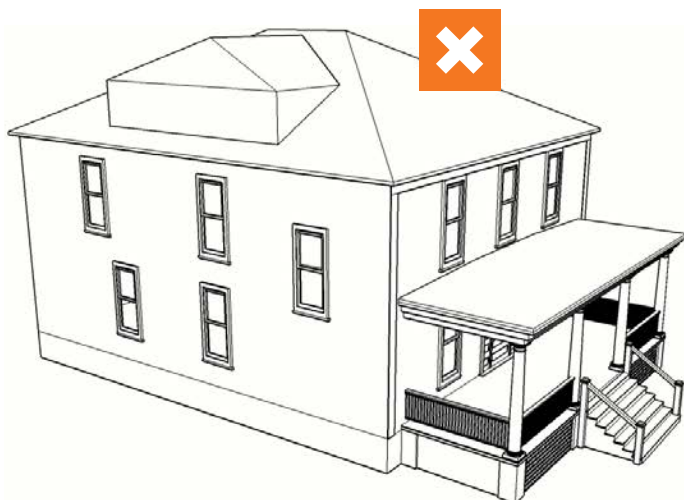
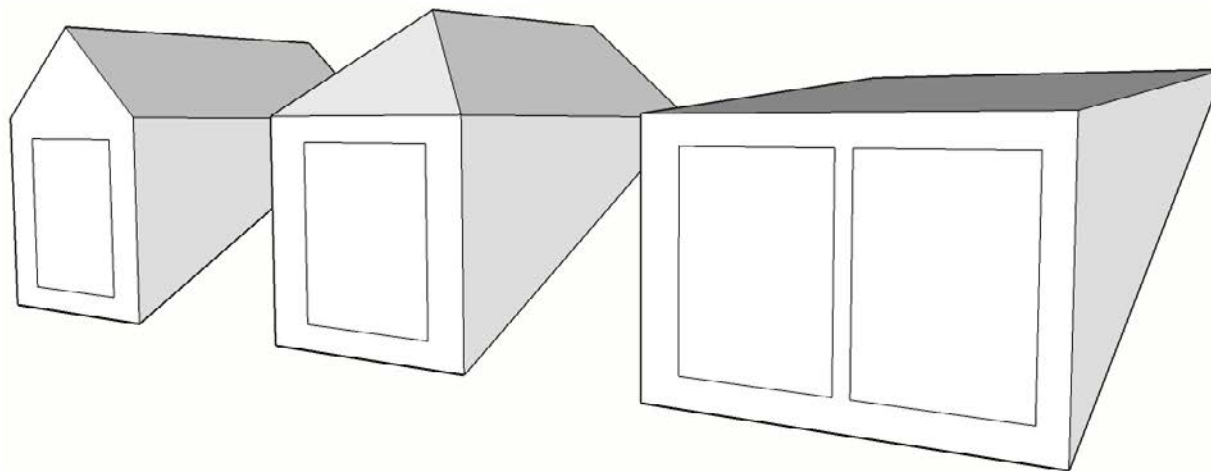
*Shed*



*Mansard*



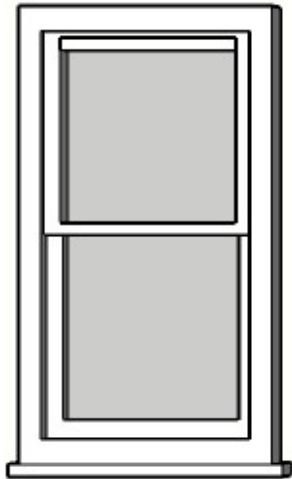
*Dormer Shapes*



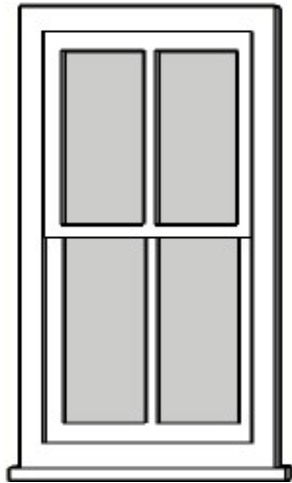
*Dormer Addition*



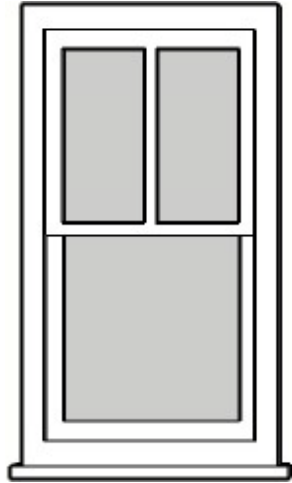
# APPENDIX F WINDOWS



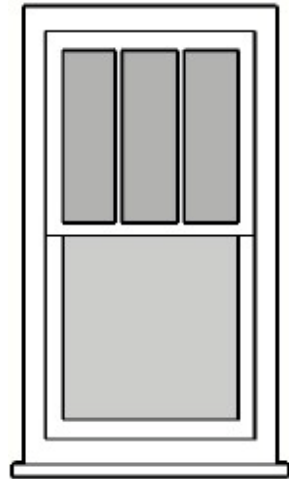
*1 over 1*



*2 over 2*

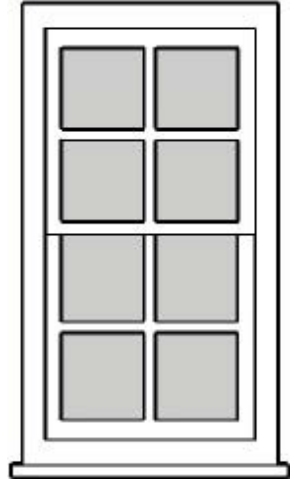


*2 over 1*

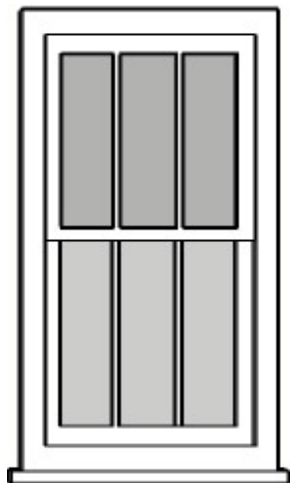


*3 over 1*

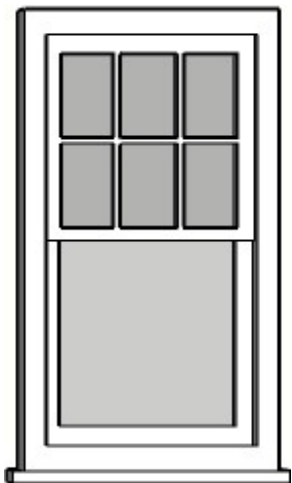
## *Window Styles*



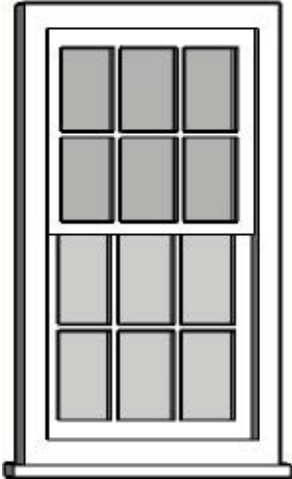
*4 over 4*



*3 over 3*



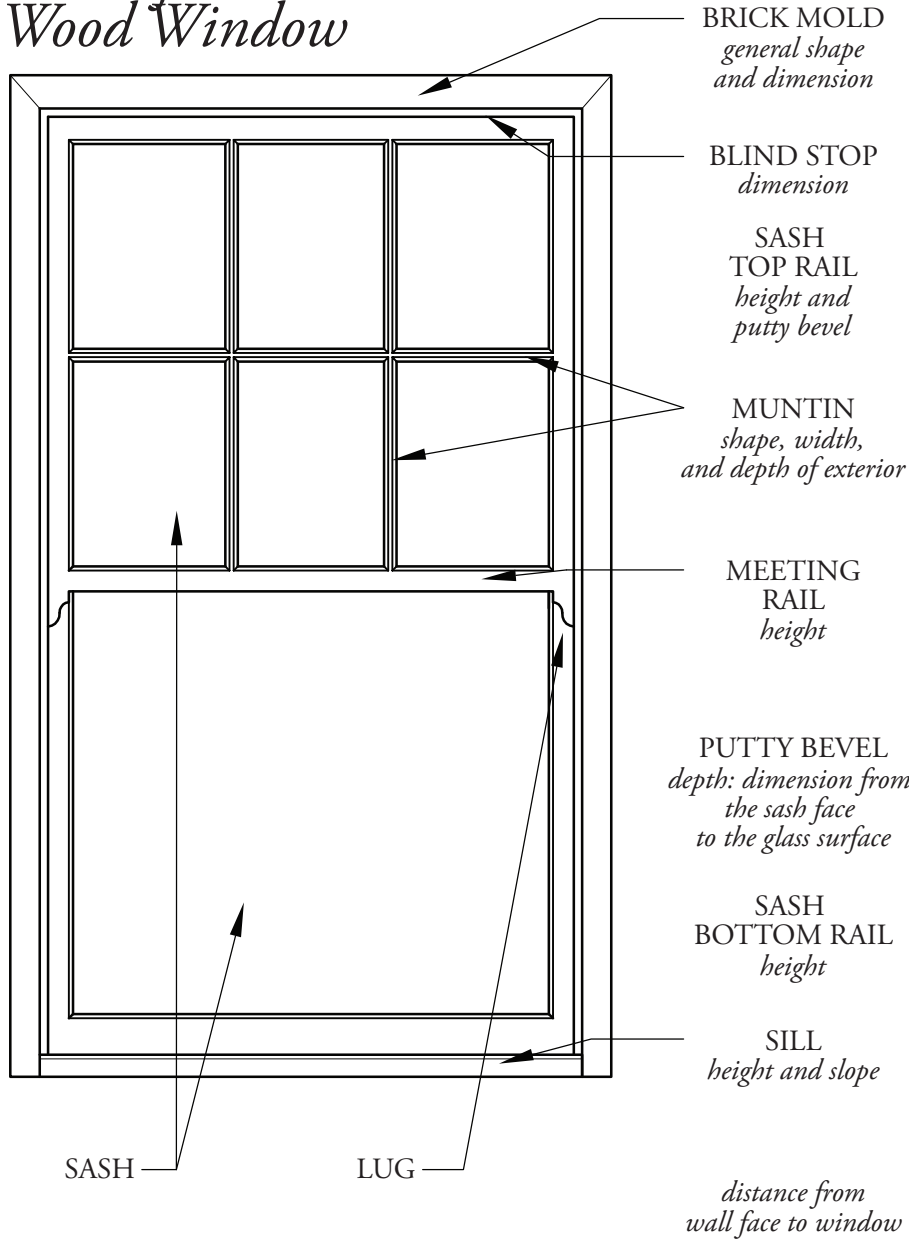
*6 over 1*



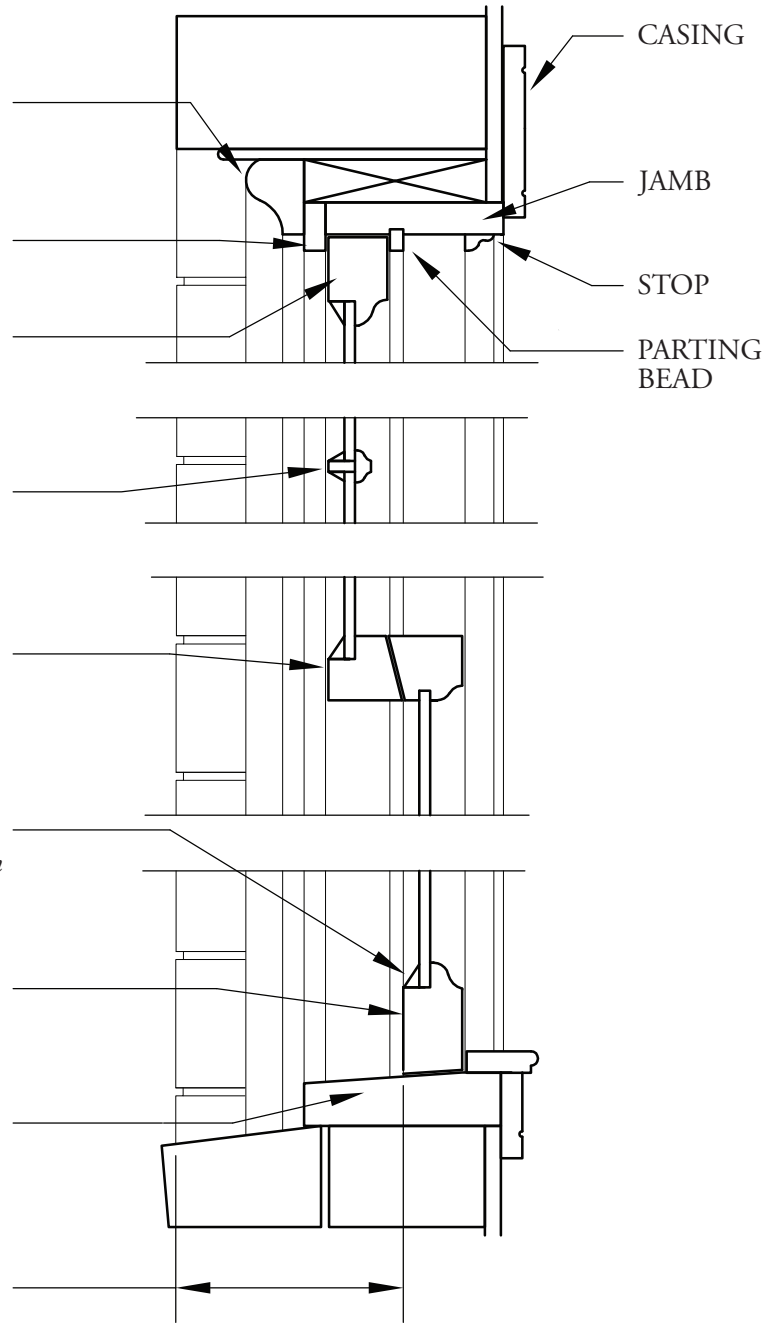
*6 over 6*



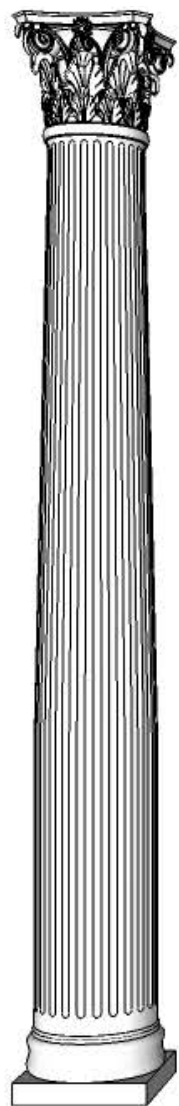
# Parts of a Wood Window



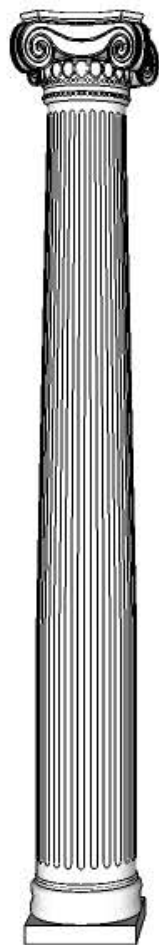
Section Drawing shows the relationship of the window sash to the exterior wall plane.



# APPENDIX G COLUMNS AND POSTS



*Corinthian*



*Ionic*

## *Column Orders*



*Tuscan*



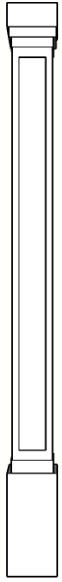
*Roman Doric*



*Greek Doric*



*Square Post*



*Full Box with Panels*



*Box on Pier with Panels*



*Box on Pier with Double Panel*



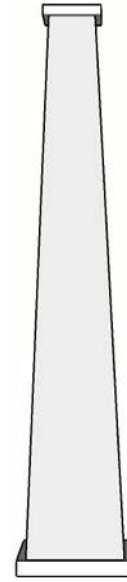
*Tapered Box on Pier with Double Panel*



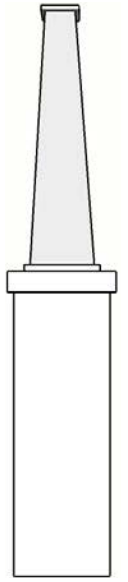
*Simple Box*



*Box on Pier*

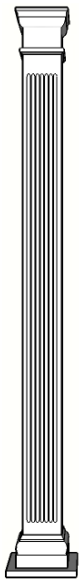


*Full Tapered*

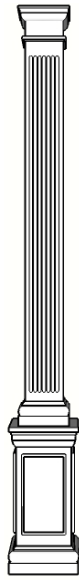


*Tapered Column on Pier*

# *Column Types*



*Fluted Box*



*Fluted Box on Pier with Panels*



*Full Column*



*Column on Pier*



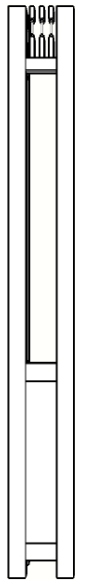
*Full Column Fluted*



*Fluted Column on Pier*

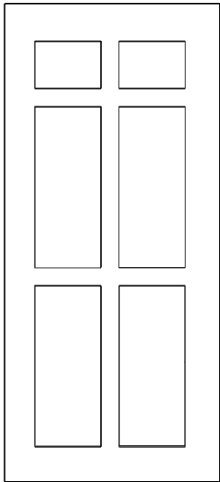


*Turned Post*

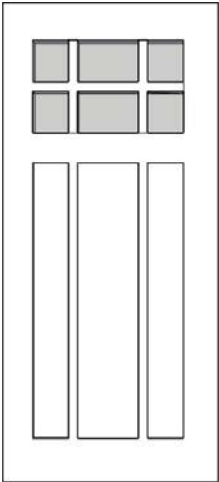


*Double Post*

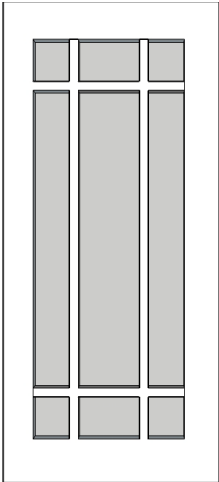
# APPENDIX H DOORS



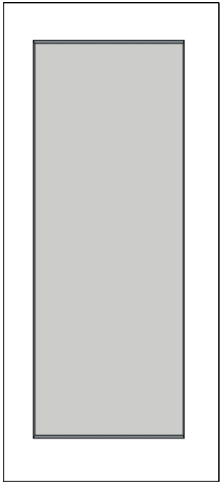
*6-Panel Vertical*



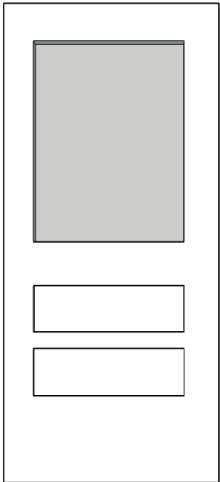
*Craftsman  
6-Lite Panel*



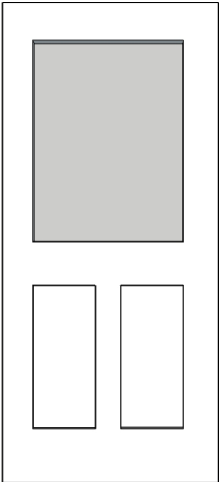
*Craftsman  
9-Lite Panel*



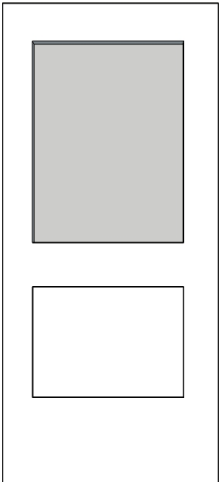
*Full-Lite*



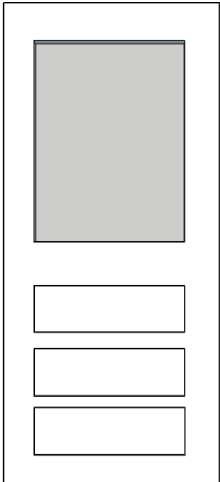
*Half-Lite  
Double Panel  
Horizontal*



*Half-Lite  
Double Panel  
Vertical*



*Half-Lite  
Single Panel*



*Half-Lite  
Triple Panel*

# APPENDIX I HISTORIC BUILDINGS AND LEAD PAINT

*Drastic measures to eliminate lead paint from your historic house or building need not be taken.*

Lead paint is only a hazard if it is unstable, so the mere presence of lead paint is no reason to destroy the historic fabric of your structure. Only a lead paint professional can analyze paint to determine the presence of lead. There are safe and cost-effective ways to remove or work around the lead paint. Procedures to safely remove lead paint down to the bare wood surface should not cost more than 20% above the cost of a hand-scraped paint removal job.

## EDUCATE YOURSELF ABOUT MANAGING LEAD PAINT

If you own or live in a building built before 1978, you should thoroughly educate yourself about smart lead paint management in your home or building. Removing lead paint from siding, window jambs, window sashes and trim can be a safe, quick and easy process if you know how to do it-or if you hire an experienced contractor to do it. The dust generated from unstable lead paint has the most potential to create a lead poisoning hazard. Therefore, efforts to manage lead paint hazards focus on eliminating the dust from lead paint.

---

**NOTE:** *The information presented here is not intended to provide comprehensive technical advice or instructions on solving historic preservation issues.*

*Any information contained or referenced is meant to provide a basic understanding of historic preservation practices.*

## HIRE A CONTRACTOR WITH LEAD-SAFE CERTIFICATION

The Environmental Protection Agency's (EPA) Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms or contractors performing renovation, repair, and painting projects that disturb lead-based paint in houses built before 1978 be certified by the EPA, use certified renovators who are trained by EPA-approved training providers, and follow lead-safe work practices. Although homeowners themselves are not subject to these regulations, it is highly recommended that anyone removing lead paint follow the EPA regulations for the safety of themselves and those around them.

## MANAGE THE LEAD PAINT IN YOUR HOUSE OR BUILDING

You can manage the lead paint in your historic house or building by using these practices:

---

Dust your house weekly to remove lead dust.

---

Use an EPA-approved HEPA vacuum to vacuum your house or building. These vacuums take in the dust but do not release a significant amount of dust back into the air.

---

Eliminate any painted surfaces that rub together and generate lead dust. For example, you might have a painted door that rubs against a painted door jamb.

---

Never dry-scrape old paint. Mist the wood with water first to prevent the spread of lead dust.

---

Do not remove old paint with a blower-type heat gun, which heats to a dangerously high temperature. Lead paint becomes a toxic vapor at about 650 degrees Fahrenheit. Instead, use an infrared paint removal tool. Infrared tools will not heat the paint above 600 degrees. They are approved by the Environmental Protection Agency to be safe for removing lead paint.

# APPENDIX J RESOURCES AND TECHNICAL INFORMATION

The National Park Service Technical Preservation Services division provides a set of user-friendly guidance documents on preserving, rehabilitating, and restoring historic buildings and individual components. The **Preservation Briefs** below include the following, which are available at [www.nps.gov/tps/how-to-preserve/briefs.htm](http://www.nps.gov/tps/how-to-preserve/briefs.htm).

**01:** Assessing, Cleaning and Water-Repellent Treatments for Historic Masonry Buildings

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**02:** Repointing Mortar Joints in Historic Masonry Buildings  
**03:** Conserving Energy in Historic Buildings

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**04:** Roofing for Historic Buildings

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**05:** The Preservation of Historic Adobe Buildings

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**06:** Dangers of Abrasive Cleaning to Historic Buildings

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**07:** The Preservation of Historic Glazed Architectural Terra-Cotta

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**08:** Aluminum and Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings

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**09:** The Repair of Historic Wooden Windows

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**10:** Exterior Paint Problems on Historic Woodwork

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**11:** Rehabilitating Historic Storefronts

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**12:** Preservation of Historic Pigmented Structure Glass (Vitrolite and Carrara Glass)

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**13:** The Repair, and Thermal Upgrading of Historic Steel Windows

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**14:** New Exterior Additions to Historic Buildings: Preservation Concerns

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**15:** Preservation of Historic Concrete

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**16:** The Use of Substitute Materials on Historic Buildings Exteriors

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**17:** Architectural Character – Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character

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**18:** Rehabilitating Interiors in Historic Buildings – Identifying Character-Defining Elements

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**19:** The Repair and Replacement of Historic Wooden Shingle Roofs

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**20:** The Preservation of Barns

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**21:** Repairing Historic Flat Plaster – Walls and Ceilings

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**22:** The Preservation and Repair of Historic Stucco

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**23:** Preserving Historic Ornamental Plaster

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**24:** Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches

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**25:** The Preservation of Historic Signs

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**26:** The Preservation and Repair of Historic Log Buildings

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**27:** The Maintenance and Repair of Architectural Cast Iron

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**28:** Painting Historic Interiors

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**29:** The Repair, Replacement, and Maintenance of Historic Slate Roofs

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**30:** The Preservation and Repair of Historic Clay Tile Roofs

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**31:** Mothballing Historic Buildings

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**32:** Making Historic Properties Accessible

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

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**34:** Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament

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**35:** Understanding Old Buildings: The Process of Architectural Investigation

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**36:** Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes

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**37:** Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing

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**38:** Removing Graffiti from Historic Masonry

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**39:** Holding the Line: Controlling Unwanted Moisture in Historic Buildings

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**40:** Preserving Historic Ceramic Tile Floors

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**41:** The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront

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**42:** The Maintenance, Repair and Replacement of Historic Cast Stone

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**43:** The Preparation and Use of Historic Structure Reports

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

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**45:** Preserving Historic Wooden Porches

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**46:** The Preservation and Reuse of Historic Gas Stations

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

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## ONLINE RESOURCES

National Park Service Technical Preservation Services  
<http://www2.cr.nps.gov/tps/index.htm>

Illustrated Guide for Rehabilitating Historic Buildings  
<http://www2.cr.nps.gov/tps/tax/rhb/index.htm>

Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings  
<http://www.nps.gov/tps/sustainability.htm>

The Secretary of Interior's Standards for Rehabilitation  
<http://www2.cr.nps.gov/tps/tax/rehabstandards.htm>

National Park Service Preservation Briefs  
<http://www2.cr.nps.gov/tps/briefs/presbhom.htm>

National Register of Historic Places  
<http://www.cr.nps.gov/nr/>